

SECTION XXVI

SAMPLE PROBLEM

AECS PERFORMANCE ANALYSIS

This section presents a sample problem showing the use of the additional features which have been added to the computer program. The sample problem is the AECS performance analysis at sea level dash conditions.

The system schematic is shown in Figure 1. The principle operating characteristics are given below. Bleed air is taken from the engine and preconditioned by the primary heat exchanger. Ram air is used as the heat sink, and is either taken from the ram air scoop or the engine plenum, dependent on aircraft Mach number. A primary heat exchanger bypass is provided to prevent overcooling. The preconditioned bleed air is compressed, cooled by the secondary heat exchanger, further cooled by the high pressure water separator, expanded through the turbine, back through the high pressure water separator, and delivered to the cabin and avionic bays. The secondary heat exchanger uses an intermediate coolant loop as the heat sink, which is cooled by both the aircraft fuel system, and the cabin and avionics discharge air. The discharge air is supplemented by water injection from the secondary heat exchanger and the high pressure water separator. The secondary coolant loop also provides cooling to the avionics radar coolant loop.

The principle controls of the system are given below. The avionics temperature is controlled by modulating the secondary heat exchanger coolant bypass valve. The avionics flow rate is controlled to a cooling effect by modulating the turbine nozzle area, which is also connected to the compressor diffuser vanes. The cabin temperature is controlled by modulating the hot air bypass valve. The cabin flow rate is controlled by modulating the cabin inlet valve. If this valve reaches its full open position, and if cabin flow rate is still deficient, the avionics inlet valve will be modulated in the closed direction. This gives cabin flow rate priority over avionics flow rate.

An AECS computer program schematic of this system is shown in Figure 2. Note that not all portions of the system are included, e. g., the emergency ram air lines, and the left hand bleed preconditioning. The model cards are shown in Figure 3. This model has been set up as a NOGO base case, which is incomplete and never run. All analysis conditions are ran as

change cases to this base model. For a large detailed model it is easier keeping track of how a model is set up, and what data it contains, when this mode of running is used. This model has developed from a rough level design model to the present detailed model. However, some of the rough level data cards have not been removed, and some of the detailed data is not available at the present time. Also, some of the data cards were set up before some of the new options were available. In other words one could further expand and clean up the model. In describing the base model only the parameter table value definitions and the MISC component card operations will be discussed. The other cards should be self-explanatory.

The interfaces of the ECS model with other systems are described below. The bleed pressure and temperature are specified. These values must be obtained from an engine analysis, and are dependent on altitude, Mach number, type day, engine power lever angle, and after burner setting. The bleed flow rate is unknown, and is a state variable. The ram temperature is set to free stream total temperature. The ram pressure is obtained from a pressure recovery factor from free stream total pressure. Ram flow rate is unknown and is a state variable. The fuel flow rate, pressure, and temperature are specified. These values must be obtained from a fuel system analysis. The radar coolant loop is not fully modeled. Coolant flow rate, pressure, and temperature are specified at fixed computed nominal values.

The parameter table values are defined in Figure 4, with the VALUES cards in Figure 3 providing the numerical values. Not all locations in the table have been used, and some locations have been reserved for addition of a left hand bleed line. Special note should be made of the value 1.E75. The computer program accepts the value 1.E75 as an undefined value. Parameters containing this value are either not used in the present model, or they are parameters dependent on the analysis condition and must be input by the user in a change case. If required values are left undefined, the case will be rejected.

The MISC component card operations in the model are described below. MISC card numbers 61 and 62 limit the air cycle machine shaft speed state variable within a lower and an upper limit, respectively. MISC card number

105 moves the free humidity value to the parameter table location used for the bleed inlet humidity. MISC card number 150 adds the pressure regulator pressure setting in psig to the ambient pressure, and stores the result as the pressure regulator setting in psia. A similar computation is performed by MISC card number 510. MISC card numbers 180, 480, 890, 940, 2452, and 2664 compute leakage flow split ratios. MISC card number 400 provides the primary heat exchanger bypass control. If the heat exchanger bleed outlet temperature is below the lower limit, it is reset to the lower limit. MISC card number 960 sets the coolant loop flow rate. This is necessary since detailed pump characteristics were not available. Note that the coolant loop start card number 970 does not specify flow rate as a state variable, and the coolant loop end card number 1730 does not specify pressure as an error variable. Also note that the coolant flow rate is obtained from table (1,99), which is a function of altitude, representing aircraft weight on or off wheels switch. Since detailed pump characteristics were not available, the pump efficiency was set to 100%, and a constant heat rejection was input to the fluid after the pump by the MISC card numbers 994, 996, and 998. MISC card number 1080 computes the radar coolant heat rejection. Since detailed characteristics of the radar heat exchanger were not available, a specified heat rejection was used, and handled in the model by QLOAD card numbers 1090 and 1100. The heat rejection is obtained from table (2,99), which is a function of altitude, representing aircraft weight on or off wheels switch. MISC card numbers 1950 and 1960 compute the high pressure water separator leakage, subtracting the leakage flow from the high pressure side, and adding the leakage flow to the low pressure side, respectively. MISC card numbers 2125 and 2745 scale the loop humidity error variables to converge to a lower tolerance than the standard error limit. MISC card numbers 2150 and 2160 compute the required avionics and cabin flow rates, respectively. The avionics flow rate is without cooling effect, and assumes delivery at 40°F. The cabin flow is obtained from table (4,99), and is a function of freestream total temperature. The avionics flow rate is obtained from table (3,99), and is a function of altitude, representing aircraft weight on or off wheels switch, which specifies the ICS to be off or on, respectively. MISC card number 2444 computes the cabin pressure regulator

setting. The value is obtained from table (19,99), and is a function of altitude.

The group of cards from MISC card number 200 to HXA card number 240 handle the primary ram inlet. MISC card number 200 initially sets the inlet pressure to freestream total pressure. MISC card number 210 sets the inlet temperature to freestream total temperature. MISC card number 225 sets inlet humidity to freestream humidity. INLET card number 230 starts the flow leg, specifying flow rate as a state variable. The next MISC card sets the ram exit pressure to freestream static pressure plus a user specified increment. The next MISC card is the test and branch for ram flow source. If the freestream Mach number is less than a user specified value, the program will continue with the next MISC card, which represents ram operation from the scoop. If the freestream Mach number is not less than the user specified value, the program will skip the following eight cards before continuing, which represents a branch to the MISC card group representing ram operation from the engine plenum. For scoop operation the pressure recovery factor is a function of critical flow ratio and freestream Mach number. The first card in the scoop group, FUNC card, computes the critical flow ratio, and stores this value in general argument 111. The next MISC card obtains the recovery factor from table (17,99) as a function of critical flow ratio (general argument 111) and freestream Mach number (general argument 3). The next MISC card computes the recovered pressure. The inlet duct pressure drop is a function of the corrected flow. The next three MISC cards compute the corrected flow, storing the result as general argument 105. The next MISC card obtains the ram inlet duct pressure drop from table (24,99), and stores the result as table (23,99). The next MISC card branches around the engine plenum ram operation section. For engine plenum operation the pressure recovery factor is a function of a compressible flow function, the plenum tunnel duct Mach number, and the freestream Mach number - a four dimensional table. Since the compressible flow function is dependent on the recovered pressure, the recovery factor computation is an iterative process. The first MISC card in the group sets the iteration counter to zero. The next MISC card sets the initial recovery factor to 1.0. The next MISC card stores the engine plenum tunnel duct Mach number in general argument 112. The next FUNC card starts the iteration loop, and computes a corrected flow function.

The next MISC card computes the compressible flow function, and stores the result in general argument 111. The next MISC card computes the recovery factor from table (18,99). The next MISC card computes the recovered pressure. The next MISC card increases the iteration counter by one. The next MISC card causes a branch to the converged section, if the iteration count limit is reached. The next MISC card computes the recovery factor error. The next MISC card computes the absolute value of the error. The next MISC card test the error, and will branch to the converged section, if the recovery factor has converged to the specified tolerance. If the recovery factor has not converged, the next MISC card will replace the old recovery factor with the new recovery factor, and the next MISC card will branch back for another iteration. The next MISC card starts the converged section. The inlet duct pressure drop is a function of the corrected flow. The first three MISC cards compute the corrected flow, storing the result as general argument 105. The next MISC card obtains the ram inlet duct pressure drop from table (25,99), and stores the result as table (23,99). The next LINE card represents the ram inlet duct for either scoop or engine plenum operation. The card groups for both ram sources have stored the ram inlet duct pressure drop as table (23,99). Since table (23,99) is specified in the table input cards to be the same as table (10,1), the pressure drop is available in table (10,1) which is used by the LINE card.

The special requirements of the variable geometry air cycle machine are handled by two groups of cards. The first group, MISC card 80 through MISC card 100, handle the turbine requirements. The first MISC card specifies that turbine nozzle area is a state variable. The next MISC card will limit the nozzle area state variable to a lower limit. The next MISC card will limit the nozzle area to an upper limit. The next MISC card provides the turbine component with the nozzle area via the turbine component B factor. The next MISC card stores the nozzle area in general argument 101, since the turbine efficiency table is a function of nozzle area. The second group of cards, MISC card 620 through MISC card 770, handle the compressor requirements. The first MISC card computes the air cycle machine drive ring rotation angle necessary to provide the required turbine nozzle area from table (10,99), and stores the angle in general argument 102. The next MISC

card obtains the compressor flow correction factor from table (11,99). The next MISC card obtains the compressor efficiency correction factor from table (12,99). The next FUNC card computes the compressor corrected flow. The next MISC card divides the compressor corrected flow by the compressor flow correction factor, and stores the result as general argument 103. The next three MISC cards compute the compressor corrected speed. The next MISC card computes the compressor head function from table (14,99), and stores the result as table (16,99), which is specified to be the same as table (2,25) used by the compressor component for the head map. The next MISC card computes the compressor efficiency from table (13,99), multiplies by the efficiency correction factor, and stores the result as table (15,99), which is specified to be the same as table (2,6) used by the compressor component for the efficiency map.

The model cards for an analysis condition must specify the correct operating mode of the controls. For example, for a valve/sensor control combination there are three modes. The valve could be in control, modulating somewhere between full open and full closed. For this case the value would be input as a CVALVE-component and a SENSOR component included. If the valve should be in its full open position, the valve would be input as a VALVE component card and the sensor card removed. If the valve should be in its full closed position, the valve, sensor, and the entire flow leg would be removed. Note that cards can be physically removed or effectively removed by the new conditional card skip (CCS) component.

In the AECS performance base model the control mode has either been optionally specified via the CCS component, or has been set at the normally expected mode within the flight envelope. Specifically the controls have been set in the following mode. The ejector control mode is optional, either off or on via the CCS component. The anti-fog hot air control and the cabin hot air control modes are optional, either off or on via the CCS component, however, a cabin temperature sensor card has not been included. The avionics temperature control has been included in the modulating mode, however, characteristics of the coolant bypass valve have not been included and control is via the split ratio. The avionics flow rate control has been included in the modulating mode, however, cooling effect has not been included. The

cabin flow rate control has been included in the modulating mode, however, the cabin valve has been set full open and the avionics valve is modulated. The cabin pressure regulator control has been included in the modulating mode.

The change case data cards for the sea level dash performance analysis are shown in Figure 5. The CASEB card changes the ambient pressure specification to use the permanent table for hot day conditions. The CASEC card sets altitude to 1.0 (sea level, weight off wheels), ambient temperature to 565°R (105°F), and ambient humidity to 0.0286 lb/lb. The CASED card sets freestream Mach number to 1.2. The VALUE cards set the necessary analysis conditions and state variable initial values. Definitions of each value are given in Figure 4. For this flight condition several component card changes are necessary to change some of the control modes. For this flight condition the cabin flow rate is controlled by modulating the cabin valve while the avionics valve is full open. The change case component card numbers 2230 and 2470 change the base case mode to this mode. Also, for this flight condition the discharge cabin and avionics flow will back pressure the cabin to a pressure higher than 14.7, and the cabin pressure regulator will be full open. The change case component card numbers 2444, 2446, and 2456 remove the cabin pressure regulator control. The results of the analysis are given in Figure 6.

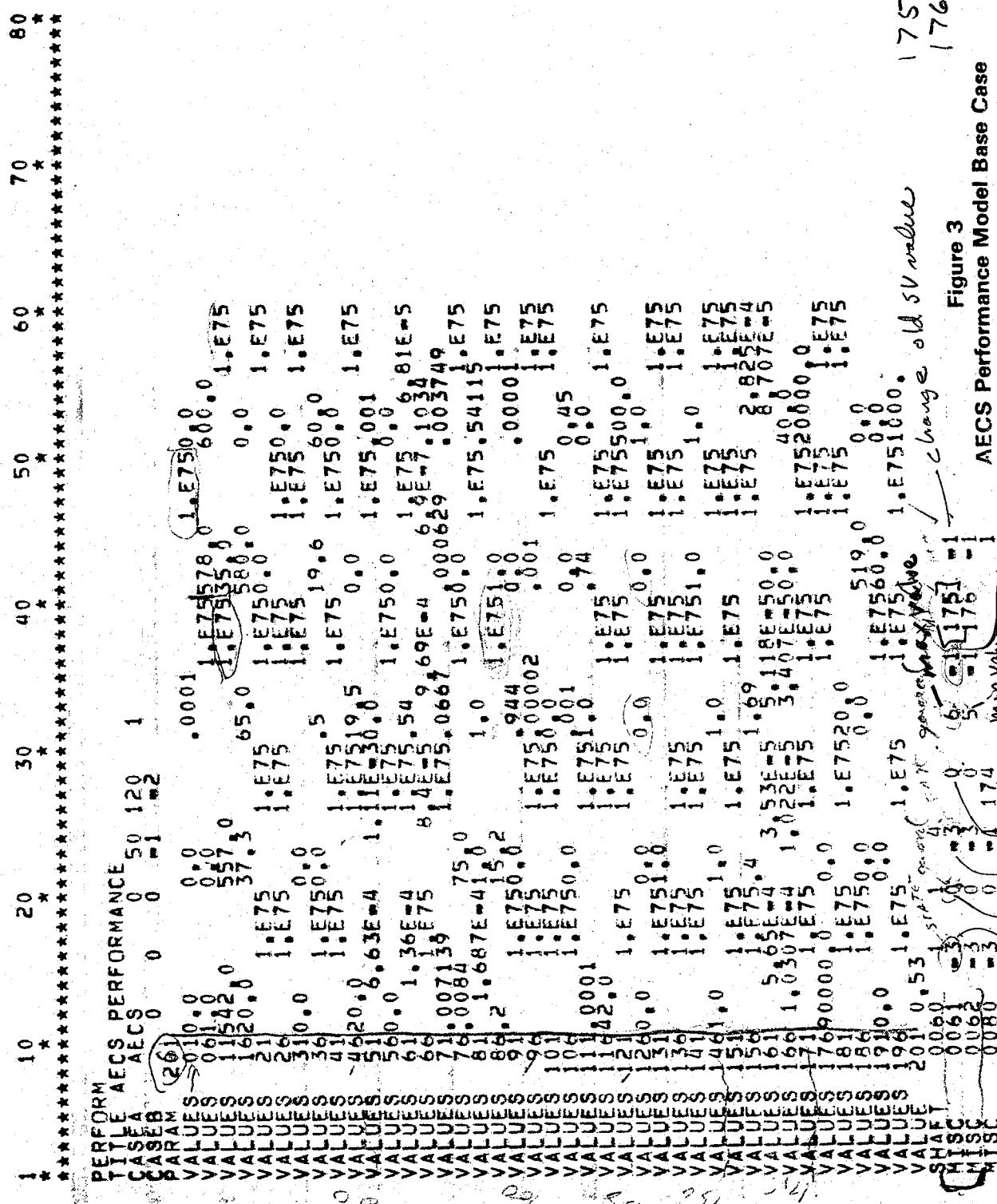


Figure 3
AECC Performance Model Baseline

3

2nd input is parameter value
(175 is parameter #)

result of the preceding

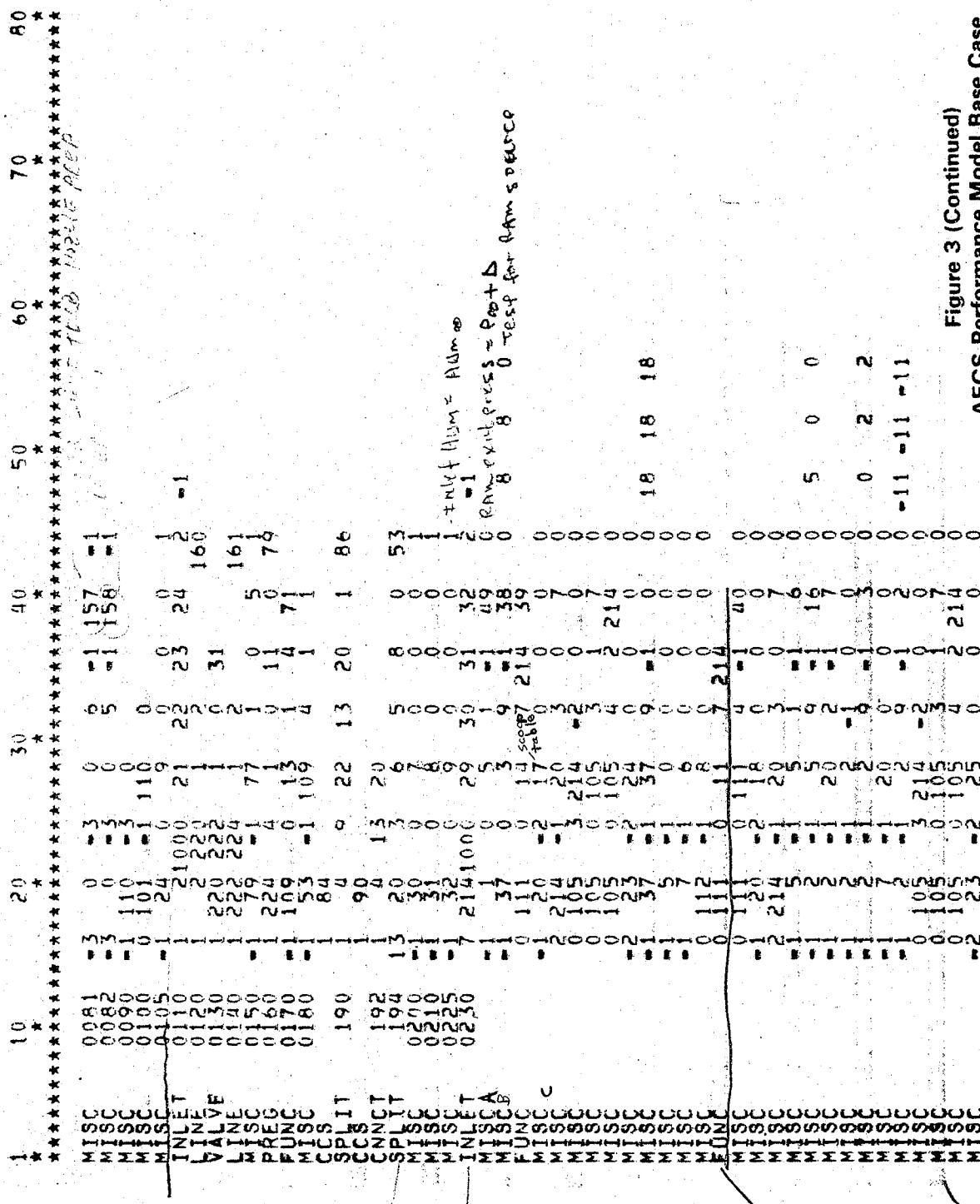
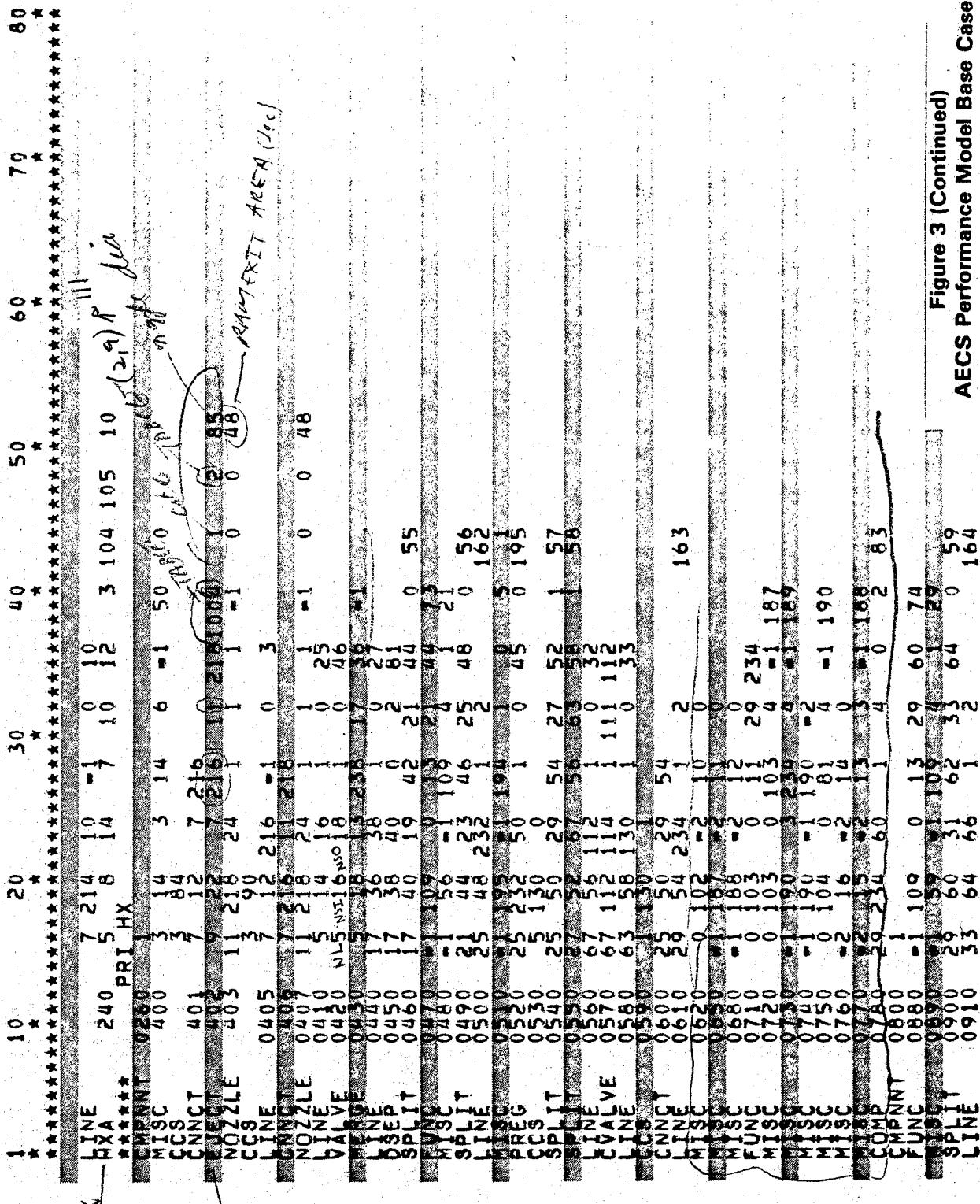


Figure 3 (Continued)

