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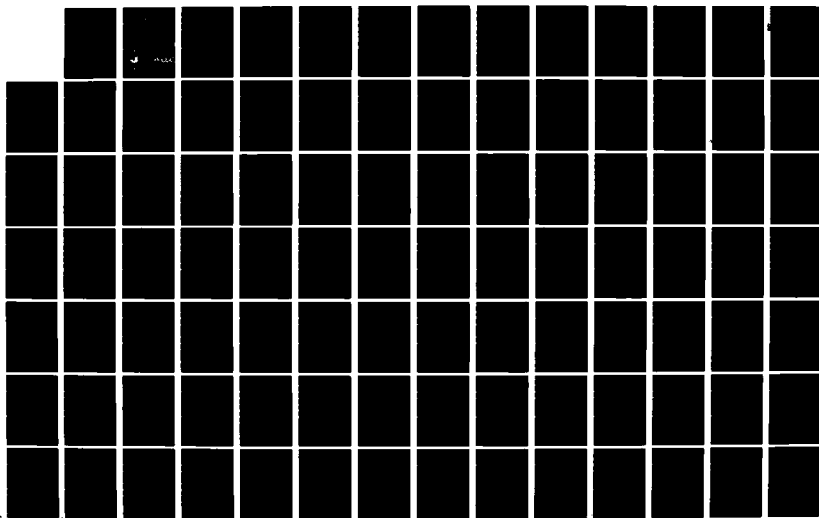
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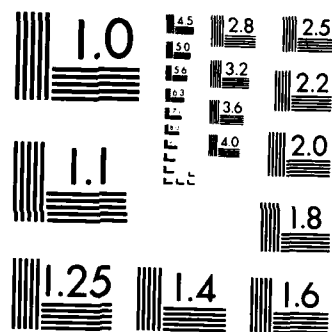
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DEVELOPMENT OF A COMPUTER EMISSION INVENTORY ROUTINE FOR AIRCRAFT GROUND SUPPORT EQUIPMENT

VOLUME II: APPENDICES

J. E. SICKLES II

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RESEARCH TRIANGLE INSTITUTE
SYSTEMS AND MEASUREMENTS DIVISION
RESEARCH TRIANGLE PARK, NC 27709

30 SEPTEMBER 1981

FINAL REPORT

11 AUGUST 1980 - 30 SEPTEMBER 1981

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER ESL-TR-81-60	2. GOVT ACCESSION NO. AD-A125471	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Development of a Computer Emission Inventory Routine for Aircraft Ground Support Equipment Volume II Appendices		5. TYPE OF REPORT & PERIOD COVERED Final Report 11 Aug 80 - 30 Sep 81
		6. PERFORMING ORG. REPORT NUMBER F33615-80-D-4000
7. AUTHOR(s) J.E. Sickles II J.G. Haidt		8. CONTRACT OR GRANT NUMBER(s) F33615-80-D4000
9. PERFORMING ORGANIZATION NAME AND ADDRESS Research Triangle Institute Systems and Measurements Division Research Triangle Park NC 27709		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS P.E. 63723F JON: 21039021
11. CONTROLLING OFFICE NAME AND ADDRESS HQ AFESC/RDVS Tyndall AFB, Florida 32403		12. REPORT DATE 30 September 1981
		13. NUMBER OF PAGES 357
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES Availability of this report is specified on the reverse of front cover.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Aircraft Assessment Ground Support Equipment Airport Models Computer Code Air pollution Computer program Emission Inventory		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A computer subroutine was developed to display Ground Support Equipment (GSE) operations data, as well as retrieve and compute the GSE emissions for each aircraft type. This subroutine was embedded into a Source Inventory Program (SIP) designed to quantify the hundreds of air pollution sources typically found on an airbase. Although the SIP was originally intended for use in the extensive Air Quality Assessment Model (AQAM) system, it will also be used in the streamlined Assessment Inventory and Dispersion System (AIDS). AIDS (under development) uses modular interactive microcomputer logic with graphical --		

input and output capabilities to readily inventory and predict levels of selected air pollutants resulting from Air Force operations and local sources.

This GSE subroutine provides more readily available data as input to air pollution inventories and will simplify manual data collection at the individual base level.

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PREFACE

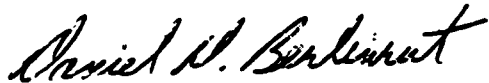
This report was prepared by the Research Triangle Institute, Systems and Measurement Division, Research Triangle Park, NC 27709, under Contract No. F33615-80-D-4000 with the Department of the Air Force, Air Force Systems Command, Aeronautical Systems Division/PMRNB, Wright-Patterson Air Force Base, Ohio 45433 and the Air Force Engineering and Services Center, Engineering and Services Laboratory, Tyndall Air Force Base, FL 32403.

This report covers work performed between August 1980 and September 1981. Project Officers were Captain Daniel D. Berlinrut, AFESC and Lt D. Roe, ASD.

This report consists of two volumes. Volume I provides general information about the project, as well as conclusions and recommendations. Volume II contains the report appendices of raw data.

This report has been reviewed by the Public Affairs Office (PA) and is releasable to the National Technical Information Service (NTIS). At NTIS the report will be available to the general public, including foreign nations.

This report has been reviewed and is approved for public release.



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APPENDIX A
GROUND SUPPORT EQUIPMENT OPERATIONS SURVEY QUESTIONNAIRE

GROUND SUPPORT EQUIPMENT OPERATIONS SURVEY INSTRUCTIONS

Ground Support Equipment (GSE) includes all powered equipment used in the maintenance of aircraft. This equipment was formerly known as aerospace ground equipment (AGE) and it includes equipment directly supporting aircraft systems such as compressors, generators, heaters, coolers, and hydraulic units as well as equipment for indirect support such as lighting units and towing vehicles.

This questionnaire is designed to secure data that will be incorporated into AQAM, an Air quality Prediction Model. This data will improve the accuracy of the model's predictions and simplify the input data required from the user.

This questionnaire is comprised of three forms. On Form 1, each piece of powered GSE used in support of an aircraft is identified. A separate copy of Form 1 should be completed for each type of aircraft at the base. On Form 2 data on each type of GSE is requested. Monthly operations data and average temperatures are to be entered on Form 3.

AQAM considers most aircraft activities to be directly related to the number of landing and takeoff (LTO) cycles. An LTO cycle for an aircraft includes operational modes from idle at startup, to climbout, to approach, to idle at shutdown. GSE activities, by their nature, are also related to the number of LTO cycles. Thus, selected entries in this questionnaire must be related to the number of LTOS.

Instructions, Form 1 (One for each type of aircraft at the base.)

Identify the aircraft type, the command, the wing, and the base. Next identify the person who is completing the questionnaire (respondent) by name and commercial telephone number. Note that a separate copy of Form 1 must be completed for each type of aircraft. List each piece of powered GSE that is associated with the previously identified aircraft. If multiple units of the subject GSE are required for servicing the aircraft, identify and list each unit separately. Each unit of GSE should be identified by name, stock number, and engine type (e.g., turbine, gasoline, diesel). Next, for each listed GSE indicate the types of missions that result in significantly different GSE operations. For example, the nature of the cargo on a MAC aircraft may require air conditioning. When mission type is not an important variable, enter "STD" under mission type. For each mission type, give the GSE operations time in hours per LTO at each of the six listed ambient temperatures. As an example, low ambient temperatures will require heaters to be operated, and high ambient temperatures will require the operation of air conditioners. If the operations time of the subject unit of GSE does not depend on temperature, then enter the same data under each temperature. For each mission type, give the quantity fuel consumed per LTO by the subject GSE at each of the six listed ambient temperatures. Most of the required information must be collected from interviews with maintenance personnel. If the space provided on one Form 1 is insufficient to list all powered GSE associated with the subject aircraft, continue on a second Form 1 and staple it to the first.

Instructions, Form 2

Identify the wing, the respondent, and the commercial telephone number of the respondent. Identify each unique unit of GSE listed on Form 1S by name, stock number, manufacturer, and its characteristic specifications (i.e. engine type, fuel type, engine displacement and fuel consumption). In addition give the number of units of GSE possessed by the subject wing. Note that the manufacturer's specification on fuel consumption may differ from that actually observed during use: enter both values. Most of the required information can be secured from Technical Orders for the equipment. The wing equipment management office can supply the number of possessed GSE. The observed fuel consumption data, however, must be secured from interviews with maintenance personnel. If the space provided on one Form 2 is insufficient to list all powered GSE units on the base, continue on a second Form 2, and staple it to the first.

Instructions, Form 3

Identify the wing, the respondent, and the commercial telephone number of the respondent. In this portion of the questionnaire, monthly data for each of the last 12 months are requested for the subject wing. Enter the GSE fuel consumption in gallons by fuel type: Mogas, JP-4, and diesel. Next, enter the average mean, maximum, and minimum daily temperatures in °C. Finally, enter the number of LTO's in each of the last 12 months by plane type. Note that in this form transient aircraft are considered as one type. This information is routinely archived and should be readily available. (For example, see field maintenance office, base weather station, and wing production analysis office.)

APPENDIX B

SURVEY DATA: AIRCRAFT, GSE, AND GSE OPERATING TIMES (COLUMN HEADINGS
ARE BASE IDENTIFIERS: SEE TABLE 1)

AIRCRAFT: F4

	13	17	19	26	37	47
111 H1	0.00	0.07	2.80	0.50	0.50	0.00
121 1H1	0.00	0.02	0.05	0.02	0.02	0.00
211 MA3	0.00	0.02	0.02	0.02	0.02	0.00
311 MD3	0.00	0.02	0.02	0.02	0.02	0.00
312 C26	0.00	0.02	0.02	0.02	0.02	0.00
323 MB17	0.00	0.02	0.02	0.02	0.02	0.00
331 AM32A60	0.00	0.02	0.02	0.02	0.02	0.00
332 AM32A60A	0.00	0.02	0.02	0.02	0.02	0.00
411 MC1A	0.00	0.02	0.02	0.02	0.02	0.00
412 MC2A	0.00	0.02	0.02	0.02	0.02	0.00
413 MC11	0.00	0.02	0.02	0.02	0.02	0.00
421 MC1A-D	0.00	0.02	0.02	0.02	0.02	0.00
431 MA1A	0.00	0.02	0.02	0.02	0.02	0.00
513 TTU228E	0.00	0.02	0.02	0.02	0.02	0.00
521 TTU228E1B	0.00	0.02	0.02	0.02	0.02	0.00
611 MJ1(BMB)	0.00	0.02	0.02	0.02	0.02	0.00
612 MJ1A	0.00	0.02	0.02	0.02	0.02	0.00
613 MHU83E	0.00	0.02	0.02	0.02	0.02	0.00
614 MHU83AE	0.00	0.02	0.02	0.02	0.02	0.00
615 MHU83BE	0.00	0.02	0.02	0.02	0.02	0.00
711 NF2	0.00	0.02	0.02	0.02	0.02	0.00
811 M32T1	0.00	0.02	0.02	0.02	0.02	0.00
812 V4	0.00	0.02	0.02	0.02	0.02	0.00
813 MB1	0.00	0.02	0.02	0.02	0.02	0.00
1014 SPRAYER-G	0.00	0.02	0.02	0.02	0.02	0.00
1026 WELDER-D	0.00	0.02	0.02	0.02	0.02	0.00

AIRCRAFT: F15

121	1H1	16	23
313	MD28	0.10	1.00
322	90G20P	0.00	*****
323	MB17	0.03	*****
332	AM32A60A	0.11	*****
333	EMU12E	0.82	1.30
411	MC1A	0.00	*****
412	MC2A	0.07	*****
513	TTU228E	0.12	1.00
514	TTU228E1A	*****	1.00
612	MJ1A	0.33	*****
614	MHU83AE	0.22	1.00
615	MHU83BE	0.12	1.00
711	NF2	0.12	*****
811	M32T1	1.62	3.00
812	V4	0.02	0.05
1011	BLOWER-G	0.02	*****
		0.00	*****

AIRCRAFT: F16

111	H1	15
121	1H1	2.62
322	90G20P	2.62
332	AM32A60A	0.00
411	MC1A	0.60
412	MC2A	0.00
512	MJ2A	0.25
612	MJ1A	0.08
615	MHU83BE	0.43
711	NF2	0.07
811	M32T1	0.34
		0.00

AIRCRAFT: F105

121	1H1	33	0.10
311	MD3		0.20
331	AM32A60		0.50
412	MC2A		0.10
421	MC1A-D		0.10
431	MA1A		0.10
512	MJ2A		0.10
711	NF2		0.10

AIRCRAFT: F106

112	MC1<HTR>	7	14	25	31	34
211	MA3	0.08	5.00	0.20	0.06	0.00
311	MD3	0.17	8.00	0.10	0.62	0.00
321	MB15	0.21	5.00	0.60	0.75	0.00
412	MC2A	*****	*****	*****	0.03	0.00
413	MC11	0.09	1.00	0.10	*****	*****
511	MJ1<HTS>	0.11	6.00	1.20	1.33	0.00
512	MJ2A	*****	*****	*****	*****	0.00
615	MHU83BE	0.05	3.00	*****	0.11	0.00
711	NF2	*****	*****	*****	*****	0.00
811	M32T1	0.25	8.00	0.10	0.23	0.00
		*****	0.50	*****	*****	0.00

AIRCRAFT: F111

111	H1	5	35
121	1H1	0.23	1.35
311	MD3	0.23	1.35
322	90G20P	0.13	0.03
331	AM32A60	*****	0.00
332	AM32A60A	8.00	*****
411	MC1A	8.00	1.93
412	MC2A	0.47	0.42
415	MC7	1.37	0.04
421	MC1A-D	*****	0.00
512	MJ2A	0.47	*****
611	MJ1(BMB)	1.03	0.42
612	MJ1A	2.00	*****
613	MHU83E	2.00	0.72
614	MHU83AE	0.20	*****
615	MHU83BE	0.20	*****
711	NF2	*****	0.07
811	M32T1	5.50	4.26
1011	BLOWER-G	*****	0.01
		*****	0.00

AIRCRAFT: T33

	14	19	31	33
112 MC1(HTR)	5.00	*****	0.06	*****
121 1H1	*****	3.75	*****	0.10
311 MD3	5.00	2.87	0.33	0.50
331 AM32A60	*****	*****	*****	0.00
411 MC1A	*****	0.19	*****	*****
412 MC2A	1.00	0.02	0.66	0.10
421 MC1A-D	*****	*****	*****	0.10
431 MA1A	*****	*****	*****	0.00
511 MJ1(HTS)	*****	0.22	*****	*****
512 MJ2A	*****	*****	*****	0.00
612 MJ1A	*****	0.18	*****	*****
711 NF2	8.00	0.04	0.23	0.10
811 M32T1	0.50	*****	*****	*****

AIRCRAFT: T38

	16	39	44	49	54	55
111 H1	1.00	4.00	*****	*****	*****	*****
121 1H1	*****	4.00	*****	*****	0.00	*****
311 MD3	1.00	1.40	0.17	*****	0.21	*****
332 AM32A60A	*****	3.10	*****	*****	*****	*****
411 MC1A	0.50	1.20	*****	*****	*****	*****
412 MC2A	0.50	2.70	*****	*****	0.00	*****
421 MC1A-D	*****	1.20	*****	*****	*****	*****
422 DR600	*****	*****	*****	*****	0.00	*****
431 MA1A	0.50	1.00	0.08	0.10	0.05	0.17
511 MJ1<HTS>	*****	*****	*****	*****	0.05	*****
512 MJ2A	1.00	*****	*****	*****	0.01	*****
611 MJ1<BMB>	1.00	*****	*****	*****	*****	*****
711 NF2	1.50	2.80	*****	*****	*****	*****
811 M32T1	*****	*****	*****	*****	0.00	*****
1012 DEICER-G	*****	*****	*****	*****	0.01	*****
1014 SPRAYER-G	*****	*****	*****	*****	0.00	*****

AIRCRAFT: T39

111	H1	3	21	39	44	46	55
121	1H1	0.67	0.50	4.00	*****	2.00	*****
212	A3	*****	0.50	4.00	*****	2.00	*****
311	MD3	*****	*****	*****	*****	2.00	*****
332	AM32A60A	1.50	0.50	1.40	0.25	2.00	*****
411	MC1A	*****	*****	3.10	*****	*****	*****
412	MC2A	1.00	0.50	1.20	*****	2.00	*****
421	MC1A-D	0.50	0.50	2.70	*****	*****	*****
431	MA1A	*****	0.50	1.20	*****	*****	*****
711	NF2	*****	*****	1.00	*****	*****	0.13
		10.00	0.50	2.80	*****	2.00	*****

AIRCRAFT: C5

111	H1	1	11	43	51
121	1H1	1.67	6.88	4.00	*****
211	MA3	1.67	6.88	4.00	*****
212	A3	0.25	0.12	1.50	*****
213	MA1A(CLR)	*****	0.12	*****	*****
311	MD3	*****	0.12	*****	*****
322	90G20P	2.00	17.00	4.00	*****
332	AM32A60A	7.50	12.00	*****	38.00
411	MC1A	1.50	6.00	3.00	38.00
412	MC2A	0.25	1.00	1.00	1.50
415	MC7	0.25	4.00	1.00	2.50
421	MC1A-D	*****	*****	5.00	*****
431	MA1A	*****	*****	1.00	*****
511	MJ1(HTS)	*****	1.17	0.25	*****
512	MJ2A	*****	*****	4.00	*****
513	TTU228E	*****	1.00	*****	*****
711	NF2	0.25	*****	*****	*****
911	M27M1	1.00	5.00	20.00	26.00
1015	EMPENAGE-G	0.25	0.25	0.50	*****
1025	EMPENAGE-D	*****	0.25	*****	*****
		*****	0.12	*****	*****