One of these determines convergence next misc sends it back or ends loop



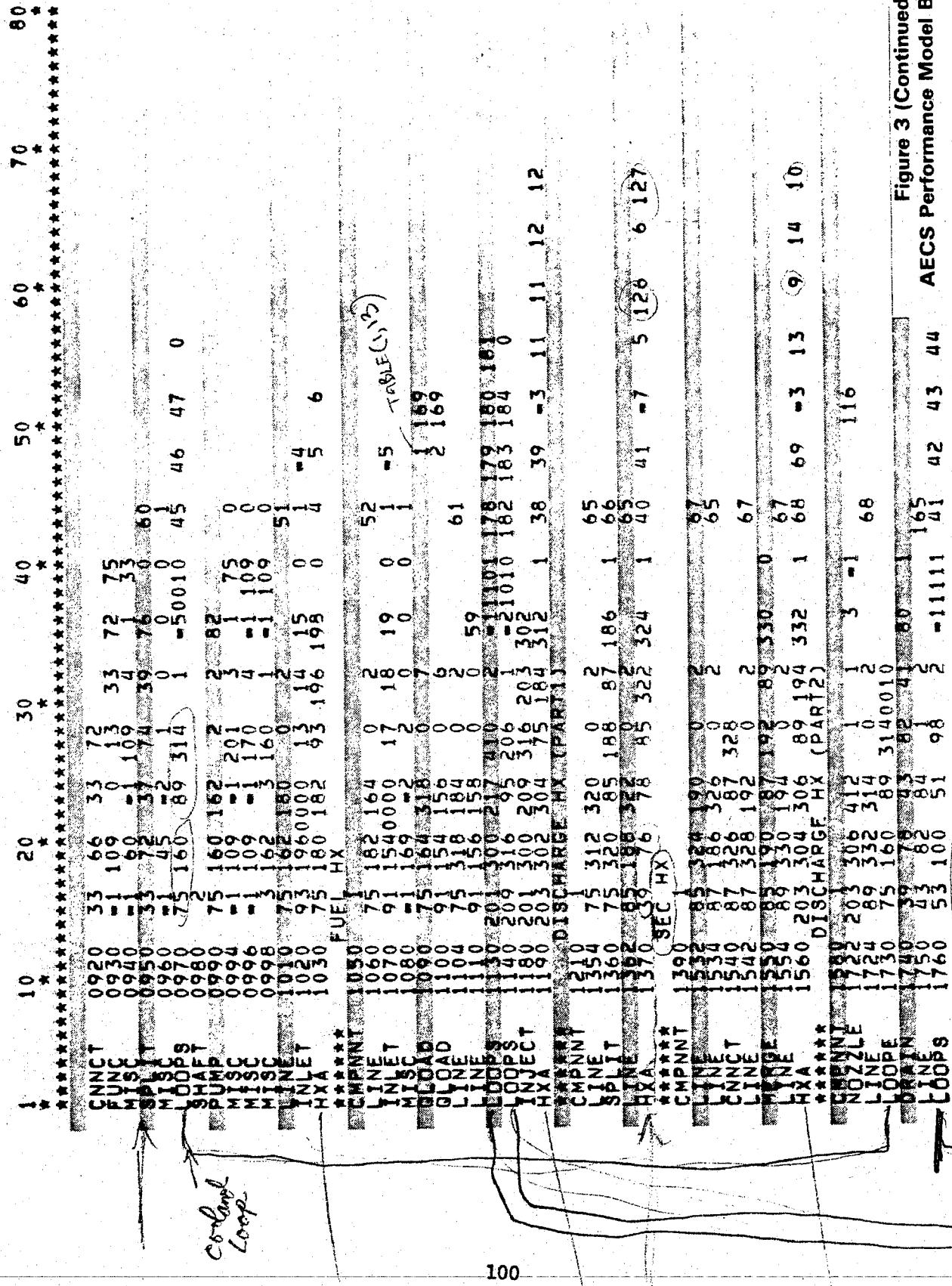


Figure 3 (Continued)
AECS Performance Model Base Case

Figure 3 (Continued)
AECS Performance Model Base Case

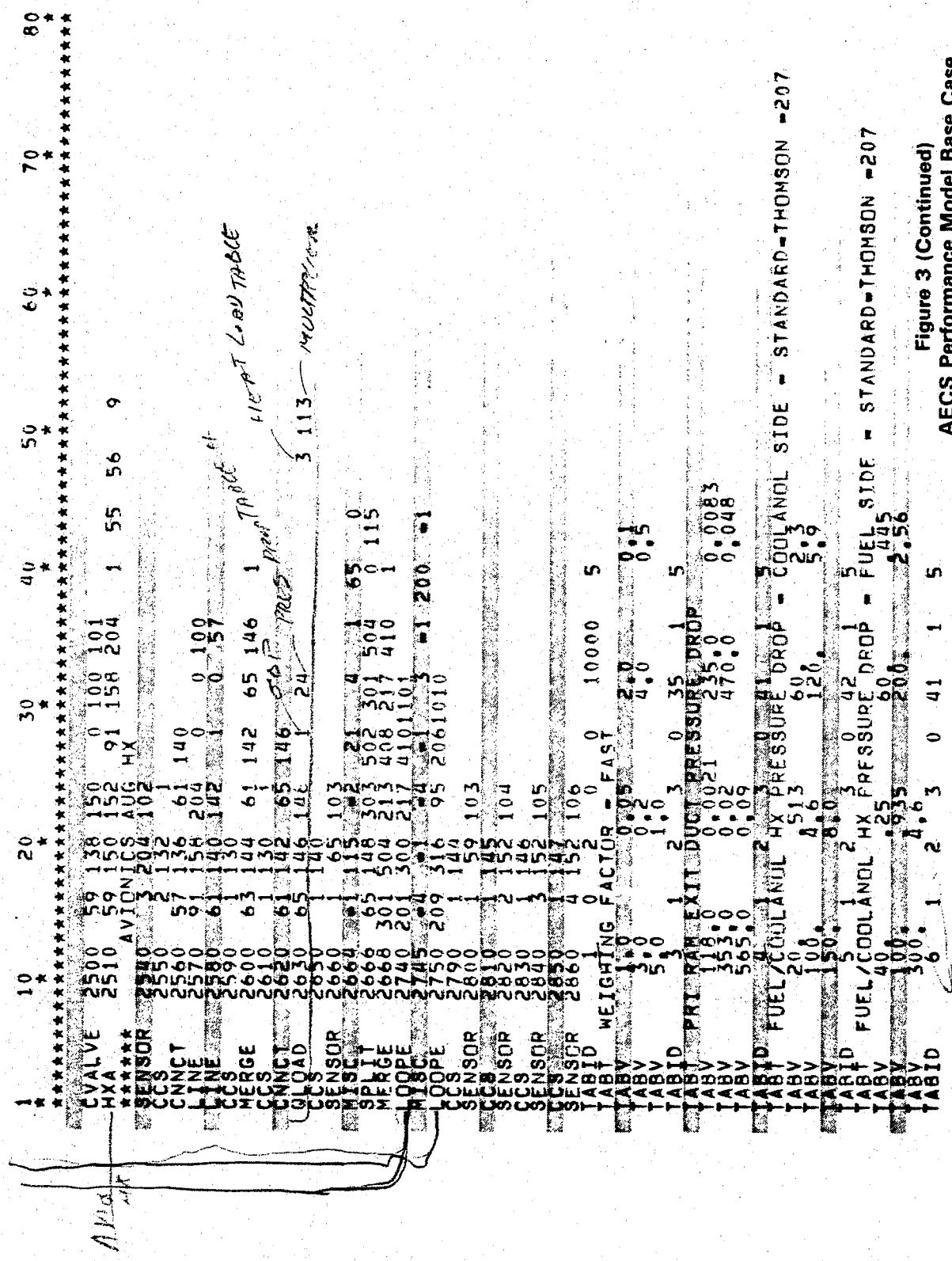


Figure 3 (Continued)
AECS Performance Model Base Case

1	10	20	30	40	50	60	70	*	*	*	*	*	80
TABV	200.	47.8	400.	108.	105.	100.	95.						
TABV	200.	16.5	16.5	108.	108.	108.	108.						
TABV	200.	64.0	64.0	108.	108.	108.	108.						
TABD	RADAR HX	PRESSURE DROP	RADAR SIDE	STANDARD	THOMSON	STANDARD	THOMSON	-201					
TABV	200.	1	2	3	0	4	1	6					
TABV	200.	6.9	400.	105.	105.	105.	105.	105.					
TABV	600.	2.6	100.	150.	150.	150.	150.	150.					
TABD	PRI	RAM INLET	DUCT PRESSURE	DROP	5	SCOOP							
TABV	44.0	24.99	2	3	0	105.	1	5					
TABV	44.0	0.001	0.001	0.001	0.001	150.0	0.01	900.					
TABV	300.0	0.049	0.049	0.049	0.049	400.0	0.11	800.					
TABV	470.0	0.2	0.2	0.2	0.2	800.0	0.12	1600.					
TABD	PRI	RAM INLET	DUCT PRESSURE	DROP	5	PLENUM							
TABV	22.5	25.99	2	3	0	105.	1	5					
TABV	16.0	0.001	0.001	0.001	0.001	800.0	0.01	1600.					
TABV	1370.0	0.4	0.4	0.4	0.4	250.0	0.12	500.					
TABD	DUMMY PRI	RAM DUCT	PRESSURE	DROP	1								
TABV	0.0	0.1	3	0	4	1	6						
TABD	PRESSURE REGULATOR	STA 224											
TABV	5.0	0.0103	0.0103	0.0103	0.0103	0.0103	0.0103	0.0103					
TABV	20.0	0.139	0.139	0.139	0.139	0.139	0.139	0.139					
TABV	50.0	0.903	0.903	0.903	0.903	0.903	0.903	0.903					
TABD	DISTRIBUTION	3	0	4	1	3	0	2	0	2			
TABV	30.	50.	50.	50.	50.	50.	50.	50.					
TABV	4007	478.0	1.245	1.245	1.245	1.245	1.245	1.245					
TABD	AVG BLEED LINE	SDP STA 14-16											
TABV	1.25	1	2	3	0	4	1	8					
TABV	1.25	0.71	0.71	0.71	0.71	0.71	0.71	0.71					
TABV	1.25	0.91	0.91	0.91	0.91	0.91	0.91	0.91					
TABV	1.25	0.81	0.81	0.81	0.81	0.81	0.81	0.81					
TABV	1.25	0.72	0.72	0.72	0.72	0.72	0.72	0.72					
TABV	1.25	0.62	0.62	0.62	0.62	0.62	0.62	0.62					
TABD	MERGED BLEED	2	3	0	4	1	3	0	2	0	2		
TABV	1.15	0.9353	0.9353	0.9353	0.9353	0.9353	0.9353	0.9353					
TABV	0.90	1.837	1.837	1.837	1.837	1.837	1.837	1.837					
TABD	VALVE SDP STA 220-222	1	2	3	0	4	1	8					
TABV	0.26	0.2707	0.2707	0.2707	0.2707	0.2707	0.2707	0.2707					
TABV	0.40	0.35188	0.35188	0.35188	0.35188	0.35188	0.35188	0.35188					
TABV	0.60	0.38045	0.38045	0.38045	0.38045	0.38045	0.38045	0.38045					
TABV	0.32	0.53	0.53	0.53	0.53	0.53	0.53	0.53					

Figure 3 (Continued)
AECS Performance Model Base Case

Figure 3 (Continued)
AECIS Performance Model Base Case

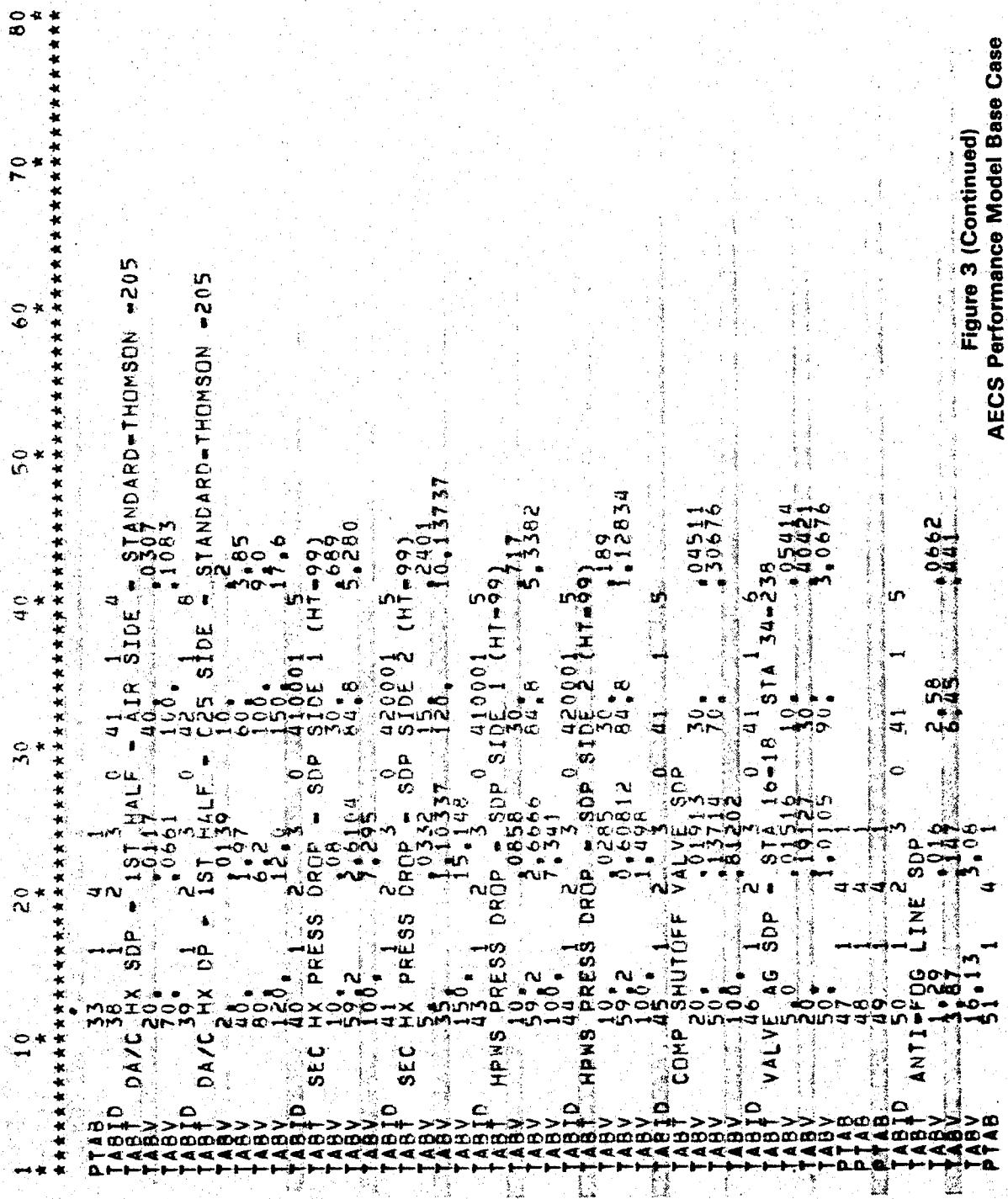


Figure 3 (Continued)
AECIS Performance Model Basse Case

Figure 3 (Continued)

Figure 3 (Continued)

Altitude (ft)	STANDARD - THOMSON (PSI)	STANDARD - AIR SIDE (PSI)	STANDARD - 203 (PSI)	STANDARD - 205 (PSI)
0	80.0	80.0	80.0	80.0
10	79.8	79.8	79.8	79.8
20	79.6	79.6	79.6	79.6
30	79.4	79.4	79.4	79.4
40	79.2	79.2	79.2	79.2
50	79.0	79.0	79.0	79.0
60	78.8	78.8	78.8	78.8
70	78.6	78.6	78.6	78.6

Table (1004,4)

Figure 3 (Continued)
AECIS Performance Model Base Case

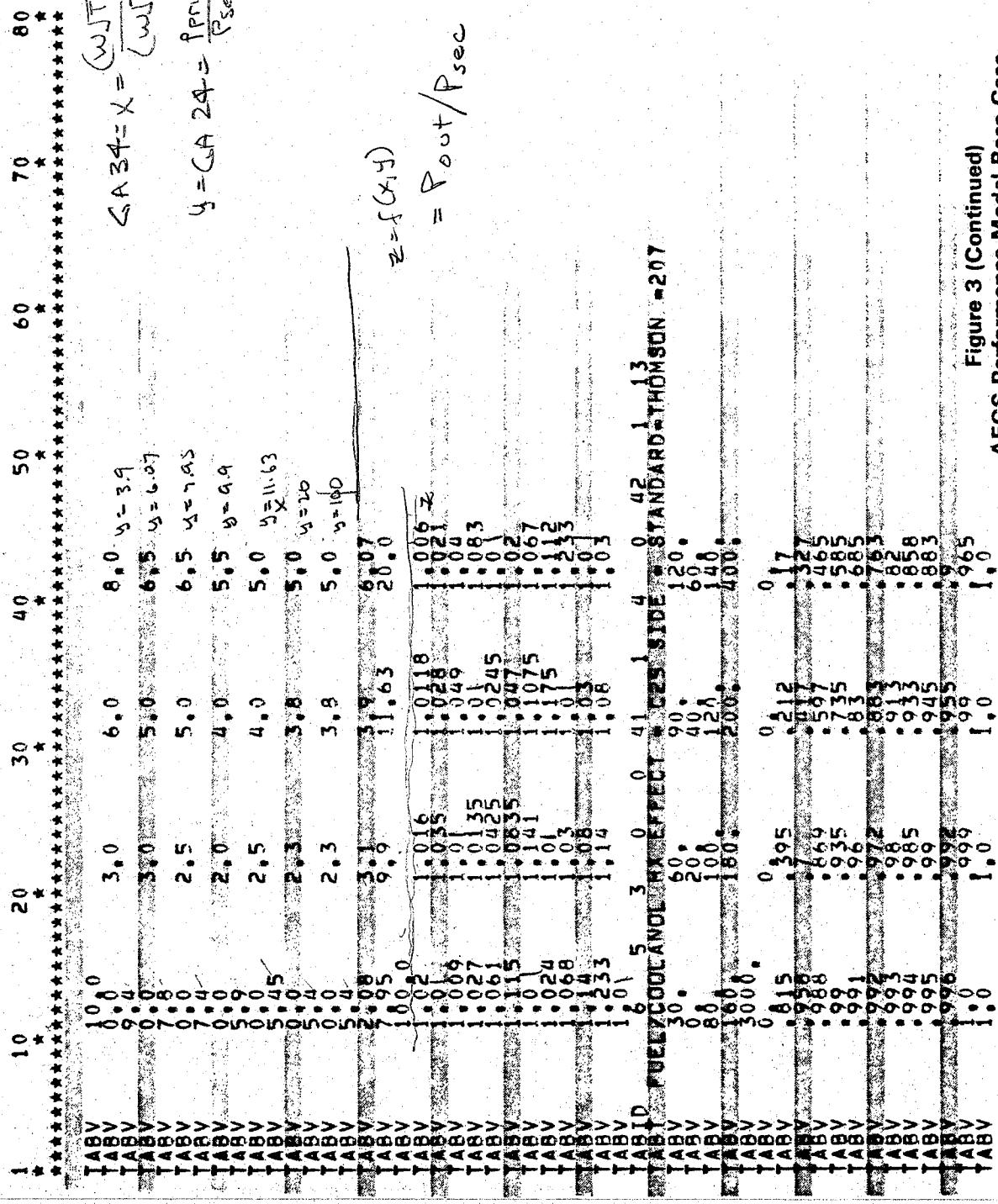


Figure 3 (Continued)
AECS Performance Model Base Case

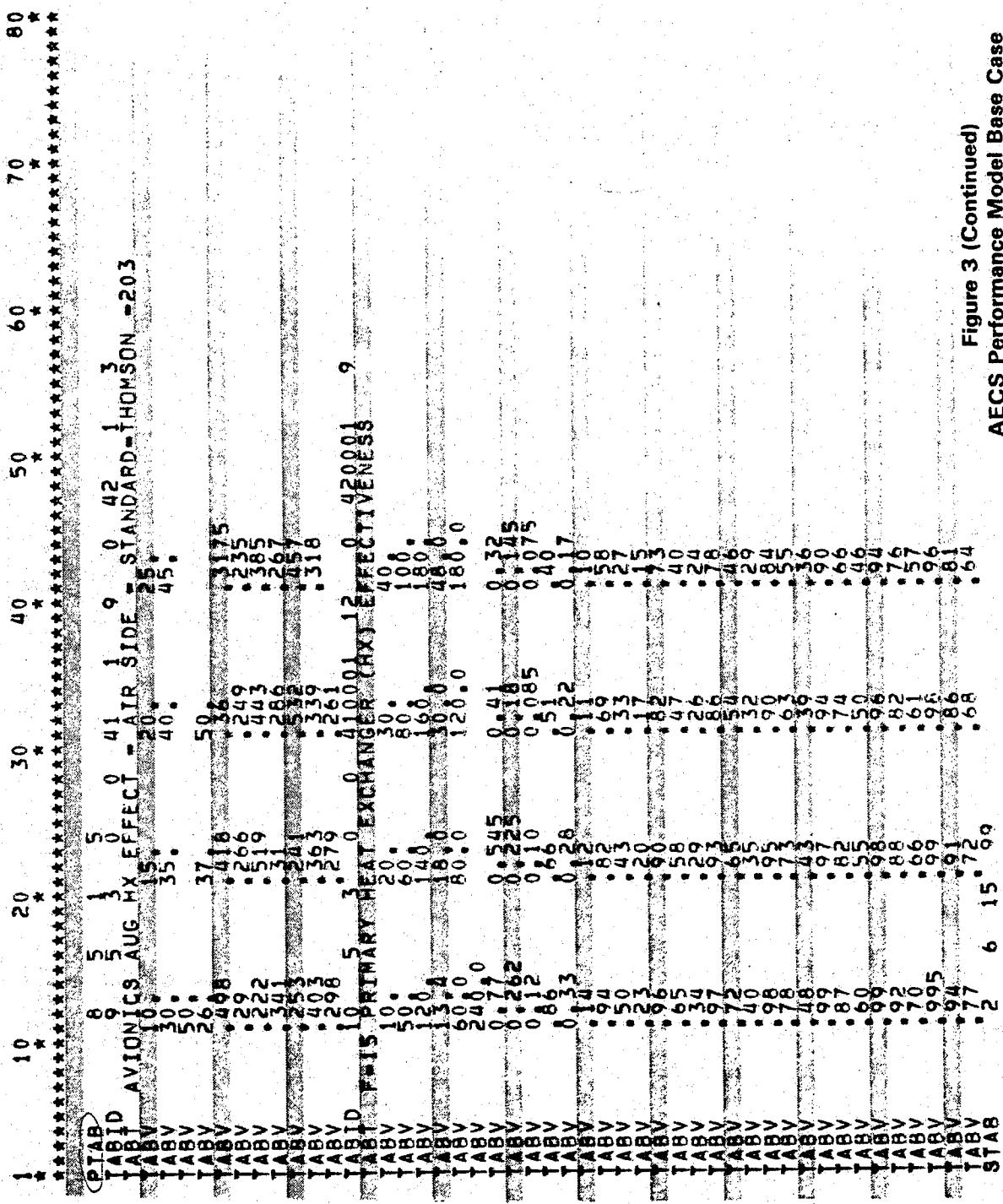


Figure 3 (Continued)
AECS Performance Model Base Case

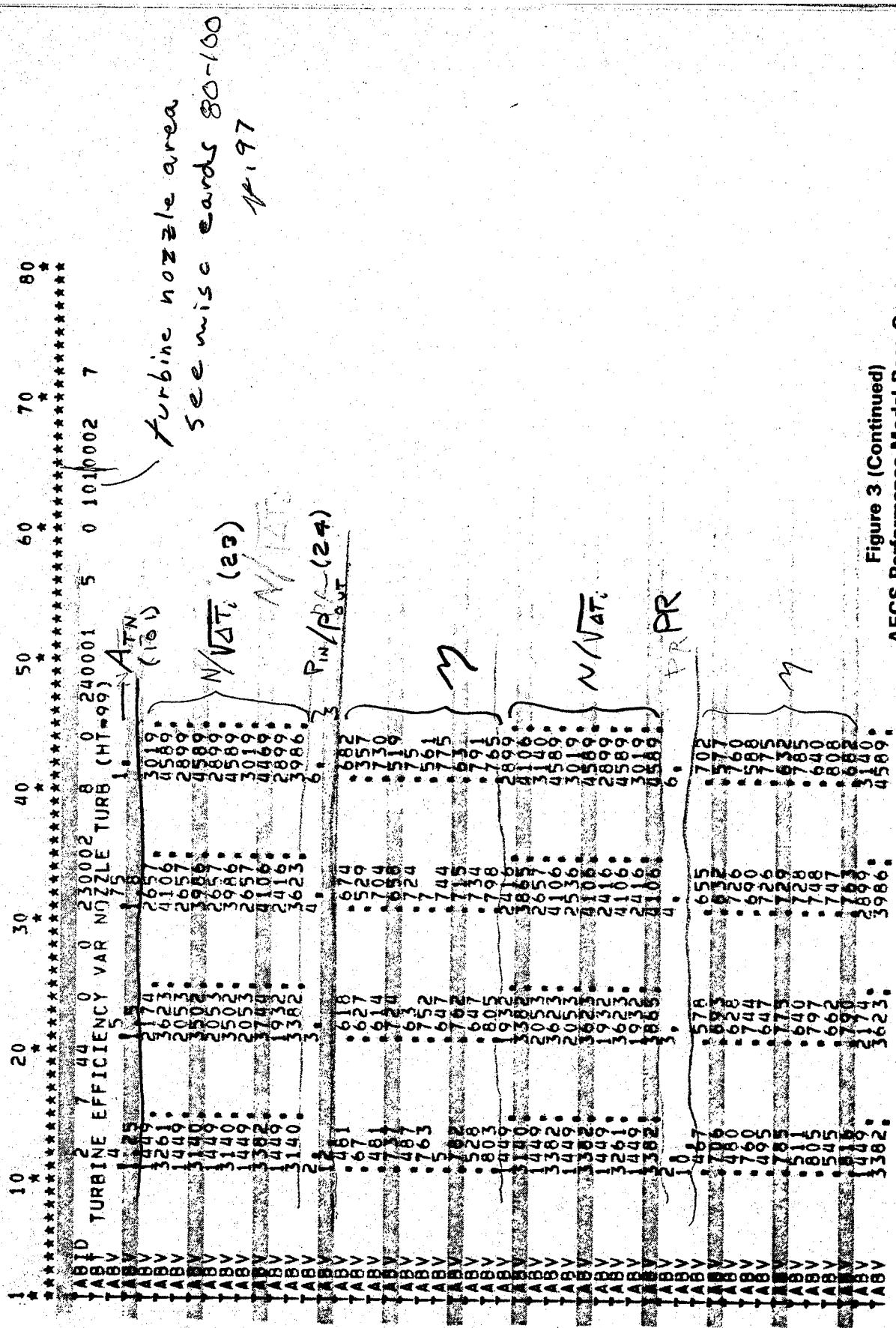
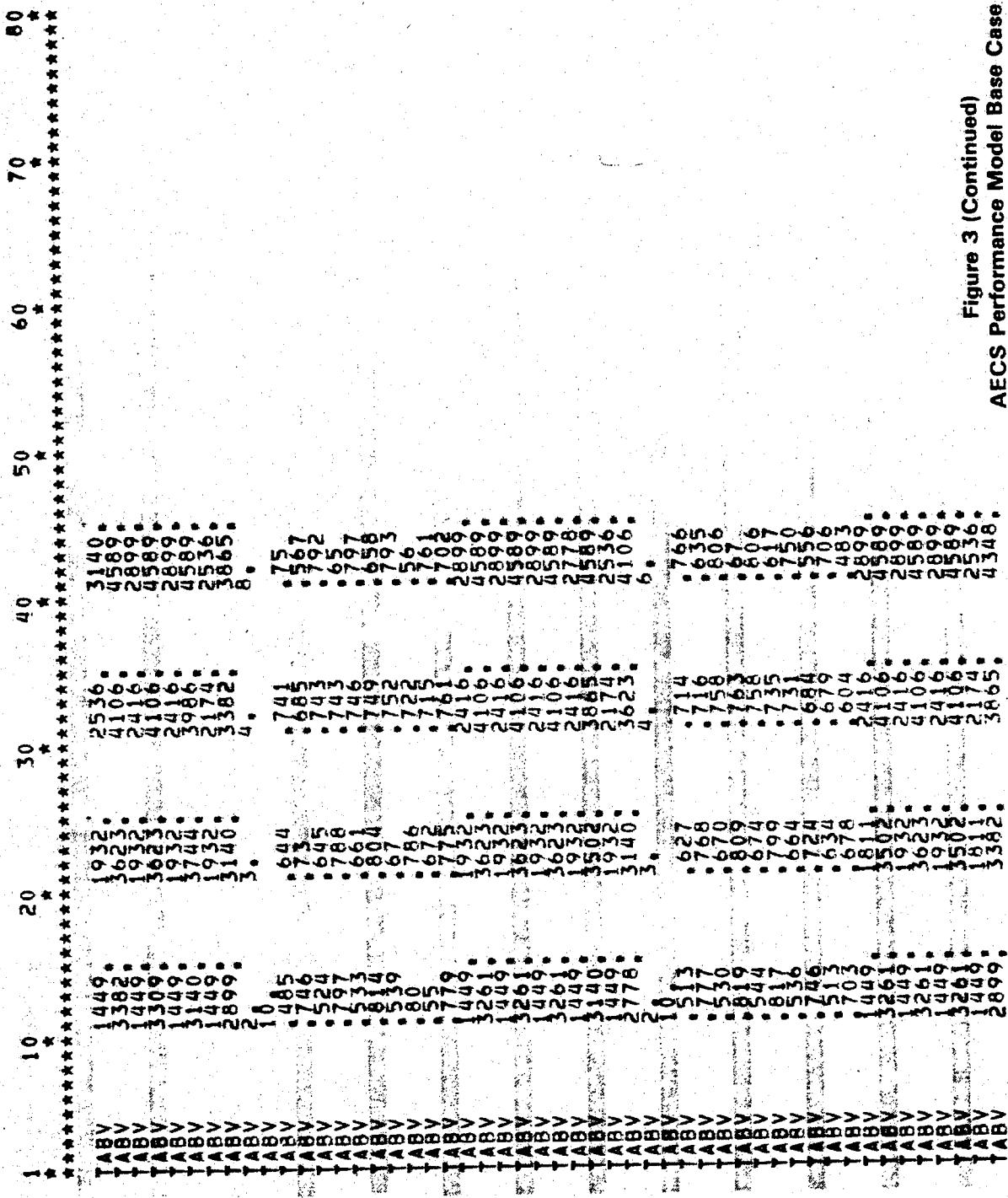


Figure 3 (Continued)
AECS Performance Model Base Case

Figure 3 (Continued)
AECS Performance Model Base Case



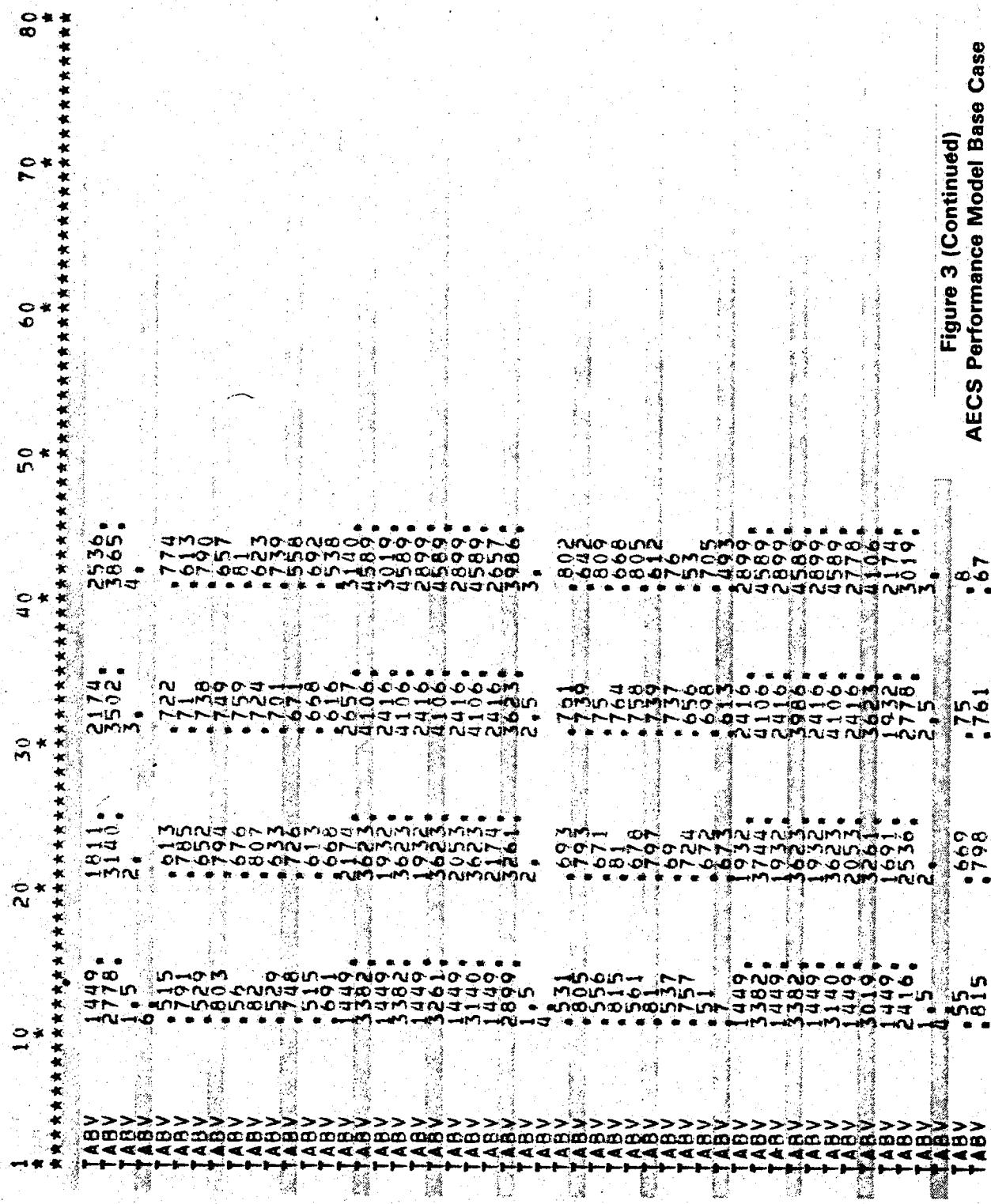


Figure 3 (Continued)
AECS Performance Model Base Case

	10	20	30	40	50	60	70	80
TABV	557	684	766	811				
TABV	525	615	732	665				
TABV	545	663	732	76				
TABV	759	750	657	518				
TABV	718	653	705	710				
TABV	71	691	705	502				
TABV	466	522	573	502				
TABV	626	626	609	57				
TABD	2	8	3	0	24001	12	0	250001
TABD	1	1	1	1	HT-99	175		
TABV	12.5	13.	13.	13.	13.	13.	13.	13.
TABV	30000.	930000.	80000.	40000.	50000.			
TABV	60000.	22.6	25.9	27.7	27.7			
TABV	39.3	30.7	30.4	30.5	30.5			
TABV	30.7	30.4	30.9	30.9	30.9			
TABV	28.3	29.1	29.0	29.0	29.0			
TABV	30.1	30.1	30.1	30.1	30.1			
TABV	27.3	28.2	28.2	28.2	28.2			
TABV	29.9	29.9	29.9	29.9	29.9			
TABV	25.6	27.3	27.3	28.3	28.3			
TABV	29.3	29.6	29.6	29.6	29.6			
TABV	23.6	25.4	25.4	26.0	26.0			
TABV	28.5	28.9	28.9	29.0	29.0			
TABD	9	2	0	0	27.001	12		
TABD	1	1	1	1	CD=F(W/W)			
TABV	1.0	0.9	0.9	0.9	0.9			
TABV	0.85	1.00	1.00	1.00	1.00			
TABV	0.21	0.100	0.100	0.100	0.100			
TABV	0.13	0.095	0.095	0.095	0.095			
TABV	0.15	0.093	0.093	0.093	0.093			
TABV	0.10	0.090	0.090	0.090	0.090			
TABD	0.12	0	0	0	0			
TABD	1.0	1.0	1.0	1.0	1.0			
TABV	3	2	0	0	27	12		
TABV	1.0	1.0	1.0	1.0	1.0			
TABV	0.10	0.097	0.097	0.097	0.097			
TABV	0.3	0.2	0.2	0.2	0.2			
TABV	0.5	0.3	0.3	0.3	0.3			
TABV	0.7	0.5	0.5	0.5	0.5			
TABV	0.9	0.7	0.7	0.7	0.7			
TABD	1.3	1	1	1	1			

Figure 3 (Continued)
AECS Performance Model Base Case

TABLE (13) NDIM = 1 IST=0

Figure 3 (Continued)
Performance Model Base Case

10	20	30	40	50	60	
ABV	100	52.6	17	20	84.6	7
ABV	130	106	33	40	129	67
ABV	150	147	67	60	102	33
ABV	190	199	5	120	209	83
ABV	110	219	33	41	228	33
ABD	DATA CX EHA	2ND HALF	0	1/4TH SIDE	STANDARD	THOMSON - 205
ABV	100	16	33	20	30	33
ABV	130	41	33	40	48	33
ABV	150	53	33	60	57	33
ABV	170	60	33	68	62	33
ABV	90	63	67			
ABD	14	22	2	0	42.25	1/2 STANDARD - THOMSON - 205
ABV	100	DA/C EHA	2ND HALF	0	52.5	
ABV	130	42	53	20	144	17
ABV	150	95	33	40	144	17
ABV	170	130	33	60	166	83
ABV	90	156	33	68	184	83
ABV	110	156	33	100	184	83
ABV	130	196	33	120	200	83
SABD	2	25	16	98		
SABD	1	99	12	0	0	2
SABD	1	COOLANT FLOW RATE	0	0	0	2
ABV	0	12.0	0	0.1	0	60.0
ABD	2	99	2	0	0	2
ABD	AVIONICS LIQUID HEAT LOAD	0	0	0	0	0
ABV	0	31.0	0	0	54.0	0
ABD	3	99	2	0	1	4
ABD	CABIN FLOW	0	0	0	57.2	extra
ABV	0	0	18.0	0	18.0	0
ABV	0	0	25.0	0	100.0	0
ABD	4	99	2	0	0	2
ABD	AVIONICS FLOW	0	0	0	0	0
ABV	0	39.3	0	0.1	0	51.0
ABD	5	99	2	0	0	1
ABD	TURBOMACHINE DRIVE RING ROTATION ANGLE (HT-126) SCHEDULE D	0	0	0	0	0
ABV	44	-4	4	55	-3.75	
ABV	73.5	-3	0	1.0	1.5	
ABV	158	-15	0	1.44	1.44	
ABD	1	99	2	0	1.665	1.4
ABD	COMPRESSOR FLOW FACTOR (SQUARED) (HT-126) SCHEDULE D	0	0	1	1.329	
ABV	44	39.2	0	0	1.329	
ABV	3	64	0	0	0.8649	
ABV	14	1.4	0	0	1.383	
ABD	COMPRESSOR EFFICIENCY FACTOR (HT-126) SCHEDULE D	0	0	0	0	0
ABV	44	1.6307	0	0	1.0816	
ABV	12.98	1.4	0	0	1.0816	

* = 1.0816

Figure 3 (Continued)
AECS Performance Model Base Case

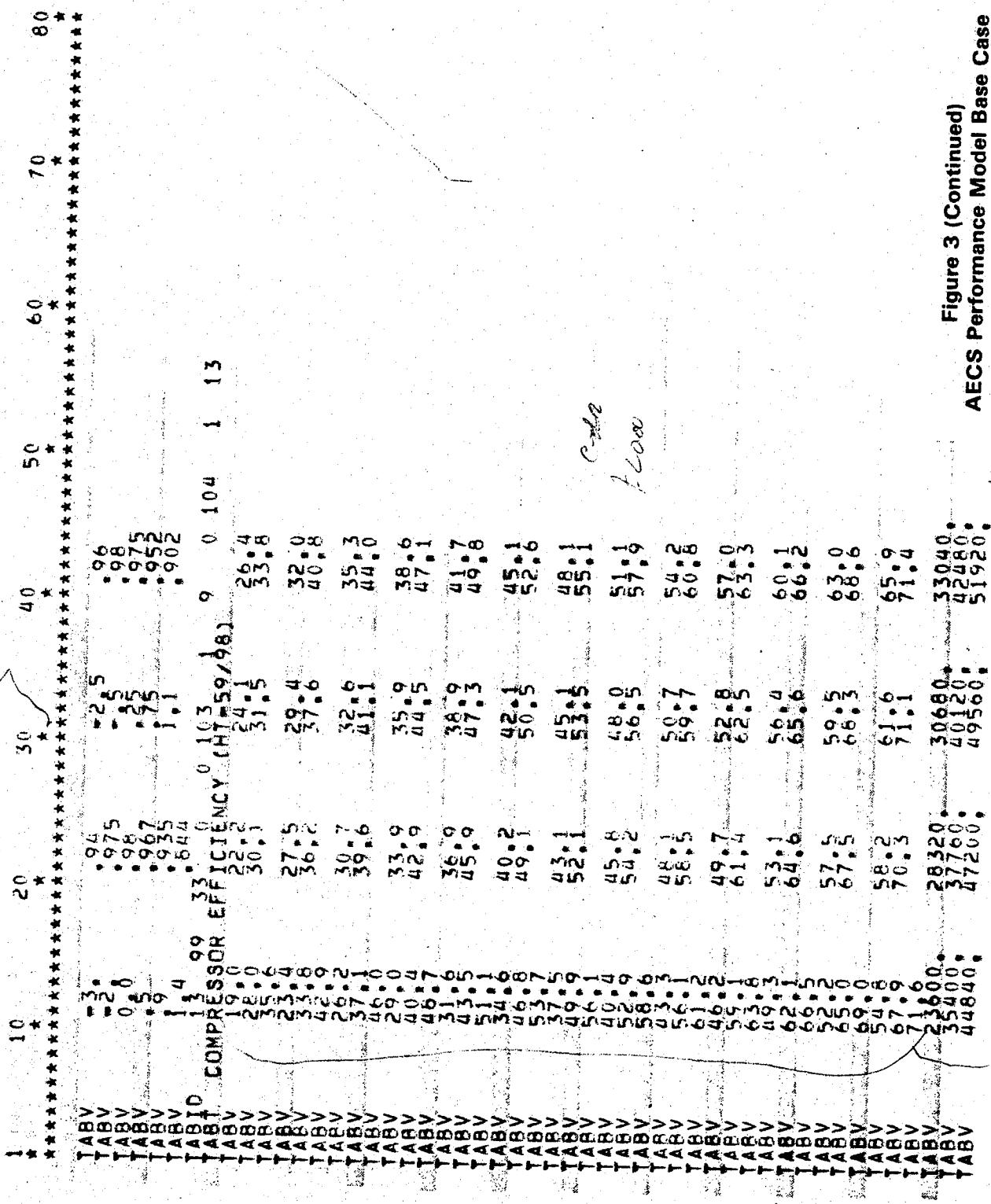


Figure 3 (Continued)
AECS Performance Model Base Case

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Sept 10

Figure 3 (Continued)
AECS Performance Model Base Case

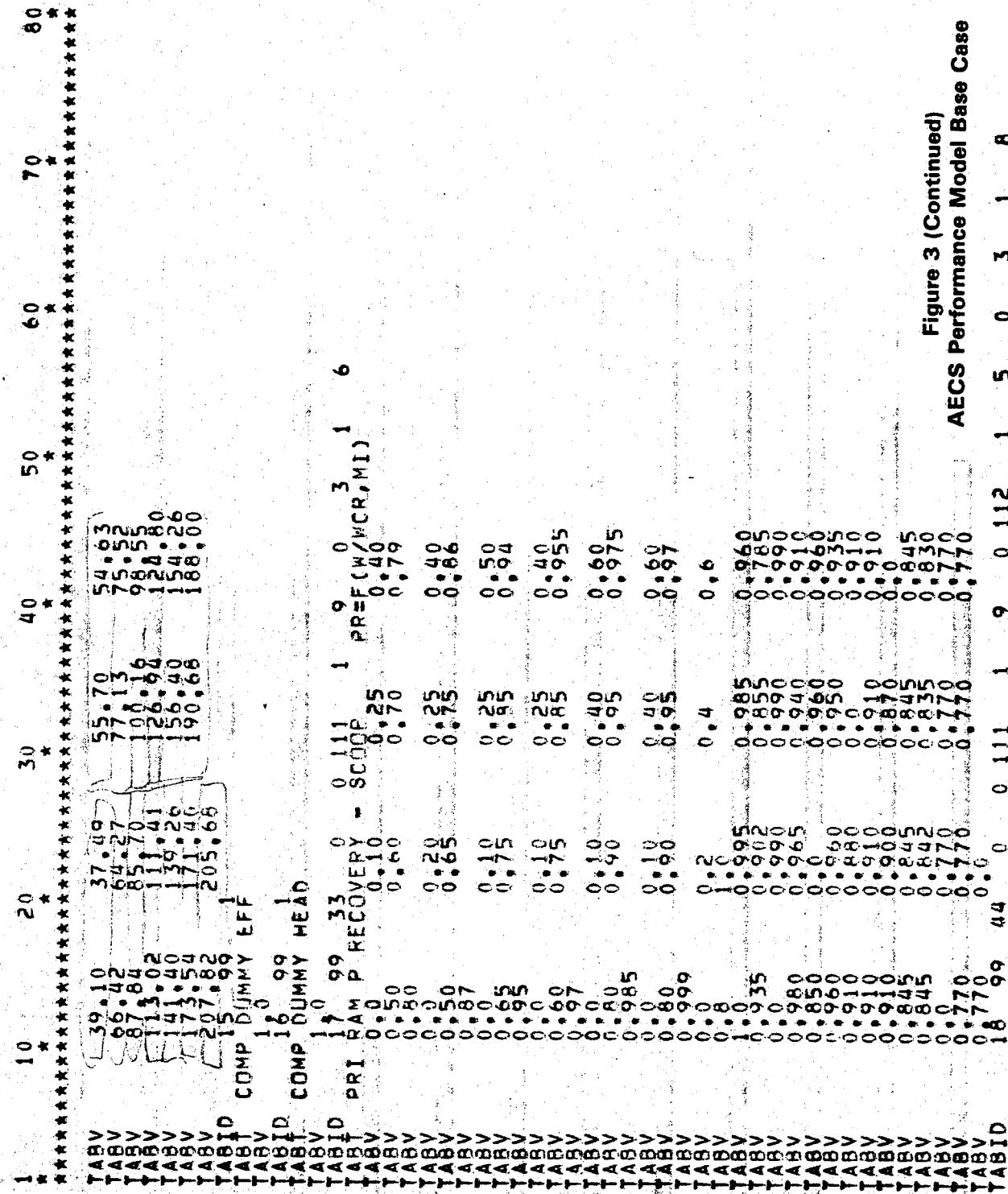


Figure 3 (Continued)
AECs Performance Model Base Case

PRI RAH P RECOVERY - ENGINE PLENUM $PR=F(WF, MD, MI)$

PRI RAH P RECOVERY - ENGINE PLENUM	$PR=F(WF, MD, MI)$
0.6	1.2
0.8	2.6
1.0	3.6
1.2	4.2
1.4	4.0
1.6	3.20
1.8	3.20
2.0	3.20
2.2	3.20
2.4	3.20
2.6	3.20
2.8	3.20
3.0	3.20
3.2	3.20
3.4	3.20
3.6	3.20
3.8	3.20
4.0	3.20
4.2	3.20
4.4	3.20
4.6	3.20
4.8	3.20
5.0	3.20
5.2	3.20
5.4	3.20
5.6	3.20
5.8	3.20
6.0	3.20
6.2	3.20
6.4	3.20
6.6	3.20
6.8	3.20
7.0	3.20
7.2	3.20
7.4	3.20
7.6	3.20
7.8	3.20
8.0	3.20
8.2	3.20
8.4	3.20
8.6	3.20
8.8	3.20
9.0	3.20
9.2	3.20
9.4	3.20
9.6	3.20
9.8	3.20
10.0	3.20
10.2	3.20
10.4	3.20
10.6	3.20
10.8	3.20
11.0	3.20
11.2	3.20
11.4	3.20
11.6	3.20
11.8	3.20
12.0	3.20
12.2	3.20
12.4	3.20
12.6	3.20
12.8	3.20
13.0	3.20
13.2	3.20
13.4	3.20
13.6	3.20
13.8	3.20
14.0	3.20
14.2	3.20
14.4	3.20
14.6	3.20
14.8	3.20
15.0	3.20
15.2	3.20
15.4	3.20
15.6	3.20
15.8	3.20
16.0	3.20
16.2	3.20
16.4	3.20
16.6	3.20
16.8	3.20
17.0	3.20
17.2	3.20
17.4	3.20
17.6	3.20
17.8	3.20
18.0	3.20
18.2	3.20
18.4	3.20
18.6	3.20
18.8	3.20
19.0	3.20
19.2	3.20
19.4	3.20
19.6	3.20
19.8	3.20
20.0	3.20
20.2	3.20
20.4	3.20
20.6	3.20
20.8	3.20
21.0	3.20
21.2	3.20
21.4	3.20
21.6	3.20
21.8	3.20
22.0	3.20
22.2	3.20
22.4	3.20
22.6	3.20
22.8	3.20
23.0	3.20
23.2	3.20
23.4	3.20
23.6	3.20
23.8	3.20
24.0	3.20
24.2	3.20
24.4	3.20
24.6	3.20
24.8	3.20
25.0	3.20
25.2	3.20
25.4	3.20
25.6	3.20
25.8	3.20
26.0	3.20
26.2	3.20
26.4	3.20
26.6	3.20
26.8	3.20
27.0	3.20
27.2	3.20
27.4	3.20
27.6	3.20
27.8	3.20
28.0	3.20
28.2	3.20
28.4	3.20
28.6	3.20
28.8	3.20
29.0	3.20
29.2	3.20
29.4	3.20
29.6	3.20
29.8	3.20
30.0	3.20
30.2	3.20
30.4	3.20
30.6	3.20
30.8	3.20
31.0	3.20
31.2	3.20
31.4	3.20
31.6	3.20
31.8	3.20
32.0	3.20
32.2	3.20
32.4	3.20
32.6	3.20
32.8	3.20
33.0	3.20
33.2	3.20
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33.6	3.20
33.8	3.20
34.0	3.20
34.2	3.20
34.4	3.20
34.6	3.20
34.8	3.20
35.0	3.20
35.2	3.20
35.4	3.20
35.6	3.20
35.8	3.20
36.0	3.20
36.2	3.20
36.4	3.20
36.6	3.20
36.8	3.20
37.0	3.20
37.2	3.20
37.4	3.20
37.6	3.20
37.8	3.20
38.0	3.20
38.2	3.20
38.4	3.20
38.6	3.20
38.8	3.20
39.0	3.20
39.2	3.20
39.4	3.20
39.6	3.20
39.8	3.20
40.0	3.20
40.2	3.20
40.4	3.20
40.6	3.20
40.8	3.20
41.0	3.20
41.2	3.20
41.4	3.20
41.6	3.20
41.8	3.20
42.0	3.20
42.2	3.20
42.4	3.20
42.6	3.20
42.8	3.20
43.0	3.20
43.2	3.20
43.4	3.20
43.6	3.20
43.8	3.20
44.0	3.20
44.2	3.20
44.4	3.20
44.6	3.20
44.8	3.20
45.0	3.20
45.2	3.20
45.4	3.20
45.6	3.20
45.8	3.20
46.0	3.20
46.2	3.20
46.4	3.20
46.6	3.20
46.8	3.20
47.0	3.20
47.2	3.20
47.4	3.20
47.6	3.20
47.8	3.20
48.0	3.20
48.2	3.20
48.4	3.20
48.6	3.20
48.8	3.20
49.0	3.20
49.2	3.20
49.4	3.20
49.6	3.20
49.8	3.20
50.0	3.20
50.2	3.20
50.4	3.20
50.6	3.20
50.8	3.20
51.0	3.20
51.2	3.20
51.4	3.20
51.6	3.20
51.8	3.20
52.0	3.20
52.2	3.20
52.4	3.20
52.6	3.20
52.8	3.20
53.0	3.20
53.2	3.20
53.4	3.20
53.6	3.20
53.8	3.20
54.0	3.20
54.2	3.20
54.4	3.20
54.6	3.20
54.8	3.20
55.0	3.20
55.2	3.20
55.4	3.20
55.6	3.20
55.8	3.20
56.0	3.20
56.2	3.20
56.4	3.20
56.6	3.20
56.8	3.20
57.0	3.20
57.2	3.20
57.4	3.20
57.6	3.20
57.8	3.20
58.0	3.20
58.2	3.20
58.4	3.20
58.6	3.20
58.8	3.20
59.0	3.20
59.2	3.20
59.4	3.20
59.6	3.20
59.8	3.20
60.0	3.20
60.2	3.20
60.4	3.20
60.6	3.20
60.8	3.20
61.0	3.20
61.2	3.20
61.4	3.20
61.6	3.20
61.8	3.20
62.0	3.20
62.2	3.20
62.4	3.20
62.6	3.20
62.8	3.20
63.0	3.20
63.2	3.20
63.4	3.20
63.6	3.20
63.8	3.20
64.0	3.20
64.2	3.20
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64.6	3.20
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65.0	3.20
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65.4	3.20
65.6	3.20
65.8	3.20
66.0	3.20
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67.8	3.20
68.0	3.20
68.2	3.20
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68.6	3.20
68.8	3.20
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69.6	3.20
69.8	3.20
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70.2	3.20
70.4	3.20
70.6	3.20
70.8	3.20
71.0	3.20
71.2	3.20
71.4	3.20
71.6	3.20
71.8	3.20
72.0	3.20
72.2	3.20
72.4	3.20
72.6	3.20
72.8	3.20
73.0	3.20
73.2	3.20
73.4	3.20
73.6	3.20
73.8	3.20
74.0	3.20
74.2	3.20
74.4	3.20
74.6	3.20
74.8	3.20
75.0	3.20
75.2	3.20
75.4	3.20
75.6	3.20
75.8	3.20
76.0	3.20
76.2	3.20
76.4	3.20
76.6	3.20
76.8	3.20
77.0	3.20
77.2	3.20
77.4	3.20
77.6	3.20
77.8	3.20
78.0	3.20
78.2	3.20
78.4	3.20
78.6	3.20
78.8	3.20
79.0	3.20
79.2	3.20
79.4	3.20
79.6	3.20
79.8	3.20
80.0	3.20