AIRCRAFT: C7

111	H1	10	30
121	1H1	3.00	0.15
212	A3	3.00	0.15
312	C26	*****	0.09
313	MD28	0.50	0.43
411	MC1A	*****	0.00
412	MC2A	*****	0.07
414	MC1<COM>	0.60	0.06
511	MJ1<HTS>	0.10	0.07
711	NF2	1.00	*****
1011	BLOWER-G	*****	0.09
1014	SPRAYER-G	*****	0.01
		*****	0.01

AIRCRAFT: C9

111	H1	46	2: 00
311	MD3		2: 00
411	MC1A		2: 00
711	NF2		2: 00

AIRCRAFT: C130

	18	21	24	31	43
111 H1	*****	*****	0.00	0.00	4.00
121 1H1	4.00	*****	0.00	0.00	4.00
211 MR3	*****	*****	*****	*****	1.50
213 MA1A<CLR>	*****	*****	0.00	0.00	*****
311 MD3	4.00	0.50	0.00	0.00	4.00
313 MD28	*****	*****	0.00	0.00	*****
322 90G20P	*****	*****	*****	0.00	*****
331 AM32A60	*****	*****	*****	0.00	*****
332 AM32A60A	*****	*****	*****	0.00	*****
411 MC1A	1.00	0.50	0.00	0.00	1.00
412 MC2A	1.00	*****	0.00	0.00	1.00
413 MC11	*****	*****	*****	0.00	*****
415 MC7	*****	*****	0.00	0.00	5.00
421 MC1A-D	*****	0.50	*****	*****	1.00
431 MA1A	0.50	0.50	0.00	0.00	0.25
511 MJ1<HTS>	*****	*****	0.00	*****	4.00
512 MJ2A	*****	*****	*****	0.00	*****
515 D5	*****	*****	*****	0.00	*****
521 TTU228E1B	1.00	*****	*****	*****	*****
711 NF2	4.00	*****	0.00	0.00	20.00
911 M27M1	*****	*****	*****	0.00	0.50
1011 BLOWER-G	*****	*****	0.00	0.00	*****
1012 DEICER-G	*****	0.00	*****	*****	*****
1014 SPRAYER-G	*****	*****	*****	0.00	*****
1015 EMPENAGE-G	*****	*****	*****	0.00	*****

AIRCRAFT: C131

111	H1	21	33	52
311	MD3	0.25	*****	0.20
312	C26	4.00	2.50	0.25
411	MC1A	*****	*****	0.25
412	MC2A	*****	0.30	*****
414	MC1(COM)	0.25	*****	0.30
711	NF2	*****	*****	0.30
1012	DEICER-G	0.50	*****	0.10
		*****	*****	0.10

AIRCRAFT: C141

	1	8	31	43	51
111 H1	1.67	4.00	0.00	4.00	*****
121 1H1	1.67	4.00	0.00	4.00	*****
211 MA3	0.25	3.00	*****	1.50	*****
213 MA1A(CLR)	*****	*****	0.00	*****	*****
311 MD3	2.00	4.00	0.00	4.00	*****
313 MD28	*****	*****	0.00	*****	*****
322 90G20P	7.50	8.00	0.00	*****	22.00
331 AM32A60	*****	*****	0.00	*****	*****
332 AM32A60A	1.50	8.00	0.00	3.00	22.00
411 MC1A	0.25	0.00	0.00	1.00	1.00
412 MC2A	0.25	0.00	0.00	1.00	1.50
413 MC11	*****	*****	0.00	*****	*****
415 MC7	*****	*****	0.00	5.00	*****
421 MC1A-D	*****	0.00	*****	1.00	*****
431 MA1A	*****	0.00	0.00	0.25	*****
511 MJ1(HTS)	*****	*****	*****	4.00	*****
512 MJ2A	*****	*****	0.00	*****	*****
513 TTU228E	0.25	*****	*****	*****	*****
515 D5	*****	*****	0.00	*****	*****
711 NF2	1.00	3.00	0.00	0.00	18.00
911 M27M1	0.25	0.00	0.00	0.50	*****
1011 BLOWER-G	*****	*****	0.00	*****	*****
1012 DEICER-G	*****	1.00	*****	*****	*****
1014 SPRAYER-G	*****	*****	0.00	*****	*****
1015 EMPENAGE-G	*****	*****	0.00	*****	*****

AIRCRAFT: E3

	23	39	50
111 H1	*****	2.90	8.00
121 1H1	4.00	2.90	8.00
221 COOLER-D	*****	4.50	4.00
311 MD3	*****	1.80	*****
322 90G20P	*****	6.00	*****
324 GENERATOR-D	*****	4.70	6.00
332 AM32A60A	5.00	2.90	7.00
411 MC1A	*****	1.60	*****
412 MC2A	0.50	2.30	2.00
421 MC1A-D	*****	1.60	4.00
431 MA1A	*****	0.70	*****
511 MJ1<HTS>	*****	*****	4.00
512 MJ2A	*****	1.90	*****
711 NF2	8.00	6.20	5.00
911 M27M1	*****	*****	5.00

AIRCRAFT: E4

111	H1	39
121	1H1	3.30
221	COOLER-D	3.30
324	GENERATOR-D	3.70
332	AM32A60A	1.50
411	MC1A	3.20
412	MC2A	2.00
415	MC7	3.20
421	MC1A-D	1.80
521	TTU228E1B	2.00
711	NF2	1.00
		4.40

AIRCRAFT: T43

29

431 MA1A

3.00

AIRCRAFT: 02

111	H1	9	40	48
311	MD3	*****	*****	0.00
411	MC1A	0.24	0.33	0.00
412	MC2A	*****	*****	0.00
421	MC1A-D	0.28	0.50	0.00
511	MJ1(HTS)	*****	*****	0.00
711	NF2	1.97	0.50	0.00
1013	WASHER-G	*****	*****	0.00

AIRCRAFT: OV10

311	MD3	21	40
322	90G20P	*****	0.33
412	MC2A	0.50	*****
711	NF2	*****	0.50
		*****	0.50

AIRCRAFT: H1

111	H1	12	18	21	42
121	1H1	0.00	*****	0.50	*****
311	MD3	*****	1.50	0.50	*****
411	MC1A	0.21	1.50	0.50	0.50
412	MC2A	*****	0.50	*****	*****
515	D5	0.00	0.50	0.50	*****
711	NF2	*****	*****	0.50	*****
		0.00	1.50	0.50	*****

AIRCRAFT: H3

111	H1	21	0.00
121	1H1		0.00
311	MD3		0.50
411	MC1A		0.50
412	MC2A		0.50
421	MC1A-D		0.50
513	TTU228E		0.50
711	NF2		0.50

AIRCRAFT: H53

121	1H1	18
311	MD3	3.00
411	MC1A	3.00
412	MC2A	1.00
521	TTU228E1B	0.50
711	NF2	1.00
		3.00

AIRCRAFT: A7

111	H1	21	21
322	90G20P	*****	0.25
331	AM32A60	0.50	*****
411	MC1A	*****	5.00
412	MC2A	*****	1.00
414	MC1(COM)	*****	0.25
415	MC7	*****	1.00
431	MA1A	*****	0.25
514	TTU228E1A	0.67	*****
611	MJ1(BMB)	*****	4.00
614	MHU83AE	*****	4.00
711	NF2	*****	4.00
811	M3271	*****	0.50
		*****	0.25

AIRCRAFT: A10

121	1H1	9	36
311	MD3	0.03	0.00
331	AM32A60	0.25	0.00
332	AM32A60A	*****	0.00
333	EMU12E	3.81	*****
411	MC1A	*****	0.00
412	MC2A	0.08	0.00
413	MC11	0.10	0.00
421	MC1A-D	0.10	*****
512	MJ2A	0.08	*****
612	MJ1A	0.17	0.00
614	MHU83AE	0.22	0.00
615	MHU83BE	*****	0.00
711	NF2	0.07	*****
811	M32T1	0.70	0.00
813	MB1	0.01	*****
1011	BLOWER-G	*****	0.00
1013	WASHER-G	*****	0.00
		0.01	0.00

AIRCRAFT: 0A37

111	H1	52	52
121	1H1	0.00	0.20
311	MD3	0.00	*****
312	C26	0.25	0.25
411	MC1A	0.25	*****
412	MC2A	0.12	*****
414	MC1(COM)	0.12	0.30
711	NF2	*****	0.30
1012	DEICER-G	0.10	0.10
		*****	0.10

AIRCRAFT: T37

	41	44	49	54
111 H1	0.00	*****	*****	*****
121 1H1	*****	*****	*****	0.00
311 MD3	0.00	0.08	0.25	0.10
411 MC1A	0.00	*****	*****	0.00
414 MC1(COM)	*****	*****	*****	0.00
421 MC1A-D	*****	*****	*****	0.00
422 DR600	*****	*****	*****	0.00
431 MA1A	*****	*****	0.00	*****
511 MJ1(HTS)	*****	*****	*****	0.10
711 NF2	0.00	*****	*****	*****
1012 DEICER-G	*****	*****	*****	0.01
1014 SPRAYER-G	*****	*****	*****	0.00

AIRCRAFT: KC135

	1	2	4	6	7	14	14	20	24
111 H1	1.67	3.40	****	****	****	0.00	****	4.00	0.05
121 1H1	1.67	****	8.00	4.00	****	****	****	4.00	0.05
211 MA3	0.25	0.97	****	****	****	0.00	****	****	****
212 A3	****	****	****	****	****	****	****	****	0.06
311 MD3	2.00	3.60	****	8.00	0.50	0.00	****	4.00	0.48
322 90G20P	7.50	6.00	5.00	8.00	****	0.00	****	****	****
332 AM32A60A	1.50	9.30	1.00	8.00	3.30	0.00	****	4.00	0.66
411 MC1A	0.25	0.64	****	****	0.15	0.00	****	4.00	0.04
412 MC2A	0.25	0.40	****	****	0.07	0.00	****	****	0.07
415 MC7	****	****	****	****	****	****	****	****	0.05
421 MC1A-D	****	****	****	3.00	****	****	****	****	****
431 MA1A	****	3.80	****	0.50	****	0.00	****	****	0.03
511 MJ1<HTS>	****	0.20	****	****	****	0.00	****	****	0.03
512 MJ2A	****	****	****	****	****	0.00	****	****	****
513 TTU228E	0.25	****	****	****	****	****	****	****	****
711 NF2	1.00	7.20	8.00	8.00	1.00	0.00	****	4.00	0.09
811 M32T1	****	****	****	****	****	****	****	****	****
911 M27M1	0.25	0.10	****	****	****	0.00	****	****	0.01
1011 BLOWER-G	****	****	****	****	****	****	****	****	0.00
1012 DEICER-G	****	****	****	****	****	****	0.53	****	****
1026 WELDER-D	****	****	****	****	****	****	****	****	****

AIRCRAFT: KC135

	28	29	32	33	34	41	42	45	47
111 H1	*****	4.00	*****	2.00	0.00	0.00	6.00	1.00	*****
121 1H1	0.00	4.00	*****	*****	*****	*****	*****	1.00	0.60
211 MR3	7.50	*****	*****	2.00	*****	*****	*****	1.00	0.40
212 A3	*****	*****	*****	*****	*****	*****	*****	*****	*****
311 MD3	14.50	6.00	5.00	7.50	0.00	0.00	*****	*****	0.55
322 90G20P	14.50	6.00	*****	*****	0.00	*****	*****	1.30	2.95
332 AM32A60A	14.50	6.00	5.00	7.50	0.00	*****	4.00	1.00	2.00
411 MC1A	2.00	0.50	0.50	0.30	0.00	0.00	0.50	1.00	0.05
412 MC2A	3.00	1.00	*****	0.30	*****	0.00	0.25	*****	0.03
415 MC7	*****	*****	*****	*****	*****	*****	*****	*****	*****
421 MC1A-D	*****	*****	*****	*****	*****	*****	*****	*****	0.05
431 MR1A	0.50	0.50	0.25	*****	0.00	0.00	*****	*****	0.05
511 MJ1(HTS)	1.00	*****	*****	*****	*****	*****	*****	0.00	0.01
512 MJ2A	*****	*****	*****	*****	*****	0.00	*****	*****	*****
513 TTU228E	*****	*****	*****	*****	*****	*****	*****	*****	*****
711 NF2	15.00	5.00	*****	2.00	0.00	0.00	6.00	0.50	1.10
811 M32T1	0.00	*****	*****	*****	*****	*****	*****	*****	*****
911 M27M1	0.50	*****	*****	*****	*****	*****	*****	1.50	0.10
1011 BLOWER-G	*****	*****	*****	*****	*****	*****	*****	*****	*****
1012 DEICER-G	*****	*****	*****	*****	*****	*****	*****	*****	*****
1026 WELDER-D	*****	*****	*****	*****	*****	*****	*****	0.20	*****

AIRCRAFT: KC135

111	H1	51	56
121	1H1	*****	0.00
211	MA3	*****	*****
212	A3	*****	*****
311	MD3	10.00	0.00
322	90G20P	*****	*****
332	AM32A60A	10.00	0.00
411	MC1A	1.00	0.00
412	MC2A	0.50	0.00
415	MC7	*****	*****
421	MC1A-D	*****	*****
431	MA1A	*****	*****
511	MJ1<HTS>	*****	*****
512	MJ2A	*****	*****
513	TTU228E	*****	*****
711	NF2	8.00	0.00
811	M32T1	*****	*****
911	M27M1	*****	*****
1011	BLOWER-G	*****	*****
1012	DEICER-G	*****	*****
1026	WELDER-D	*****	*****

AIRCRAFT: B52

	2	4	7	14	20	28	29	34	45
111 H1	3.00	*****	*****	0.00	4.00	*****	4.00	0.00	1.50
121 1H1	*****	12.00	*****	*****	4.00	0.00	4.00	*****	1.50
211 MA3	1.20	5.00	1.00	0.00	*****	12.70	3.00	0.00	2.00
311 MD3	3.30	5.00	0.96	0.00	4.00	14.50	6.00	0.00	1.00
322 90G20P	5.40	8.00	*****	0.00	*****	14.50	6.00	0.00	1.00
332 AM32A60A	8.40	3.00	7.85	0.00	4.00	14.50	6.00	0.00	3.00
411 MC1A	0.96	*****	0.15	0.00	1.00	2.00	5.00	0.00	2.00
412 MC2A	0.50	*****	0.08	0.00	*****	4.00	1.00	*****	*****
421 MC1A-D	*****	*****	*****	*****	*****	*****	*****	*****	*****
431 MA1A	4.20	*****	*****	0.00	*****	4.00	0.50	0.00	*****
511 MJ1<HTS>	0.30	*****	*****	0.00	*****	1.00	*****	*****	0.01
512 MJ2A	*****	*****	*****	0.00	*****	*****	*****	*****	*****
611 MJ1<BMB>	*****	*****	*****	*****	*****	5.00	*****	0.00	*****
612 MJ1A	1.50	*****	*****	0.00	*****	0.00	*****	*****	*****
613 MHU83E	*****	*****	*****	*****	*****	*****	4.00	0.00	*****
614 MHU83AE	1.50	*****	*****	0.00	*****	5.00	4.00	*****	0.70
711 NF2	10.50	12.00	1.00	0.00	4.00	15.00	5.00	0.00	1.00
811 M32T1	*****	*****	*****	*****	*****	0.00	*****	*****	*****
911 M27M1	0.10	*****	*****	0.00	*****	1.00	*****	*****	3.50
1026 WELDER-D	*****	*****	*****	*****	*****	*****	*****	*****	0.40

AIRCRAFT: B52

	47	56
111 H1	*****	0.00
121 1M1	0.60	*****
211 MA3	1.00	0.00
311 MD3	1.50	*****
322 90G20P	3.05	0.00
332 AM32A60A	4.40	0.00
411 MC1A	0.05	0.00
412 MC2A	0.07	0.00
421 MC1A-D	0.05	*****
431 MA1A	0.10	0.00
511 MJ1<HTS>	0.01	*****
512 MJ2A	*****	*****
611 MJ1<BMB>	*****	*****
612 MJ1A	0.00	*****
613 MHU83E	0.04	*****
614 MHU83AE	0.04	0.00
711 NF2	2.00	0.00
811 M32T1	*****	*****
911 M27M1	0.10	*****
1026 WELDER-D	*****	*****

AIRCRAFT: FB111

111	H1	41	42
332	AM32A60A	1.71	4.00
411	MC1A	2.89	6.00
412	MC2A	0.35	1.75
512	MJ2A	0.06	0.50
614	MHU83AE	0.05	*****
711	NF2	0.63	*****
		0.38	3.00