Figure 3 (Continued)
AECS Performance Model Base Case

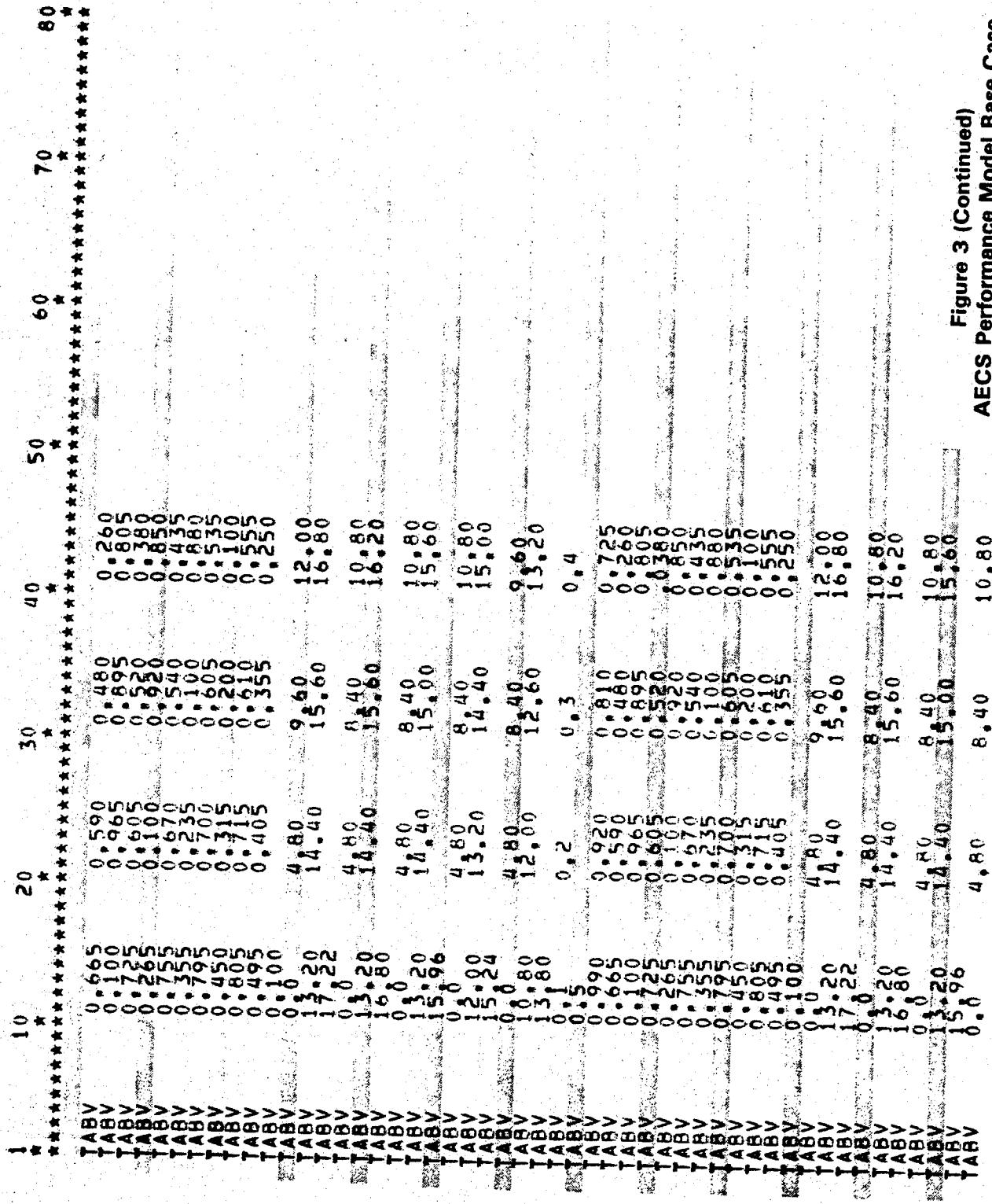


Figure 3 (Continued)
AECS Performance Model Base Case

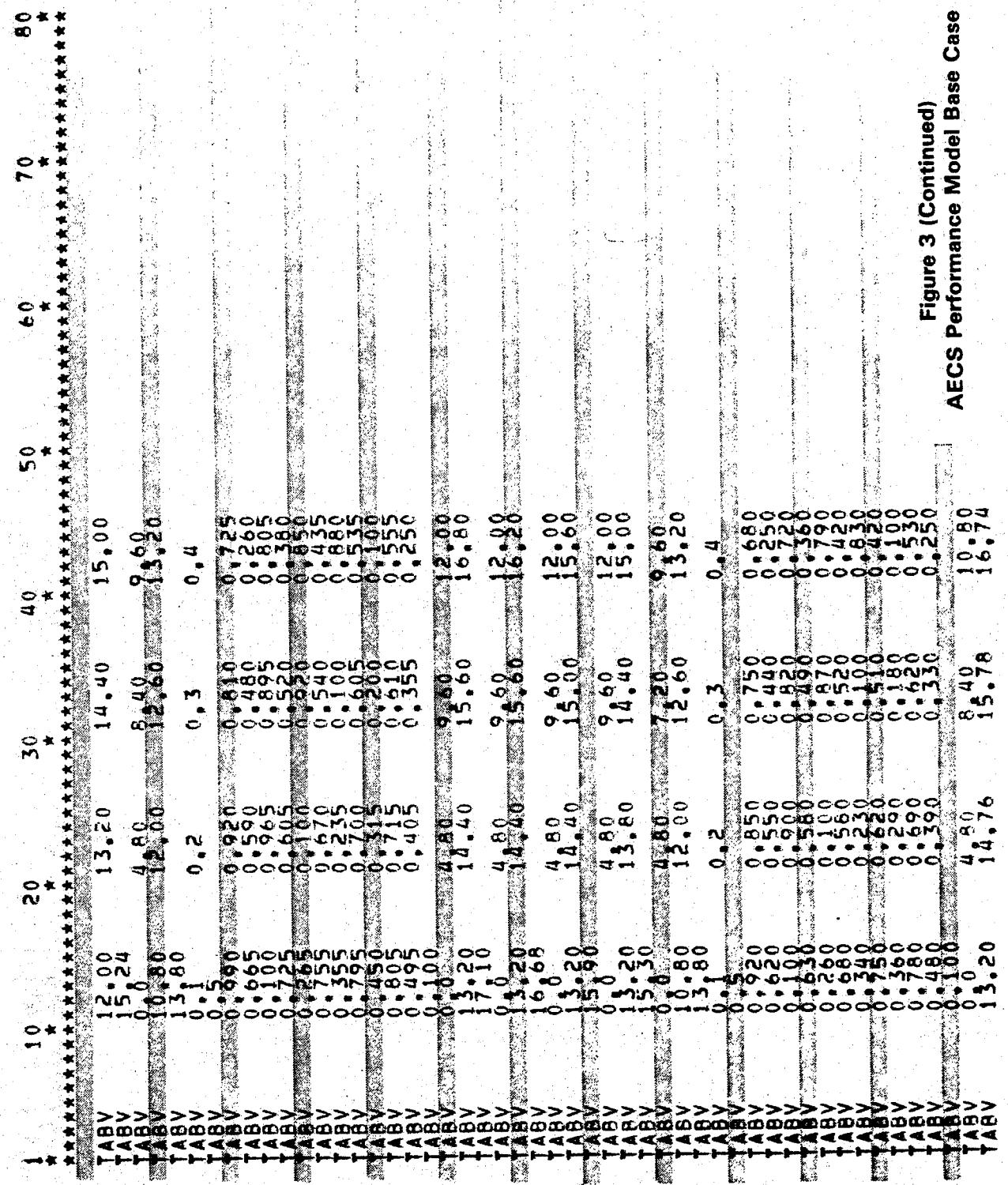


Figure 3 (Continued)
AECS Performance Model Base Case

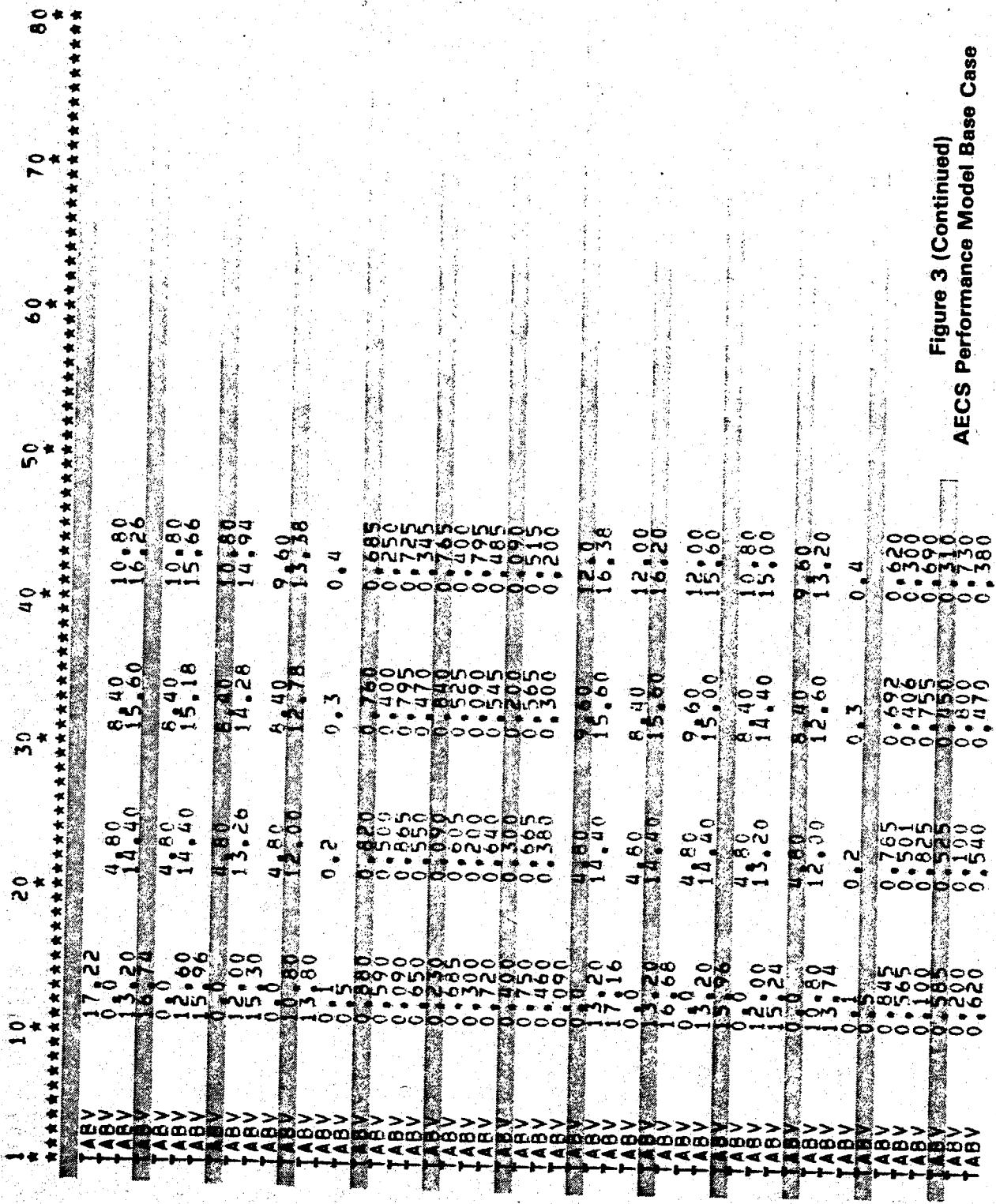


Figure 3 (Continued)
AECS Performance Model Base Case

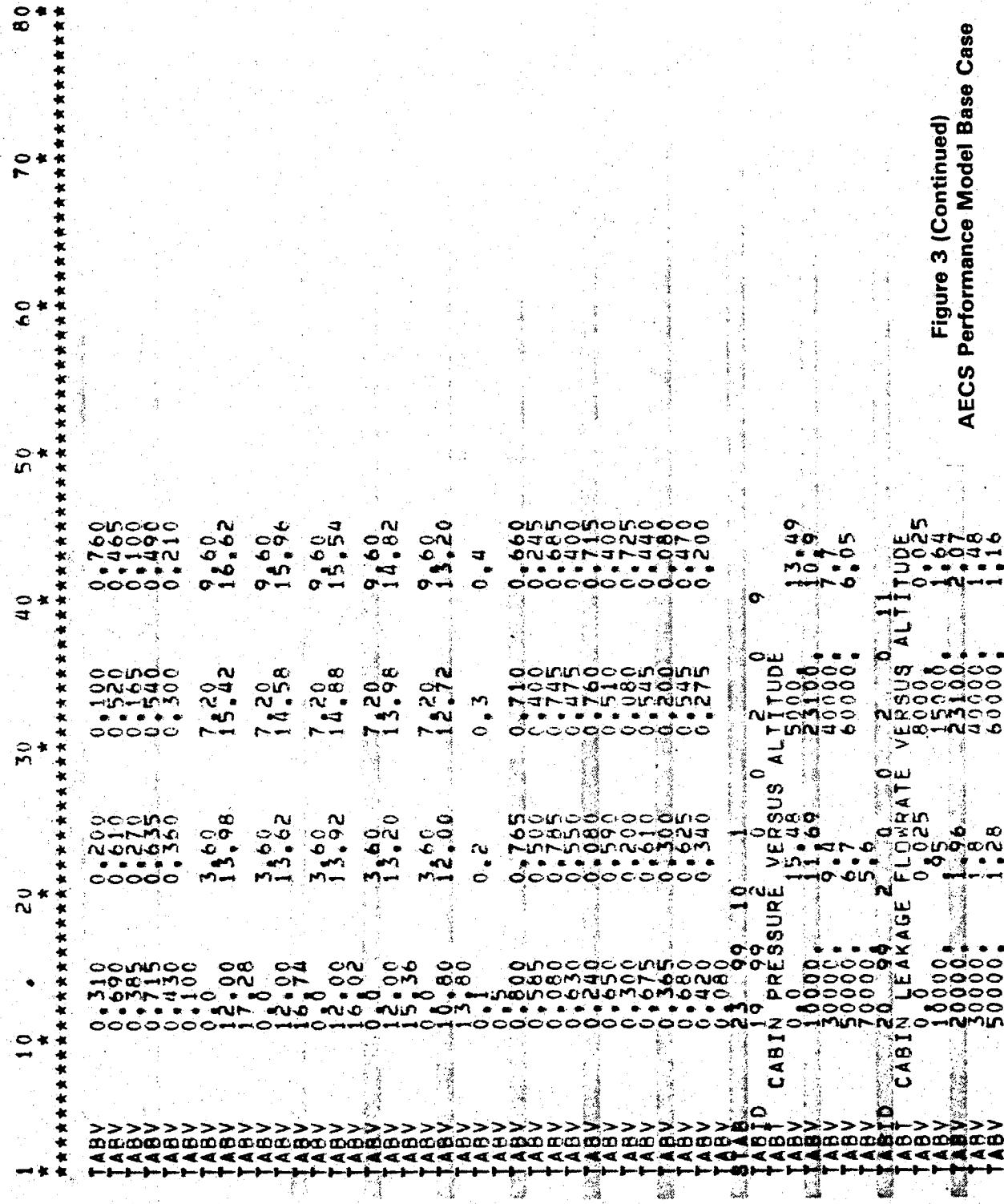


Figure 3 (Continued)
AECS Performance Model Base Case

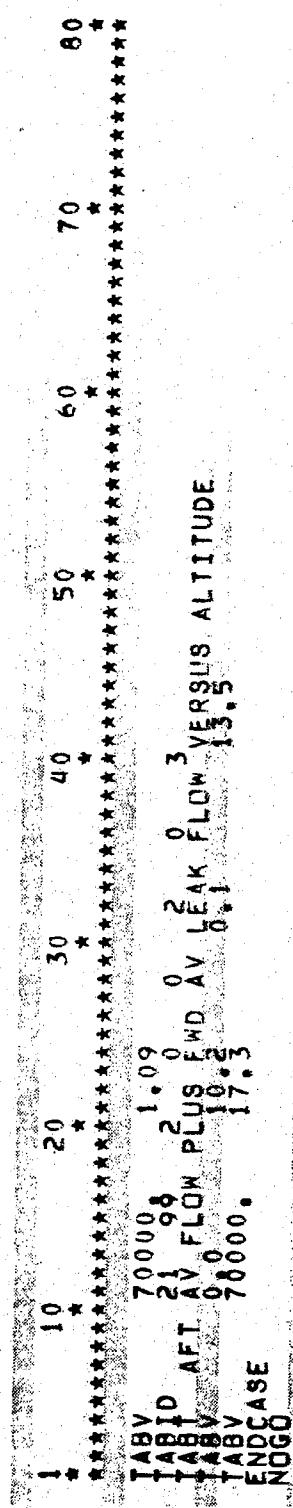


Figure 3 (Continued)
AECS Performance Model Base Case

VALUE LOC.	DESCRIPTION
1	RAM EXIT PRESSURE
2	RAM TUNNEL ITERATION SCRATCH
3	RAM TUNNEL ITERATION TOLERANCE
4	COMPRESSOR/TURBINE SHAFT SPEED - INITIAL GUESS
5	RAM TUNNEL ITERATION COUNTER
6	RAM TUNNEL ITERATION CONSTANT 1.0
7	RAM TUNNEL ITERATION RECOVERY FACTOR
8	RAM TUNNEL MACH NUMBER
9	DISCHARGE HX (PART 2) AIR SIDE REFERENCE TEMPERATURE
10	DISCHARGE HX (PART 2) COOLANOL SIDE REFERENCE TEMPERATURE
11	DISCHARGE HX (PART 1) AIR SIDE REFERENCE TEMPERATURE
12	DISCHARGE HX (PART 1) COOLANOL SIDE REFERENCE TEMPERATURE
13	FUEL FLOW RATE
14	FUEL PRESSURE
15	FUEL TEMPERATURE
16	RAM TUNNEL ITERATION LIMIT
17	AVIONICS LIQUID LOOP FLOW RATE
18	AVIONICS LIQUID LOOP PRESSURE
19	AVIONICS LIQUID LOOP TEMPERATURE
20	RAM INLET PRESSURE RECOVERY
21	BLEED FLOW RATE - INITIAL GUESS
22	BLEED PRESSURE
23	BLEED TEMPERATURE
24	BLEED HUMIDITY
25	
26	{ SAVE FOR L/H BLEED
27	
28	
29	RAM FLOW RATE - INITIAL GUESS
30	RAM PRESSURE
31	RAM TEMPERATURE
32	RAM HUMIDITY
33	
34	{ SAVE FOR L/H RAM
35	
36	
37	RAM TUNNEL/SCOOP SWITCH CODE
38	RAM TUNNEL/SCOOP SWITCH VALUE
39	RAM SCOOP INLET AREA
40	RAM TUNNEL INLET AREA
41	HPWS LOW PRESSURE SIDE FLOW RATE - INITIAL GUESS
42	HPWS LOW PRESSURE SIDE INLET PRESSURE - INITIAL GUESS
43	HPWS LOW PRESSURE SIDE INLET TEMPERATURE - INITIAL GUESS
44	HPWS LOW PRESSURE SIDE INLET HUMIDITY - INITIAL GUESS
45	COOLANOL LOOP FLOW RATE
46	COOLANOL LOOP PRESSURE INTO PUMP
47	COOLANOL LOOP TEMPERATURE INTO PUMP - INITIAL GUESS
48	RAM EXIT AREA
49	RAM EXIT PRESSURE EXCESS
50	PRIMARY HX EXIT TEMP. LIMIT

Figure 4
AECS Performance Model Base Parameter Table

VALUE LOC.	DESCRIPTION
51	PRESSURE DROP LOSS COEFFICIENT (PUMP TO F/C HX)
52	PRESSURE DROP LOSS COEFFICIENT (F/C HX TO RADAR HX)
53	LEAKAGE SPLIT RATIO (3, 6)
54	- SAVE FOR L/H SIDE
55	LEAKAGE SPLIT RATIO (19, 42)
56	LEAKAGE SPLIT RATIO (23, 46)
57	HOT AIR CONTROL SPLIT RATIO - INITIAL GUESS (OPTIONAL)
58	CABIN HOT AIR SPLIT RATIO - INITIAL GUESS (OPTIONAL)
59	LEAKAGE SPLIT RATIO (31, 62)
60	LEAKAGE SPLIT RATIO (37, 74)
61	PRESSURE DROP LOSS COEFF. (RADAR HX TO 1ST DA/C HX)
62	CABIN/AVIONICS SPLIT RATIO - INITIAL GUESS
63	CABIN/ANTI-FOG SPLIT RATIO
64	AVIONICS AUGMENTATION HX SPLIT RATIO - INITIAL GUESS (OPTIONAL)
65	ΔP LOSS COEFF. (1ST DA/C HX TO SPLIT)
66	SECONDARY HX COOLANOL SPLIT RATIO - INITIAL GUESS
67	ΔP LOSS COEFF. (SEC HX TO SPLIT)
68	ΔP LOSS COEFF. (2ND DA/C HX TO PUMP)
69	MIN LOSS COEFF. (COOLANOL, BYPASS VALVE)
70	LOSS COEFF. INITIAL GUESS (COOL BYP VAL)
71	LEAKAGE AREA (3, 6)
72	- SAVE FOR L/H SIDE
73	LEAKAGE AREA (23, 46)
74	LEAKAGE AREA (31, 62)
75	LEAKAGE AREA (37, 74)
76	LEAKAGE AREA (90-236)
77	PRESSURE REGULATOR SETTING (1, 4) PSIG
78	- SAVE FOR L/H SIDE
79	PRESSURE REGULATOR SETTING (1, 4) PSIA
80	PRESSURE REGULATOR SETTING (1, 4) PSIA
81	DUST SEPARATOR LOSS COEFFICIENT
82	COOLANOL PUMP MECHANICAL EFFICIENCY
83	COMPRESSOR MECHANICAL EFFICIENCY
84	EJECTOR CONTROL; 0 = ON, 1 = OFF
85	EJECTOR PRIMARY NOZZLE THROAT DIAMETER
86	EJECTOR FLOW SPLIT RATIO - WEJECT/WBLEED
87	TURBINE EXIT AREA
88	TURBINE PRESSURE RATIO (TOTAL TO STATIC) - INITIAL GUESS
89	TURBINE MECHANICAL EFFICIENCY
90	EJECTOR CONTROL: 0 = OFF, 1 = ON
91	-
92	CABIN FLOW RATE SENSOR (OPTIONAL)
93	SPLIT RATIO = (CAB FLOW-CAB LEAK)/CAB FLOW - INITIAL GUESS
94	CAB FLOW LEAK - INITIAL GUESS
95	MIN. VAL. K FOR CAB. PRESS. REG.
96	ANTI-FOG HX CONTROL VALVE MINIMUM LOSS COEFFICIENT
97	ANTI-FOG HX CONTROL VALVE LOSS COEFFICIENT - INITIAL GUESS
98	AVIONICS CONTROL VALVE MINIMUM LOSS COEFFICIENT
99	AVIONICS CONTROL VALVE LOSS COEFFICIENT - INITIAL GUESS
100	AVIONICS AUGMENTATION HX CONTROL VALVE MINIMUM LOSS COEFFICIENT
101	AVIONICS AUGMENTATION HX CONTROL VALVE LOSS COEFFICIENT-INITIAL GUESS (OPTIONAL)

Figure 4 (Continued)
AECS Performance Model Base Parameter Table

VALUE LOC.	DESCRIPTION
102	AVIONICS AUGMENTATION HX LIQUID TEMPERATURE SENSOR (OPTIONAL)
103	AVIONICS FLOW RATE SENSOR (OPTIONAL)
104	-
105	-
106	-
107	COMPRESSOR/TURBINE SHAFT POWER BALANCE
108	CAB. PRESS. REG. MIN. LOSS COEFF. - INITIAL GUESS
109	SCRATCH FOR LEAKAGE FLOW RATE CALCULATION
110	TURBINE B MULTIPLIER (NOZZLE AREA)
111	CABIN HOT AIR CONTROL VALVE MINIMUM LOSS FACTOR
112	CABIN HOT AIR CONTROL VALVE LOSS FACTOR - INITIAL GUESS (OPTIONAL)
113	AVIONICS HEAT LOAD
114	SPLIT RATIO - (FWD AV-FWD AV LEAK)/(AV TOTAL) - INITIAL GUESS
115	(AFT + FWD LEAK) AV FLOW
116	ECS BAY EXIT LOUVER AREA
117	CABIN INLET VALVE MIN. LOSS COEFFICIENT
118	CABIN INLET VALVE LOSS COEFFICIENT - INITIAL GUESS
119	-
120	-
121	-
122	-
123	-
124	-
125	CABIN/AVIONICS DELIVERY TEMPERATURE
126	SECONDARY HX AIR SIDE REFERENCE TEMPERATURE
127	SECONDARY HX COOLANOL SIDE REFERENCE TEMPERATURE
128	HPWS HX HIGH PRESSURE SIDE REFERENCE TEMPERATURE
129	HPWS HX LOW PRESSURE SIDE REFERENCE TEMPERATURE
130	HOT AIR CONTROL = 0 ON, ≠ 9 OFF
131	-
132	AVIONICS AUGMENTATION HX CONTROL = 0 YES, ≠ 0 NO
133	-
134	-
135	-
136	-
137	-
138	-
139	-
140	AVIONICS FLOW CONTROL = 0 YES, ≠ 0 NO
141	-
142	-
143	-
144	AVIONICS AUGMENTATION HX FLOW CONTROL = 0 YES, ≠ 0 NO
145	AVIONICS AUGMENTATION HX PRESSURE CONTROL = 0 YES, ≠ 0 NO
146	AVIONICS AUGMENTATION HX TEMPERATURE CONTROL = 0 YES, ≠ 0 NO
147	AVIONICS AUGMENTATION HX HUMIDITY CONTROL = 0 YES, ≠ 0 NO
148	CABIN FLOW RATE CONTROL = 0 YES, ≠ 0 NO
149	-
150	-
151	-
152	-
153	-
154	-

Figure 4 (Continued)
AECS Performance Model Base Parameter Table

VALUE LOC.	DESCRIPTION
155	-
156	-
157	TURBINE NOZZLE AREA LOWER LIMIT
158	TURBINE NOZZLE AREA UPPER LIMIT
159	-
160	PRESSURE DROP LOSS FACTOR (1, 2-220)
161	PRESSURE DROP LOSS FACTOR (1, 222-224)
162	PRESSURE DROP LOSS FACTOR (25, 48-232)
163	PRESSURE DROP LOSS FACTOR (29, 54-234)
164	PRESSURE DROP LOSS FACTOR (33, 64-66)
165	PRESSURE DROP LOSS FACTOR (43, 82-84)
166	PRESSURE DROP LOSS FACTOR (51, 92-94)
167	PRESSURE DROP LOSS FACTOR (51, 96-98)
168	PRESSURE DROP LOSS FACTOR (45, 236-102)
169	<u>RADAR HEAT LOAD</u>
170	<u>PUMP HEAT LOAD</u>
171	-
172	-
173	-
174	TURBINE NOZZLE AREA - INITIAL GUESS
175	COMPRESSOR/TURBINE SHAFT SPEED LOWER LIMIT
176	COMPRESSOR/TURBINE SHAFT SPEED UPPER LIMIT
177	ANTI-FOG LINE CABIN PRESSURE SENSOR
178	DISCHARGE AIR FLOW RATE - INITIAL GUESS
179	DISCHARGE AIR PRESSURE - INITIAL GUESS
180	DISCHARGE AIR TEMPERATURE
181	DISCHARGE AIR HUMIDITY - INITIAL GUESS
182	INJECTOR WATER FLOW RATE - INITIAL GUESS
183	INJECTOR WATER PRESSURE
184	INJECTOR WATER TEMPERATURE - INITIAL GUESS
185	-
186	-
187	COMPRESSOR FLOW FACTOR
188	COMPRESSOR EFFICIENCY
189	TO
190	COMPRESSOR CORRECTED TEMPERATURE
191	PRIMARY HX BLEED SIDE REFERENCE TEMPERATURE
192	PRIMARY HX RAM SIDE REFERENCE TEMPERATURE
193	-
194	PRESSURE REGULATOR SETTING (25, 50) PSIG
195	PRESSURE REGULATOR SETTING (25, 50) PSIA
196	-
197	-
198	-
199	-
200	HUMIDITY EV MULT FACTOR
201	COOLANOL LOOP SPECIFIC HEAT AT PUMP INLET

Figure 4 (Continued)
AECS Performance Model Base Parameter Table

TAN 1207

Figure 5
AECIS Performance Model Change Case

DRAFT

*AEC3A GENERAL ECS PROGRAM
1 CASE PERFOR
TIME M NO GO CASE .07 SEC.

PAGE 1
DATE 75/11/19

Figure 6
AEC3 Performance Results
Sea Level Dash Condition

Figure 6 (Continued)
AECs Performance Results
Sea Level Dash Condition

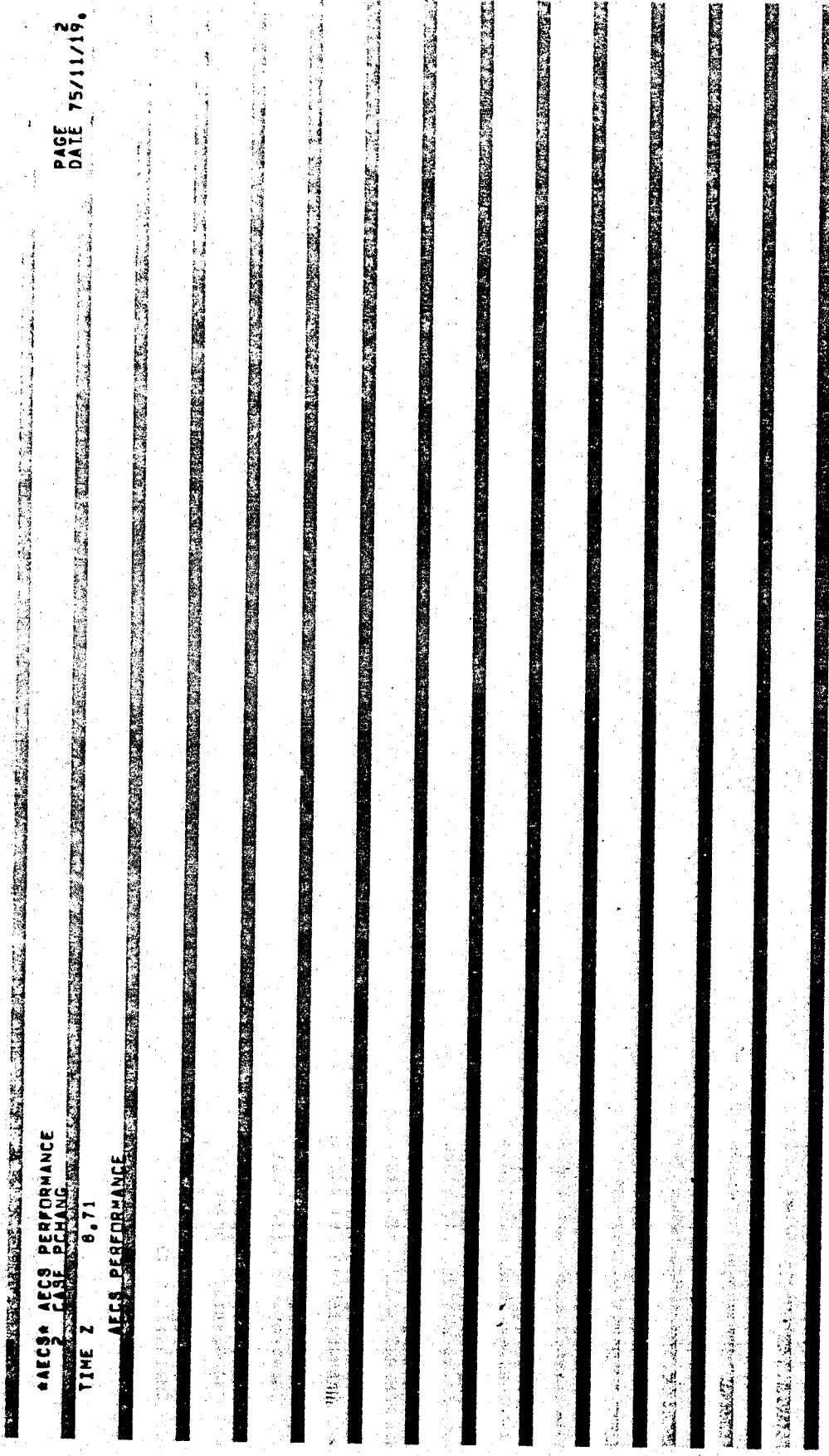


Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

OUTPOST

**DETERMINANT PERFORMANCE
CASE AECS**

PAGE 75/1118

CASE AECS

50 LEG(8)

120 STATION(S)

ATN T: JUST 00

ATN PROP VALUE

MACH NUMBER

1.200

**Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition**

AECGS* CASE STUDIES

PAGE 4
DATE 75/11/19
SEARCHED ✓ INDEXED ✓
SERIALIZED ✓ FILED ✓

2-9906

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

100

AEC 8 AEC 8 PERFORMANCE
CASE AEC 8

CONTENTS

133

split over
split whenever
is off

Figure 6 (Continued)
AEC_S Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE

CASE AECS

FUNC -0

LINE

VALVE

NOZZLE

CONNECT

SPLIT

FUSE

PIPE

CCS

PAGE 6
DATE 7/1/12.

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AEC5 AEC5 PERFORMANCE
2 CASE AEC5

SKIP*****

CNSCT

LINNE

LOOPS

WAF

SC

XPNT

HUMINE

LOAD

ONE

LOOPS

AP

TABLE(1)

TAKE(1)

HUL

SV N

PAGE 75/11/19.