APPENDIX C

LISTING OF REVISED SOURCE INVENTORY PROGRAM

```

PROGRAM SRCINV (INPUT=101B,OUTPUT=201B,TAPES=INPUT,
1 TAPE6=OUTPUT,TAPE21,TAPE3=/1000)
C***** SOURCE INVENTORY PROGRAM
C
INTEGER ACNAME,EGNAME,ENGNO
REAL LNDSPD
COMMON /ACEDB1/
1 ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2 ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3 APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4 COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5 EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6 APPHT2(50),CLMBHT,TOWT(50)
COMMON /ACEDB2/
1 NACTYP,NRNWYS,NPKAR,IEGFLG,
2 IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3 ARRFCN(24,6),DEPFCH(24,6),TGO(3,4),DISRNW(6),
4 RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5 ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6 ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7 IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8 NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9 NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+ IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
COMMON /ACEDB3/
1 NWCASE,JES1(8),IRNWX(2,6)
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFBRTH,ATBRTH,FLTFCT(7),FIXFCT(7),
6 WRKFCT(7)
COMMON /DSTRBT/
1 ACMO(13,50),ACDY(2,50),ACHR(24,50),VHMLMO(13),
2 VHMLDY(2),VHMLHR(24),CVABMO(13),CVABDY(2),
3 CVABHR(24),CVENMO(13),CVENDY(2),CVENHR(24),
4 FLMO(13,7),FLDY(2,7),FLHR(24,7)
COMMON /ANNMET/
1 TBAR,ADD,P,PA,
2 WSBAR,DTBAR,AMDBAR
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCODYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDF,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBDF,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7 ATDSOY,ATDSOZ,TCOSDF,TCTSDZ,
8 PFDFLT,TDDFLT,RFDFLT,SFDFLT,
9 PFDFLT,TFDFLT,TFDYDF,MINUS(6)
COMMON /ARRAYS/
1 HCWRK(10,50),HCBRTN(5,100),HCEVP(3,50)
COMMON /SPACE/
1 SORCE(2100),SOREM(8,250)
COMMON /POINTR/
1 M,MSRCES,NMAX,NMAXE,
2 LSRCES,NTOT
COMMON /AUTOS/
1 XEMITT(2,6,6),YCLDST(6,6),SOAK,BRTH,
2 IAREA,IHDV,IAAT,IYEAR

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COMMON /TOTS/
1  TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
  INTEGER THNAME
COMMON /EGEDB1/
1  MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2  IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
  INTEGER GCNAME,GSNAME
COMMON /GSEDB1/
1  NSFLS,ISFMAP(5),
2  GCNAME(15),
3  GSNAME(50),IGSCAT(50),
4  IGSFLT(50),GSFF(50),GSEMFC(6,50),
5  GSRVCT(50,50),
6  GSFUEL(5),NGSTYP,IGSTYP(30),
7  GSUSGE(30),IGSAGN(8,30),
8  GSETIM(8,30)
C
C**** INITIALIZE PROGRAM
C
  CALL OVERLAY(5HFIRST ,1,0)
  CALL REMARK(16HFIRST  COMPLETED)
C
C**** PERFORM AIRCRAFT SOURCE INVENTORY
C
  CALL OVERLAY(6HACEMIV,2,0)
  CALL REMARK(16HACEMIV COMPLETED)
C
C**** PERFORM AIRBASE SOURCE INVENTORY
C
  CALL OVERLAY(6HABEMIV,3,0)
  CALL REMARK(16HABEMIV COMPLETED)
C
C**** PERFORM ENVIRON SOURCE INVENTORY
C
  CALL OVERLAY(6HENEMIV,4,0)
  CALL REMARK(16HENEMIV COMPLETED)
C
C**** PRINT TOTALS
C
  CALL OVERLAY(A4HLAST ,5,0)
  CALL REMARK(16HLAST  COMPLETED)
  STOP
  END

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OVERLAY (MAIN,0,0)
BLOCK DATA
C BLOCK DATA PLACES DEFAULT VALUES IN COMMON BLOCKS
BLOCK DATA
INTEGER ACNAME,EGNAME,ENGNO
REAL LNDSPD
COMMON /ACEDB1/
1 ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2 ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3 APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4 COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5 EGCKKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6 APPHT2(50),CLMBHT,TOWT(50)
COMMON /ACEDB2/
1 NACTYP,NRNWYS,NPKAR,IEGFLG,
2 IACTYP(8),ANNARR(8),ANNDEP(8),ANNTOGO(8),
3 ARRFEN(24,6),DEPFEN(24,6),TGO(3,4),DISRNW(6),
4 RNWY(7,5),IUSWD(20,5),RNWYAR(8,6),RNWYDP(8,6),
5 ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6 ARSVEM(6,8,5),DPSVEM(6,9,5),NIBTT(6),NIBSEG(8,6),
7 IIESEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8 NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(3,6),TTDPFR(8,8,6),
9 NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDISPA(8,6),
+ IDOSPA(8,6),NLSEGS,ACLNSG(12,25)
COMMON /ACEDB3/
1 WCASE,JES1(8),IRNWY(2,6)
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATENFC(2,6,6),
4 CSEMFC(6,6),AFCEM(6,6),AFSOAK,ATSOAK,
5 AFBRT,ATBRTH,FLTFACT(7),FIXFCT(7),
6 WRKFCT(7)
COMMON /DSTRBT/
1 ACHO(13,50),ACDY(2,50),ACHR(24,50),VHMLMO(13),
2 VHMLDY(2),VHMLHR(24),CVASMO(13),CVABDY(2),
3 CVABHR(24),CVENMO(13),CVENDY(2),CVENHR(24),
4 FLMO(13,7),FLDY(2,7),FLHR(24,7)
COMMON /ANNMET/
1 TSAR,ADD,P,PA,
2 WSBAR,DTBAR,AMDEAR
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCDYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDF,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBDF,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARJCDZ,
7 ATDSY,ATDSZ,TCDSDF,TCTSDY,
8 FPDFLT,TDDFLT,RFDFLT,SPDFLT,
9 PPDFLT,TFDFLT,TFDYDF,MINUS(6)
COMMON /ARRAYS/
1 HGWPK(10,50),HCBRT(5,100),HCEVP(3,50)
COMMON /SPACE/
1 SORCE(2100),SOREM(8,250)
COMMON /POINTR/
1 M,NSRCS,NMAX,NMAXE,
2 LSRCES,NTOT
COMMON /AUTOS/
1 XEMINT(2,6,6),YCLDST(6,6),SOAK,BRTH,
2 IAREA,INDY,IAAT,IYEAR
COMMON /TOTS/

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1      TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
      INTEGER THNAME
      COMMON /EGEDB1/
1      MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2      IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
      INTEGER GCNAME,GSNAME
      COMMON /GSEDB1/
1      NSFLS,ISFMAP(5),
2      GCNAME(15),
3      GSNAME(50),IGSCAT(50),
4      IGSFLT(50),GSFF(50),GSEMFC(6,50),
5      GSRVCT(50,50),
6      GSFUEL(5),NGSTYP,IGSTYP(30),
7      GSUSGE(30),IGSAGN(8,30),
8      GSETIM(8,30)
      DIMENSION EGDA01( 6,4),EGDA02( 6,4),EGDA03( 6,4),EGDA04( 6,4),
A EGDA05( 6,4),EGDA06( 6,4),EGDA07( 6,4),EGDA08( 6,4),EGDA09( 6,4),
B EGDA10( 6,4),EGDA11( 6,4),EGDA12( 6,4),EGDA13( 6,4),EGDA14( 6,4),
D EGDA20( 6,4),EGDA21( 6,4),EGDA22( 6,4),EGDA23( 6,4),EGDA24( 6,4),
E EGDA25( 6,4),EGDA26( 6,4),EGDA27( 6,4),EGDA28( 6,4),EGDA29( 6,4),
F EGDA30( 6,4),EGDA31( 6,4),EGDA32( 6,4),EGDA33( 6,4),EGDA34( 6,4),
G EGDA35( 6,4),EGDA36( 6,4),EGDA37( 6,4),EGDA38( 6,4),EGDA39( 6,4),
H EGDA40( 6,4),EGDA41( 6,4),EGDA42( 6,4),EGDA43( 6,4),EGDA44( 6,4),
I EGDA45( 6,4),EGDA46( 6,4),EGDA47( 6,4),EGDA48( 6,4),EGDA49( 6,4),
J EGDA50( 6,4)
      EQUIVALENCE (EGEMFC(1),EGDA01(1)),(EGEMFC(25),EGDA02(1)),
A (EGEMFC(49),EGDA03(1)),(EGEMFC( 73),EGDA04(1)),(EGEMFC( 97),
B EGDA05(1)),(EGEMFC(121),EGDA06(1)),(EGEMFC(145),EGDA07(1)),(EGEMF
CC (169),EGDA08(1)),(EGEMFC(193),EGDA09(1)),(EGEMFC(217),EGDA10(1))
D (EGEMFC(241),EGDA11(1)),(EGEMFC(265),EGDA12(1)),(EGEMFC(289),EGD
EA13(1)),(EGEMFC(313),EGDA14(1)),(EGEMFC(337),EGDA15(1)),(EGEMFC(36
F1),EGDA16(1)),(EGEMFC(385),EGDA17(1)),(EGEMFC(409),EGDA18(1)),
G (EGEMFC(433),EGDA19(1)),(EGEMFC(457),EGDA20(1)),(EGEMFC(481),
H EGDA21(1)),(EGEMFC(505),EGDA22(1)),(EGEMFC(529),EGDA23(1)),
I(EGEMFC(553),EGDA24(1)),(EGEMFC(577),EGDA25(1)),(EGEMFC(601),EGDA2
J6(1)),(EGEMFC(625),EGDA27(1)),(EGEMFC(649),EGDA28(1)),(EGEMFC(673)
K,EGDA29(1)),(EGEMFC(697),EGDA30(1)),(EGEMFC(721),EGDA31(1)),(EGEMF
LC(745),EGDA32(1)),(EGEMFC(769),EGDA33(1)),(EGEMFC(793),EGDA34(1)),
M(EGEMFC(817),EGDA35(1)),(EGEMFC(841),EGDA36(1)),(EGEMFC(865),EGDA3
N7(1)),(EGEMFC(889),EGDA38(1)),(EGEMFC(913),EGDA39(1)),(EGEMFC(937)
O,EGDA40(1)),(EGEMFC(961),EGDA41(1)),(EGEMFC(985),EGDA42(1)),(EGEMF
PC(1009),EGDA43(1)),(EGEMFC(1033),EGDA44(1)),(EGEMFC(1057),EGDA45(1
Q)),(EGEMFC(1081),EGDA46(1)),(EGEMFC(1105),EGDA47(1)),(EGEMFC(1129)
R,EGDA48(1)),(EGEMFC(1153),EGDA49(1)),(EGEMFC(1177),EGDA50(1))
      DIMENSION GSDA01(6),GSDA02(6),GSDA03(6),GSDA04(6),GSDA05(6),
A GSDA06(6),GSDA07(6),GSDA08(6),GSDA09(6),GSDA10(6),GSDA11(6),
B GSDA12(6),GSDA13(6),GSDA14(6),GSDA15(6),GSDA16(6),GSDA17(6),
C GSDA18(6),GSDA19(6),GSDA20(6),GSDA21(6),GSDA22(6),GSDA23(6),
D GSDA24(6),GSDA25(6),GSDA26(6),GSDA27(6),GSDA28(6),GSDA29(6),
E GSDA30(6),GSDA31(6),GSDA32(6),GSDA33(6),GSDA34(6),GSDA35(6),
F GSDA36(6),GSDA37(6),GSDA38(6),GSDA39(6),GSDA40(6),GSDA41(6),
G GSDA42(6),GSDA43(6),GSDA44(6),GSDA45(6),GSDA46(6),GSDA47(6),
H GSDA48(6),GSDA49(6),GSDA50(6)
      EQUIVALENCE (GSEMFC(1),GSDA01(1)),(GSEMFC(7),GSDA02(1)),
A (GSEMFC(13),GSDA03(1)),(GSEMFC(19),GSDA04(1)),(GSEMFC(25),
B GSDA05(1)),(GSEMFC(31),GSDA06(1)),(GSEMFC(37),GSDA07(1)),
C (GSEMFC(43),GSDA08(1)),(GSEMFC(49),GSDA09(1)),(GSEMFC(55),
D GSDA10(1)),(GSEMFC(61),GSDA11(1)),(GSEMFC(67),GSDA12(1)),
E (GSEMFC(73),GSDA13(1)),(GSEMFC(79),GSDA14(1)),(GSEMFC(85),
F GSDA15(1)),(GSEMFC(91),GSDA16(1)),(GSEMFC(97),GSDA17(1)),
G (GSEMFC(103),GSDA18(1)),(GSEMFC(109),GSDA19(1)),(GSEMFC(115),
H GSDA20(1)),(GSEMFC(121),GSDA21(1)),(GSEMFC(127),GSDA22(1)),
I (GSEMFC(133),GSDA23(1)),(GSEMFC(139),GSDA24(1)),(GSEMFC(145),
J GSDA25(1)),(GSEMFC(151),GSDA26(1)),(GSEMFC(157),GSDA27(1)),

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K (GSEMFC(163),GSDA28(1)),(GSEMFC(169),GSDA29(1)),(GSEMFC(175),
 L GSDA30(1)),(GSEMFC(181),GSDA31(1)),(GSEMFC(187),GSDA32(1)),
 M (GSEMFC(193),GSDA33(1)),(GSEMFC(199),GSDA34(1)),(GSEMFC(205),
 N GSDA35(1)),(GSEMFC(211),GSDA36(1)),(GSEMFC(217),GSDA37(1)),
 O (GSEMFC(223),GSDA38(1)),(GSEMFC(229),GSDA39(1)),(GSEMFC(235),
 P GSDA40(1)),(GSEMFC(241),GSDA41(1)),(GSEMFC(247),GSDA42(1)),
 Q (GSEMFC(253),GSDA43(1)),(GSEMFC(259),GSDA44(1)),(GSEMFC(265),
 R GSDA45(1)),(GSEMFC(271),GSDA46(1)),(GSEMFC(277),GSDA47(1)),
 S (GSEMFC(283),GSDA48(1)),(GSEMFC(289),GSDA49(1)),(GSEMFC(295),
 T GSDA50(1))
 DIMENSION GTDA01(50),GTDA02(50),GTDA03(50),GTDA04(50),GTDA05(50),
 AGTDA06(50),GTDA07(50),GTDA08(50),GTDA09(50),GTDA10(50),GTDA11(50),
 SGTDA12(50),GTDA13(50),GTDA14(50),GTDA15(50),GTDA16(50),GTDA17(50),
 CGTDA18(50),GTDA19(50),GTDA20(50),GTDA21(50),GTDA22(50),GTDA23(50),
 DGTDA24(50),GTDA25(50),GTDA26(50),GTDA27(50),GTDA28(50),GTDA29(50),
 EGTDA30(50),GTDA31(50),GTDA32(50),GTDA33(50),GTDA34(50),GTDA35(50),
 FGTDA36(50),GTDA37(50),GTDA38(50),GTDA39(50),GTDA40(50),GTDA41(50),
 GGTDA42(50),GTDA43(50),GTDA44(50),GTDA45(50),GTDA46(50),GTDA47(50),
 HGTDA48(50),GTDA49(50),GTDA50(50)
 EQUIVALENCE (GSRVCT(1),GTDA01(1)),(GSRVCT(51),GTDA02(1)),
 A (GSRVCT(101),GTDA03(1)),(GSRVCT(151),GTDA04(1)),(GSRVCT(201),
 B GTDA05(1)),(GSRVCT(251),GTDA06(1)),(GSRVCT(301),GTDA07(1)),
 C (GSRVCT(351),GTDA08(1)),(GSRVCT(401),GTDA09(1)),(GSRVCT(451),
 D GTDA10(1)),(GSRVCT(501),GTDA11(1)),(GSRVCT(551),GTDA12(1)),
 E (GSRVCT(601),GTDA13(1)),(GSRVCT(651),GTDA14(1)),(GSRVCT(701),
 F GTDA15(1)),(GSRVCT(751),GTDA16(1)),(GSRVCT(801),GTDA17(1)),
 G (GSRVCT(851),GTDA18(1)),(GSRVCT(901),GTDA19(1)),(GSRVCT(951),
 H GTDA20(1)),(GSRVCT(1001),GTDA21(1)),(GSRVCT(1051),GTDA22(1)),
 I (GSRVCT(1101),GTDA23(1)),(GSRVCT(1151),GTDA24(1)),(GSRVCT(1201),
 J GTDA25(1)),(GSRVCT(1261),GTDA26(1)),(GSRVCT(1301),GTDA27(1)),
 K (GSRVCT(1351),GTDA28(1)),(GSRVCT(1401),GTDA29(1)),(GSRVCT(1451),
 L GTDA30(1)),(GSRVCT(1501),GTDA31(1)),(GSRVCT(1551),GTDA32(1)),
 M (GSRVCT(1601),GTDA33(1)),(GSRVCT(1651),GTDA34(1)),(GSRVCT(1701),
 N GTDA35(1)),(GSRVCT(1751),GTDA36(1)),(GSRVCT(1801),GTDA37(1)),
 O (GSRVCT(1851),GTDA38(1)),(GSRVCT(1901),GTDA39(1)),(GSRVCT(1951),
 P GTDA40(1)),(GSRVCT(2001),GTDA41(1)),(GSRVCT(2051),GTDA42(1)),
 Q (GSRVCT(2101),GTDA43(1)),(GSRVCT(2151),GTDA44(1)),(GSRVCT(2201),
 R GTDA45(1)),(GSRVCT(2251),GTDA46(1)),(GSRVCT(2301),GTDA47(1)),
 S (GSRVCT(2351),GTDA48(1)),(GSRVCT(2401),GTDA49(1)),(GSRVCT(2451),
 T GTDA50(1))
 DATA MINUS/6*8H-----/
 DATA TCDSDF / 9.0 /,TCTSD / 422.0 /,TCVSDF / 12.5 /
 DATA TOTEM / 120*0.0 /,TOTEVP / 10*0.0 /
 DATA TCHBDF,TCHODF,TCDYDF,TCDZDF / 4* 10.0 /
 DATA RUDSDF,RUTSDF,RUVSDF,TFHBDF,TFHODF / 5 * 0.0 /
 DATA RUHBDF,RUHODF, RUDYDF,RUDZDF / 4 * 5.0 /
 DATA ACLNDY / 20.0 /,ACLNDZ,EGCKDZ, ARDSZ / 3 * 8.0 /
 DATA EGCKDY, ACMLPL / 2 * 100.0 /
 DATA TFQDF,TFDZDF,TFDYDF / 2.5E4, 30.0, 30.0 /
 DATA ATQSDY / 10.0 /, ATQSDZ / 2.0 /, NPLTS / 5/, ITAPE/21/
 DATA FPDLFT,TDDFLT,RFDFLT,SFDFLT,PFDFLT,TFDFLT/1.2,1.0,0.1,3*1.0/
 DATA FLTFCT / 1.00, 0.90, 0.98, 0.79, 0.89, 0.83, 0.33 /
 DATA FIXFCT/ .024, .120, .0235, .019, .021, .020, .020 /
 DATA WRKFCT / 0.3, 0.324, 0.312, 0.276, 0.31, 0.295, 0.295 /
 DATA APSPD1/ 0., 2*329.2, 2*463., 420.6, 438.9, 402.3,
 1 471.8, 462.7, 402.3, 438.9, 548.7, 457.2,
 2 555.0, 457.2, 222.39, 256.0, 371.0, 252.0,
 3 222.0, 2*329.2, 334.0, 219.4, 274.3, 274.3,
 4 274.1, 274.1, 329.2, 256.0, 548.7, 324.0,
 5 200.0, 2*219.4, 274.3, 329.2, 471.8, 438.9,
 6 2*57.2, 329.2, 222.0, 0.0, 0.0, 231.65, 2*0.0, 438.9 /
 DATA APSPD2/ 0., 2*310.9, 2*333., 329., 310.9,
 1 2*229.2, 332.8, 329.2, 310.9, 355.8, 329.2,
 2 370.6, 310.9, 222.39, 219.4, 341.0, 252.0, 204.0,

3 2*310.9, 315.0, 201.1, 4*219.4, 237.7, 219.4,
 4 365.8, 204.0, 150.0, 2*201.1, 219.4, 310.9,
 5 329.2, 310.9, 2*329.2, 259.7, 204.0, 0.0, 0.0, 231.65,
 6 2*0.0, 310.9 /
 DATA ASCNT1/ 0.0, 2*5.0, 2*4.5, 2*6.0, 6.5, 8.0, 2*6.0,
 1 5.0, 7.0, 6.5, 2*10.5, 4.0, 5.0, 4.0,
 2 2*4.6, 2*6.0, 4*5.0, 6.0, 2*5.0, 6.0, 4.0,
 3 3*6.5, 6.5, 6.0, 2*7.0, 2*4.0, 0.0, 12.0, 2*0.0, 6.0 /
 DATA ASCNT2/ 0.0, 2*5.5, 2*9.0, 7.8, 8.2, 12.0, 9.9,
 1 8.2, 12.9, 12.7, 9.1, 12.0, 11.25, 10.0, 13.5, 6.1,
 2 11.2, 11.4, 10.0, 2*5.2, 11.3, 6.0, 8.6, 10.3,
 3 2*7.0, 6.3, 6.0, 9.1, 7.5, 6.0, 2*6.0, 9.0, 5.5,
 4 9.9, 12.7, 2*12.0, 11.2, 10.0, 0.0, 12.0, 0.0, 12.7 /
 DATA APPHT2/ 0.0, 2*22.0, 2*16.0, .18, .21, .22, .13,
 1 .12, .22, .20, .07, .15, .20, .17, .3, .08, .27,
 2 .25, .23, 2*18.0, .29, .18, 4*21.0, .29, 2*06.0, .13,
 3 .4, 2*17.0, .21, .22, .13, .2, 2*15.0, .27, .23, 0.0, 0.0,
 4 .762, 2*0.0, .2 /
 DATA DSCNT1/ 0.0, 2*2.5, 2*8.0, 3.5, 4.0, 3.5, 2*4.0,
 1 2*3.5, 3.0, 3.5, 5.0, 3.5, 3.0, 5.5, 2*3.0, 3.5, 2*2.5, 3.5,
 2 4.0, 4*3.5, 4.0, 5.6, 3.0, 4.3, 10.0, 2*4.0, 3.5,
 3 2.5, 4.0, 3.5, 2*3.5, 3.0, 3.5, 0.0, 0.0, 13.0, 2*0.0, 3.5 /
 DATA DSCNT2/ 0.0, 4*2.5, 3.0, 3*3.5, 2.5, 3.5, 3.4,
 1 2*2.5, 3.4, 2*3.0, 12*2.5, 3.0, 2*2.5, 3.0,
 2 3.0, 4*2.5, 3.5, 3.4, 4*2.5, 0.0, 0.0, 13.0, 2*0.0, 3.4 /
 DATA COHT1/ 0.0, 2*33.0, 2*60.0, .32, .47, .30, .36, .52,
 1 2*30.0, .18, .34, .30, .91, .90, .20, .18, .27,
 2 .20, 2*30.0, .25, .10, .25, .22, .21, .25, .23, .20,
 3 .18, .30, .50, 2*17.0, .27, .33, .36, .30, 2*34.0, .18,
 4 .20, 0.0, 0.0, .762, 2*0.0, .3 /
 DATA LNDSPD/ 0.0, 2*296.0, 2*203.0, 2*278.0, 296.0, 314.0, 332.0,
 1 296.0, 287.0, 239.0, 258.0, 287.0, 241.0, 203.86, 166.0, 227.0,
 2 212.0, 185.0, 2*296.0, 240.0, 148.0, 4*166.0, 185.0, 148.0,
 3 2*0.0, 203.0, 4*111.0, 296.0, 296.0, 314.0, 297.0, 258.0, 227.0,
 4 185.0, 0.0, 0.0, 218.68, 2*0.0, 287.0 /
 DATA COSPD1/ 0.0, 2*369.0, 2*582.0, 450.0, 585.0, 549.0,
 1 592.0, 3*554.0, 556.0, 554.0, 648.6, 463.0, 370.65, 366.0,
 2 324.0, 252.0, 239.0, 2*331.0, 297.0, 210.0, 2*256.0, 2*250.0,
 3 300.0, 366.0, 556.0, 349.0, 150.0, 2*201.0, 329.0, 369.0,
 4 592.0, 3*554.0, 399.0, 239.0, 0.0, 0.0, 833.94, 2*0.0, 554.0 /
 DATA COSPD2/ 0.0, 2*558.0, 2*582.0, 499.0, 658.0, 549.0,
 1 650.0, 3*554.0, 556.0, 554.0, 640.0, 463.0, 370.65, 439.0,
 2 463.0, 252.0, 463.0, 2*481.0, 463.0, 219.0, 2*402.0, 377.0,
 3 342.0, 450.0, 457.0, 556.0, 450.0, 200.0, 2*219.0, 439.0,
 4 550.0, 650.0, 3*554.0, 499.0, 463.0, 0.0, 0.0, 833.94, 2*0.0, 554.0 /
 DATA TOSPD/ 0.0, 2*267.0, 2*212.0, 296.0, 2*314.0, 365.0,
 1 342.0, 296.0, 314.0, 287.0, 283.0, 314.0, 263.0, 222.29,
 2 185.0, 263.0, 260.0, 215.0, 2*305.0, 250.0, 169.0, 183.0,
 3 193.0, 170.0, 185.0, 223.0, 168.0, 287.0, 206.0, 129.0,
 4 2*129.0, 193.0, 267.0, 366.0, 314.0, 2*283.0, 234.0,
 5 215.0, 0.0, 0.0, 346.55, 2*0.0, 314.0 /
 DATA SRTUPT/ 0.0, 4*10.0, 2*6.1, 8.0, 5.0, 6.1,
 1 8.0, 6.4, 5.0, 6.2, 7.5, 15.0, 10.0, 8.0, 10.0, 3.2,
 2 2.0, 10.0, 20.0, 10.0, 2.0, 2*15.0, 3.2, 2*2.5, 3.8, 5.2,
 3 2.3, 8.0, 10.0, 20.0, 15.0, 10.0, 5.0, 6.4, 2*6.2,
 4 3.0, 2.3, 0.0, 0.0, 16.0, 2*0.0, 6.4 /
 DATA EGCHKT/ 0.0, 2*10.0, 2*1.0, .6, 2*2.0, 2*8.0, 2.0,
 1 .8, .75, 1.4, .125, 2.0, 0.3, 2.0, 2*1.5, 10.0, 2.5, .1,
 2 .5, 2*3.0, 2*1.0, .3, .5, .3, .1, 4*2.0, 10.0, 2*8.0,
 3 2*1.4, .1, 5.0, 0.0, .33, 2*0.0, .8 /
 DATA SHTDNT/ 0.0, 2*4.8, 2*0.5, 1.0, 2*2.0, 0.5, 0.8, 2.0,
 1 .4, .66, 1.3, .25, 3.0, 5.0, 2*2.0, .3, 2.5, 2*4.5,
 2 1.5, 1.0, 2*2.0, .3, .5, .4, .6, .7, .3, 4*2.0,
 3 4.0, .5, .4, 2*1.3, 2.0, 2.5, 0.0, 0.0, 12.0, 2*0.0, .4 /

DATA TOWT / 0.0,2*340.,2*45., 36., 45., 30., 20., 45.,
 1 35., 50., 18., 75., 42., 30., 35., 11., 712.5, 102.0,
 2 155.0, 2*223.0, 323.1, 24.0, 4*50.0, 14.0,
 3 6., 12., 14., 4.5, 4.5, 4.5, 11.,
 4 340.0, 20., 50., 2*75., 520., 155., 0., 0., 33., 2*0., 50. /
 DATA TXISPD / 0.0, 2*12.0, 2*27.0, 9.9, 2*34.0, 9.2, 12.0,
 1 34., 37., 25., 12.9, 37.1, 37., 32.432, 22., 15.9,
 2 32.5, 8.5, 2*13.3, 24.8, 35.0, 2*27.0, 23.6, 17.1, 34.2,
 3 22.3, 21.8, 37.5, 3*27.0, 34.0, 12.0, 9.2, 37.0, 2*12.9,
 4 15.9, 8.5, 0., 0., 55.6, 2*0., 37. /
 DATA ENGNO / 4, 2*8, 2*2, 1, 2, 3*1,
 1 1, 4*2, 1, 2*2, 4, 2,
 2 4*4, 2, 4, 4, 2*2, 1,
 3 3*2, 2*1, 2*2,
 3 8.1,2,2,2,4,4,0,0,1,0,0,2,
 4 2, 2*4, 7*1,
 5 8*1, 2, 1,
 6 4*2, 1, 2, 2, 2*1, 1,
 7 7*1,
 8 4,1,1,1,1,2,2,0,0,1,0,0,1 /
 DATA APPHT,CLMBHT / 2* 0.9144 /
 DATA EGNAME/8HJ 79-G15, 8HJ57-P21B, 8HJ57-59W, 8HTF33-P3,
 A 8HTF30-P7, 8HJ 85-5, 8HJ75-P17, 8HTF39,
 B 8HT 56-A7, 8HT 76, 8H0470, 8H0360
 C 8HJ57-P43W, 8HJ69-T25, 8HJ79-G17, 8HTF30P100,
 D 8HTF34-100, 8HTF41, 8HF100, 8HF101,
 E 8HT 56-A15, 8HTF39 LS, 8HJ60-P5B, 8HJ-33,
 F 8HJT-80, 8HR-4360, 8HR-3350, 8HJ57-P19W,
 G 8HJ75-19W, 8HTF30-P3, 8HTF33-P7, 8HJ79-G15*,
 H 8HTF33-P3*, 8HTF33-P3*, 8HJ 85-5*, 8H0360*,
 I 8HJ79-G17*, 8HJ57-P4C*,
 J 12*8HUNASSGND /
 DATA ACNAME/0HB-1, 0HB 52D/F, 0HB 52 H, 0HB 57A-E,
 A0HB-57 F, 0HF 100, 0HF 101, 0HF 102, 0HF 104A, 0HF 105,
 B0HF 106, 0HF 4-C/F, 0HF 5, 0HF 111 A, 0HF 15, 0HA 7,
 C0HA 10, 0HA 37, 0HC 5A, 0HC 9A, 0HC 130, 0HC 135A,
 D0HC 135B, 0HC 141A, 0HC 7, 0HC 121, 0HC 97, 0HC 119,
 E0HUNASSGND,0HT 33, 0HT 37, 0HT 38, 0HT 39, 0HT 41,
 F0HO 1, 0HO 2, 0HOV10, 0HB-52G, 0HF104C, 0HF 4 E,
 G0HF111 D/E,0HF111 F, 0HC-5 LS, 0HC130 H, 0H4HDM,
 H0HUNASSGND,0HF 16, 12*8HUNASSGND,0HTRANSENT /
 DATA PLNAME /4HCO, 4HHC, 4HNOX, 4HPM, 3H5OX, 4H /
 DATA FLNAME/4HAM G,4HJP 4,4HAC G,4HDESL,4HJP 5,4HJP 8,4HJETA /
 DATA ALPHA /11.70365,11.10673, 12.42382, 12.68789,13.687,13.038
 1, 13.024 /
 DATA BETA / 3869.54, 3129.5187, 3276.8848, 5108.4194,5329.139,
 1 4789.001, 4782.209 /
 DATA FLOENS / 0.695, 0.773, 0.693, 0.842, 0.824, 0.607, 0.807 /
 DATA PPEMFC / 5, 1., 5., 45., 5, 1., 5., 45., 4., 5., 5,
 1 5, 272., 272., 320., 320., 19, 18, 24, 0., 23, 0., 15, 5,
 2 1.5,10.0,0.015,0.1,0.1,1.25,0.25,0.35,0.35,0.35,640.0,640.0,
 3 129.0,120.0,0.48,0.45,0.096,0.0,0.001,0.0,9.0,7.5,3.0,1.5,13.8,
 4 4.6,11.5,2.0,12.6,7.2,7.2,1.5,6250.0,2810.0,1600.0,800.0,1.45,
 5 1.35,1.2,1.72,1.12,1.72,0.6,5,1.,10.,8.5,1.,1.,5.,40.36,
 6 41.67,42.14,310.,160.,160.,160.,160.,22.,2.,23,0.,22,0.,
 7 19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,19.0,
 8 17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,17.19,
 9 22* 0.0 /
 DATA EMFCIN / 0.0,100.0,12.5,50.0,6.25,0.0,25.0,10.0,12.5,5.0,
 1 1.5,1.0,1.5,0.5,0.75,5.0,15.5,4.0,7.5,2.0,0.0,0.75,0.75,0.35,
 2 0.35, 5*0.0 /
 DATA TREMFC / 560., 320., 4.15, 128., 2*1.0 /
 DATA LUEMFC / 130.0,72.0,25.0,11.0,1.0,0.0,14.0,15.0,0.0,21.
 1 1.2,4.7,1.8,0.17,0.3,2.4,23.0,0.2,17.0,5.9,1.9,0.75,0.07,0.0,

2 1.0,4.0,0.0,0.8,3.4,3.0,4.0,16.0,0.03,0.0,0.2,4.7,0.0,56.0,6.8,0.5,
3 0.16,0.03,0.0,0.3,1.4,0.0, 9* 0.0 /

DATA EGDA01 / 57.0,					
A	14.2,	12.0,	2.5,	.5,	1.0, 0.0,
M	2.2,	1.8,	4.1,	1.4,	1.0, 0.0,
B	4.0,	.2,	8.9,	2.2,	1.0, 0.0,
DATA EGDA02 / 72.0,					
A	15.7,	60.0,	2.3,	.16,	1.0, 0.0,
M	2.0,	4.2,	4.3,	.72,	1.0, 0.0,
B	4.0,	.1,	9.8,	2.0,	1.0, 0.0,
DATA EGDA03 / 55.0,					
A	32.5,	52.9,	2.4,	.13,	1.0, 0.0,
M	2.4,	14.2,	3.3,	.22,	1.0, 0.0,
B	21.1,	.2,	11.3,	.84,	1.0, 0.0,
DATA EGDA04 / 84.0,					
A	6.3,	107.0,	1.8,	.23,	1.0, 0.0,
M	1.7,	2.6,	5.8,	.99,	1.0, 0.0,
B	1.7,	.6,	10.0,	1.73,	1.0, 0.0,
DATA EGDA05 / 53.0,					
A	11.5,	30.0,	3.0,	.021,	1.0, 0.0,
M	.8,	3.2,	6.1,	.12,	1.0, 0.0,
B	4.0,	.1,	20.0,	.35,	1.0, 0.0,
DATA EGDA06 / 178.0,					
A	73.6,	30.0,	1.3,	.003,	1.0, 0.0,
M	29.0,	6.4,	1.8,	.007,	1.0, 0.0,
B	26.04,	.8,	2.6,	.018,	1.0, 0.0,
DATA EGDA07 / 86.0,					
A	17.5,	72.0,	2.3,	.23,	1.0, 0.0,
M	1.3,	5.2,	4.3,	.44,	1.0, 0.0,
B	4.0,	.1,	12.0,	1.08,	1.0, 0.0,
DATA EGDA08 / 67.0,					
A	39.2,	23.0,	3.0,	.015,	1.0, 0.0,
M	.7,	13.2,	3.9,	.016,	1.0, 0.0,
B	.5,	.2,	28.0,	.025,	1.0, 0.0,
DATA EGDA09 / 32.0,					
A	22.2,	21.0,	3.9,	.03,	1.0, 0.0,
M	2.1,	12.4,	4.4,	.97,	1.0, 0.0,
B	1.04,	.4,	9.3,	.50,	1.0, 0.0,
DATA EGDA10 / 23.8,					
A	17.2,	7.4,	7.4,	.38,	1.0, 0.0,
M	2.3,	.8,	8.5,	.50,	1.0, 0.0,
B	2.3,	.06,	10.3,	.71,	1.0, 0.0,
DATA EGDA11 / 743.0,					
A	713.2,	191.0,	1.1,	60.0,	.6, 0.0,
M	1160.0,	17.1,	1.0,	45.5,	.6, 0.0,
B	1160.0,	20.4,	9.4,	20.0,	.6, 0.0,
DATA EGDA12 / 848.0,					
A	879.0,	145.0,	1.1,	60.0,	.6, 0.0,
M	1030.0,	70.6,	2.5,	55.0,	.5, 0.0,
B	1030.0,	22.5,	5.3,	20.0,	.6, 0.0,
DATA EGDA13 / 78.0,					
A	24.0,	75.0,	2.2,	.14,	1.0, 0.0,
M	1.5,	9.2,	30.2,	.293,	1.0, 0.0,
B	1.5,	.1,	11.0,	1.74,	1.0, 0.0,
DATA EGDA14 / 129.0,					
A	106.9,	19.0,	1.5,	.55,	1.0, 0.0,
M	32.0,	11.1,	1.7,	.28,	1.0, 0.0,
B	20.6,	.5,	3.6,	.02,	1.0, 0.0,
DATA EGDA15 / 40.1,					
A	20.5,	9.0,	2.7,	.23,	1.0, 0.0,
M	1.8,	6.3,	5.3,	.62,	1.0, 0.0,
B	4.0,	.06,	14.8,	2.22,	1.0, 0.0,
DATA EGDA16 / 43.0,					
A	9.9,	19.0,	2.9,	.02,	1.0, 0.0,
		2.7,	6.3,	.03,	1.0, 0.0,

M		.7,	.1,	28.0,	.24,	1.0, 0.0,
B		4.0,	.01,	3.11,	.150,	1.0, 0.0, /
A	DATA EGDA17 /	106.0,	32.0,	2.0,	.04,	1.0, 0.0,
M		8.3,	.6,	5.8,	.02,	1.0, 0.0,
B		2.3,	.1,	10.0,	.05,	1.0, 0.0,
A	DATA EGDA18 /	119.0,	92.0,	1.5,	.15,	1.0, 0.0, /
M		10.2,	2.2,	6.8,	.36,	1.0, 0.0,
B		1.8,	.2,	21.0,	.67,	1.0, 0.0,
A	DATA EGDA19 /	24.0,	3.2,	3.3,	.12,	1.0, 0.0, /
M		5.8,	1.9,	6.7,	.27,	1.0, 0.0,
B		.9,	.1,	27.0,	.34,	1.0, 0.0,
A	DATA EGDA20 /	57.2,	12.0,	3.5,	.044,	1.0, 0.0, /
M		8.0,	.2,	8.4,	.045,	1.0, 0.0,
B		1.4,	.2,	24.0,	.05,	1.0, 0.0,
A	DATA EGDA21 /	18.1,	15.1,	2.4,	.38,	1.0, 0.0, /
M		8.5,	3.4,	3.7,	.47,	1.0, 0.0,
B		1.6,	.2,	11.7,	.71,	1.0, 0.0,
A	DATA EGDA22 /	50.0,	15.0,	3.5,	.04,	1.0, 0.0, /