Figure 6 (Continued)
AEC5 Performance Results
Sea Level Dash Condition

AECS* AECS PERFORMANCE
2 CASE AECS

	PAGE 6 DATE 75/11/19.									
	SV N		EV N		SV N		EV N		SV N	
	1	2	3	4	5	6	7	8	9	10
CHPNTR	1210	1	-0	-0	-0	-0	-0	-0	-0	-0
LINE	1354	75	312	320	10	67	186	-0	-0	-0
SPLIT	1360	75	321	45	1AH	-0	-0	-0	-0	-0
LINE	1362	65	1AH	322	85	2	324	-0	-0	-0
CHPNTR	1390	30	70	378	-0	-0	-0	-0	-0	-0
CLINE	1394	85	324	190	-0	-0	-0	-0	-0	-0
CINCT	1340	67	326	326	-0	-0	-0	-0	-0	-0
MERGE	1350	65	326	102	328	-0	-0	-0	-0	-0
LINE	1360	65	330	104	192	8	330	-0	-0	-0
CHPNTR	1360	203	304	306	89	103	332	-0	-0	-0
NOZZLE	1322	203	306	412	-0	-0	-0	-0	-0	-0
LINE	1734	89	332	314	0	2	-0	-0	-0	-0
LOOPE	1730	75	160	69	314	10	-0	-0	-0	-0
DRAIN	1740	39	78	43	82	41	80	1	-0	-0
LCOPS	1760	53	82	84	81	2	80	1	-0	-0
CHPNTR	1770	41	84	90	53	100	236	2	-0	-0
CHPNTR	1790	-0	-0	-0	-0	-0	-0	-0	-0	-0
FUNC	1940	-0	100	0	13	0	0	-0	-0	-0
MISC	1950	-0	100	0	43	84	0	-0	-0	-0
LINE	1960	-0	100	1	43	0	0	-0	-0	-0
DRAIN	1970	47	20	51	49	100	0	-0	-0	-0
MERGE	1980	49	208	41	95	208	1	-0	-0	-0
LINE	1990	51	100	51	98	2	101	0	-0	-0
CHPNTR	2000	51	100	94	81	2	100	0	-0	-0
LINE	2005	51	100	96	12	50	100	1	-0	-0
LOOPE	2110	51	96	98	1	111	2	-0	-0	-0
LINE	2120	53	100	51	98	111	-0	-0	-0	-0
SENSOR	2130	45	236	102	1	-0	-0	-0	-0	-0
MISC	2140	43	102	125	-0	-0	-0	-0	-0	-0
SPLIT	2160	45	102	55	103	0	1	62	-0	-0
LINE	2170	45	102	55	106	57	104	1	-0	-0

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS PERFORMANCE									
CASE AECS									
CCS	2190	1	130	-9	0	-0	-0	-0	-0
SKIP*****									
CCS	2210	1	130	1	0	-0	-0	-0	-0
SKIP*****									
CCS	2200	55	110	110	110	110	110	110	110
SKIP*****									
CCS	2230	55	110	110	110	110	110	110	110
VALVE	R	69	116	116	116	116	116	116	116
LINE	N	69	116	116	116	116	116	116	116
CONNECT	R	2240	69	118	120	121	0	48	-0
VALVE	N	2250	69	120	121	122	123	124	125
LINE	N	2260	71	122	126	126	126	126	126
BCS	N	2270	71	148	148	148	0	49	-0
SKIP*****									
SENSOR	S	2280	1	69	92	0	-0	-0	-0
LINE	S	2350	73	124	128	1	0	50	-0
CCS	S	2360	73	130	130	0	-0	50	-0
SKIP*****									
CCS	S	2370	63	130	132	132	128	134	134
VALVE	S	2380	63	132	132	132	132	132	132
LINE	S	2390	63	132	132	132	132	132	132
CCS	S	2430	63	132	132	132	132	132	132
SKIP*****									
CCS	S	2440	73	128	128	128	128	128	128
VALVE	S	2450	71	128	134	134	134	134	134
LINE	S	2452	71	128	134	134	134	134	134
CONNECT	R	2454	21	194	202	202	202	202	202
CONNECT	R	2456	21	402	402	402	402	402	402
CONNECT	R	2460	21	402	402	402	402	402	402
CCS	S	2470	57	108	157	157	156	156	156
CCS	S	2480	57	132	0	-0	-0	-0	-0
SKIP*****									
CCS	S	2490	57	136	59	138	61	140	0
VALVE	S	2500	59	138	150	152	91	150	151
XVA	S	2510	59	150	152	152	91	150	151
SENSOR	S	2520	53	124	132	132	132	132	132
CCS	S	2550	52	132	132	132	132	132	132
SKIP*****									
CCS	S	2560	57	136	61	140	70	157	0
LINE	S	2570	61	146	204	0	0	0	0
LINE	S	2580	61	146	242	1	0	0	0
CCS	S	2590	61	130	0	0	0	0	0

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

**AECS* AECS PERFORMANCE
CASE AECS**

SKIP*****		63	144	61	142	65	146	1
CCS	2610	1	130	1	-0	-0	-0	-0
SKIP*****	2620	61	142	165	146	-0	-0	-0
CCS	2630	61	142	165	146	-0	-0	-0
SKIP*****	2650	140	-0	-0	-0	-0	-0	-0
SENSE	2660	1	65	103	-0	-0	-0	-0
MISC*	2664	61	115	172	-0	-0	-0	-0
SPLIT	2665	65	108	21	-0	-0	-0	-0
MERGE	2668	301	504	303	504	115	-0	-0
LOOP*	2700	201	300	217	410	1101	-0	-0
MISC*	2735	209	316	95	206	1013	-0	-0
CCS	2790	1	144	-0	-0	-0	-0	-0
SKIP*****	2800	1	59	103	-0	-0	-0	-0
CCS	2810	1	145	-0	-0	-0	-0	-0
SKIP*****	2820	2	152	104	-0	-0	-0	-0
CCS	2830	1	146	-0	-0	-0	-0	-0
SKIP*****	2840	3	152	105	-0	-0	-0	-0
CCS	2850	1	147	-0	-0	-0	-0	-0
SKIP*****	2860	4	152	106	-0	-0	-0	-0
STATE/ERROR VAR(AH,E(S))								

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AFCS PERFORMANCE
2 CASE AECS
TABLES 82 REQUIRED

PAGE 75/11/19.

	PERMANENT TABLE	1	10
PERMANENT TABLE	2	14	
PERMANENT TABLE	1	17	
PERMANENT TABLE	5	10	
PERMANENT TABLE	4	10	
PERMANENT TABLE	2	10	
PERMANENT TABLE	3	5	
PERMANENT TABLE	7	5	
PERMANENT TABLE	2	5	

TABLE 1 0

TABLE 2 1

TABLE 3 0

TABLE 4 1

TABLE 5 0

TABLE 6 1

TABLE 7 0

TABLE 8 1

TABLE 9 0

TABLE 10 1

TABLE 11 0

TABLE 12 1

TABLE 13 0

TABLE 14 1

TABLE 15 0

TABLE 16 1

TABLE 17 0

TABLE 18 1

TABLE 19 0

TABLE 20 1

TABLE 21 0

TABLE 22 1

TABLE 23 0

TABLE 24 1

TABLE 25 0

TABLE 26 1

TABLE 27 0

TABLE 28 1

TABLE 29 0

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TABLE 107 0

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TABLE 112 1

TABLE 113 0

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TABLE 116 1

TABLE 117 0

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TABLE 127 0

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TABLE 236 1

TABLE 237 0

TABLE 238 1

TABLE 239 0

TABLE 240 1

TABLE 241 0

TABLE 242 1

TABLE 243 0

TABLE 244 1

TABLE 245 0

TABLE 246 1

TABLE 247 0

TABLE 248 1

TABLE 249 0

TABLE 250 1

TABLE 251 0

TABLE 252 1

TABLE 253 0

TABLE 254 1

TABLE 255 0

TABLE 256 1

TABLE 257 0

TABLE 258 1

AECS AECS PERFORMANCE
2 CASE AECS

PAGE 12
DATE 75/11/12.

4.00000E+01	2.50000E+01	2.00000E+01	4.45000E+01
1.00000E+02	3.50000E+01	2.00000E+02	2.56600E+00
3.00000E+02	4.60000E+00		

TABLE 6

NDIM	2	1ST	3	RFLN	41	EXTRAP	0	INTERP	1	NPTS	5	NOTES
ARGUMENT	1	TYPE										

TABLE 7

NDIM	2	1ST	3	RELN	41	EXTRAP	0	INTERP	1	NPTS	5	NOTES
ARGUMENT	1	TYPE										

TABLE 8

NDIM	2	1ST	3	RELN	105	EXTRAP	0	INTERP	1	NPTS	5	NOTES
ARGUMENT	1	TYPE										

TABLE 9

NDIM	2	1ST	3	RELN	105	EXTRAP	0	INTERP	1	NPTS	5	NOTES
ARGUMENT	1	TYPE										

TABLE 10

NDIM	2	1ST	3	RELN	41	EXTRAP	0	INTERP	1	NPTS	5	NOTES
ARGUMENT	1	TYPE										

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AEC8 AEC8 PERFORMANCE
CASE AEC8

PAGE 13
DATE 7/2/11

5.0000E+00	1.0000E+01	2.2900E-02
2.0000E+00	1.0000E+01	2.5300E-01
1.0000E+00	1.0000E+01	1.0000E-01
0.5000E+00	1.0000E+01	5.0000E-02
0.3000E+00	1.0000E+01	3.0000E-02
0.1500E+00	1.0000E+01	1.5000E-02
0.0750E+00	1.0000E+01	7.5000E-03
0.0375E+00	1.0000E+01	3.7500E-03
0.01875E+00	1.0000E+01	1.8750E-03
0.009375E+00	1.0000E+01	9.3750E-04
0.0046875E+00	1.0000E+01	4.6875E-04
0.00234375E+00	1.0000E+01	2.34375E-04
0.001171875E+00	1.0000E+01	1.171875E-04
0.0005859375E+00	1.0000E+01	5.859375E-05
0.00029296875E+00	1.0000E+01	2.9296875E-05
0.000146484375E+00	1.0000E+01	1.46484375E-05
0.0000732421875E+00	1.0000E+01	7.32421875E-06
0.00003662109375E+00	1.0000E+01	3.662109375E-06
0.000018310546875E+00	1.0000E+01	1.8310546875E-06
0.0000091552734375E+00	1.0000E+01	9.1552734375E-07
0.00000457763671875E+00	1.0000E+01	4.57763671875E-07
0.000002288818359375E+00	1.0000E+01	2.288818359375E-07
0.0000011444091796875E+00	1.0000E+01	1.1444091796875E-07
0.00000057220458984375E+00	1.0000E+01	5.7220458984375E-08
0.000000286102294921875E+00	1.0000E+01	2.86102294921875E-08
0.0000001430511474609375E+00	1.0000E+01	1.430511474609375E-08
0.000000071525573730484375E+00	1.0000E+01	7.1525573730484375E-09
0.0000000357627868652421875E+00	1.0000E+01	3.57627868652421875E-09
0.00000001788139343262109375E+00	1.0000E+01	1.788139343262109375E-09
0.000000008940696716310546875E+00	1.0000E+01	8.940696716310546875E-10
0.0000000044703483581552734375E+00	1.0000E+01	4.4703483581552734375E-10
0.00000000223517417907763671875E+00	1.0000E+01	2.23517417907763671875E-10
0.000000001117587089538818359375E+00	1.0000E+01	1.117587089538818359375E-10
0.0000000005587935447694091796875E+00	1.0000E+01	5.587935447694091796875E-11
0.00000000027939677238470458984375E+00	1.0000E+01	2.7939677238470458984375E-11
0.000000000139698386192352294921875E+00	1.0000E+01	1.39698386192352294921875E-11
0.0000000000698491930961761474609375E+00	1.0000E+01	6.98491930961761474609375E-12
0.000000000034924596548088073730484375E+00	1.0000E+01	3.4924596548088073730484375E-12
0.0000000000174622982740440368652421875E+00	1.0000E+01	1.74622982740440368652421875E-12
0.000000000008731149137022018430546875E+00	1.0000E+01	8.731149137022018430546875E-13
0.0000000000043655745685110092152734375E+00	1.0000E+01	4.3655745685110092152734375E-13
0.00000000000218278728425550460763671875E+00	1.0000E+01	2.18278728425550460763671875E-13
0.000000000001091393642127752303818359375E+00	1.0000E+01	1.091393642127752303818359375E-13
0.0000000000005456968210638761519091796875E+00	1.0000E+01	5.456968210638761519091796875E-14
0.00000000000027284841053193807595458984375E+00	1.0000E+01	2.7284841053193807595458984375E-14
0.000000000000136424205265969037977238470458984375E+00	1.0000E+01	1.36424205265969037977238470458984375E-14
0.00000000000006821210263298451898868652421875E+00	1.0000E+01	6.821210263298451898868652421875E-15
0.000000000000034106051316492259494343730484375E+00	1.0000E+01	3.4106051316492259494343730484375E-15
0.0000000000000170530256582461297471796875E+00	1.0000E+01	1.70530256582461297471796875E-15
0.00000000000000852651282912306487358984375E+00	1.0000E+01	8.52651282912306487358984375E-16
0.00000000000000426325641456153243679458984375E+00	1.0000E+01	4.26325641456153243679458984375E-16
0.000000000000002131628207280766218397238470458984375E+00	1.0000E+01	2.131628207280766218397238470458984375E-16
0.00000000000000106581410364038310919868652421875E+00	1.0000E+01	1.06581410364038310919868652421875E-16
0.0000000000000005329070518300915545949343730484375E+00	1.0000E+01	5.329070518300915545949343730484375E-17
0.000000000000000266453525915045777397468652421875E+00	1.0000E+01	2.66453525915045777397468652421875E-17
0.0000000000000001332267629575228886987347238470458984375E+00	1.0000E+01	1.332267629575228886987347238470458984375E-17
0.0000000000000000666133814787614443493671875E+00	1.0000E+01	6.66133814787614443493671875E-18
0.00000000000000003330669073938072217473358984375E+00	1.0000E+01	3.330669073938072217473358984375E-18
0.00000000000000001665334536969036108736679458984375E+00	1.0000E+01	1.665334536969036108736679458984375E-18
0.000000000000000008326672684834580543683397238470458984375E+00	1.0000E+01	8.326672684834580543683397238470458984375E-19
0.0000000000000000041633363424172902718416987347238470458984375E+00	1.0000E+01	4.1633363424172902718416987347238470458984375E-19
0.000000000000000002081668171208645135920849458984375E+00	1.0000E+01	2.081668171208645135920849458984375E-19
0.0000000000000000010408340856043225679604247238470458984375E+00	1.0000E+01	1.0408340856043225679604247238470458984375E-19
0.00000000000000000052041704280216128398021238470458984375E+00	1.0000E+01	5.2041704280216128398021238470458984375E-20
0.000000000000000000260208521401080641990106187347238470458984375E+00	1.0000E+01	2.60208521401080641990106187347238470458984375E-20
0.0000000000000000001301042607005403209950530938470458984375E+00	1.0000E+01	1.301042607005403209950530938470458984375E-20
0.0000000000000000000650521303502701604975265469238470458984375E+00	1.0000E+01	6.50521303502701604975265469238470458984375E-21
0.00000000000000000003252606517513508024888327347238470458984375E+00	1.0000E+01	3.252606517513508024888327347238470458984375E-21
0.0000000000000000000162630325875675401244416367347238470458984375E+00	1.0000E+01	1.62630325875675401244416367347238470458984375E-21
0.0000000000000000000081315162937837700622208187347238470458984375E+00	1.0000E+01	8.1315162937837700622208187347238470458984375E-22
0.00000000000000000000406575814689188503111040938470458984375E+00	1.0000E+01	4.06575814689188503111040938470458984375E-22
0.0000000000000000000020328790734459425155552047347238470458984375E+00	1.0000E+01	2.0328790734459425155552047347238470458984375E-22
0.00000000000000000000101643953672297125777760238470458984375E+00	1.0000E+01	1.01643953672297125777760238470458984375E-22
0.0000000000000000000005082197683614856128888011938470458984375E+00	1.0000E+01	5.082197683614856128888011938470458984375E-23
0.000000000000000000000254109884180742806444400596938470458984375E+00	1.0000E+01	2.54109884180742806444400596938470458984375E-23
0.000000000000000000000127054942090371403222200298470458984375E+00	1.0000E+01	1.27054942090371403222200298470458984375E-23
0.000000000000000000000063527471045185701611110014938470458984375E+00	1.0000E+01	6.3527471045185701611110014938470458984375E-24
0.00000000000000000000003176373552259285080555500746938470458984375E+00	1.0000E+01	3.176373552259285080555500746938470458984375E-24
0.00000000000000000000001588186776129642540277750373470458984375E+00	1.0000E+01	1.588186776129642540277750373470458984375E-24
0.00000000000000000000000794093388063821270138875286938470458984375E+00	1.0000E+01	7.94093388063821270138875286938470458984375E-25
0.000000000000000000000003970466940319106350694376343470458984375E+00	1.0000E+01	3.970466940319106350694376343470458984375E-25
0.0000000000000000000000019852334701595531753471881717470458984375E+00	1.0000E+01	1.9852334701595531753471881717470458984375E-25
0.00000000000000000000000099261673507977758767359408587470458984375E+00	1.0000E+01	9.9261673507977758767359408587470458984375E-26
0.000000000000000000000000496308367539888793836797042937470458984375E+00	1.0000E+01	4.96308367539888793836797042937470458984375E-26
0.0000000000000000000000002481541837699443969184985214687470458984375E+00	1.0000E+01	2.481541837699443969184985214687470458984375E-26
0.00000000000000000000000012407709188497219345924926073470458984375E+00	1.0000E+01	1.2407709188497219345924926073470458984375E-26
0.000000000000000000000000062038545942496096729624630367470458984375E+00	1.0000E+01	6.2038545942496096729624630367470458984375E-27
0.0000000000000000000000000310192729712470493648123151837470458984375E+00	1.0000E+01	3.10192729712470493648123151837470458984375E-27
0.00000000000000000000000001550963648562352468240615759187470458984375E+00	1.0000E+01	1.550963648562352468240615759187470458984375E-27
0.000000000000000000000000007754818242801762231203078795937470458984375E+00	1.0000E+01	7.754818242801762231203078795937470458984375E-28
0.00000000000000000000000000387740912140088111560153939797470458984375E+00	1.0000E+01	3.87740912140088111560153939797470458984375E-28
0.000000000000000000000000001938704560700440557800769698987470458984375E+00	1.0000E+01	1.938704560700440557800769698987470458984375E-28
0.00000000000000000000000000096935228035002202789038484949470458984375E+00	1.0000E+01	9.6935228035002202789038484949470458984375E-29
0.0000000000000000000000000004846761401750110139451924247497470458984375E+00	1.0000E+01	4.846761401750110139451924247497470458984375E-29
0.00000000000000000000000000024233807008750550597259621237497470458984375E+00	1.0000E+01	2.4233807008750550597259621237497470458984375E-29
0.000000000000000000000000000121169035043752752986298106187497470458984375E+00	1.0000E+01	1.21169035043752752986298106187497470458984375E-29
0.0000000000000000000000000000605845175218763754931490530937497470458984375E+00	1.0000E+01	6.05845175218763754931490530937497470458984375E-30
0.00000000000000000000000000003029225876093818752657452754687497470458984375E+00	1.0000E+01	3.029225876093818752657452754687497470458984375E-30
0.000000000000000000000000000015146129380469093763287513773497470458984375E+00	1.0000E+01	1.5146129380469093763287513773497470458984375E-30
0.0000000000000000000000000000075730646902345468816437568867497470458984375E+00	1.0000E+01	7.5730646902345468816437568867497470458984375E-31
0.00000000000000000000000000000378653234511727344133187834337497470458984375E+00	1.0000E+01	3.78653234511727344133187834337497470458984375E-31
0.000000000000000000000000000001893266172558636720665939171687497470458984375E+00	1.0000E+01	1.893266172558636720665939171687497470458984375E-31
0.0000000000000000000000000000009466330862793183603329695588437497470458984375E+00	1.0000E+01	9.466330862793183603329695588437497470458984375E-32
0.00000000000000000000000000000047331654313965918016649347942187497470458984375E+00	1.0000E+01	4.7331654313965918016649347942187497470458984375E-32
0.00000000000000000000000000000023665827156982959008324672971087497470458984375E+00	1.0000E+01	2.3665827156982959008324672971087497470458984375E-32
0.000000000000000000000000000000118329135784914795041623364855437497470458984375E+00	1.0000E+01	1.18329135784914795041623364855437497470458984375E-32
0.0000000000000000000000000000000591645678924573975208116782277497470458984375E+00	1.0000E+01	5.91645678924573975208116782277497470458984375E-33
0.00000000000000000000000000000002958228394622869876040583911387497470458984375E+00	1.0000E+01	2.958228394622869876040583911387497470458984375E-33
0.0000000000000000		

TABLE 24. *Geographical and民族志 cause*

TITLE/DISTRIBUTION AND VACUUM PRESSURE DROP
 NDIMM 3
 ARGUMENT 1 TYPE 0 RELN 4 EXTRAP 0 INTERP 0
 ARGUMENT 2 TYPE 0 RELN 2 EXTRAP 0 INTERP 0
 3.0000E+01 5.0000E+01 8.0000E-01
 0 1.0000E-01
 4.0070E-01 1.17330E+00 3.2130E+00 1.6950E-01
 4.7800E-01

TITLE/AVG BLEED DUCT SGP STA 14-16

NDIMENT 2 1-43000E+01 1-93000E+01 3-21200E+01

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TABLE 27
MERGED BLEED LINE FOR DATA HAVING

四庫全書

TABLE 31 TITLE/VALVE SDP STA 220-222		ARGUMENT 1		ARGUMENT 2		ARGUMENT 3	
NRDN	TYPE	NRDN	TYPE	NRDN	TYPE	NRDN	TYPE
1.15000E+01	3.53000E-02	2.70700E-02	1.00000E+01	5.00000E+00	2.02200E-02	9.02200E-02	
8.00000E+01	1.83700E+00	3.51800E-01	1.00000E+01	2.00000E+01	3.02250E-01	1.02250E+01	
		1.80600E-01	1.00000E+00	3.00000E+01	4.02250E-01	1.402250E+01	
				3.00000E+01	5.02250E-01	2.402250E+01	
					6.02250E-01	3.402250E+01	
					7.02250E-01	4.402250E+01	
					8.02250E-01	5.402250E+01	
					9.02250E-01	6.402250E+01	
					1.00000E+01	7.402250E+01	
					1.10000E+01	8.402250E+01	
					1.20000E+01	9.402250E+01	
					1.30000E+01	1.0402250E+02	
					1.40000E+01	1.1402250E+02	
					1.50000E+01	1.2402250E+02	
					1.60000E+01	1.3402250E+02	
					1.70000E+01	1.4402250E+02	
					1.80000E+01	1.5402250E+02	
					1.90000E+01	1.6402250E+02	
					2.00000E+01	1.7402250E+02	
					2.10000E+01	1.8402250E+02	
					2.20000E+01	1.9402250E+02	
					2.30000E+01	2.0402250E+02	
					2.40000E+01	2.1402250E+02	
					2.50000E+01	2.2402250E+02	
					2.60000E+01	2.3402250E+02	
					2.70000E+01	2.4402250E+02	
					2.80000E+01	2.5402250E+02	
					2.90000E+01	2.6402250E+02	
					3.00000E+01	2.7402250E+02	
					3.10000E+01	2.8402250E+02	
					3.20000E+01	2.9402250E+02	
					3.30000E+01	3.0402250E+02	
					3.40000E+01	3.1402250E+02	
					3.50000E+01	3.2402250E+02	
					3.60000E+01	3.3402250E+02	
					3.70000E+01	3.4402250E+02	
					3.80000E+01	3.5402250E+02	
					3.90000E+01	3.6402250E+02	
					4.00000E+01	3.7402250E+02	
					4.10000E+01	3.8402250E+02	
					4.20000E+01	3.9402250E+02	
					4.30000E+01	4.0402250E+02	
					4.40000E+01	4.1402250E+02	
					4.50000E+01	4.2402250E+02	
					4.60000E+01	4.3402250E+02	
					4.70000E+01	4.4402250E+02	
					4.80000E+01	4.5402250E+02	
					4.90000E+01	4.6402250E+02	
					5.00000E+01	4.7402250E+02	
					5.10000E+01	4.8402250E+02	
					5.20000E+01	4.9402250E+02	
					5.30000E+01	5.0402250E+02	
					5.40000E+01	5.1402250E+02	
					5.50000E+01	5.2402250E+02	
					5.60000E+01	5.3402250E+02	
					5.70000E+01	5.4402250E+02	
					5.80000E+01	5.5402250E+02	
					5.90000E+01	5.6402250E+02	
					6.00000E+01	5.7402250E+02	
					6.10000E+01	5.8402250E+02	
					6.20000E+01	5.9402250E+02	
					6.30000E+01	6.0402250E+02	
					6.40000E+01	6.1402250E+02	
					6.50000E+01	6.2402250E+02	
					6.60000E+01	6.3402250E+02	
					6.70000E+01	6.4402250E+02	
					6.80000E+01	6.5402250E+02	
					6.90000E+01	6.6402250E+02	
					7.00000E+01	6.7402250E+02	
					7.10000E+01	6.8402250E+02	
					7.20000E+01	6.9402250E+02	
					7.30000E+01	7.0402250E+02	
					7.40000E+01	7.1402250E+02	
					7.50000E+01	7.2402250E+02	
					7.60000E+01	7.3402250E+02	
					7.70000E+01	7.4402250E+02	
					7.80000E+01	7.5402250E+02	
					7.90000E+01	7.6402250E+02	
					8.00000E+01	7.7402250E+02	
					8.10000E+01	7.8402250E+02	
					8.20000E+01	7.9402250E+02	
					8.30000E+01	8.0402250E+02	
					8.40000E+01	8.1402250E+02	
					8.50000E+01	8.2402250E+02	
					8.60000E+01	8.3402250E+02	
					8.70000E+01	8.4402250E+02	
					8.80000E+01	8.5402250E+02	
					8.90000E+01	8.6402250E+02	
					9.00000E+01	8.7402250E+02	
					9.10000E+01	8.8402250E+02	
					9.20000E+01	8.9402250E+02	
					9.30000E+01	9.0402250E+02	
					9.40000E+01	9.1402250E+02	
					9.50000E+01	9.2402250E+02	
					9.60000E+01	9.3402250E+02	
					9.70000E+01	9.4402250E+02	
					9.80000E+01	9.5402250E+02	
					9.90000E+01	9.6402250E+02	
					1.00000E+02	9.7402250E+02	

TABLE LISTED BELOW IS NOT REQUIRED
~~TABLE LISTED BELOW IS NOT REQUIRED~~

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE
2 CASE AECS

TABLE 38 TITLE/DAC/HX SDP - 1ST HALF - AIR SIDE - STANDARD-THOMSON -205
NDIM 2 1ST ARGUMENT 1 TYPE 0 RELN 41 EXTRAP 0 INTERP 1 NPTS 4

NDIM	2
ARGUMENT	1
TYPE	0
RELN	41
EXTRAP	0
INTERP	1
NPTS	4

TABLE 39 TITLE/DAC/HX SDP - 1ST HALF - AIR SIDE - STANDARD-THOMSON -205
NDIM 2 1ST ARGUMENT 1 TYPE 0 RELN 42 EXTRAP 0 INTERP 1 NPTS 6

NDIM	2
ARGUMENT	1
TYPE	0
RELN	42
EXTRAP	0
INTERP	1
NPTS	6

TABLE 40 TITLE/SEC/HX PRESS DRIP - SPP SIDE 1 (HT=99)
NDIM 2 1ST ARGUMENT 1 TYPE 0 RELN 41 EXTRAP 0 INTERP 1 NPTS 5

NDIM	2
ARGUMENT	1
TYPE	0
RELN	41
EXTRAP	0
INTERP	1
NPTS	5

TABLE 41 TITLE/SEC/HX P4SS DRIP - SPP SIDE 2 (HT=99)
NDIM 2 1ST ARGUMENT 1 TYPE 0 RELN 42 EXTRAP 0 INTERP 1 NPTS 5

NDIM	2
ARGUMENT	1
TYPE	0
RELN	42
EXTRAP	0
INTERP	1
NPTS	5

TABLE 42 TITLE/HPS/PRESS DRIP - SPP SIDE 1 (HT=99)
NDIM 2 1ST ARGUMENT 1 TYPE 0 RELN 41 EXTRAP 0 INTERP 1 NPTS 5

NDIM	2
ARGUMENT	1
TYPE	0
RELN	41
EXTRAP	0
INTERP	1
NPTS	5

TABLE 43 TITLE/HPS/PRESS DRIP - SPP SIDE 2 (HT=99)
NDIM 2 1ST ARGUMENT 1 TYPE 0 RELN 42 EXTRAP 0 INTERP 1 NPTS 5

NDIM	2
ARGUMENT	1
TYPE	0
RELN	42
EXTRAP	0
INTERP	1
NPTS	5

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE
CASE AECS

1.0000E+01	2.0000E+01	3.0000E+01	1.0000E+01
5.9200E+01	6.05120E+01	3.0000E+01	1.0000E+01
1.0000E+02	1.49800E+02		

TABLE 45 TITLE/CMP SHUTOFF VALVE SDP

NDIM	1ST	RELN	EXTRAP	0	INTERP	1	NPTS	5
ARGUMENT 1	TYPF	41						
2.0000E+01	1.91300E+02	3.00000E+01	4.56100E+02					
3.0000E+01	1.31400E+02	7.00000E+01	3.06100E+02					
1.0000E+02	9.1200E+01							

TABLE 46 TITLE/VALVF AG SDP * STA 16-18 STA 34-238

NDIM	1ST	RELN	EXTRAP	0	INTERP	1	NPTS	6
ARGUMENT 1	TYPE	41						
5.0000E+01	1.51600E+02	3.00000E+01	5.04100E+02					
3.0000E+01	1.91270E+01	9.00000E+01	3.06760E+01					
2.0000E+01	1.01050E+00							

TABLE 47 PTAB 4 1

TABLE 48 PTAB 4 1

TABLE 49 PTAB 4 1

TABLE 50 TITLE/ANTI-FG LINE SDP

NDIM	1ST	RELN	EXTRAP	0	INTERP	1	NPTS	5
ARGUMENT 1	TYPE	41						
1.2900E+00	1.00000E+02	2.00000E+01	4.00000E+01					
1.8700E+00	1.01700E+00	6.45000E+00	4.01000E+01					

TABLE 51 LISTED BELOW IS NOT REQUIRED
TABLE 52 LISTED BELOW IS NOT REQUIRED

NDIM	1ST	RELN	EXTRAP	0	INTERP	1	NPTS	4
ARGUMENT 1	TYPF	41						
1.28080E+00	6.70000E+03	3.00000E+00	2.00000E+02					
5.16000E+00	6.80000E+02	9.00000E+00	2.00000E+01					

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AEC 94 AEC 95 PERFORMANCE CASES

RPTAB 53 1 4 1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0
 TABLE LISTED AF102 IS NOT RECD
 TAB 54 1 4 1 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0
 TABLE LISTED BELOW IS NOT REQUIRED
 TAB1 AVIONICS 55 1 2 3 0 41 4 STANDARD THOMSON 203 -0 -0 -0
 TAB2 10. 0722 2527
 TAB3 30. 0730 3466

TABLE I
PTAB S7 4 1 1

TABLE LISTED BELOW IS NOT REQUIRED
IF TAB 5A IS NOT USED.

TABLE VI
PIAB 59

TABLE VI
STAN 60

TABLE LISTED BELOW IS NOT REQUIRED.

TABLE I
STANDARDIZATION OF 20% MAIS - AT&T SINE

INDIVIDUALS IN SURVEYED STANDARDS FROM WHICH WEUS
ABDOMEN 2 180° 3 PELVIS 6
INVESTIGATOR 1 180° 3 PELVIS 6
EXTRAD 6

TABLE I.—¹ The Effect of Various Concentrations of Acetone on the Solubility of Polyacrylate in Benzene.

FILE/DAUL HI UP = 2ND HALF = C2S SINT = STANDARD = THOMSON = 205

ARGUMENT	TYPE	0 RELY	42 EXTRAP	0 INTERP	1 NPTS
$2.0000E+00$		$2.16000E+02$	$1.00000E+01$	$2.00000E+01$	

TABLE I
TITLE 100
TITLE 100
UNICX AUG WY DB - C25 SIDE - STANDARD TWO-WAY

Figure 6 (Continued)
AECS Performance Results

ALSO : significance results Sea Level Dash Condition

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE
CASE AECS

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AECS AECS PERFORMANCE
2 CASE AECS

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NDIM 3 LIST 0 REIN 41 NPIS 12
ARGUMENT 2 TYPE 0 EXTRAP 0 INTERP 1
ARGUMENT 3 TYPE 0 EXTRAP 0 INTERP 1

LIST 0 REIN 41 NPIS 12
EXTRAP 0 INTERP 1

LIST 0 REIN 41 NPIS 12
INTERP 1

LIST 0 REIN 41 NPIS 12
EXTRAP 0

LIST 0 REIN 41 NPIS 12
INTERP 1

LIST 0 REIN 41 NPIS 12
EXTRAP 0

LIST 0 REIN 41 NPIS 12
INTERP 1

LIST 0 REIN 41 NPIS 12
EXTRAP 0

LIST 0 REIN 41 NPIS 12
INTERP 1

LIST 0 REIN 41 NPIS 12
EXTRAP 0

LIST 0 REIN 41 NPIS 12
INTERP 1

LIST 0 REIN 41 NPIS 12
EXTRAP 0

LIST 0 REIN 41 NPIS 12
INTERP 1

LIST 0 REIN 41 NPIS 12
EXTRAP 0

TABLE 2
TURBINE EFFICIENCY VAR NOZZLE TURB (HT=99)

NDIM	LIST	REIN	NPIS	NPIS
4	0	23	0	2
ARGUMENT	1	24	0	1
ARGUMENT	2	101	0	1
ARGUMENT	3			
4.00000E+01	5.00000E+01	7.50000E+01	1.00000E+00	
1.25000E+00	1.50000E+00	1.80000E+00		
1.44900E+03	2.17400E+03	2.55700E+03	3.01900E+03	
3.26100E+03	3.62300E+03	4.10600E+03	4.58900E+03	

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AFCGS PERFORMANCE ASSESSED

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Figure 6 (Continued)
AECIS Performance Results
Sea Level Dash Condition

♦ AEC 2 CASE STUDIES

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Figure 6 (Continued)
AECs Performance Results
Sea Level Dash Condition

#AEC5* AEC5 PERFORMANCE

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7.03000E+01	6.78030E-01	6.04000E-01	4.83000E-01
1.44900E+03	1.81100E+03	2.41600E+03	2.89900E+03
1.26100E+03	1.52200E+03	1.86800E+03	2.15900E+03
1.44900E+03	1.93200E+03	2.41600E+03	2.89900E+03
1.326100E+03	1.62300E+03	2.10600E+03	2.58900E+03
1.44900E+03	1.93200E+03	2.41600E+03	2.89900E+03
1.26100E+03	1.52200E+03	2.10600E+03	2.58900E+03
1.44900E+03	1.81100E+03	2.41600E+03	2.89900E+03
2.89900E+03	3.38200E+03	3.86500E+03	4.34800E+03
2.77800E+03	3.181100E+03	3.17400E+03	3.52600E+03
2.77800E+03	3.14600E+03	3.17400E+03	3.52600E+03
1.50000E+00	2.00000E+00	3.00000E+00	4.00000E+00

Figure 6 (Continued)
AECs Performance Results
Sea Level Dash Condition

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7.57000E+01	7.24000E+01	6.56000E+01	5.30000E+01
7.10000E+01	6.72000E+01	6.08000E+01	4.93000E+01
7.00000E+01	6.73000E+01	6.13000E+01	
1.40900E+03	1.93200E+03	2.41600E+03	2.89900E+03
3.38200E+03	3.74400E+03	4.10600E+03	4.58000E+03
1.44900E+03	1.93200E+03	2.41600E+03	2.89900E+03
3.38200E+03	3.62300E+03	3.98600E+03	4.58900E+03
1.44900E+03	1.93200E+03	2.41600E+03	2.89900E+03
3.14000E+03	1.82300E+03	2.18000E+03	2.88800E+03
1.44900E+03	2.05300E+03	2.41600E+03	2.77800E+03
3.61900E+03	3.26100E+03	3.62300E+03	4.10900E+03
1.41600E+03	1.69100E+03	1.93200E+03	2.17400E+03
2.41600E+03	2.53600E+03	2.77800E+03	3.01900E+03
1.50000E+00	2.00000E+00	2.50000E+00	3.00000E+00
4.00000E+00	5.00000E+00	6.00000E+00	7.00000E+00
5.50000E+00	6.90000E+00	7.50000E+00	8.00000E+00
7.00000E+00	8.40000E+00	9.00000E+00	9.50000E+00
8.50000E+00	1.00000E+01	1.00000E+01	1.00000E+01
1.00000E+01	1.15000E+01	1.15000E+01	1.15000E+01
1.15000E+01	1.30000E+01	1.30000E+01	1.30000E+01
1.30000E+01	1.45000E+01	1.45000E+01	1.45000E+01
1.45000E+01	1.60000E+01	1.60000E+01	1.60000E+01
1.60000E+01	1.75000E+01	1.75000E+01	1.75000E+01
1.75000E+01	1.90000E+01	1.90000E+01	1.90000E+01
1.90000E+01	2.05000E+01	2.05000E+01	2.05000E+01
2.05000E+01	2.20000E+01	2.20000E+01	2.20000E+01
2.20000E+01	2.35000E+01	2.35000E+01	2.35000E+01
2.35000E+01	2.50000E+01	2.50000E+01	2.50000E+01
2.50000E+01	2.65000E+01	2.65000E+01	2.65000E+01
2.65000E+01	2.80000E+01	2.80000E+01	2.80000E+01
2.80000E+01	2.95000E+01	2.95000E+01	2.95000E+01
2.95000E+01	3.10000E+01	3.10000E+01	3.10000E+01
3.10000E+01	3.25000E+01	3.25000E+01	3.25000E+01
3.25000E+01	3.40000E+01	3.40000E+01	3.40000E+01
3.40000E+01	3.55000E+01	3.55000E+01	3.55000E+01
3.55000E+01	3.70000E+01	3.70000E+01	3.70000E+01
3.70000E+01	3.85000E+01	3.85000E+01	3.85000E+01
3.85000E+01	4.00000E+01	4.00000E+01	4.00000E+01
4.00000E+01	4.15000E+01	4.15000E+01	4.15000E+01
4.15000E+01	4.30000E+01	4.30000E+01	4.30000E+01
4.30000E+01	4.45000E+01	4.45000E+01	4.45000E+01
4.45000E+01	4.60000E+01	4.60000E+01	4.60000E+01
4.60000E+01	4.75000E+01	4.75000E+01	4.75000E+01
4.75000E+01	4.90000E+01	4.90000E+01	4.90000E+01
4.90000E+01	5.05000E+01	5.05000E+01	5.05000E+01
5.05000E+01	5.20000E+01	5.20000E+01	5.20000E+01
5.20000E+01	5.35000E+01	5.35000E+01	5.35000E+01
5.35000E+01	5.50000E+01	5.50000E+01	5.50000E+01
5.50000E+01	5.65000E+01	5.65000E+01	5.65000E+01
5.65000E+01	5.80000E+01	5.80000E+01	5.80000E+01
5.80000E+01	5.95000E+01	5.95000E+01	5.95000E+01
5.95000E+01	6.10000E+01	6.10000E+01	6.10000E+01
6.10000E+01	6.25000E+01	6.25000E+01	6.25000E+01
6.25000E+01	6.40000E+01	6.40000E+01	6.40000E+01
6.40000E+01	6.55000E+01	6.55000E+01	6.55000E+01
6.55000E+01	6.70000E+01	6.70000E+01	6.70000E+01
6.70000E+01	6.85000E+01	6.85000E+01	6.85000E+01
6.85000E+01	7.00000E+01	7.00000E+01	7.00000E+01
7.00000E+01	7.15000E+01	7.15000E+01	7.15000E+01
7.15000E+01	7.30000E+01	7.30000E+01	7.30000E+01
7.30000E+01	7.45000E+01	7.45000E+01	7.45000E+01
7.45000E+01	7.60000E+01	7.60000E+01	7.60000E+01
7.60000E+01	7.75000E+01	7.75000E+01	7.75000E+01
7.75000E+01	7.90000E+01	7.90000E+01	7.90000E+01
7.90000E+01	8.05000E+01	8.05000E+01	8.05000E+01
8.05000E+01	8.20000E+01	8.20000E+01	8.20000E+01
8.20000E+01	8.35000E+01	8.35000E+01	8.35000E+01
8.35000E+01	8.50000E+01	8.50000E+01	8.50000E+01
8.50000E+01	8.65000E+01	8.65000E+01	8.65000E+01
8.65000E+01	8.80000E+01	8.80000E+01	8.80000E+01
8.80000E+01	8.95000E+01	8.95000E+01	8.95000E+01
8.95000E+01	9.10000E+01	9.10000E+01	9.10000E+01
9.10000E+01	9.25000E+01	9.25000E+01	9.25000E+01
9.25000E+01	9.40000E+01	9.40000E+01	9.40000E+01
9.40000E+01	9.55000E+01	9.55000E+01	9.55000E+01
9.55000E+01	9.70000E+01	9.70000E+01	9.70000E+01
9.70000E+01	9.85000E+01	9.85000E+01	9.85000E+01
9.85000E+01	1.00000E+02	1.00000E+02	1.00000E+02

TABLE 2 TURBINE FLOW COEFFICIENT (HT=99)

NDIM	1ST ARGUMENT	2ND ARGUMENT	TYPE 1	TYPE 2	RELN 1	RELN 2	EXTRAP 1	EXTRAP 2	INTERP 1	INTERP 2	NPTS 1	NPTS 2
1	0.0000E+00	0.0000E+00	1.50000E+00	1.75000E+00	2.00000E+00	2.00000E+00	2.00000E+00	2.00000E+00	2.00000E+00	2.00000E+00	1	1
2	0.5000E+00	0.0000E+00	3.00000E+00	3.50000E+00	4.00000E+00	4.00000E+00	4.00000E+00	4.00000E+00	4.00000E+00	4.00000E+00	2	2
3	0.5000E+00	0.5000E+00	6.00000E+00	3	3							
4	0.0000E+00	0.0000E+00	2.00000E+04	4.00000E+04	4.00000E+04	5.00000E+04	5.00000E+04	5.00000E+04	5.00000E+04	5.00000E+04	4	4
5	0.0000E+00	0.0000E+00	2.60000E+04	5.20000E+04	5.20000E+04	6.80000E+04	6.80000E+04	6.80000E+04	6.80000E+04	6.80000E+04	5	5
6	0.0000E+00	0.0000E+00	2.93000E+04	5.86000E+04	5.86000E+04	7.79000E+04	7.79000E+04	7.79000E+04	7.79000E+04	7.79000E+04	6	6
7	0.0000E+00	0.0000E+00	3.07000E+04	6.14000E+04	6.14000E+04	8.28000E+04	8.28000E+04	8.28000E+04	8.28000E+04	8.28000E+04	7	7
8	0.0000E+00	0.0000E+00	3.01000E+04	6.02000E+04	6.02000E+04	8.04000E+04	8.04000E+04	8.04000E+04	8.04000E+04	8.04000E+04	8	8
9	0.0000E+00	0.0000E+00	2.73000E+04	5.46000E+04	5.46000E+04	7.92000E+04	7.92000E+04	7.92000E+04	7.92000E+04	7.92000E+04	9	9
10	0.0000E+00	0.0000E+00	2.60000E+04	5.20000E+04	5.20000E+04	7.60000E+04	7.60000E+04	7.60000E+04	7.60000E+04	7.60000E+04	10	10
11	0.0000E+00	0.0000E+00	2.73000E+04	5.46000E+04	5.46000E+04	7.92000E+04	7.92000E+04	7.92000E+04	7.92000E+04	7.92000E+04	11	11
12	0.0000E+00	0.0000E+00	2.60000E+04	5.20000E+04	5.20000E+04	7.60000E+04	7.60000E+04	7.60000E+04	7.60000E+04	7.60000E+04	12	12

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

1.0	5.6000E+01
2.0	9.3000E+01
3.0	1.3000E+02
4.0	1.6600E+02
5.0	1.9600E+02
6.0	2.2200E+02
7.0	2.4600E+02
8.0	2.6700E+02
9.0	2.8600E+02
10.0	3.0300E+02
11.0	3.1800E+02
12.0	3.3100E+02
13.0	3.4200E+02
14.0	3.5100E+02
15.0	3.5800E+02
16.0	3.6300E+02
17.0	3.6600E+02
18.0	3.6800E+02
19.0	3.6900E+02
20.0	3.6900E+02
21.0	3.6800E+02
22.0	3.6600E+02
23.0	3.6300E+02
24.0	3.6000E+02
25.0	3.5600E+02
26.0	3.5100E+02
27.0	3.4500E+02
28.0	3.3700E+02
29.0	3.2700E+02
30.0	3.1500E+02
31.0	3.0100E+02
32.0	2.8500E+02
33.0	2.6700E+02
34.0	2.4700E+02
35.0	2.2500E+02
36.0	2.0100E+02
37.0	1.7500E+02
38.0	1.4700E+02
39.0	1.1700E+02
40.0	8.5000E+01
41.0	5.0000E+01
42.0	1.0000E+01
43.0	1.0000E+01
44.0	1.0000E+01
45.0	1.0000E+01
46.0	1.0000E+01
47.0	1.0000E+01
48.0	1.0000E+01
49.0	1.0000E+01
50.0	1.0000E+01

TABLE I
THE EFFECT OF VARIOUS CHEMICALS ON THE
ADSORPTION OF IRON BY CLAY

TABLE LISTED ARE LINE IS NOT REQUIRED

TABLE 3
E-15 PRIMARY EJECTOR DIACHARGE COEFFICIENTS

TITLE/ECS BAY LOUVER DISCHARGE COEFFICIENT		NPPTS		12	
NDIM	ARGUMENT 1	ST	TYPE	INTERP	1
2	0.00000E+00	REFLN	27	EXTRAP	0
	1.00000E-01				1
	1.00000E-01				2
	1.00000E-01				3
	1.00000E-01				4
	1.00000E-01				5
	1.00000E-01				6
	1.00000E-01				7
	1.00000E-01				8
	1.00000E-01				9
	1.00000E-01				10
	1.00000E-01				11
	1.00000E-01				12
	1.00000E-01				13
	1.00000E-01				14
	1.00000E-01				15
	1.00000E-01				16
	1.00000E-01				17
	1.00000E-01				18
	1.00000E-01				19
	1.00000E-01				20
	1.00000E-01				21
	1.00000E-01				22
	1.00000E-01				23
	1.00000E-01				24
	1.00000E-01				25
	1.00000E-01				26
	1.00000E-01				27

TABLE VIII
SUMMARY OF THE DATA

INDIA

VALUE = 1.000000E+00

TITLE/DUMMAY SLOWAN R1

VALUE = -1.00000E+00

TYPE	RELN	EXTRAP	INTERP	NPTS	2
1	0	0	0	0	
2	0	2	0	0	
3	1	2	0	0	
4	1	2	0	0	
5	1	2	0	0	
6	1	2	0	0	
7	1	2	0	0	
8	1	2	0	0	
9	1	2	0	0	
10	1	2	0	0	
11	1	2	0	0	
12	1	2	0	0	
13	1	2	0	0	
14	1	2	0	0	
15	1	2	0	0	

Figure 6 (Continued)
AECIS Performance Results

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TABLE 1² TITLE/CODIOLNOL PUMP PRESSURE RISE

NDIM	1	IST	0	EXTRAP	0	INTERP	0	NPTS	2
ARGUMENT	2	TYPE	0	RELN	2	TYPE	0	RELN	2
0.									
	1.13140E+03		1.00000E-01		1.49460E+03				

TABLE 1 TAB 1¹⁷ 17 17

TABLE 1 TAB 2¹⁷ 17

TABLE 1 TAB 1¹⁷ 17

TABLE 5²² TITLE/SEC HX EHA - SIDE 1 (HT=99)

NDIM	3	IST	0	RELN	41	EXTRAP	0	INTERP	1	NPTS	4
ARGUMENT	2	TYPE	0	RELN	45	EXTRAP	0	INTERP	1	NPTS	4
5. 92000E+01				6. 97500E+01		7. 90000E+01		8. 00000E+01			
6. 40000E+02				7. 40000E+02		8. 40000E+02		9. 40000E+02			
9. 75000E+02				1. 04750E+03		1. 14000E+03		1. 23250E+03			
1. 02200E+03				1. 09250E+03		1. 19250E+03		1. 29250E+03			
1. 03700E+02				1. 03750E+02		1. 13750E+02		1. 23750E+02			
1. 01750E+02				1. 01800E+02		1. 02750E+02		1. 03750E+02			

TABLE 6²² TITLE/SEC HX EHA - SIDE 2 (HT=99)

NDIM	3	IST	0	RELN	42	EXTRAP	0	INTERP	1	NPTS	4
ARGUMENT	2	TYPE	0	RELN	46	EXTRAP	0	INTERP	1	NPTS	4
3. 50000E+01				5. 00000E+01		8. 00000E+01		1. 20000E+02			
5. 75000E+02				6. 70000E+02		7. 10000E+02		8. 10000E+02			
1. 03000E+02				1. 07000E+02		2. 35000E+02		3. 05000E+02			
1. 08500E+02				2. 13000E+02		3. 15000E+02		4. 40000E+02			
2. 05000E+02				2. 60000E+02		3. 45000E+02		4. 40000E+02			
2. 35000E+02				3. 05000E+02		3. 95000E+02		4. 75000E+02			

TABLE 7²² TITLE/HP4S EHA - SIDE 1 (HT=99)

NDIM	3	IST	0	RELN	41	EXTRAP	0	INTERP	1	NPTS	4
ARGUMENT	2	TYPE	0	RELN	45	EXTRAP	0	INTERP	1	NPTS	4
5. 92000E+01				6. 75000E+01		7. 79000E+01		8. 48000E+01			

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

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NDIM	1	1ST	0	EXTRAP	0	INTERP	0	NPTS	4
ARGUMENT	1	TYPE	0	REFLN	42	EXTRAP	0	INTERP	1
5.92000E+01	6.75000E+01	7.79000E+01	8.48000E+01						
4.10000E+02	4.70000E+02								
2.34000E+01	2.52000E+01	2.72000E+01	2.76000E+01						
2.47000E+01	2.64000E+01	2.84000E+01	2.97000E+01						

TABLE 11
TITLE/DAC HX EHA - 1ST HALF - AIR SIDE - STANDARD-THOMSON -205
NDIM 2 1ST 0
ARGUMENT 1 TYPE 0 REF LN 42 EXTRAP 0 INTERP 0 NPTS 12

NDIM	1	1ST	0	EXTRAP	0	INTERP	1	NPTS	9
ARGUMENT	1	TYPE	0	REFLN	41	EXTRAP	0	INTERP	1
1.00000E+01	2.00000E+01	2.00000E+01	2.00000E+01						
1.00000E+01	2.17000E+01	2.17000E+01	2.17000E+01						
1.00000E+01	2.33000E+01	2.33000E+01	2.33000E+01						
1.00000E+01	2.47000E+01	2.47000E+01	2.47000E+01						
1.00000E+01	2.73000E+01	2.73000E+01	2.73000E+01						
1.00000E+01	3.00000E+01	3.00000E+01	3.00000E+01						

TABLE 12
TITLE/DAC HX EHA - 1ST HALF - C25 SIDE - STANDARD-THOMSON -205
NDIM 2 1ST 0
ARGUMENT 1 TYPE 0 REF LN 42 EXTRAP 0 INTERP 0 NPTS 12

NDIM	1	1ST	0	EXTRAP	0	INTERP	1	NPTS	9
ARGUMENT	1	TYPE	0	REFLN	41	EXTRAP	0	INTERP	1
1.00000E+01	2.00000E+01	2.00000E+01	2.00000E+01						
1.00000E+01	2.17000E+01	2.17000E+01	2.17000E+01						
1.00000E+01	2.33000E+01	2.33000E+01	2.33000E+01						
1.00000E+01	2.47000E+01	2.47000E+01	2.47000E+01						
1.00000E+01	2.73000E+01	2.73000E+01	2.73000E+01						
1.00000E+01	3.00000E+01	3.00000E+01	3.00000E+01						
1.00000E+01	3.26000E+01	3.26000E+01	3.26000E+01						
1.00000E+01	3.52000E+01	3.52000E+01	3.52000E+01						
1.00000E+01	3.78000E+01	3.78000E+01	3.78000E+01						

TABLE 13
TITLE/DAC HX EHA - 2:D HALF - AIR SIDE - STANDARD-THOMSON -205
NDIM 2 1ST 0
ARGUMENT 1 TYPE 0 REF LN 41 EXTRAP 0 INTERP 1 NPTS 9

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

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TABLE 1⁶
TITLE D/A/C MX PHA * 2ND HALF - C25 SIDE - STANDARD TUGH SCN -205

NDIM	ARGUMENT	1	1ST TYPE	6	RFLN	42	FYTRAP	0	INTERP	1	NPTS	12
1	0.0000E+01	4.25000E+01		2.0000E+01			7.25000E+01					
2	0.0000E+01	6.53300E+01		4.0000E+01			1.14170E+02					
3	0.0000E+01	1.30000E+02		6.0000E+01			1.64000E+02					
4	0.0000E+01	1.66732E+02		8.0000E+01			1.66630E+02					
5	0.0000E+01	1.96830E+02		1.0000E+02			1.96830E+02					
6	0.0000E+01	1.96830E+02		1.2000E+02			1.96830E+02					
7	0.0000E+01	1.96830E+02		1.4000E+02			1.96830E+02					
8	0.0000E+01	1.96830E+02		1.6000E+02			1.96830E+02					
9	0.0000E+01	1.96830E+02		1.8000E+02			1.96830E+02					
10	0.0000E+01	1.96830E+02		2.0000E+02			1.96830E+02					

TABLE 2¹⁶
TITLE D/A/C MX PHA * 2ND HALF - C25 SIDE - STANDARD TUGH SCN -205

NDIM	ARGUMENT	1	1ST TYPE	6	RFLN	42	EXTRAP	0	INTERP	0	NPTS	2
1	0.0000E+01	1.12000E+02		1.12000E+02			1.12000E+02					
2	0.0000E+01	1.31000E+02		1.31000E+02			1.31000E+02					

TABLE 3¹⁶
TITLE AVIONICS FLOW

NDIM	ARGUMENT	1	1ST TYPE	6	RFLN	42	EXTRAP	0	INTERP	0	NPTS	2
1	0.0000E+01	1.00000E+01		1.00000E+01			1.00000E+01					
2	0.0000E+01	1.00000E+02		1.00000E+02			1.00000E+02					

TABLE 4¹⁶
TITLE AVIONICS FLOW

NDIM	ARGUMENT	1	1ST TYPE	6	RFLN	42	EXTRAP	0	INTERP	1	NPTS	4
1	0.0000E+01	1.00000E+01		1.00000E+01			1.00000E+01					
2	0.0000E+01	1.00000E+02		1.00000E+02			1.00000E+02					

TABLE 5¹⁶
TITLE AVIONICS FLOW

NDIM	ARGUMENT	1	1ST TYPE	6	RFLN	42	EXTRAP	0	INTERP	0	NPTS	2
1	0.0000E+01	3.93000E+01		1.00000E+01			5.18000E+01					
2	0.0000E+01	4.00000E+01		4.00000E+01			4.00000E+01					

TABLE 6¹⁶
TITLE TURNBOMACHINE DRIVE RING ROTATION ANGLE UNITS AS SCHEDULED

NDIM	ARGUMENT	1	1ST TYPE	6	RFLN	101	EXTRAP	0	INTERP	1	NPTS	6
1	0.0000E+01	-4.0000E+01		-4.0000E+01			5.5000E+01					

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

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NDIM	2	1ST	0	RELN	102	EXTRAP	0	INTERP	1	NPTS	7
ARGUMENT	1	TYPE	0								
	-4.0000E+00	3.0000E+00		3.0000E+00	-3.0000E+00	5.0000E+00	5.329000E+01				
	-3.0000E+00	6.0000E+00		6.0000E+00	-2.0000E+00	5.0000E+00	6.349000E+01				
	-1.5000E+00	1.0000E+00		1.0000E+00	1.0000E+00	5.0000E+00	1.383300E+00				
	1.5000E+00	1.0000E+00		1.0000E+00	1.0000E+00	5.0000E+00	1.4000E+00				
	2.5000E+00	1.0000E+00		1.0000E+00	1.0000E+00	5.0000E+00	1.4200E+00				

TABLE 11 AECS COMPRESSOR FLOW FACTOR (SQUARED) (HT=126) SCHEDULE D

NDIM	2	1ST	0	RELN	102	EXTRAP	0	INTERP	1	NPTS	13
ARGUMENT	1	TYPE	0								
	-4.0000E+00	8.62000E+01		3.50000E+00	9.50000E+01						
	-3.0000E+00	9.49000E+01		3.50000E+00	9.68000E+01						
	-2.0000E+00	9.75000E+01		3.50000E+00	9.75000E+01						
	-1.0000E+00	9.80000E+01		3.50000E+00	9.75000E+01						
	1.0000E+00	9.67000E+01		3.50000E+00	9.52000E+01						
	2.0000E+00	9.35000E+01		3.50000E+00	9.20000E+01						
	3.0000E+00	8.44000E+01		3.50000E+00	8.44000E+01						
	4.0000E+00	7.20000E+01		3.50000E+00	7.20000E+01						
	5.0000E+00	6.00000E+01		3.50000E+00	6.00000E+01						
	6.0000E+00	4.80000E+01		3.50000E+00	4.80000E+01						
	7.0000E+00	3.60000E+01		3.50000E+00	3.60000E+01						
	8.0000E+00	2.40000E+01		3.50000E+00	2.40000E+01						
	9.0000E+00	1.20000E+01		3.50000E+00	1.20000E+01						

TABLE 12 AECS COMPRESSOR EFFICIENCY FACTOR (HT=126) SCHEDULE D

NDIM	2	1ST	0	RELN	102	EXTRAP	0	INTERP	1	NPTS	13
ARGUMENT	1	TYPE	0								
	-4.0000E+00	8.62000E+01		3.50000E+00	9.50000E+01						
	-3.0000E+00	9.49000E+01		3.50000E+00	9.68000E+01						
	-2.0000E+00	9.75000E+01		3.50000E+00	9.75000E+01						
	-1.0000E+00	9.80000E+01		3.50000E+00	9.75000E+01						
	1.0000E+00	9.67000E+01		3.50000E+00	9.52000E+01						
	2.0000E+00	9.35000E+01		3.50000E+00	9.20000E+01						
	3.0000E+00	8.44000E+01		3.50000E+00	8.44000E+01						
	4.0000E+00	7.20000E+01		3.50000E+00	7.20000E+01						
	5.0000E+00	6.00000E+01		3.50000E+00	6.00000E+01						
	6.0000E+00	4.80000E+01		3.50000E+00	4.80000E+01						
	7.0000E+00	3.60000E+01		3.50000E+00	3.60000E+01						
	8.0000E+00	2.40000E+01		3.50000E+00	2.40000E+01						
	9.0000E+00	1.20000E+01		3.50000E+00	1.20000E+01						

TABLE 13 AECS COMPRESSOR EFFICIENCY (HT=59/98)