M		48.4,	14.5,	4.6,	.04,	1.0, 0.0,
B		.5,	.1,	40.0,	.04,	1.0, 0.0,
A	DATA EGDA23 /	70.0,	9.2,	1.5,	.02,	1.0, 0.0, /
M		50.5,	5.6,	1.7,	.03,	1.0, 0.0,
B		4.0,	.1,	4.6,	.17,	1.0, 0.0,
A	DATA EGDA24 /	127.0,	19.5,	1.5,	.73,	1.0, 0.0, /
M		84.6,	6.5,	1.9,	.57,	1.0, 0.0,
B		31.3,	.5,	3.6,	.02,	1.0, 0.0,
A	DATA EGDA25 /	50.0,	9.6,	2.0,	.6,	1.0, 0.0, /
M		46.2,	8.9,	2.1,	.78,	1.0, 0.0,
B		1.2,	.6,	4.3,	2.5,	1.0, 0.0,
A	DATA EGDA26 /	743.0,	191.0,	1.0,	60.0,	1.0, 0.0, /
M		691.66,	9.46,	9.37,	40.0,	.6, 0.0,
B		1160.0,	20.4,	11.1,	20.0,	.6, 0.0,
A	DATA EGDA27 /	743.0,	191.0,	1.0,	60.0,	.6, 0.0, /
M		691.66,	9.46,	9.37,	40.0,	.6, 0.0,
B		1160.0,	20.4,	11.1,	20.0,	.6, 0.0,
A	DATA EGDA28 /	79.0,	77.0,	2.2,	.16,	1.0, 0.0, /
M		7.9,	1.4,	5.8,	.93,	1.0, 0.0,
B		1.9,	.1,	11.0,	1.72,	1.0, 0.0,
A	DATA EGDA29 /	62.0,	38.0,	2.6,	.23,	1.0, 0.0, /
M		50.4,	27.3,	2.8,	.25,	1.0, 0.0,
B		1.5,	.03,	10.0,	1.04,	1.0, 0.0,
A	DATA EGDA30 /	72.0,	62.0,	2.3,	.006,	1.0, 0.0, /
M		9.2,	2.1,	4.8,	.05,	1.0, 0.0,
B		0.8,	.003,	12.0,	.040,	1.0, 0.0,
A	DATA EGDA31 /	93.0,	77.0,	1.8,	.11,	1.0, 0.0, /
M		15.7,	3.6,	3.8,	.39,	1.0, 0.0,
B		0.8,	.003,	12.0,	.091,	1.0, 0.0,
A	DATA EGDA32 /	57.0,	12.0,	2.5,	.5,	1.0, 0.0, /
M		9.4,	1.1,	4.8,	1.8,	1.0, 2.0,

M	2.2,	.2,	8.9,	2.2,	1.0, 0.0,
B	4.0,	.01,	3.11,	.150,	1.0, 0.0 /
DATA EGDA33 /	84.0,	107.0,	1.8,	.23,	1.0, 0.0,
A	7.1,	3.1,	5.4,	.93,	1.0, 0.0,
M	1.7,	.6,	10.0,	1.73,	1.0, 0.0,
B	1.7,	.6,	10.0,	1.73,	1.0, 0.0 /
DATA EGDA34 /	84.0,	107.0,	1.8,	.23,	1.0, 0.0,
A	10.0,	4.6,	4.8,	.78,	1.0, 0.0,
M	1.7,	.6,	10.0,	1.73,	1.0, 0.0,
B	1.7,	.6,	10.0,	1.73,	1.0, 0.0 /
DATA EGDA35 /	178.0,	30.0,	1.3,	.003,	1.0, 0.0,
A	43.0,	3.5,	2.3,	.011,	1.0, 0.0,
M	29.0,	.8,	2.6,	.018,	1.0, 0.0,
B	26.04,	.07,	1.99,	.008,	1.0, 0.0 /
DATA EGDA36 /	848.0,	145.0,	1.1,	60.0,	.6, 0.0,
A	945.9,	23.6,	5.5,	40.9,	.6, 0.0,
M	1030.,	22.5,	5.3,	20.0,	.6, 0.0,
B	1030.,	22.5,	5.3,	20.0,	.6, 0.0 /
DATA EGDA37 /	40.1,	9.0,	2.7,	.23,	1.0, 0.0,
A	27.7,	6.2,	5.5,	.86,	1.0, 0.0,
M	1.8,	.006,	14.8,	2.22,	1.0, 0.0,
B	4.0,	.01,	3.11,	.150,	1.0, 0.0 /
DATA EGDA38 /	78.0,	75.0,	2.2,	.14,	1.0, 0.0,
A	9.7,	1.8,	21.1,	.52,	1.0, 0.0,
M	1.5,	.1,	11.0,	1.74,	1.0, 0.0,
B	1.5,	.1,	11.0,	1.74,	1.0, 0.0 /
DATA EGDA39 /	24*0.0 /				
DATA EGDA40 /	24*0.0 /				
DATA EGDA41 /	24*0.0 /				
DATA EGDA42 /	24*0.0 /				
DATA EGDA43 /	24*0.0 /				
DATA EGDA44 /	24*0.0 /				
DATA EGDA45 /	24*0.0 /				
DATA EGDA46 /	24*0.0 /				
DATA EGDA47 /	24*0.0 /				
DATA EGDA48 /	24*0.0 /				
DATA EGDA49 /	24*0.0 /				
DATA EGDA50 /	24*0.0 /				
DATA IDACEG/	20,28, 4, 6,33, 2, 2, 2, 1,29,				
2	7,32, 6,30,19,18,17,35, 8,25,				
3	9, 3,34,31, 9,27,26,27,50,24,				
4	14,35,23,12,11,36,17,13,15,37,				
5	16,16,22,21,50,50,19,50,50, 1 /				
DATA IEGABF /	1,1,1,0,1,1,1,0,0,0,				
2	0,0,0,0,1,1,0,0,1,1,				
3	0,0,0,0,0,0,0,0,0,0,				
4	0,1,0,0,1,0,1,0,				
5	12*1 /				
DATA IACABF/	1,2*0, 1, 0, 10*1, 14*0, 1,				
.	0, 1, 6*0, 4*1, 7*0, 1				
DATA IDRR/1.	2, 3, 4, 5, 6, 7, 8, 9,10,11,12,13,14,15,16,17,18,				
119,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37, 2, 9,					
2	12,14,14,19,21,100,100,47,100,100,12 /				
DATA EGFF /	1,311,2,72, 8,929, 32,238,				
2	1,063, 2.5, 7,693, 36,10,				
4	0,001, 3,797, 7,436, 7,436,				
6	0,469, 1,000, 2,527, 8,323,				
8	1,133, 1.5, 12,687, 12,687,				
A	0,25, 0,45, 0,90, 0,90,				
2	0,200, 0,040, 0,09, 0,09,				
4	0,231, 0,288, 1,005, 1,005,				
6	0,948, 2,10, 9,077, 54,0,				
8	1,009, 3,00, 8,419, 8,419,				
3	0, 0, 0, 0,				

2 1.134, 1.5, 12.687, 12.687, .463, .528, 2.467, 2.467,
 4 1.2, 2.00, 5.525, 5.525, .959, 1.52, 8.755, 8.755,
 5 .1403, .7939, 1.218, 1.218, .107, .610, .936, .936,
 8 .950, 3.375, 7.469, 7.469, 1.552, 1.729, 13.604, 36.010,
 C .850, 2.10, 6.148, 38.4, 1.067, 2.50, 8.711, 8.711,
 2 1.130, 3.50, 8.929, 32.24, .90, 3.550, 7.436, 7.436,
 4 .900, 3.0, 7.436, 7.436, .453, 1.462, 2.630, 8.323,
 6 .03, .062, .09, .09, 1.060, 3.5, 9.820, 34.950,
 8 .986, 3.0, 7.779, 7.779, 48*0.0 /
 DATA THNAME/8HIDLE ,8HAPPROACH,8HMILITARY,8HAFTER BR/
 DATA MCNAME/8HIDLE ,8HTAXI ,8HENGINE C,8HRUNWAY R,
 18HCLIMB 1 ,8HCLIMB 2 ,8HAPPROACH,8HAPPROACH,8HLANDING .8H /
 DATA MONAM2/2*4H ,4HHECK,4HOLL ,2*4H ,4H 1 ,4H 2 ,
 12*4H /
 DATA NSFLS/4/
 DATA ISFMAP/7,2,5,4,0/
 DATA GCNAME/8HHEATER ,8HCOOLER ,8HGENERATR,8HCOMPRESOR,
 1 8HTST STND,8HBOMB LFT,8HLIGHT ST,8HLEAK TST,
 2 8H,JACK MAN,6*8H /
 DATA GSNAME/
 1 SHH1 ,8H1H1 ,8H ,8HMA3 ,8H ,
 2 SHMD3 ,8H90G20P ,8HAM32A601,8H ,8HMC1A ,
 3 SHMC11 ,8HMC2A ,8H1MC1A ,8HMA1A ,8H ,
 4 SHTTU228E ,8HMJA ,8HMJ2A ,8HITTU22I3,8H ,
 5 SHMJA ,8HMJ1A ,8HMJU63AE ,8H ,8HNF2 ,
 6 SH ,8HM32T1 ,8H ,8HM27M1 ,8H ,
 7 2J*8H /
 DATA IGSCAT/1,1,0,2,0,3,3,3,0,4,4,4,4,0,5,5,5,5,0,6,6,6,0,7,
 1 0,8,0,9,0/
 DATA IGSFLT/1,2,0,1,0,1,2,2,0,1,1,1,2,2,0,1,1,1,2,0,1,1,1,0,1,
 1 0,1,0,1,0/
 DATA GSFF/3.3.2.5,0,0,6.3,0,0,6.7.2.6,24.6,0,0,1.6,
 1 1.0,1.1,1.4,16.2,6.3,5.0,7.8,4.7,0,0,1.2,
 2 1.2,1.0,0,0,1.1,0,0,3.3,0,0,2.6,21*0.0/
 DATA GSDA01/
 A0.3656E+00,0.5436E-01,0.1718E-01,0.1564E-02,0.5385E-03,0.0000E+00/
 DATA GSDA02/
 A0.2560E-01,0.1120E-01,0.1164E+00,0.8400E-02,0.2920E-02,0.0000E+00/
 DATA GSDA03/6*0./
 DATA GSDA04/
 A0.3246E+01,0.1261E+00,0.8419E-01,0.5405E-02,0.5270E-03,0.0000E+00/
 DATA GSDA05/6*0./
 DATA GSDA06/
 A0.3217E+01,0.1248E+00,0.8333E-01,0.5333E-02,0.5200E-03,0.0000E+00/
 DATA GSDA07/
 A0.9600E-01,0.4300E-01,0.4517E+00,0.3233E-01,0.2933E-02,0.0000E+00/
 DATA GSDA08/
 A0.6252E-01,0.5185E-03,0.1230E-01,0.1667E-02,0.2926E-02,0.0000E+00/
 DATA GSDA09/6*0./
 DATA GSDA10/
 A0.2466E+01,0.8526E-01,0.6421E-01,0.4053E-02,0.6840E-03,0.0000E+00/
 DATA GSDA11/
 A0.1420E+01,0.4909E-01,0.3697E-01,0.2333E-02,0.3940E-03,0.0000E+00/
 DATA GSDA12/
 A0.1544E+01,0.1033E+00,0.3267E-01,0.2933E-02,0.5270E-03,0.0000E+00/
 DATA GSDA13/
 A0.5421E-01,0.3421E-01,0.6737E-01,0.1260E-01,0.2947E-02,0.0000E+00/
 DATA GSDA14/
 A0.5248E-01,0.5194E-03,0.1233E-01,0.1628E-02,0.2946E-02,0.0000E+00/
 DATA GSDA15/6*0./
 DATA GSDA16/
 A0.3673E+01,0.1432E+00,0.9524E-01,0.6032E-02,0.5400E-03,0.0000E+00/
 DATA GSDA17/
 A0.3140E-01,0.1280E+00,0.8131E-01,0.5190E-02,0.6154E-03,0.0000E+00/

DATA GSDA18/
 A0.3560E+01,0.1388E+00,0.9231E-01,0.5846E-02,0.5230E-03,0.0000E+00/
 DATA GSDA19/
 A0.1460E+00,0.6420E-01,0.6750E+00,0.4820E-01,0.4370E-02,0.0000E+00/
 DATA GSDA20/6*0./
 DATA GSDA21/
 A0.2502E+01,0.9000E-01,0.6778E-01,0.4333E-02,0.4390E-03,0.0000E+00/
 DATA GSDA22/
 A0.3904E+01,0.1350E+00,0.1017E+00,0.6500E-02,0.6580E-03,0.0000E+00/
 DATA GSDA23/
 A0.3346E+01,0.1157E+00,0.8714E-01,0.5571E-02,0.5640E-03,0.0000E+00/
 DATA GSDA24/6*0./
 DATA GSDA25/
 A0.1761E+01,0.1107E+00,0.3500E-01,0.3143E-02,0.5286E-03,0.0000E+00/
 DATA GSDA26/6*0./
 DATA GSDA27/
 A0.4580E+01,0.1839E+00,0.1213E+00,0.7609E-02,0.5220E-03,0.0000E+00/
 DATA GSDA28/6*0./
 DATA GSDA29/
 A0.2082E+01,0.7238E-01,0.5381E-01,0.3381E-02,0.5240E-03,0.0000E+00/
 DATA GSDA30/6*0./
 DATA GSDA31/6*0./
 DATA GSDA32/6*0./
 DATA GSDA33/6*0./
 DATA GSDA34/6*0./
 DATA GSDA35/6*0./
 DATA GSDA36/6*0./
 DATA GSDA37/6*0./
 DATA GSDA38/6*0./
 DATA GSDA39/6*0./
 DATA GSDA40/6*0./
 DATA GSDA41/6*0./
 DATA GSDA42/6*0./
 DATA GSDA43/6*0./
 DATA GSDA44/6*0./
 DATA GSDA45/6*0./
 DATA GSDA46/6*0./
 DATA GSDA47/6*0./
 DATA GSDA48/6*0./
 DATA GSDA49/6*0./
 DATA GSDA50/6*0./
 DATA GTDA01/50*0.00/
 DATA GTDA02/2.69,2.69,0.00,2.20,0.00,3.11,5.61,5.06,0.00,1.03,
 1 0.00,0.37,1.03,2.20,0.00,0.09,0.09,0.00,0.09,0.00,
 2 3.25,3.25,1.37,0.00,3.36,0.00,0.00,0.00,0.40,0.00,
 3 20*0.00/
 DATA GTDA03/2.69,2.69,0.00,2.20,0.00,3.11,5.61,5.06,0.00,1.03,
 1 0.00,0.37,1.03,2.20,0.00,0.09,0.09,0.00,0.09,0.00,
 2 3.25,3.25,1.37,0.00,3.36,0.00,0.00,0.00,0.40,0.00,
 3 20*0.00/
 DATA GTDA04/50*0.00/
 DATA GTDA05/50*0.00/
 DATA GTDA06/50*0.00/
 DATA GTDA07/50*0.00/
 DATA GTDA08/50*0.00/
 DATA GTDA09/50*0.00/
 DATA GTDA10/0.70,0.70,0.00,0.00,0.00,0.53,0.00,1.10,0.00,0.56,
 1 0.00,0.33,0.58,0.03,0.00,0.00,0.00,0.30,0.00,0.00,
 2 0.00,0.00,0.00,0.00,1.25,0.00,0.00,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA11/0.70,0.70,0.00,0.58,0.00,0.53,0.00,0.00,0.00,0.00,
 1 0.53,0.33,0.00,0.00,0.00,0.00,0.30,0.30,0.00,0.00,
 2 0.00,0.00,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
 3 20*0.00/

DATA GTDA12/0.70,0.70,0.00,0.58,0.00,0.53,0.00,1.10,0.00,0.58,
1 0.00,0.33,0.58,0.09,0.00,0.30,0.00,0.00,0.30,0.00,
2 0.52,0.52,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA13/0.70,0.70,0.00,0.58,0.00,0.53,0.00,1.10,0.00,0.58,
1 0.00,0.33,0.58,0.09,0.00,0.00,0.00,0.00,0.00,0.00,
2 0.00,0.00,0.00,0.00,1.25,0.00,0.00,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA14/0.70,0.70,0.00,0.00,0.00,0.53,0.00,1.10,0.00,0.58,
1 0.00,0.33,0.58,0.00,0.00,0.00,0.00,0.30,0.00,0.00,
2 0.52,0.52,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA15/0.70,0.70,0.00,0.00,0.00,0.00,0.07,1.10,0.00,0.58,
1 0.00,0.33,0.58,0.00,0.00,0.30,0.00,0.00,0.30,0.00,
2 0.00,0.52,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA16/0.23,0.23,0.00,0.00,0.00,0.00,0.50,4.41,0.00,0.10,
1 0.00,0.16,0.10,0.67,0.00,0.14,0.00,0.00,0.14,0.00,
2 2.11,0.00,2.04,0.00,0.23,0.00,0.13,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA17/0.23,0.23,0.00,0.00,0.00,0.25,0.00,4.41,0.00,0.10,
1 0.00,0.16,0.10,0.00,0.00,0.00,0.00,0.14,0.00,0.00,
2 0.00,2.11,2.04,0.00,0.23,0.00,0.13,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA18/0.23,0.23,0.00,0.00,0.00,0.25,0.00,0.00,0.00,0.10,
1 0.00,0.15,0.10,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
2 2.11,0.00,2.04,0.00,0.23,0.00,0.00,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA19/3.21,3.21,0.00,1.33,0.00,3.12,7.60,3.85,0.00,0.75,
1 0.00,0.92,0.75,0.46,0.00,1.18,1.18,1.18,1.18,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.38,0.00,
3 20*0.00/
DATA GTDA20/3.21,3.21,0.00,0.00,0.00,3.12,0.00,0.00,0.00,0.75,
1 0.00,0.00,0.75,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA21/3.21,3.21,0.00,1.33,0.00,3.12,0.00,0.00,0.00,0.75,
1 0.00,0.92,0.75,0.46,0.00,1.18,1.18,1.18,1.18,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.38,0.00,
3 20*0.00/
DATA GTDA22/2.87,2.87,0.00,0.78,0.00,5.16,5.91,4.68,0.00,0.49,
1 0.00,0.32,0.49,0.31,0.00,0.12,0.12,0.12,0.12,0.00,
2 0.00,0.00,0.00,0.00,4.66,0.00,0.00,0.00,0.19,0.00,
3 20*0.00/
DATA GTDA23/3.21,3.21,0.00,1.33,0.00,3.12,7.60,3.85,0.00,0.75,
1 0.00,0.92,0.75,0.46,0.00,0.00,1.18,1.18,0.00,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.38,0.00,
3 20*0.00/
DATA GTDA24/3.21,3.21,0.00,1.33,0.00,3.12,7.60,3.85,0.00,0.75,
1 0.00,0.92,0.75,0.46,0.00,1.18,1.18,1.18,1.18,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.38,0.00,
3 20*0.00/
DATA GTDA25/3.21,3.21,0.00,1.33,0.00,3.12,0.00,0.00,0.00,0.75,
1 0.00,0.92,0.75,0.00,0.00,0.00,1.18,0.00,0.00,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA26/3.21,3.21,0.00,0.00,0.00,3.12,0.00,0.00,0.00,0.75,
1 0.00,0.00,0.75,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.00,0.00,
3 20*0.00/
DATA GTDA27/3.21,3.21,0.00,0.00,0.00,3.12,0.00,0.00,0.00,0.75,
1 0.00,0.00,0.75,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.00,0.00,
3 20*0.00/

DATA GTDA28/3.21,3.21,0.00,0.00,0.00,3.12,0.00,0.00,0.00,0.75,
 1 0.00,0.00,0.75,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
 2 0.00,0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA29/50*0.00/
 DATA GTDA30/0.70,0.70,0.00,0.00,0.00,0.53,0.00,0.00,0.00,0.56,
 1 0.00,0.33,0.56,0.00,0.00,0.00,0.30,0.30,0.00,0.00,
 2 0.00,0.52,0.00,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA31/0.23,0.23,0.00,0.00,0.00,0.25,0.00,0.00,0.00,0.00,
 1 0.00,0.00,0.00,0.00,0.00,0.00,0.14,0.00,0.00,0.00,
 2 0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA32/0.00,0.00,0.00,0.00,0.00,0.53,0.00,0.00,0.00,0.00,
 1 0.00,0.33,0.00,0.00,0.00,0.00,0.30,0.30,0.00,0.00,
 2 0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA33/0.70,0.70,0.00,0.58,0.00,0.53,0.00,1.10,0.00,0.58,
 1 0.00,0.33,0.58,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
 2 0.00,0.00,0.00,0.00,1.25,0.00,0.00,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA34/50*0.00/
 DATA GTDA35/50*0.00/
 DATA GTDA36/0.00,0.00,0.00,0.00,0.00,0.33,0.00,0.00,0.00,0.00,
 1 0.00,0.50,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
 2 0.00,0.00,0.00,0.00,0.50,0.00,0.00,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA37/0.00,0.00,0.00,0.00,0.00,0.33,0.50,0.00,0.00,0.00,
 1 0.00,0.50,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,
 2 0.00,0.00,0.00,0.00,0.50,0.00,0.00,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA38/2.69,2.69,0.00,2.20,0.00,3.11,5.61,5.06,0.00,1.03,
 1 0.00,0.37,1.03,2.20,0.00,0.09,0.09,0.00,0.09,0.00,
 2 3.25,3.25,1.37,0.00,3.36,0.00,0.00,0.00,0.40,0.00,
 3 20*0.00/
 DATA GTDA39/50*0.00/
 DATA GTDA40/0.70,0.70,0.00,0.58,0.00,0.53,0.00,1.10,0.00,0.58,
 1 0.00,0.33,0.58,0.00,0.00,0.00,0.30,0.00,0.30,0.00,
 2 0.52,0.52,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA41/0.70,0.70,0.00,0.00,0.00,0.53,0.00,1.10,0.00,0.58,
 1 0.00,0.33,0.58,0.00,0.00,0.00,0.20,0.30,0.00,0.00,
 2 0.52,0.52,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA42/0.70,0.70,0.00,0.00,0.00,0.53,0.00,1.10,0.00,0.58,
 1 0.00,0.33,0.58,0.00,0.00,0.00,0.00,0.30,0.00,0.00,
 2 0.52,0.52,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA43/0.21,3.21,0.00,1.33,0.00,3.12,7.60,3.85,0.00,0.75,
 1 0.00,0.92,0.75,0.46,0.00,1.18,1.18,1.16,1.18,0.00,
 2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.38,0.00,
 3 20*0.00/
 DATA GTDA44/0.21,3.21,0.00,1.33,0.00,3.12,0.00,0.00,0.00,0.75,
 1 0.00,0.92,0.75,0.46,0.00,1.13,1.18,1.16,1.18,0.00,
 2 0.00,0.00,0.00,0.00,3.18,0.00,0.00,0.00,0.38,0.00,
 3 20*0.00/
 DATA GTDA45/50*0.00/
 DATA GTDA46/50*0.00/
 DATA GTDA47/0.70,0.70,0.00,0.00,0.00,0.00,0.00,1.10,0.00,0.58,
 1 0.00,0.33,0.58,0.00,0.00,0.00,0.00,0.30,0.00,0.00,
 2 0.00,0.52,0.24,0.00,1.25,0.00,0.04,0.00,0.00,0.00,
 3 20*0.00/
 DATA GTDA48/50*0.00/
 DATA GTDA49/50*0.00/

DATA GTDA58/50*0.00/
END

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OVERLAY (FIRST,1,0)
PROGRAM FIRST
DIMENSION DES(10)
SUBROUTINE FIRST
C
C DATA SET 1
2676 FORMAT(A1)
      READ(5,8676)AB1234
      CALL LETTER
      WRITE(6,115)
115 FORMAT(1H1, 60X,17HTABLE OF CONTENTS )
      WRITE(6,201)
201 FORMAT(1H-,33X,42H1. A I R C R A F T   S O U R C E S
1//44X,56HA. D E F A U L T   I N F O R M A T I O N
2// 54X,56H1. ENGINE POLLUTANT EMISSION DATA
3// 54X,56H2. ENGINE POLLUTANT EMISSION RATES
+// 54X,56H3. GSE POLLUTANT EMISSION DATA
+// 54X,56H4. GSE POLLUTANT EMISSION RATES
4// 44X,56HB. I N P U T   I N F O R M A T I O N
5// 54X,56H1. INFORMATION ON AIRCRAFT ACTIVITY, PARKING AREAS, TAXI
6   16HWAYS AND RUNWAYS
7// 54X,56H2. INFORMATION FOR AIRCRAFT SERVICE VEHICLES
8// 54X,56H3. AIRCRAFT LANDING AND TAKEOFF PARAMETERS
9// 44X,56HC. I N T E R I M   C A L C U L A T I O N S
A// 54X,56H1. AIRCRAFT EMISSION FACTORS BY AIRCRAFT TYPE (KG PER EN
B 14ENGINE PER HOUR)
+// 54X,56H2. GROUND SERVICE EQUIPMENT EMISSIONS
C// 33X,56H11. A I R B A S E   S O U R C E S
D// 44X,56HA. V E H I C L E   A G E   D I S T R I B U T I O N   A N
. D / 44X,40H   E M I S S I O N   F A C T O R S
E// 54X,56H1. AIRBASE VEHICLE AGE DISTRIBUTION
F// 54X,56H2. MILITARY AND CIVILIAN POLLUTION EMISSION FACTORS
G// 44X,56HB. A I R B A S E   P O I N T   S O U R C E S
H// 54X,31H1. AIRBASE TRAINING FIRE SITES
      WRITE(6,202)
202 FORMAT(/54X,51H2. AIRBASE TEST CELLS
1// 54X,56H3. AIRBASE RUNUP STANDS
2// 54X,56H4. AIRBASE POWER PLANTS
3// 54X,56H5. AIRBASE INCINERATORS
4// 54X,56H5. AIRBASE STORAGE TANKS
5// 54X,56H7. AIRBASE OTHER POINTS
6// 44X,56HC. A I R B A S E   A R E A   S O U R C E S
7// 54X,56H1. AIRBASE AREA SOURCE GEOMETRIES
8// 54X,56H2. AIRBASE HYDROCARBON FILLING
9// 54X,56H3. AIRBASE PETROLEUM STORAGE TANKS
A// 54X,56H4. AIRBASE TANK TRUCK PARKING
B// 54X,56H5. AIRBASE VEHICLE PARKING
C// 54X,56H6. OTHER AIRBASE EVAPORATIVE HYDROCARBONS
D// 54X,56H7. AIRBASE SPACE HEATING
E// 54X,56H8. AIRBASE OFFROAD VEHICLES
F// 54X,56H9. AIRBASE MILITARY AREA SOURCES
G// 33X,56H10. AIRBASE CIVILIAN VEHICLE AREA SOURCES
H// 44X,56HD. A I R B A S E   L I N E   S O U R C E S
      WRITE(6,203)
203 FORMAT( /54X,50H1. AIRBASE NON-AIRCRAFT LINE SOURCE GEOMETRIES
1// 54X,56H2. AIRBASE MILITARY VEHICLE LINES
2// 54X,56H3. AIRBASE CIVILIAN VEHICLE LINES
3// 54X,56H4. AIRBASE OTHER NON-AIRCRAFT LINES
4// 32X,56H11. E N V I R O N   S O U R C E S
5// 44X,56HA. E N V I R O N   P O I N T   S O U R C E S
6// 44X,56HB. E N V I R O N   A R E A   S O U R C E S
7// 54X,56H1. ENVIRON STATIONARY AREAS
8// 54X,56H2. ENVIRON MOBILE AREAS

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9// 44X,56HC. ENVIRON LINE SOURCES
A// 54X,56H1. ENVIRON ROADWAY LINES
B// 54X,56H2. ENVIRON NON-ROADWAY LINES
C// 33X,56HIV. SUMMARY
D// 44X,56HA. METEOROLOGICAL DATA SUMMARY
E// 44X,56HB. TEMPORAL DISTRIBUTION FRACT
    22H ION SUMMARY
F// 44X,56HC. AIRCRAFT EMISSION SUMMARY
G// 54X,56H1. SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE
H// 54X,56H2. SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT
    WRITE(6,204)
204 FORMAT(/44X,56HD. AIRBASE EMISSION SUMMARY
1// 54X,56H1. SUMMARY OF ANNUAL EMISSIONS FROM GROUND MOBIL SOURCES
2// 54X,56H2. SUMMARY OF ANNUAL EMISSIONS FROM AIRBASE FACILITIES
3// 54X,56H3. SUMMARY OF ANNUAL EMISSIONS FROM EVAPORATIVE HYDROCAR
4. 12HBON SOURCES
5// 44X,56HE. ENVIRON EMISSION SUMMARY
6// 54X,56H1. SUMMARY OF ANNUAL EMISSIONS FROM ENVIRONS
7// 44X,56HF. TOTAL SUMMARY
8// 54X,56H1. SUMMARY OF ALL ANNUAL EMISSIONS
9// 54X,56H2. EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES
    WRITE(6,9000)
9000 FORMAT(1H1,/,60X,12HINTRODUCTION, 8(/))
    WRITE(6,9001)
9001 FORMAT(1H ,28X,80HTHE US AIR FORCE, THROUGH A CONTRACTUAL EFFORT B
1Y ARGONNE NATIONAL LABORATORY /1H ,28X,
2 80H(ANL), HAS DEVELOPED THE USAF/ANL AIR QUALITY ASSESS
3MENT MODEL (AQAM). THIS /1H ,28X,
4 80HMODEL CONSISTS OF FOUR COMPUTER CODES A SOURCE INVE
5NTORY PROGRAM TO COMPUTE /1H ,28X,
6 80HTOTAL EMISSIONS FROM OPERATIONAL INPUT DATA, A SHORT
7-TERM DISPERSION PROGRAM TO /1H ,28X,
8 80HPREDICT AIR QUALITY CONCENTRATIONS ON A ONE-HOUR BAS
9IS, A LONG-TERM PROGRAM TO /1H ,28X,
A 80HPREDICT CONCENTRATIONS ON AN ANNUAL BASIS, AND A MET
BEOROLOGICAL PROGRAM TO /1H ,28X,
C 80HCOMPILE THE CLIMATOLOGY FOR USE IN THE LONG-TERM PRE
DICTIONS. DETAILED /1H ,28X,
E 80HDISCUSSIONS OF THE AQAM THEORY AND APPLICATIONS ARE
FPRESENTED IN AFWL-TR-74-304, /1H ,28X,
G 35HAFWL-TR-75-220, AND AFWL-TR-75-307.
    WRITE(6,9002)
9002 FORMAT(1H0,28X,80HTHE SOURCE INVENTORY PROGRAM INPUT DATA INCLUDES
1 AIRCRAFT ENGINE EMISSION /1H ,28X,
2 80HFACTORS, LANDING AND TAKEOFF (LTO) CYCLE INFORMATION
3, RUNWAY, TAXIWAY, AND /1H ,28X,
4 80HPARKING RAMP COORDINATES, LTO ACTIVITY BY AIRCRAFT T
5YPE, AND EMISSION /1H ,28X
6 80HINFORMATION FOR MANY NON-AIRCRAFT EMISSION SOURCES.
7 AIRCRAFT ENGINE EMISSION /1H ,28X,
8 80HINFORMATION WAS COMPILED FROM MEASUREMENTS TAKEN BY T
9HE AIR FORCE, NAVY, OTHER GO /1H ,28X,
A 35HVERNMENT AGENCIES, AND INDUSTRY.
    WRITE(6,9003)
9003 FORMAT(1H0,28X,80HTHE LTO CYCLE INFORMATION WAS OBTAINED FROM FIEL
1D OBSERVATIONS AT FIVE LOCATIONS /1H ,28X,
2 80HAND PILOT SURVEYS AT SIX LOCATIONS. THIS INFORMATIO
3N INCLUDES TIME IN MODE /1H ,28X,
4 80HMEASUREMENTS, AIRCRAFT VELOCITIES AT SELECTED CHECKPO
5INTS, AND ENGINE FUEL FLOWS /1H ,28X,
6 80HIN EACH OF THE NINE MODES OF THE LTO CYCLE (IDLE AT
7START-UP, TAXI-OUT, ENGINE /1H ,28X,
8 80HCHECK, TAKEOFF ROL, CLIMBOUT, APPROACH, LANDING ON
9RUNWAY, TAXI-IN, AND /1H ,28X,

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      A      80HSHUTDOWN). RUNWAY ROLL TIMES AND LOCATIONS ARE COMP
      B      B0HALGORITHMS DEVELOPED FROM AIRCRAFT OPERATING MANUAL
      C      DS AND ARE FUNCTIONS OF AIR- /1H .28X,
      D      80HCRAFT GROSS WEIGHT, PRESSURE ALTITUDE, AND AMBIENT T
      E      TEMPERATURE. CLIMBOUT TIMES /1H .28X,
      F      80HARE COMPUTED FROM VELOCITY DIFFERENCES BETWEEN TAKEO
      G      HFF AND AT A 3000-FOOT /1H .28X,
      H      10HALTITUDE. )
      I      WRITE(6,9004)
9004  FORMAT(1H0.28X,80HNONAIRCRAFT EMISSION SOURCES ARE COMPUTED BY UTI
      J      LIZING A DATA BANK OF EMISSION /1H .28X,
      K      2 80HFACTORS WHICH HAS BEEN PROGRAMMED INTO THE AQAM. TH
      L      ESE VALUES ARE CONSISTANT /1H .28X,
      M      3 80HWITH THE EPA PUBLICATION AP-42. OPERATIONAL INFORMA
      N      TION MUST BE INPUT /1H .28X,
      O      5 39HSPECIFICALLY FOR EACH AIRBASE ANALYZED. )
C FOLLOWING ARE THE LOCATIONS OF GRID ORIGINS
      READ(5,806) IDMAX
806  FORMAT(I4)
      IF (IDMAX.LE.0) GO TO 816
      WRITE(6,808)
808  FORMAT(1H1,/,54X,26HLOCATION OF GRID ORIGIN,/)
      WRITE(6,810)
810  FORMAT(1X,16X,9HBENCHMARK,25X,8HLATITUDE,14X,9HLONGITUDE,12X,
      .12HUTM NORTHING,11X,11HUTM EASTING)
      WRITE(6,811)
811  FORMAT(1X,14X,*(DESCRIPTION)*.21X,*(DEG/MIN/SEC)*.9X,
      .*(DEG/MIN/SEC)*.10X,*(KILOMETERS)*.11X,*(KILOMETERS)*./)
      DO 813 JJ=1,IDMAX
      READ(5,814) (DES(I),I=1,6),ID1,IM1,S1,ID2,IM2,S2,KMN,KME
814  FORMAT (6A6,2(2I4,F6.3),2F8.3)
      WRITE(6,815) (DES(I),I=1,6),ID1,IM1,S1,ID2,IM2,S2,KMN,KME
815  FORMAT(1X,6A6.12X,2I4,1X,F6.3,7X,2I4,1X,F6.3,T96,F8.3,
      .T120,F8.3)
813  CONTINUE
C FOLLOWING IS THE LIST OF AIRBASE SOURCES.
816  CONTINUE
      READ(5,812) IDMAX
812  FORMAT(I4)
      IF (IDMAX.LE.0) GO TO 817
      WRITE(6,800)
800  FORMAT(1X,4(//)54X,26HLIST OF AIRBASE SOURCES, 2(//))
      WRITE(6,821)
821  FORMAT(1X,9HSOURCE ,6X,12HFACILITY ,15X,11HDESCRIPTION)
      WRITE(6,801)
801  FORMAT(3X,2HID,12X,6HNUMBER,/)
      DO 807 IJ=1,IDMAX
      READ(5,802) NID,FACND,(DES(I),I=1,8)
802  FORMAT(14,A10.2X,8A8)
      WRITE(6,803) NID,FACND,(DES(I),I=1,8)
803  FORMAT(2X,14.9X,A10,10X,8A8)
807  CONTINUE
817  CONTINUE
C***** THE REASON FOR THE PROGRAM IS TO GET AROUND OVERLAY PROBLEMS
C SUBROUTINE INPUT CAN CHANGE DEFAULT VALUES
      CALL INPUT
C
C READ METEOROLOGICAL DATA FROM CARD
C DATA SET 3
C
      READ(5,8675) AB1234
      READ (5,10) TBAR,ADD,PA,WSBAR,DTBAR
10  FORMAT (9F8.2)