NDIM	3	1ST	0	RELN	103	EXTRAP	0	INTERP	1	NPTS	13
ARGUMENT	1	TYPE	0								
	1.90000E+01	2.22060E+01		2.41000E+01	2.64000E+01						
	1.80000E+01	3.01000E+01		3.15000E+01	3.38000E+01						
	1.56000E+01	2.34000E+01		2.75000E+01	3.00000E+01						
	1.38000E+01	3.18000E+01		3.62000E+01	3.76000E+01						
	1.20000E+01	2.62000E+01		3.07000E+01	3.26000E+01						
	1.10000E+01	2.71000E+01		3.96000E+01	4.11000E+01						
	1.00000E+01	3.60000E+01		4.29000E+01	4.45000E+01						
	8.00000E+00	2.90000E+01		3.30000E+01	3.59000E+01						
	6.00000E+00	4.70000E+01		4.29000E+01	4.71000E+01						
	4.00000E+00	4.04000E+01		4.29000E+01	4.45000E+01						
	2.00000E+00	2.90000E+01		3.07000E+01	3.26000E+01						

TABLE 14 AECS COMPRESSOR EFFICIENCY (HT=59/98)

NDIM	3	1ST	0	RELN	104	EXTRAP	0	INTERP	1	NPTS	13
ARGUMENT	1	TYPE	0								
	1.90000E+01	2.22060E+01		2.41000E+01	2.64000E+01						
	1.80000E+01	3.01000E+01		3.15000E+01	3.38000E+01						
	1.56000E+01	2.34000E+01		2.75000E+01	3.00000E+01						
	1.38000E+01	3.18000E+01		3.62000E+01	3.76000E+01						
	1.20000E+01	2.62000E+01		3.07000E+01	3.26000E+01						
	1.10000E+01	2.71000E+01		3.96000E+01	4.11000E+01						
	1.00000E+01	3.60000E+01		4.29000E+01	4.45000E+01						
	8.00000E+00	2.90000E+01		3.30000E+01	3.59000E+01						
	6.00000E+00	4.70000E+01		4.29000E+01	4.71000E+01						
	4.00000E+00	4.04000E+01		4.29000E+01	4.45000E+01						
	2.00000E+00	2.90000E+01		3.07000E+01	3.26000E+01						

TABLE 15 AECS COMPRESSOR EFFICIENCY (HT=59/98)

NDIM	3	1ST	0	RELN	105	EXTRAP	0	INTERP	1	NPTS	13
ARGUMENT	1	TYPE	0								
	1.90000E+01	2.22060E+01		2.41000E+01	2.64000E+01						
	1.80000E+01	3.01000E+01		3.15000E+01	3.38000E+01						
	1.56000E+01	2.34000E+01		2.75000E+01	3.00000E+01						
	1.38000E+01	3.18000E+01		3.62000E+01	3.76000E+01						
	1.20000E+01	2.62000E+01		3.07000E+01	3.26000E+01						
	1.10000E+01	2.71000E+01		3.96000E+01	4.11000E+01						
	1.00000E+01	3.60000E+01		4.29000E+01	4.45000E+01						
	8.00000E+00	2.90000E+01		3.30000E+01	3.59000E+01						
	6.00000E+00	4.70000E+01		4.29000E+01	4.71000E+01						
	4.00000E+00	4.04000E+01		4.29000E+01	4.45000E+01						
	2.00000E+00	2.90000E+01		3.07000E+01	3.26000E+01						

TABLE 16 AECS COMPRESSOR EFFICIENCY (HT=59/98)

NDIM	3	1ST	0	RELN	106	EXTRAP	0	INTERP	1	NPTS	13
ARGUMENT	1	TYPE	0								
	1.90000E+01	2.22060E+01		2.41000E+01	2.64000E+01						
	1.80000E+01	3.01000E+01		3.15000E+01	3.38000E+01						
	1.56000E+01	2.34000E+01		2.75000E+01	3.00000E+01						
	1.38000E+01	3.18000E+01		3.62000E+01	3.76000E+01						
	1.20000E+01	2.62000E+01		3.07000E+01	3.26000E+01						
	1.10000E+01	2.71000E+01		3.96000E+01	4.11000E+01						
	1.00000E+01	3.60000E+01		4.29000E+01	4.45000E+01						
	8.00000E+00	2.90000E+01		3.30000E+01	3.59000E+01						
	6.00000E+00	4.70000E+01		4.29000E+01	4.71000E+01						
	4.00000E+00	4.04000E+01		4.29000E+01	4.45000E+01						
	2.00000E+00	2.90000E+01		3.07000E+01	3.26000E+01						

TABLE 17 AECS COMPRESSOR EFFICIENCY (HT=59/98)

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5.46000E+01	4.02000E+01	9.27000E+01	4.51000E+01
4.68000E+01	4.91000E+01	5.05000E+01	5.26000E+01
5.37000E+01			
5.61000E+01			
5.37000E+01			
4.29000E+01	4.58000E+01	4.80000E+01	5.14000E+01
5.29000E+01	5.42000E+01	5.65000E+01	5.81000E+01
5.88000E+01			
4.96000E+01	5.21000E+01	5.35000E+01	5.51000E+01
5.75000E+01	6.01000E+01	6.31000E+01	6.51000E+01
5.62000E+01	5.85000E+01	6.07000E+01	6.25000E+01
6.12000E+01			
5.31000E+01	5.68000E+01	5.97000E+01	6.23000E+01
5.65000E+01	6.01000E+01	6.40000E+01	6.73000E+01
6.65000E+01			
4.92000E+01	5.21000E+01	5.31000E+01	5.59000E+01
5.21000E+01	5.42000E+01	5.72000E+01	6.03000E+01
5.65000E+01	6.01000E+01	6.32000E+01	6.63000E+01
6.90000E+01			
5.48000E+01	5.82000E+01	6.03000E+01	6.16000E+01
6.97000E+01	7.16000E+01	7.41000E+01	7.59000E+01
7.07000E+01			
2.36000E+04	2.67200E+04	2.82250E+04	3.04000E+04
3.54000E+04	3.84000E+04	4.07000E+04	4.30000E+04
4.72000E+04	5.04000E+04	5.37000E+04	5.69000E+04
5.90000E+04	6.26000E+04	6.62000E+04	6.97000E+04
7.08000E+04	7.44000E+04	7.80000E+04	8.14000E+04
8.26000E+04	8.62000E+04	9.00000E+04	9.37000E+04
9.44000E+04	9.81000E+04	1.02000E+05	1.06000E+05
10.62000E+04	1.11800E+05	1.15800E+05	1.19800E+05
11.80000E+04	1.15500E+05	1.19500E+05	1.23500E+05
12.98000E+04	1.19200E+05	1.23200E+05	1.27200E+05
14.16000E+04	1.22900E+05	1.26900E+05	1.30900E+05
15.34000E+04	1.26600E+05	1.30600E+05	1.34600E+05
16.52000E+04	1.30300E+05	1.34300E+05	1.38300E+05
17.70000E+04	1.34000E+05	1.38000E+05	1.42000E+05
18.88000E+04	1.37700E+05	1.41700E+05	1.46000E+05
20.06000E+04	1.41400E+05	1.45400E+05	1.49300E+05
21.24000E+04	1.45100E+05	1.49100E+05	1.53200E+05
22.42000E+04	1.48800E+05	1.52800E+05	1.57100E+05
23.60000E+04	1.52500E+05	1.56500E+05	1.60900E+05
24.78000E+04	1.56200E+05	1.60200E+05	1.64700E+05
25.96000E+04	1.60000E+05	1.64000E+05	1.68500E+05
27.14000E+04	1.63700E+05	1.67700E+05	1.72200E+05
28.32000E+04	1.67400E+05	1.71700E+05	1.75900E+05
29.50000E+04	1.71100E+05	1.75100E+05	1.79600E+05
30.68000E+04	1.74800E+05	1.78800E+05	1.83500E+05
31.86000E+04	1.78500E+05	1.82500E+05	1.87400E+05
33.04000E+04	1.82200E+05	1.86200E+05	1.91300E+05
34.22000E+04	1.85900E+05	1.90200E+05	1.95200E+05
35.40000E+04	1.89600E+05	1.94200E+05	1.99100E+05
36.58000E+04	1.93300E+05	1.98200E+05	2.03000E+05
37.76000E+04	1.97000E+05	2.02200E+05	2.07900E+05
38.94000E+04	1.99700E+05	2.06200E+05	2.12800E+05
40.12000E+04	2.03400E+05	2.09200E+05	2.17700E+05
41.30000E+04	2.07100E+05	2.13200E+05	2.22600E+05
42.48000E+04	2.10800E+05	2.17200E+05	2.27500E+05
43.66000E+04	2.14500E+05	2.21200E+05	2.32400E+05
44.84000E+04	2.18200E+05	2.25200E+05	2.37300E+05
46.02000E+04	2.21900E+05	2.29200E+05	2.42200E+05
47.20000E+04	2.25600E+05	2.33200E+05	2.47100E+05
48.38000E+04	2.29300E+05	2.37200E+05	2.52000E+05
49.56000E+04	2.33000E+05	2.41200E+05	2.56900E+05
50.74000E+04	2.36700E+05	2.45200E+05	2.61800E+05
51.92000E+04	2.40400E+05	2.49200E+05	2.66700E+05
53.10000E+04	2.44100E+05	2.53200E+05	2.71600E+05
54.28000E+04	2.47800E+05	2.57200E+05	2.76500E+05
55.46000E+04	2.51500E+05	2.61200E+05	2.81400E+05
56.64000E+04	2.55200E+05	2.65200E+05	2.86300E+05
57.82000E+04	2.58900E+05	2.69200E+05	2.91200E+05
59.00000E+04	2.62600E+05	2.73200E+05	2.96100E+05
60.18000E+04	2.66300E+05	2.77200E+05	3.01000E+05
61.36000E+04	2.70000E+05	2.81200E+05	3.05900E+05
62.54000E+04	2.73700E+05	2.85200E+05	3.10800E+05
63.72000E+04	2.77400E+05	2.89200E+05	3.15700E+05
64.90000E+04	2.81100E+05	2.93200E+05	3.20600E+05
66.08000E+04	2.84800E+05	2.97200E+05	3.25500E+05
67.26000E+04	2.88500E+05	3.01200E+05	3.30400E+05
68.44000E+04	2.92200E+05	3.05200E+05	3.35300E+05
69.62000E+04	2.95900E+05	3.09200E+05	3.40200E+05
70.80000E+04	2.99600E+05	3.13200E+05	3.45100E+05
71.98000E+04	3.03300E+05	3.17200E+05	3.50000E+05
73.16000E+04	3.07000E+05	3.21200E+05	3.54900E+05
74.34000E+04	3.10700E+05	3.25200E+05	3.59800E+05
75.52000E+04	3.14400E+05	3.29200E+05	3.64700E+05
76.70000E+04	3.18100E+05	3.33200E+05	3.69600E+05
77.88000E+04	3.21800E+05	3.37200E+05	3.74500E+05
79.06000E+04	3.25500E+05	3.41200E+05	3.79400E+05
80.24000E+04	3.29200E+05	3.45200E+05	3.84300E+05
81.42000E+04	3.32900E+05	3.49200E+05	3.89200E+05
82.60000E+04	3.36600E+05	3.53200E+05	3.94100E+05
83.78000E+04	3.40300E+05	3.57200E+05	3.99000E+05
84.96000E+04	3.44000E+05	3.61200E+05	4.03900E+05
86.14000E+04	3.47700E+05	3.65200E+05	4.08800E+05
87.32000E+04	3.51400E+05	3.69200E+05	4.13700E+05
88.50000E+04	3.55100E+05	3.73200E+05	4.18600E+05
89.68000E+04	3.58800E+05	3.77200E+05	4.23500E+05
90.86000E+04	3.62500E+05	3.81200E+05	4.28400E+05
92.04000E+04	3.66200E+05	3.85200E+05	4.33300E+05
93.22000E+04	3.71000E+05	3.89200E+05	4.38200E+05
94.40000E+04	3.74700E+05	3.93200E+05	4.43100E+05
95.58000E+04	3.78400E+05	3.97200E+05	4.48000E+05
96.76000E+04	3.82100E+05	4.01200E+05	4.52900E+05
97.94000E+04	3.85800E+05	4.05200E+05	4.57800E+05
99.12000E+04	3.89500E+05	4.09200E+05	4.62700E+05
100.30000E+04	3.93200E+05	4.13200E+05	4.67600E+05
101.48000E+04	3.96900E+05	4.17200E+05	4.72500E+05
102.66000E+04	4.00600E+05	4.21200E+05	4.77400E+05
103.84000E+04	4.04300E+05	4.25200E+05	4.82300E+05
105.02000E+04	4.08000E+05	4.29200E+05	4.87200E+05
106.20000E+04	4.11700E+05	4.33200E+05	4.92100E+05
107.38000E+04	4.15400E+05	4.37200E+05	4.97000E+05
108.56000E+04	4.19100E+05	4.41200E+05	5.01900E+05
109.74000E+04	4.22800E+05	4.45200E+05	5.06800E+05
110.92000E+04	4.26500E+05	4.49200E+05	5.11700E+05
112.10000E+04	4.30200E+05	4.53200E+05	5.16600E+05
113.28000E+04	4.33900E+05	4.57200E+05	5.21500E+05
114.46000E+04	4.37600E+05	4.61200E+05	5.26400E+05
115.64000E+04	4.41300E+05	4.65200E+05	5.31300E+05
116.82000E+04	4.45000E+05	4.69200E+05	5.36200E+05
118.00000E+04	4.48700E+05	4.73200E+05	5.41100E+05
119.18000E+04	4.52400E+05	4.77200E+05	5.46000E+05
120.36000E+04	4.56100E+05	4.81200E+05	5.50900E+05
121.54000E+04	4.59800E+05	4.85200E+05	5.55800E+05
122.72000E+04	4.63500E+05	4.89200E+05	5.60700E+05
123.90000E+04	4.67200E+05	4.93200E+05	5.65600E+05
125.08000E+04	4.70900E+05	4.97200E+05	5.70500E+05
126.26000E+04	4.74600E+05	5.01200E+05	5.75400E+05
127.44000E+04	4.78300E+05	5.05200E+05	5.80300E+05
128.62000E+04	4.82000E+05	5.09200E+05	5.85200E+05
129.80000E+04	4.85700E+05	5.13200E+05	5.90100E+05
131.18000E+04	4.89400E+05	5.17200E+05	5.95000E+05
132.36000E+04	4.93100E+05	5.21200E+05	6.00000E+05
133.54000E+04	4.96800E+05	5.25200E+05	6.04900E+05
134.72000E+04	5.00500E+05	5.29200E+05	6.09800E+05
135.90000E+04	5.04200E+05	5.33200E+05	6.14700E+05
137.08000E+04	5.07900E+05	5.37200E+05	6.19600E+05
138.26000E+04	5.11600E+05	5.41200E+05	6.24500E+05
139.44000E+04	5.15300E+05	5.45200E+05	6.29400E+05
140.62000E+04	5.19000E+05	5.49200E+05	6.34300E+05
141.80000E+04	5.22700E+05	5.53200E+05	6.39200E+05
143.18000E+04	5.26400E+05	5.57200E+05	6.44100E+05
144.36000E+04	5.30100E+05	5.61200E+05	6.49000E+05
145.54000E+04	5.33800E+05	5.65200E+05	6.53900E+05
146.72000E+04	5.37500E+05	5.69200E+05	6.58800E+05
147.90000E+04	5.41200E+05	5.73200E+05	6.63700E+05
149.08000E+04	5.44900E+05	5.77200E+05	6.68600E+05
150.26000E+04	5.48600E+05	5.81200E+05	6.73500E+05
151.44000E+04	5.52300E+05	5.85200E+05	6.78400E+05
152.62000E+04	5.56000E+05	5.89200E+05	6.83300E+05
153.80000E+04	5.59700E+05	5.93200E+05	6.88200E+05
155.18000E+04	5.63400E+05	5.97200E+05	6.93100E+05
156.36000E+04	5.67100E+05	6.01200E+05	6.98000E+05
157.54000E+04	5.70800E+05	6.05200E+05	7.02900E+05
158.72000E+04	5.74500E+05	6.09200E+05	7.07800E+05
159.90000E+04	5.78200E+05	6.13200E+05	7.12700E+05
161.08000E+04	5.81900E+05	6.17200E+05	7.17600E+05
162.26000E+04	5.85600E+05	6.21200E+05	7.22500E+05
163.44000E+04	5.89300E+05	6.25200E+05	7.27400E+05
164.62000E+04	5.93000E+05	6.29200E+05	7.32300E+05
165.80000E+04	5.96700E+05	6.33200E+05	7.37200E+05
167.08000E+04	6.00400E+05	6.37200E+05	7.42100E+05
168.26000E+04	6.04100E+05	6.41200E+05	7.47000E+05
169.44000E+04	6.07800E+05	6.45200E+05	7.51900E+05
170.62000E+04	6.11500E+05	6.49200E+05	7.56800E+05
171.80000E+04	6.15200E+05	6.53200E+05	7.61700E+05
173.18000E+04	6.18900E+05	6.57200E+05	7.66600E+05
174.36000E+04	6.22600E+05	6.61200E+05	7.71500E+05
175.54000E+04	6.26300E+05	6.65200E+05	7.76400E+05
176.72000E+04	6.30000E+05	6.69200E+05	7.81300E+05
177.90000E+04	6.33700E+05	6.73200E+05	7.86200E+05
179.08000E+04	6.37400E+05	6.77200E+05	7.91100E+05
180.26000E+04	6.41100E+05	6.81200E+05	7.96000E+05
181.44000E+04	6.44800E+05	6.85200E+05	8.00900E+05
182.62000E+04	6.48500E+05	6.89200E+05	8.05800E+05
183.80000E+04	6.52200E+05	6.93200E+05	8.10700E+05
185.18000E+04	6.55900E+05	6.97200E+05	8.15600E+05
186.36000E+04	6.59600E+05	7.01200E+05	8.20500E+05
187.54000E+04	6.63300E+05	7.05200E+05	8.25400E+0

Figure 6 (Continued)
AECs Performance Results
Sea Level Dash Condition

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7.0000E-01
 6.7-6.2500E-01
 6.7-6.0000E-01
 6.7-5.7500E-01
 6.7-5.5000E-01
 6.7-5.2500E-01
 6.7-5.0000E-01
 6.7-4.7500E-01
 6.7-4.5000E-01
 6.7-4.2500E-01
 6.7-4.0000E-01
 6.7-3.7500E-01
 6.7-3.5000E-01
 6.7-3.2500E-01
 6.7-3.0000E-01
 6.7-2.7500E-01
 6.7-2.5000E-01
 6.7-2.2500E-01
 6.7-2.0000E-01
 6.7-1.7500E-01
 6.7-1.5000E-01
 6.7-1.2500E-01
 6.7-1.0000E-01
 6.7-7.5000E-02
 6.7-5.0000E-02
 6.7-2.5000E-02
 6.7-0.0000E+00

TABLE I^a TITLE/COMPRESSOR HEAD FUNCTION (HT=59/98)

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE
CAST: AECS

2.07820E+02 2.05441E+02

TABLE 15 99
TITLE/COMP DUMMY EFF

NDIM = 1.00000E+00
VALUF = 1.00000E+00

TABLE 16 99
TITLE/COMP DUMMY HEAD

NDIM = 1
VALUF = 1.00000E+00

TABLE 17 99
TITLE/PRT RAW P RECOVERY = SCNP PRF(W/MCR,WT)

NDIM	ARGUMENT 1	1ST TYPE	0	HELN	111	EXTRAP	0	INTERP	0	NPTS	9
ARGUMENT 2	TYPE	0	R&LN			EXTRAP	0	INTERP	1	NPTS	6
0.00000E+01		1.00000E+01				2.50000E+01		4.00000E+01			
6.00000E+01		6.00000E+01				7.50000E+01		7.90000E+01			
0.00000E+01		2.00000E+01				2.50000E+01		4.00000E+01			
6.00000E+01		6.50000E+01				7.50000E+01		8.60000E+01			
0.00000E+01		1.00000E+01				2.50000E+01		5.00000E+01			
6.00000E+01		7.50000E+01				8.50000E+01		9.40000E+01			
0.00000E+01		1.50000E+01				2.50000E+01		4.00000E+01			
6.00000E+01		1.50000E+01				8.50000E+01		9.55000E+01			
0.00000E+01		1.00000E+01				4.00000E+01		6.00000E+01			
6.00000E+01		9.00000E+01				9.50000E+01		9.75000E+01			
0.00000E+01		1.00000E+01				4.00000E+01		6.00000E+01			
6.00000E+01		9.00000E+01				9.50000E+01		9.70000E+01			
0.00000E+01		2.00000E+01				4.00000E+01		6.00000E+01			
6.00000E+01		1.00000E+00				9.50000E+01		9.85000E+01			
1.00000E+00		9.50000E+01				9.50000E+01		9.90000E+01			
6.35000E+01		9.00000E+01				9.50000E+01		9.90000E+01			
0.00000E+01		9.80000E+01				9.50000E+01		9.90000E+01			
6.50000E+01		9.50000E+01				9.50000E+01		9.90000E+01			
0.00000E+01		9.60000E+01				9.50000E+01		9.93500E+01			
6.60000E+01		9.80000E+01				9.50000E+01		9.93500E+01			
0.00000E+01		9.10000E+01				9.10000E+01		9.10000E+01			

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

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CASE AECS

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DOCUMENT	TYPE	NAME	REFN	NPPTS
1	1	1	1	5
2	2	2	2	5
3	3	3	3	5

TITLE/PRI RAM P RECOVERY - ENGINE PLENUM PREF(NP,MD,*1)

ARGUMENT	TYPE	NAME	REFN	NPPTS
1	1	1	1	5
2	2	2	2	5
3	3	3	3	5
4	4	4	4	5
5	5	5	5	5
6	6	6	6	5
7	7	7	7	5
8	8	8	8	5
9	9	9	9	5
10	10	10	10	5
11	11	11	11	5
12	12	12	12	5
13	13	13	13	5
14	14	14	14	5
15	15	15	15	5
16	16	16	16	5
17	17	17	17	5
18	18	18	18	5
19	19	19	19	5
20	20	20	20	5
21	21	21	21	5
22	22	22	22	5
23	23	23	23	5
24	24	24	24	5
25	25	25	25	5
26	26	26	26	5
27	27	27	27	5
28	28	28	28	5
29	29	29	29	5
30	30	30	30	5
31	31	31	31	5
32	32	32	32	5
33	33	33	33	5
34	34	34	34	5
35	35	35	35	5
36	36	36	36	5
37	37	37	37	5
38	38	38	38	5
39	39	39	39	5
40	40	40	40	5
41	41	41	41	5
42	42	42	42	5
43	43	43	43	5
44	44	44	44	5
45	45	45	45	5
46	46	46	46	5
47	47	47	47	5
48	48	48	48	5
49	49	49	49	5
50	50	50	50	5
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52	52	52	52	5
53	53	53	53	5
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96	96	96	96	5
97	97	97	97	5
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112	112	112	112	5
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173	173	173	173	5
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199	199	199	199	5
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205	205	205	205	5
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210	210	210	210	5
211	211	211	211	5
212	212	212	212	5
213	213	213	213	5
214	214	214	214	5
215	215	215	215	5
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253	253	253	253	5
254	254	254	254	5
255	255	255	255	5
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257	257	257	257	5
258	258	258	258	5
259	259	259	259	5
260	260	260	260	5
261	261	261	261	5
262	262	262	262	5
263	263	263	263	5
264	264	264	264	5
265	265	265	265	5
2				

*AECS-AECS PERFORMANCE

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1.50801E+01

1.32000E+01	4.80211E+00	9.50000E+00	1.20200E+01
1.40000E+01	1.44000E+01	1.50000E+01	1.60800E+01
1.32000E+01	4.80000E+00	9.40000E+00	1.08000E+01
1.59600E+01	1.44000E+01	1.50000E+01	1.58600E+01
1.20000E+01	4.90000E+00	8.40000E+00	1.08000E+01
1.53000E+01	1.32000E+01	1.44000E+01	1.53000E+01
1.66000E+01	4.80000E+00	8.40000E+00	9.60000E+00
1.36000E+01	1.20000E+01	1.26000E+01	1.32000E+01
1.90000E+01	2.00000E+01	3.00000E+01	4.00000E+01
1.20000E+01	4.20000E+00	8.10000E+00	7.25000E+00
1.65000E+01	5.60000E+01	4.80000E+01	2.80000E+01
1.25000E+01	5.60000E+01	5.20000E+01	5.00000E+01
1.72000E+01	6.50000E+01	5.50000E+01	5.50000E+01
1.25000E+01	6.50000E+01	6.00000E+01	6.00000E+01
1.75000E+01	7.40000E+01	6.50000E+01	6.50000E+01
1.25000E+01	7.40000E+01	7.00000E+01	7.00000E+01
1.78000E+01	8.30000E+01	7.50000E+01	7.50000E+01
1.25000E+01	8.30000E+01	8.00000E+01	8.00000E+01
1.81000E+01	9.20000E+01	8.50000E+01	8.50000E+01
1.25000E+01	9.20000E+01	9.00000E+01	9.00000E+01
1.84000E+01	1.01000E+02	9.50000E+01	9.50000E+01
1.25000E+01	1.01000E+02	1.00000E+02	1.00000E+02
1.87000E+01	1.10000E+02	1.05000E+02	1.05000E+02
1.25000E+01	1.10000E+02	1.10000E+02	1.10000E+02
1.90000E+01	1.19000E+02	1.15000E+02	1.15000E+02
1.25000E+01	1.19000E+02	1.20000E+02	1.20000E+02
1.93000E+01	1.28000E+02	1.25000E+02	1.25000E+02
1.25000E+01	1.28000E+02	1.30000E+02	1.30000E+02
1.96000E+01	1.37000E+02	1.35000E+02	1.35000E+02
1.25000E+01	1.37000E+02	1.40000E+02	1.40000E+02
1.99000E+01	1.46000E+02	1.45000E+02	1.45000E+02
1.25000E+01	1.46000E+02	1.50000E+02	1.50000E+02
2.02000E+01	1.55000E+02	1.55000E+02	1.55000E+02
1.25000E+01	1.55000E+02	1.60000E+02	1.60000E+02
2.05000E+01	1.64000E+02	1.65000E+02	1.65000E+02
1.25000E+01	1.64000E+02	1.70000E+02	1.70000E+02
2.08000E+01	1.73000E+02	1.75000E+02	1.75000E+02
1.25000E+01	1.73000E+02	1.80000E+02	1.80000E+02
2.11000E+01	1.82000E+02	1.85000E+02	1.85000E+02
1.25000E+01	1.82000E+02	1.90000E+02	1.90000E+02
2.14000E+01	1.91000E+02	1.95000E+02	1.95000E+02
1.25000E+01	1.91000E+02	2.00000E+02	2.00000E+02
2.17000E+01	2.00000E+02	2.05000E+02	2.05000E+02
1.25000E+01	2.00000E+02	2.10000E+02	2.10000E+02