```

C RETURN
END


```

SUBROUTINE LETTER
DIMENSION ITITLE(12)
DO 9000 IOVER=2,2
WRITE(6,6001)
6001 FORMAT(1H1)
DO 200 IK=1,12
200 ITITLE(IK)=1H
IHOLD=10HQAAM SOURC
DECODE(10,1,IHOLD)(ITITLE(J),J=1,10)
1 FORMAT(12A1)
ITITLE(11)=1HE
CALL CHARAC(ITITLE)
WRITE(6,6002)
DO 201 IK=1,12
201 ITITLE(IK)=1H
IHOLD=9HINVENTORY
DECODE(9,2,IHOLD)(ITITLE(J),J=1,9)
2 FORMAT(9A1)
CALL CHARAC(ITITLE)
WRITE(6,6002)
DO 1000 L=1,2
READ(5,100)(ITITLE(I),I=1,12)
100 FORMAT(12A1)
6002 FORMAT(1H-)
CALL CHARAC(ITITLE)
WRITE(6,6002)
1000 CONTINUE
IF(IOVER.EQ.2) GO TO 9000
BACKSPACE 5
BACKSPACE 5
9000 CONTINUE
WRITE(6,6001)
RETURN
END

```

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```

SUBROUTINE CHARAC(ITITLE)
  DIMENSION ICHAR(12,37),IALPHA(37),ID(12),ITITLE(12),MASK(11),
  LINE1(132)
  INTEGER OFFSET
  DATA ICHAR/
  .0160,"0370","0614,3""1406,2""1776,4""1406,"1770,"1774,
  .3""1406,2""1774,3""1406,"1774,"1770,"0376,"0776,"1600,6""1400,
  .1600,"0776,"0376,"1770,"1774,"1416,6""1406,"1416,"1774,"1770,
  .2""1776,3""1400,2""1774,3""1400,4""1776,3""1400,2""1774,5""1400,
  .0376,"0776,3""1400,"1434,"1476,3""1406,"0776,"0374,5""1406,
  .2""1776,5""1406,2""1776,8""0160,2""1776,2""0176,6""0030,
  .2""1430,"1770,"0760,"1406,"1414,"1430,"1460,"1540,2""1700,"1540,
  .1460,"1430,"1414,"1406,10""1400,2""1776,"1406,"1616,"1736,
  .2""1566,"1446,8""1406,"1606,"1706,2""1546,2""1466,"1436,"1416,
  .2""1406,"0370,"0774,8""1406,"0774,"0370,"1770,"1774,2""1406,
  .1774,"1770,6""1400,"0370,"0774,6""1406,"1466,"1436,"0774,"0370,
  .1770,"1774,2""1406,"1774,"1770,"1540,"1460,"1430,"1414,2""1406,
  .0376,"0776,3""1400,"0770,"0374,3""0006,"1774,"1770,2""1776,
  .10""0160,10""1406,"0774,"0370,7""1406,2""0614,"0330,"0160,"0040,
  .6""1406,"1446,2""1566,"1736,"1616,3""1406,"0614,"0330,4""0160,
  .0330,"0614,5""1406,2""0614,"0330,6""0160,2""1776,"0006,"0014,
  .0030,"0060,"0140,"0300,"0600,"1400,2""1776,12""0,2""1776,8""1406,
  .2""1776,"0060,"0160,"0360,7""0060,2""0776,2""1774,3""0014,"0030,
  .0060,"0140,"0300,"0600,4""1776,3""0006,2""0376,3""0006,2""1776,
  .0016,"0036,"0066,"0146,"0306,"0776,"1776,5""0006,
  .2""1776,2""1400,2""1776,4""0006,4""1776,3""1400,2""1776,3""1406,
  .4""1776,2""0006,"0014,2""0030,5""0060,2""1776,3""1406,2""1776,
  .3""1406,4""1776,3""1406,2""1776,3""0006,2""1776/
  DATA IALPHA/1HA,1HB,1HC,1HD,1HE,1HF,1HG,1HH,1HI,1HJ,1HK,1HL,1HM,
  .1HN,1HO,1HP,1HQ,1HR,1HS,1HT,1HU,1HV,1HW,1HX,1HY,1HZ,1H ,1H0,1H1,
  .1H2,1H3,1H4,1H5,1H6,1H7,1H8,1H9/
  DATA LINE1/132*1H /
  DATA MASK/"2000,"1000,"400,"200,"100,"40,"20,"10,"4,"2,"1/
  DO 150 IJ=1,12
  J= 13-IJ
  IF(ITITLE(J).NE.IALPHA(27)) GO TO 70
150 CONTINUE
  70 CONTINUE
  NUMLET=J
  OFFSET=(132-NUMLET*11)/2
  DO 250 LJ=1,12
  ITEST=0
  DO 251 JK=1,37
  IF(ITITLE(LJ).EQ.IALPHA(JK)) ITEST=1
  IF(ITEST.EQ.0) GO TO 251
  ID(LJ)=JK
  GO TO 250
251 CONTINUE
  ID(LJ)= 27
250 CONTINUE
  DO 2000 LNCNT=1,12
  DO 1000 LPOS=1,12
  IPOS=(11*(LPOS-1))+ OFFSET
  DO 1200 MAKEUP=1,11
  LTEST=ICHAR(LNCNT,ID(LPOS)).AND.MASK(MAKEUP)
  IF(LTEST.EQ.0) GO TO 1200
  LINE1(IPOS+MAKEUP)=IALPHA(ID(LPOS))
1200 CONTINUE
1000 CONTINUE
  WRITE(6,2000)(LINE1(JQ),JQ=1,132)
  2000 FORMAT(132A1)
  DO 100 I=1,132
  LINE1(I)=1H

```

186 CONTINUE
2888 CONTINUE
RETURN
END

```

DATA(ICHAR(27,K),K=1,12)/
12*8/
DATA(ICHAR(28,K),K=1,12)/
2*1776B,8*1406B,2*1776B/
DATA(ICHAR(29,K),K=1,12)/
0060B,0160B,0360B,7*0060B,2*0776B/
DATA(ICHAR(30,K),K=1,12)/
2*1774B,3*0014B,0030B,0060B,0140B,0300B,0600B,2*1776B/
DATA(ICHAR(31,K),K=1,12)/
2*1776B,3*0006B,2*0376B,3*0006B,2*1776B/
DATA(ICHAR(32,K),K=1,12)/
0016B,0036B,0066B,0146B,0306B,0776B,1776B,5*0006B/
DATA(ICHAR(33,K),K=1,12)/
2*1776B,2*1406B,2*1776B,4*0006B,2*1776B/
DATA(ICHAR(34,K),K=1,12)/
2*1776B,3*1406B,2*1776B,3*1406B,2*1776B/
DATA(ICHAR(35,K),K=1,12)/
2*1776B,2*0006B,0014B,2*0030B,5*0006B/
DATA(ICHAR(36,K),K=1,12)/
2*1776B,3*1406B,2*1776B,3*1406B,2*1776B/
DATA(ICHAR(37,K),K=1,12)/
2*1776B,3*1406B,2*1776B,3*0006B,2*1776B/
DATA IALPHA/1HA,1HB,1HC,1HD,1HE,1HF,1HG,1HH,1HI,1HJ,1HK,1HL,1HM,
1HN,1HO,1HP,1HQ,1HR,1HS,1HT,1HU,1HV,1HW,1HX,1HY,1HZ,1H ,1H0,1H1,
1H2,1H3,1H4,1H5,1H6,1H7,1H8,1H9/
DATA LINE1/135*1H /
DATA MASK/2000B,1000B,400B,200B,100B,40B,20B,10B,4B,2B,1B/
DO 150 IJ=1,12
J= 13-IJ
IF(ITITLE(J).NE.IALPHA(27)) GO TO 70
150 CONTINUE
70 CONTINUE
NUMLET=J
OFFSET=(12-NUMLET)*6
DO 250 LJ=1,12
ITEST=0
DO 251 JK=1,37
IF(ITITLE(LJ).EQ.IALPHA(JK)) ITEST=1
IF(ITEST.EQ.0) GO TO 251
ID(LJ)=JK
GO TO 250
251 CONTINUE
ID(LJ)= 27
250 CONTINUE
DO 2000 LNCNT=1,12
DO 1000 LPOS=1,12
IPOS=(11*(LPOS-1))+ OFFSET
DO 1200 MAKEUP=1,11
LTEST=ICHAR(ID(LPOS),LNCNT).AND.MASK(MAKEUP)
IF(LTEST.EQ.0) GO TO 1200
LINE1(IPOS+MAKEUP)=1H0
1200 CONTINUE
1000 CONTINUE
WRITE(6,200)(LINE1(JQ),JQ=1,135)
DO 500 IK=1,135
603 IF(LINE1(IK).EQ.1H0) LINE1(IK)=1HX
WRITE(6,201)(LINE1(JQ),JQ=1,135)
DO 601 IK=1,135
601 IF(LINE1(IK).EQ.1HX) LINE1(IK)=1HA
WRITE(6,201)(LINE1(JQ),JQ=1,135)
DO 602 IK=1,135
602 IF(LINE1(IK).EQ.1HA)LINE1(IK)=1HV
WRITE(6,201) (LINE1(JQ),JQ=1,135)
201 FORMAT(1H+,135A1)

```

```
200 FORMAT(1H ,135A1)  
DO 106 I=1,135  
LINE1(I)=1H  
106 CONTINUE  
2000 CONTINUE  
RETURN  
END
```

```

SUBROUTINE INPUT
C
C***** INITIALIZE TEMPORAL DISTRIBUTION ARRAYS AND
C***** READ CHANGES TO SAME AND RESIDENT
C***** EMISSION DATA BASES
C
INTEGER ACNAME,EGNAME,ENGNO
REAL LNDSPD
COMMON /ACEDB1/
1 ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2 ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3 APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4 COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5 EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6 APPHT2(50),CLMBHT,TOWT(50)
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFBRT,ATBRT,FLTFCT(7),FIXFCT(7),
6 WRKFCT(7)
COMMON /DSTRBT/
1 ACMO(13,50),ACDY(2,50),ACHR(24,50),VHMLMO(13),
2 VHMLDY(2),VHMLHR(24),CVABMO(13),CVABDY(2),
3 CVABHR(24),CVENMO(13),CVENDY(2),CVENHR(24),
4 FLMO(13,7),FLDY(2,7),FLHR(24,7)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCDYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBD,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBD,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7 ATDSOY,ATDSOZ,TCDSOY,TCTSDY,
8 FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9 PPDFLT,TFDFLT,TFDYDF,MINUS(6)
INTEGER THNAME
COMMON /EGEDB1/
1 MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2 IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
INTEGER GCNAME,GSNAME
COMMON /GSEDB1/
1 NSFLS,ISFMAP(5),
2 GCNAME(15),
3 GSNAME(50),IGSCAT(50),
4 IGSFLT(50),GSFF(50),GSEMFC(6,50),
5 GSRVCT(50,50),
6 GSFUEL(5),NGSTYP,IGSTYP(30),
7 GSUSGE(30),IGSAGN(8,30),
8 GSETIN(8,30)
NAMLIST /EGDATA/
1 EGNAME,EGFF,IEGABF,EGEMFC,
2 IDACEG,IACABF,IDRR
NAMLIST /ACDATA/
1 APPHT,CLMBHT,ENGNO,DSCNT1,
2 DSCNT2,APSPD1,APSPD2,APPHT2,
3 ASCNT1,ASCNT2,COSPD1,COSPD2,
4 COHT1,TXISPD,LNDSPD,TOSPD,
5 SRTUPT,EGCHKT,SHTDNT,TOWT
NAMLIST /DSDATA/
1 ACMO,ACDY,ACHR,VHMLMO.

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2          VHMLDY,VHMLHR,CVABMO,CVABDY,
3          CVABHR,CVENMO,CVENDY,CVENHR,
4          FLMO,FLDY,FLHR
          NAMEDLIST /GSDATA/
1          GSNAME,IGSCAT,IGSFLT,GSFF,
2          GSEMFC,GSRVCT

C
C**** SET UP TEMPORAL DISTRIBUTIONS
C
C*** MONTHLY (1/12 PER MONTH)
C
          FM=1./12.
          DO 10 I=1,12
          DO 11 J=1,50
          ACMO(13,J)=1.
          ACMO(I,J)=FM
11 CONTINUE
          VHMLMO(I)=FM
          CVABMO(I)=FM
          CVENMO(I)=FM
          DO 10 J=1,7
          FLMO(13,J)=1.
          FLMO(I,J)=FM
10 CONTINUE
          VHMLMO(13)=1.
          CVABMO(13)=1.
          CVENMO(13)=1.