Figure 6 (Continued)
AECS Performance Results
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7	250000E+01
8	100000E+01
9	60000E+01
10	30000E+01
11	15000E+01
12	75000E+00
13	37500E+00
14	187500E+00
15	937500E+00
16	4687500E+00
17	23437500E+00
18	117187500E+00
19	585937500E+00
20	2929687500E+00
21	14648437500E+00
22	73242187500E+00
23	366210937500E+00
24	1831054687500E+00
25	9155273437500E+00
26	45776367187500E+00
27	228881835937500E+00
28	1144409179687500E+00
29	5722045898437500E+00
30	28610229492187500E+00
31	143051147460937500E+00
32	715255737304687500E+00
33	3576278686523437500E+00
34	178813934326179687500E+00
35	894069671630898437500E+00
36	4470348358154492187500E+00
37	22351741790772460937500E+00
38	11175870895386223437500E+00
39	558793544772311179687500E+00
40	279396772386155879687500E+00
41	13969838619307939687500E+00
42	6984919304653969839687500E+00
43	34924596522854984919687500E+00
44	17462298261427492459687500E+00
45	8731149130713722982687500E+00
46	436557456535686614919687500E+00
47	218278728267843327459687500E+00
48	109139364133921638729687500E+00
49	545696820669608193649687500E+00
50	272848410334804096829687500E+00
51	136424205167402048419687500E+00
52	68212102583701024209687500E+00
53	341060512918505121049687500E+00
54	170530256459252560529687500E+00
55	852651282296251252619687500E+00
56	426325641148125625139687500E+00
57	2131628205740628125649687500E+00
58	1065814102870314062829687500E+00
59	532907051435017031419687500E+00
60	2664535257175085170329687500E+00
61	1332267628587542585139687500E+00
62	6661338142937722925649687500E+00
63	3330669071468861462829687500E+00
64	1665334535734430731419687500E+00
65	8326672678672215731429687500E+00
66	4163336339336107815729687500E+00
67	2081668169668053957139687500E+00
68	10408340848340269785729687500E+00
69	52041704241700139785729687500E+00
70	260208521208500698785729687500E+00
71	13010426060400034938785729687500E+00
72	650521303020001746938785729687500E+00
73	3252606515100008746938785729687500E+00
74	16263032575500043746938785729687500E+00
75	813151628777500218746938785729687500E+00
76	40657581438875010938746938785729687500E+00
77	2032879071943750546938746938785729687500E+00
78	10164395359718752738746938785729687500E+00
79	5082197679859375136938746938785729687500E+00
80	2541098839929687568746938785729687500E+00
81	127054941996484375346938785729687500E+00
82	6352747099824418751746938785729687500E+00
83	317637354991220937508746938785729687500E+00
84	158818677495610493752146938785729687500E+00
85	794093387477802468754146938785729687500E+00
86	3970466937389012343756146938785729687500E+00
87	19852334686945061718758146938785729687500E+00
88	99261673443725308593751046938785729687500E+00
89	49630836721862654293753146938785729687500E+00
90	24815418360931327146938785729687500E+00
91	124077091804656635718755146938785729687500E+00
92	6203854590232832785718757146938785729687500E+00
93	310192729511641639285718759146938785729687500E+00
94	1550963647558208196446938785729687500E+00
95	77548182377910409822146938785729687500E+00
96	38774091188952204911146938785729687500E+00
97	1938704559447610245557146938785729687500E+00
98	9693522797238051227787146938785729687500E+00
99	484676139861902561389146938785729687500E+00
100	242338069930951280949146938785729687500E+00
101	1211690349654756404749146938785729687500E+00
102	6058451748273782023749146938785729687500E+00
103	30292258741368910118749146938785729687500E+00
104	151461293706844550593749146938785729687500E+00
105	757306468534222752968749146938785729687500E+00
106	37865323426711137648469146938785729687500E+00
107	189326617133555687222469146938785729687500E+00
108	946633085667778346112469146938785729687500E+00
109	473316542833889173056469146938785729687500E+00
110	236658271416944585278469146938785729687500E+00
111	118329135708472292391469146938785729687500E+00
112	5916456785442861469146938785729687500E+00
113	295822839272143073451469146938785729687500E+00
114	147911419636071536751469146938785729687500E+00
115	739557098180357783751469146938785729687500E+00
116	3697785490901788918751469146938785729687500E+00
117	18488925454508944593751469146938785729687500E+00
118	92444627272504722968751469146938785729687500E+00
119	46222313636252361483751469146938785729687500E+00
120	231111568181261802418751469146938785729687500E+00
121	1155557840906309012091469146938785729687500E+00
122	577778920453154506051469146938785729687500E+00
123	288889460226577253251469146938785729687500E+00
124	1444447301132886266251469146938785729687500E+00
125	7222226505664441331251469146938785729687500E+00
126	36111132528322206656251469146938785729687500E+00
127	180555662641611033281251469146938785729687500E+00
128	902778313208055016406251469146938785729687500E+00
129	4513891566040275082031251469146938785729687500E+00
130	2256945783020137541016251469146938785729687500E+00
131	11284728915100687520081251469146938785729687500E+00
132	56423644575500347510041251469146938785729687500E+00
133	28211822287750173755021251469146938785729687500E+00
134	1410591114387500875251251469146938785729687500E+00
135	7052955571937500437501251469146938785729687500E+00
136	35264777859687502187501251469146938785729687500E+00
137	1763238892984375010437501251469146938785729687500E+00
138	88161944649218750052187501251469146938785729687500E+00
139	440809723246093750260937501251469146938785729687500E+00
140	2204048616230468751314687501251469146938785729687500E+00
141	11020243081152343750657501251469146938785729687500E+00
142	5510122140557673752314687501251469146938785729687500E+00
143	27550610702788368751314687501251469146938785729687500E+00
144	1377530535139418375260937501251469146938785729687500E+00
145	68876526756970918751314687501251469146938785729687500E+00
146	34438263378485459375260937501251469146938785729687500E+00
147	172191317392427293751314687501251469146938785729687500E+00
148	8609565869621364468751314687501251469146938785729687500E+00
149	4304782934810782468751314687501251469146938785729687500E+00
150	21523914690539012343751314687501251469146938785729687500E+00
151	107619573452745061718751314687501251469146938785729687500E+00
152	5380978672637253185718751314687501251469146938785729687500E+00
153	269048933631862659285718751314687501251469146938785729687500E+00
154	134524466815931329644691469387857296875001251469146938785729687500E+00
155	672622333980465148224691469387857296875001251469146938785729687500E+00
156	336311166990232574114691469387857296875001251469146938785729687500E+00
157	1681555834951162570574691469387857296875001251469146938785729687500E+00
158	8407779174755812852874691469387857296875001251469146938785729687500E+00
159	420388958737790642644691469387857296875001251469146938785729687500E+00
160	2101944793688953213214691469387857296875001251469146938785729687500E+00
161	1050972396844476606614691469387857296875001251469146938785729687500E+00
162	5254861984222233033014691469387857296875001251469146938785729687500E+00
163	2627430972111116516514691469387857296875001251469146938785729687500E+00
164	1313715486055558258214691469387857296875001251469146938785729687500E+00
165	656857743027779129114691469387857296875001251469146938785729687500E+00
166	3284288715138895145514691469387857296875001251469146938785729687500E+00
167	1642144357569447572714691469387857296875001251469146938785729687500E+00
168	82107217878372382314691469387857296875001251469146938785729687500E+00
169	4105360893918619115714691469387857296875001251469146938785729687500E+00
170	2052680447954309558314691469387857296875001251469146938785729687500E+00
171	102634022397715477918750012514691469387857296875001251469146938785729687500E+00
172	5131701119885798895714691469387857296875001251469146938785729687500E+00
173	2565850559942899447874691469387857296875001251469146938785729687500E+00
174	1282925279971449723914691469387857296875001251469146938785729687500E+00
175	6414626399857248619514691469387857296875001251469146938785729687500E+00
176	3207313199428624307314691469387857296875001251469146938785729687500E+00
177	1603656599214312153614691469387857296875001251469146938785729687500E+00
178	8018282991071656078314691469387857296875001251469146938785729687500E+00
179	400914149510532803914691469387857296875001251469146938785729687500E+00
180	2004570747552664019514691469387857296875001251469146938785729687500E+00
181	1002285373776332009714691469387857296875001251469146938785729687500E+00
182	5011427868881660049814691469387857296875001251469146938785729687500E+00
183	2505713934440830024914691469387857296875001251469146938785729687500E+00
184	12528569672204150124514691469387857296875001251469146938785729687500E+00
185	6264283836102075062214691469387857296875001251469146938785729687500E+00
186	3132141918051037531114691469387857296875001251469146938785729687500E+00
187	15660709590250187555614691469387857296875001251469146938785729687500E+00
188	7830353795125009377814691469387857296875001251469146938785729687500E+00
189	3915176897562500488914691469387857296875001251469146938785729687500E+00
190	19575884487812502444691469387857296875001251469146938785729687500E+00
191	9787942243906250122214691469387857296875001251469146938785729687500E+00
192	4890000E+00
193	1.440000E+01
194	1.440000E+01
195	1.440000E+01
196	1.440000E+01
197	1.440000E+01
198	1.440000E+01
199	1.440000E+01
200	1.440000E+01
201	1.440000E+01
202	1.440000E+01
203	1.440000E+01
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222	1.440000E+01
223	1.440000E+01
224	1.440000E+01
225	1.440000E+01
226	1.440000E+01
227	1.440000E+01
228	1.440000E+01
229	1.440000E+01
230	1.440000E+01
231	

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AFCS PERFORMANCE
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1.66800E+01

1.32000E+01	4.64000E+00	9.60000E+00	1.36000E+01
1.59000E+01	1.44000E+01	1.50000E+01	1.55000E+01
1.32000E+01	4.80000E+00	9.80000E+00	1.38000E+01
1.53000E+01	1.38000E+01	1.40000E+01	1.50000E+01
1.08000E+01	1.80000E+00	7.20000E+00	9.32000E+00
1.39000E+01	1.20000E+01	1.22000E+01	1.32000E+01
1.00000E+01	2.10000E+01	3.00000E+01	4.00000E+01
9.20000E+00	2.50000E+01	7.50000E+01	6.80000E+01
6.50000E+00	5.50000E+00	8.50000E+00	2.50000E+01
4.80000E+00	5.80000E+00	4.90000E+00	3.60000E+00
3.20000E+00	5.00000E+00	8.70000E+00	7.90000E+00
2.60000E+00	5.10000E+00	5.10000E+00	4.20000E+00
2.40000E+00	5.20000E+00	5.20000E+00	4.20000E+00
2.50000E+00	5.00000E+00	5.80000E+00	4.20000E+00
2.60000E+00	5.20000E+00	5.80000E+00	5.30000E+00
2.60000E+00	5.00000E+00	5.20000E+00	5.30000E+00
1.10000E+01	4.80000E+00	4.76000E+00	4.76000E+00
1.32000E+01	4.80000E+00	8.40000E+00	8.40000E+00
1.72200E+01	4.40000E+00	8.40000E+00	1.08000E+01
1.32000E+01	4.80000E+00	8.40000E+00	1.08000E+01
1.67400E+01	3.1.		
1.25000E+01	4.40000E+00	8.40000E+00	1.08000E+01
1.59600E+01	1.48000E+01	8.40000E+00	1.08000E+01
1.20000E+01	4.40000E+00	8.40000E+00	1.08000E+01
1.53000E+01	1.32000E+01	8.40000E+00	1.08000E+01
1.05000E+01	4.80000E+00	8.40000E+00	1.08000E+01
1.34000E+01	4.80000E+00	8.40000E+00	1.08000E+01
1.86600E+01	2.00000E+01	3.00000E+01	4.00000E+01
1.86600E+01	2.00000E+01	7.60000E+01	6.85000E+01
8.80000E+01	8.20000E+01	4.00000E+01	2.50000E+01
8.90000E+01	8.00000E+01	4.00000E+01	2.50000E+01

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Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

*AECSS • AECSS PERFORMANCE CASES

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Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE
2 CASE AECS
1.6020UE+01

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1.60000E+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.5360UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.4720UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.4080UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.3440UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.2800UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.2160UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.1520UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.0880UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.0240UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
9.6000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
9.0000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
8.4000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
7.8000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
7.2000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
6.6000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
6.0000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
5.4000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
4.8000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
4.2000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
3.6000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
3.0000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
2.4000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.8000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
1.2000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
6.0000UE+00	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00
0.0000UE+01	3.00000E+01	7.20000E+00	7.20000E+00	9.00000E+00

TABLE TAB 23 99 10

TABLE LISTED BELOW IS NOT REQUIRED
*TAB1 CABIN PRESSURE VERSUS ALTITUDE
*TABV 15.48 5.00E+00 13.09
*TABV 16.00E+00 1.69 4.00E+00 10.9
*TABV 3.00E+00 9.4 4.00E+00 7.9
*TABV 5.00E+00 6.7 6.00E+00 6.05
*TABV 7.00E+00 5.5

TABLE TAB 24 99
TITLE/CABIN LEAKAGE FLOWRATE VERSUS ALTITUDE

NDIM	2	1ST	0	RELN	2	EXTRAP	0	INTFRP	0	NPTS	11
ARGUMENT 1											
0	2.50000E+02										
1	5.00000E+01										
2	5.00000E+04										
3	5.00000E+04										
4	5.00000E+04										
5	5.00000E+04										
6	5.00000E+04										
7	5.00000E+04										

TABLE TAB 25 99
TITLE/AFT AV FLOW PLUS FWD AV LEAK FLOW VERSUS ALTITUDE
NDIM 2 1ST 0
ARGUMENT 1 TYPE 0 RELN 2 EXTRAP 0 INTERP 0 NPTS 3

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE
CASE AECS

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$9.0000E+04$ $1.9200E+01$ $1.00000E-01$ $1.35000E+01$

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AEC STAFF PERFORMANCE

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The image shows a decorative border with a repeating geometric pattern. The pattern consists of a central circle surrounded by a ring of smaller circles, with a star shape formed by lines connecting the centers of the outer circles. This unit is repeated across the entire border, creating a rhythmic and intricate design.

A decorative border consisting of a repeating pattern of stylized, symmetrical motifs. Each motif appears to be a stylized flower or leaf design, possibly a lotus, rendered in a dark, solid color against a white background. The pattern is contained within a rectangular frame with decorative corner pieces.

A decorative border consisting of a repeating geometric pattern. The pattern is formed by a series of small circles (dots) connected by thin horizontal and vertical lines, creating a grid-like structure that looks like a diamond or a stylized 'X' rotated 45 degrees. This pattern is repeated across the entire width of the page, creating a continuous decorative border.

ARGUMENT HXA		EXTRAPOLATED TABLE		INTERPOLATED TABLE		VALUE # 9.88780E+01 ARGUMENT(S)		4.30919E+01 3.44892E+02	
COMPONENT HXA		105		10		1		4.89901E+00 ARGUMENT(S)	
NL	S	NSI	6	NSO	14	FT	2	FN	-1
N	43.09	PI	89.70	PO	66.52	71	1599.00	10	737.01
NL	7	NSI	10	NSO	12	FT	2	FN	-1
NL	8	PI	86.96	PO	20.00	71	727.22	10	839.06
NL	9	PI	86.96	PO	20.00	71	727.22	10	839.06

Figure 6 (Continued)
AECs Performance Results
Sea Level Dash Condition

**AECS PERFORMANCE
CASE AECS**

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EF1 .9886 EF2 .1203 SR1 1.0000 SR2 1.0000 0 .9884.4

NL 29 NS1 234 NS0 60 FT 2 FN -1

SHAFT 1 PR 1.6772 EFF .6700 HP -61.39

NL 75 NS1 180 NS0 182 FT 1 FN -5

NL 93 NS1 196 NSU 198 FT 1 FN -4

EF1 .9955 EF2 .1927 SR1 1.0000 SR2 1.0000 0 -3384.1

COMPONENT HXA EXTRAPOLATED TABLE 11 22 VALUE # 1.40253E+02 ARGUMENT(3) 3.04432E+02

NL 203 NS1 302 NS0 304 FT 2 FN -1

***CONDENSATION # HS .03212

***CONDENSATION # HS .03411

W 60.00 PI 31.93 PN 28.25 T1 579.92 T0 547.52 HI 0.000 HD 0.0000

COMPONENT HXA EXTRAPOLATED TABLE 5 22 VALUE # 1.33004E+02 ARGUMENT(3) 8.00001E+01 9.09811E+02

COMPONENT HXA EXTRAPOLATED TABLE 5 22 VALUE # 1.32249E+02 ARGUMENT(3) 4.98472E+01 5.87516E+02

COMPONENT HXA EXTRAPOLATED TABLE 5 22 VALUE # 1.27211E+02 ARGUMENT(3) 8.00001E+01 7.73321E+02

COMPONENT HXA EXTRAPOLATED TABLE 5 22 VALUE # 1.26663E+02 ARGUMENT(3) 8.00001E+01 7.61172E+02

Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

*AEC5-AECS PERFORMANCE
2. CASE AECS

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NL	85	NSI	322	NSD	324	FT	1	FN	5
W	49.05	P1	27.84	PO	25.75	T1	547.52	TO	793.95
EF1	.8244	EF2	.6957	SRI	1.1171	SR2	1.0000	HO	-6588.1
COMPONENT HXA	EXTRAPOLATED TABLE	14	22	VALUE =	2.85072E+02	ARGUMENT(S) =	2.93101E+02		
COMPONENT HXA	EXTRAPOLATED TABLE	14	22	VALUE =	2.62978E+02	ARGUMENT(S) =	2.10993E+02		
COMPONENT HXA	EXTRAPOLATED TABLE	69	1	VALUE =	3.71597E+01	ARGUMENT(S) =	2.10565E+02		
COMPONENT HXA									
NL	203	NSI	304	NSD	306	FT	1	FN	
W	65.25	P1	16.14	PO	16.09	T1	554.02	TO	723.35
NL	89	NSI	194	NSD	332	FT	1	FN	
W	60.00	P1	25.24	PO	22.22	T1	759.76	TO	673.93
EF1	.8229	EF2	.4172	SRI	1.0506	SR2	1.0000	HO	0.0000
COMPONENT HXA	EXTRAPOLATED TARLF	7	22	VALUE =	7.27612E+01	ARGUMENT(S) =	1.59567E+02	6.11131E+02	
COMPONENT HXA	EXTRAPOLATED TABLE	8	22	VALUE =	2.61573E+01	ARGUMENT(S) =	8.50562E+01	1.49000E+02	
COMPONENT HXA	EXTRAPOLATED TABLE	7	22	VALUE =	7.01506E+01	ARGUMENT(S) =	1.59567E+02	5.78209E+02	
COMPONENT HXA	EXTRAPOLATED TABLE	8	22	VALUE =	2.84074E+01	ARGUMENT(S) =	8.50562E+01	4.32260E+02	
COMPONENT HXA	EXTRAPOLATED TABLE	7	22	VALUE =	7.00566E+01	ARGUMENT(S) =	1.59567E+02	5.77024E+02	
COMPONENT HXA	EXTRAPOLATED TABLE	8	22	VALUE =	2.844038E+01	ARGUMENT(S) =	8.50562E+01	4.36437E+02	
COMPONENT HXA									
NL	43	NSI	84	NSD	90	FT	2	FN	1
W	78.10	P1	124.27	PO	123.68	T1	611.13	TO	542.84
***CONDENSATION = HS	.002882								
NL	53	NSI	100	NSD	236	FT	2	FN	-1
W	76.80	P1	17.53	PO	16.86	T1	369.01	TO	500.00
EF1	.2820	EF2	.5410	SRI	2.0432	SR2	1.1075	HO	.0028
COMPONENT TURB									
NL	51	NSI	94	NSD	96	FT	2	FN	-1
W	76.80	P1	123.60	PO	17.56	T1	542.84	TO	369.01

Figure 6 (Continued)
AEC5 Performance Results
Sea Level Dash Condition

AECS AFCS PERFORMANCE
2 CASE AECS

***CIVILISATION - HS .00000
SHAFT 1 PR 7.0460 EFF .8056 HP 81.39
COMPONENT LINE EXTRAPOLATED TABLE 52 1 VALUE = 2.66701E-01 ARGUMENT(S) 1.15000E+01

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Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

AECS AECS PERFORMANCE
2 CASE AECS

TIME E 11A.02

	43.60	57.00
A6	1.9	1.9
76	0.00	0.00
51	0.00	0.00
21	0	0

PRESSURE (S) - PSI

	43.60	57.00
43.60	0.00	0.00
57.00	0.00	0.00
76.00	0.00	0.00
51.00	0.00	0.00
21.00	0.00	0.00

TEMPERATURE (S) - DFG R

	43.60	57.00
43.60	1.00	1.00
57.00	1.00	1.00
76.00	1.00	1.00
51.00	1.00	1.00
21.00	1.00	1.00

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Figure 6 (Continued)
AECS Performance Results
Sea Level Dash Condition

Figure 6 (Continued)
AECS Performance Results
 Sea Level Dash Condition

END OF JOB

Figure 6 (Continued)
AEC/S Performance Results
Sea Level Dash Condition

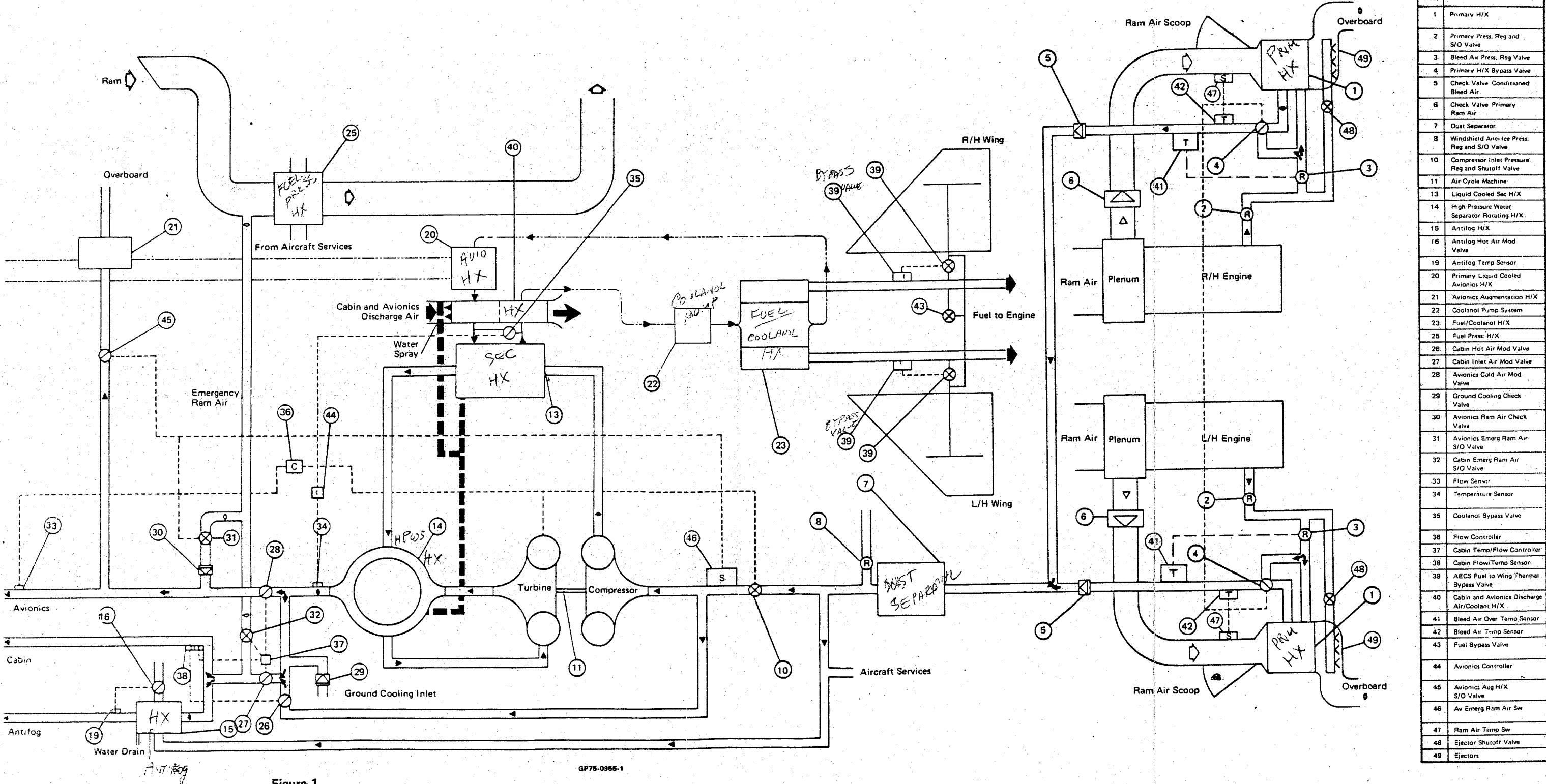


Figure 1
AECIS Schematic

GP75-0955-1

Item No.	Component
1	Primary H/X
2	Primary Press. Reg and S/O Valve
3	Bleed Air Press. Reg Valve
4	Primary H/X Bypass Valve
5	Check Valve Conditioned Bleed Air
6	Check Valve Primary Ram Air
7	Dust Separator
8	Windshield Antifog Press. Reg and S/O Valve
10	Compressor Inlet Pressure. Reg and Shutoff Valve
11	Air Cycle Machine
13	Liquid Cooled Sec H/X
14	High Pressure Water Separator Rotating H/X
15	Antifog H/X
16	Antifog Hot Air Mod Valve
19	Antifog Temp Sensor
20	Primary Liquid Cooled Avionics H/X
21	Avionics Augmentation H/X
22	Coolant Pump System
23	Fuel/Coolant H/X
25	Fuel Press. H/X
26	Cabin Hot Air Mod Valve
27	Cabin Inlet Air Mod Valve
28	Avionics Cold Air Mod Valve
29	Ground Cooling Check Valve
30	Avionics Ram Air Check Valve
31	Avionics Emerg Ram Air S/O Valve
32	Cabin Emerg Ram Air S/O Valve
33	Flow Sensor
34	Temperature Sensor
35	Coolant Bypass Valve
36	Flow Controller
37	Cabin Temp/Flow Controller
38	Cabin Flow/Temp Sensor
39	AECIS Fuel to Wing Thermal Bypass Valve
40	Cabin and Avionics Discharge Air/Coolant H/X
41	Bleed Air Over Temp Sensor
42	Bleed Air Temp Sensor
43	Fuel Bypass Valve
44	Avionics Controller
45	Avionics Aug H/X S/O Valve
46	Av Emerg Ram Air Sw
47	Ram Air Temp Sw
48	Ejector Shutoff Valve
49	Ejectors

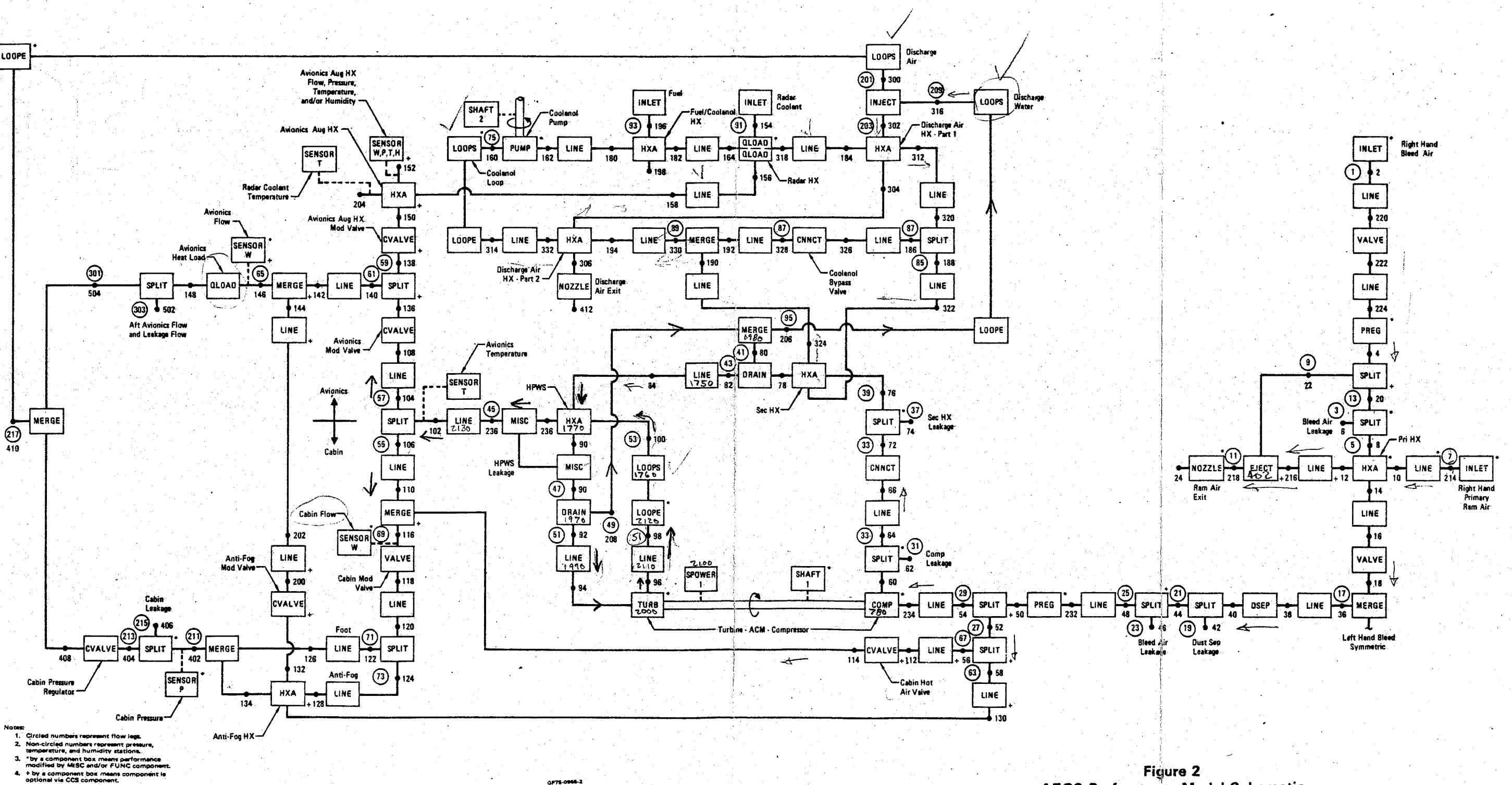


Figure 2
AECS Performance Model Schematic