C
C*** HOURLY (1/12 PER HOUR FROM 6 A.M. TO 6 P.M.; 0, OTHERWISE)
C
          DO 15 I=1,24
          FH=0.
          IF(I.GT.6.AND.I.LT.19) FH=1./12.
          DO 16 J=1,50
          ACHR(I,J)=FH
16 CONTINUE
          VHMLHR(I)=FH
          CVABHR(I)=FH
          CVENHR(I)=FH
          DO 15 J=1,7
          FLHR(I,J)=FH
15 CONTINUE

C
C*** DAILY (1/7 PER DAY)
C
          FD=1./7.
          DO 20 I=1,2
          DO 21 J=1,50
          ACDY(I,J)=FD
21 CONTINUE
          VHMLDY(I)=FD
          CVABDY(I)=FD
          CVENDY(I)=FD
          DO 20 J=1,7
          FLDY(I,J)=FD
20 CONTINUE

C
C**** DATA SET 2: NAMEDLIST DATA
C
          READ(5,8676) AB1234
          8676 FORMAT(A1)
          CALL CONVRT

C
C*** CARD TYPE 1: ENGINE DATA

```

```
C      READ(3,EGDATA)
C
C***  CARD TYPE 2: AIRCRAFT DATA
C      READ(3,ACDATA)
C
C***  CARD TYPE 3: DISTRIBUTION DATA
C      READ(3,DSDATA)
C
C***  CARD TYPE 4: GSE DATA
C      READ(3,GSDATA)
      RETURN
      END
```



```

OVERLAY(ACEMIV,2,0)
PROGRAM ACEMIV
C
C***** READ, PROCESS WRITE, AND PRINT
C***** AIRCRAFT SOURCE EMISSION INVENTORY
C
      INTEGER ACNAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1      ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2      ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3      APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4      COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5      EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6      APPHT2(50),CLMBHT,TOWT(50)
      COMMON /ACEDB2/
1      NACTYP,NRNWYS,NPKAR,IEGFLG,
2      IACTYP(8),ANNARR(8),ANNDEP(8),ANNTOGO(8),
3      ARFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4      RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5      ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6      ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7      IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8      NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9      NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+      IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
      COMMON /ACEDB3/
1      NWCASE,JES1(8),IRNWY(2,6)
      REAL LUEMFC
      COMMON /EMFDB1/
1      EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2      TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3      FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4      CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5      AFBRT,ATBRT,FLTFACT(7),FIXFCT(7),
6      WRKFCT(7)
      COMMON /DSTRBT/
1      ACMO(13,50),ACDY(2,50),ACHR(24,50),VHMLMO(13),
2      VHMLDY(2),VHMLHR(24),CVABMO(13),CVABDY(2),
3      CVABHR(24),CVENMO(13),CVENDY(2),CVENHR(24),
4      FLMG(13,7),FLDY(2,7),FLHR(24,7)
      COMMON /ANNMET/
1      TBAR,ADD,P,PA,
2      WSBAR,DTBAR,AMDBAR
      COMMON /DEFAULT/
1      NPLTS,ITAPE,ACLNDY,ACLNDZ,
2      TCVSDF,TCHBDF,TCHODF,TCDYDF,
3      TCBZDF,RUDSDF,RUTSDF,RUVSDF,
4      RUHBDF,RUHODF,RUDYDF,RUDZDF,
5      TFDZDF,TFQDF,TFHBD,TFHODF,
6      EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7      ATDSOY,ATDSOZ,TCDSDF,TCTSDY,
8      FPDFLT,TDOFLT,RDFLT,SDFLT,
9      PFDFLT,TFDFLT,TFDYDF,MINUS(6)
      COMMON /TOTS/
1      TOTEM(20,6),TOTEVP(10),EMISSION(8,15,6)
      INTEGER THNAME
      COMMON /EGEDB1/
1      MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2      IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
      INTEGER GCNAME,GSNAME
      COMMON /GSEDB1/
1      NSFLS,ISFMAP(5),

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2      GCNAME(15),
3      GSNAME(50),IGSCAT(50),
4          IGSFLT(50),GSFF(50),GSEMFC(6,50),
5      GSRVCT(50,50),
6      GSFUEL(5),NGSTYP,IGSTYP(30),
7          GSUSGE(30),IGSAGN(8,30),
8      GSETIM(8,30)
DATA DTR /0.0174533/, RTD /57.2958/
C
C**** ACCEPT INPUT DATA
C
C*** AIRFIELD DATA
C
CALL AIRFLD(IERR)
IF(IERR.NE.0) STOP
C
C*** GROUND SERVICE DATA
C
CALL GRDSRV(IERR)
IF(IERR.NE.0) STOP
C
C**** COMPUTE AIRCRAFT EMISSION FACTORS
C
C** AIRCRAFT
C
IEGFLG=0
CALL ACEFCT
C
C** GROUND SERVICE EQUIPMENT
C
CALL GSEFCT
C
C***** CONVERT DEGREES TO RADIANS
C
DO 10 IA=1,NACTYP
IDAC=IACTYP(IA)
ASCNT1(IDAC)=DTR*ASCNT1(IDAC)
ASCNT2(IDAC)=DTR*ASCNT2(IDAC)
DSCNT1(IDAC)=DTR*DSCNT1(IDAC)
DSCNT2(IDAC)=DTR*DSCNT2(IDAC)
10 CONTINUE
DO 20 IR=1,NRNWYS
RNWY(7,IR)=DTR*RNWY(7,IR)
20 CONTINUE
C
C**** WRITE AIRCRAFT DATA TO MASTER SOURCE TAPE
C
WRITE(ITAPE) NPLTS,NPKAR,NRNWYS,NACTYP,NWCASE,
1 APPHT,CLMBHT,IEGFLG,NLSEGS
DO 30 IW=1,NWCASE
DO 30 IA=1,NACTYP
CALL ADLNIV(IW,IA)
WRITE(ITAPE) ((ARRFCN(L,IR),DEPFCN(L,IR),L=1,24),IR=1,6)
30 CONTINUE
WRITE(ITAPE) (JES1(IA),IA=1,NACTYP)
WRITE(ITAPE) TBAR,ADD.PA,WSBAR,DTBAR
WRITE(ITAPE) VHML0,VHMLDY,VHMLHR,CVABMO,CVABDY,CVABHR,
1 CVELNO,CVENDY,CVENHR,FLMO,FLDY,FLHR
WRITE(ITAPE) NIBTT,NIBSEG,IIBSEG,NOBTT,NOBSEG,IOBSEG
WRITE(ITAPE) IDOBTW,IDIBTW,IDPRKA,PAREA,IDIBPA,IDOBPB,NPASQ
WRITE(ITAPE) RNWY,IUSWD,DISRNW
WRITE(ITAPE) ((ACLNSG(L,IS),L=1,12),IS=1,NLSEGS)
DO 40 IA=1,NACTYP
IDAC=IACTYP(IA)

```

```

WRITE(ITAPE) (ACMO(K,IDAC),K=1,13),(ACDY(K,IDAC),K=1,2),
1 (ACHR(K,IDAC),K=1,24)
WRITE(ITAPE) ANNARR(IA),ANNDEP(IA),ANNTGO(IA),ACFUEL(IA),
1 ARFLVT(IA),DPFLVT(IA),ACSPIL(IA),IDAC
WRITE(ITAPE) DSCNT1(IDAC),DSCNT2(IDAC),ASCNT1(IDAC),
1 ASCNT2(IDAC),TXISPD(IDAC),LNDSPD(IDAC),APSPD1(IDAC),
2 APSPD2(IDAC),TOSPD(IDAC),COSPD1(IDAC),COSPD2(IDAC),
3 SRTUPT(IDAC),EGCHKT(IDAC),SHTDNT(IDAC),TOWT(IDAC),
4 APPHT2(IDAC),COHT1(IDAC),IDRR(IDAC)
WRITE(ITAPE) ((ARSVEM(IP,IA,IU),DPSVEM(IP,IA,IU),
1 IU=1,5),IP=1,6)
WRITE(ITAPE) ((TGO(K,L),K=1,3),L=1,4)
40 CONTINUE
END FILE ITAPE

C
C**** PROCESS AIRCRAFT SOURCE INVENTORY
C
C
C**** ZERO ACCUMULATORS
C
DO 110 IP=1,6
DO 110 IM=1,15
DO 110 IA=1,8
EMISS(IA,IM,IP)=0.0
110 CONTINUE

C
C**** ARRIVAL AND DEPARTURE DATA (MODES 1 THRU 11)
C
CALL ARRDEP

C
C**** GROUND SERVICE DATA (MODES 12 THRU 14)
C
CALL GROUND

C
C**** TRAINING FLIGHT DATA (MODE 15)
C
CALL TRNFLT

C
C**** CONVERT TO METRIC TONS
C
DO 120 IP=1,6
DO 120 IM=1,15
DO 120 IA=1,8
EMISS(IA,IM,IP)=EMISS(IA,IM,IP)/1000.
120 CONTINUE

C
C**** CONVERT RADIANS TO DEGREES
C
DO 310 IA=1,NACTYP
IDAC=IACTYP(IA)
ASCNT1(IDAC)=RTD*ASCNT1(IDAC)
ASCNT2(IDAC)=RTD*ASCNT2(IDAC)
DSCNT1(IDAC)=RTD*DSCNT1(IDAC)
DSCNT2(IDAC)=RTD*DSCNT2(IDAC)
310 CONTINUE
DO 320 IR=1,NRWYS
RNWY(7,IR)=RTD*RNWY(7,IR)
320 CONTINUE

C
C**** PRINT AIRCRAFT SOURCE INVENTORY
C
WRITE(6,401)
401 FORMAT(1H1,28(/),
1 59X,*S E C T I O N I*,

```

```

      2  3(/),
      3  52X,*A I R C R A F T   S O U R C E S*)
C
C***  DEFAULT INFORMATION
C
      CALL ODINFO
C
C***  AIRCRAFT SOURCE INPUT INFORMATION
C
      CALL OACSI1
C
C***  INTERMEDIATE CALCULATIONS
C
      CALL OINCLC
      RETURN
      END

```

SUBROUTINE AIRFLD(IERR)

```

C
C**** ACCEPT AIRFIELD DATA
C
COMMON /ACED62/
1  NACTYP, NRNWYS, NPKAR, IEGFLG,
2  IACTYP(8), ANNARR(8), ANNDEP(8), ANNTGO(8),
3  ARRFCN(24,6), DEPFCH(24,6), TGO(3,4), DISRNW(6),
4  RNWY(7,6), IUSWD(28,6), RNWYAR(8,6), RNWYDP(8,6),
5  ACFUEL(8), ARFLVT(8), DPFLVT(8), ACSPIL(8),
6  ARSVEN(6,8,5), DPSVEM(6,8,5), NIBTT(6), NIBSEG(8,6),
7  IISSEG(16,8,6), IDIBTW(8,6), TTARFR(8,8,6), NOBTT(6),
8  NOBSEG(8,6), IOBSEG(16,8,6), IDOBTW(8,6), TTDPPFR(8,8,6),
9  NFASQ(6), IDPRKA(6), PAREA(6,3,3), IDIBPA(8,6),
+  IDOBPA(8,6), NLSEGS, ACLNSG(12,25)
COMMON /ACED63/
1  NWCASE, JES1(8), IRNWY(2,6)
COMMON /DEFAULT/
1  NP LTS, ITAPE, ACLNDY, ACLNDZ,
2  TCVSDF, TCHBDF, TCHODF, TCDYDF,
3  TCDZDF, RUDSDF, RUTSDF, RUVSDF,
4  RUHEDF, RUHODF, RUDYDF, RUDZDF,
5  TFDZDF, TFDQDF, TFHBD, TFHODF,
6  EGCKDY, EGCKDZ, ACMLPL, ARDSOZ,
7  ATDSOY, ATDSOZ, TCDSDF, TCTSDF,
8  FPDFLT, TDDFLT, RFDFLT, SFDFLT,
9  PFDFLT, TFDFLT, TFDYDF, MINUS(6)
C
C**** SET ERROR INDICATOR
C
IERR=1
C
C**** DATA SET 4 - AIRBASE AIRCRAFT AND RUNWAY TOTALS
C
READ (5,8675) AB1234
8676 FORMAT(A1)
C
C*** CARD TYPE 1
C
READ(5,5) NACTYP, NRNWYS, NPKAR, NWINDS, NLSEGS
5 FORMAT(S16)
C
C* NACTYP = NUMBER OF AIRCRAFT TYPES (1<=NACTYP<=8)
C* NRNWYS = NUMBER OF RUNWAYS USED (1<=NRNWYS<=6)
C* NPKAR = NUMBER OF PARKING AREAS (1<=NPKAR<=6)
C* NWINDS = NUMBER OF SPECIAL WIND CONDITIONS (0<=NWINDS<=3)
C* NLSEGS = NUMBER OF TAXIWAY SEGMENTS (1<=NLSEGS<=25)
C
C**** DATA SET 5 - AIRCRAFT ACTIVITY
C
READ (5,8676) AB1234
8677 IA=1, NACTYP
C
C*** CARD TYPE 1
C
READ (5,1) IACTYP(IA), ANNARR(IA), ANNDEP(IA), ANNTGO(IA)
1 FORMAT(I8,3F12.0)
C
C* IACTYP(IA) = AIRCRAFT IDENTIFICATION NUMBER
C* ANNARR(IA) = ANNUAL ARRIVALS (1.<=ANNARR)
C* ANNDEP(IA) = ANNUAL DEPARTURES (1.<=ANNDEP)
C* ANNTGO(IA) = ANNUAL TOUCH-AND-GO'S (1.<=ANNTGO)
C

```

```

6 CONTINUE
C
C**** DATA SET 6 - AIRCRAFT PARKING AREAS
C
C   READ (5,8675) AB1234
C
C   DO 3 IK=1,NPKAR
C
C**** CARD TYPE 1
C
C   READ (5,4) IDPRKA(IK),NPASQ(IK),((PAREA(IK,IQ,J),J=1,3),IQ=1,3)
4   FORMAT(2I8,9F12.0)
C
C*   IDPRKA(IK) = PARKING AREA IDENTIFICATION NUMBER
C*   NPASQ(IK) = NUMBER OF SQUARES IN PARKING AREA (1<=NPASQ<=3)
C*   PAREA(IK,IQ,1) = X-COORDINATE OF CENTER OF SQUARE IQ (KM)
C*   PAREA(IK,IQ,2) = Y-COORDINATE OF CENTER OF SQUARE IQ (KM)
C*   PAREA(IK,IQ,3) = LENGTH OF SIDE OF SQUARE IQ (KM)
C
3 CONTINUE
C
C**** DATA SET 7 - AIRCRAFT TAXIWAY SEGMENTS
C
C   READ (5,8676) AB1234
C
C   DO 5 IS=1,NLSEGS
C
C**** CARD TYPE 1
C
C   READ (5,7) IDSG,(ACLNSG(J,IS),J=1,8)
7   FORMAT(I8,8F12.0)
C
C*   IDSG = SEGMENT IDENTIFICATION NUMBER
C*   ACLNSG(1,IS) = X-COORDINATE OF START POINT (KM)
C*   ACLNSG(2,IS) = Y-COORDINATE OF START POINT (KM)
C*   ACLNSG(3,IS) = HEIGHT ABOVE GROUND OF START POINT (M)
C*                   = ACLNDZ/2. IN DEFAULT
C*   ACLNSG(4,IS) = WIDTH OF LINE
C*                   = ACLNDY IN DEFAULT
C*   ACLNSG(5,IS) = INITIAL VERTICAL DISPERSION PARAMETER
C*                   = ACLNDZ IN DEFAULT
C*   ACLNSG(6,IS) = X-COORDINATE OF END POINT (KM)
C*   ACLNSG(7,IS) = Y-COORDINATE OF END POINT (KM)
C*   ACLNSG(8,IS) = HEIGHT ABOVE GROUND OF END POINT (M)
C*                   = ACLNDZ/2. IN DEFAULT
C
C**** SET DEFAULT VALUES
C
C   IF(ACLNSG(3,IS).LE.0.) ACLNSG(3,IS)=ACLNDZ/2.
C   IF(ACLNSG(4,IS).LE.0.) ACLNSG(4,IS)=ACLNDY
C   IF(ACLNSG(5,IS).LE.0.) ACLNSG(5,IS)=ACLNDZ
C   IF(ACLNSG(8,IS).LE.0.) ACLNSG(8,IS)=ACLNDZ/2.
C
C**** SET REMAINING TAXIWAY DATA
C
C   ACLNSG(9,IS)=1.
C   ACLNSG(10,IS)=1.
C   ACLNSG(11,IS)=SQRT((ACLNSG(6,IS)-ACLNSG(1,IS))**2
1     - (ACLNSG(7,IS)-ACLNSG(2,IS))**2)
C   ACLNSG(12,IS)=1.
8 CONTINUE
C
C**** DATA SET 8 - AIRCRAFT RUNWAY INFORMATION
C

```

```

      READ (5,8676) AB1234
C
C*** CALCULATE TOTAL NUMBER OF WIND CONDITIONS
C
      NWINDS=NWINDS+17
      DO 10 IR=1,NRWYS
C
C*** CARD TYPE 1 (RUNWAY GEOMETRIES)
C
      READ (5,11) IRNWY(1,IR),(RNWY(J,IR),J=2,7),DISRNW(IR)
11  FORMAT(I8,8F10.0)
C
C*  IRNWY(1,IR) = RUNWAY IDENTIFICATION NUMBER
C*  RNWY(2,IR) = X-COORDINATE OF RUNWAY BEGINNING (KM)
C*  RNWY(3,IR) = Y-COORDINATE OF RUNWAY BEGINNING (KM)
C*  RNWY(4,IR) = HEIGHT OF AIRCRAFT ENGINE (M)
C*              = ACLNDZ/2. IN DEFAULT
C*  RNWY(5,IR) = INITIAL HORIZONTAL DISPERSION PARAMETER (M)
C*              = ACLNDY IN DEFAULT
C*  RNWY(6,IR) = INITIAL VERTICAL DISPERSION PARAMETER (M)
C*              = ACLNDZ IN DEFAULT
C*  RNWY(7,IR) = RUNWAY ORIENTATION (DEG)
C*  DISRNW(IR) = RUNWAY LENGTH (KM)
C
C*** SET DEFAULT VALUES
C
      IF(RNWY(4,IR).LE.0.) RNWY(4,IR)=ACLNDZ/2.
      IF(RNWY(5,IR).LE.0.) RNWY(5,IR)=ACLNDY
      IF(RNWY(6,IR).LE.0.) RNWY(6,IR)=ACLNDZ
C
C*** CARD TYPE 2 (RUNWAY WIND DIRECTION USE)
C
      READ(5,12) IDRW,(IUSWD(IW,IR),IW=1,NWINDS)
12  FORMAT(I8,20I3)
C
C*  IDRW = RUNWAY IDENTIFICATION NUMBER
C*  IUSWD(IW,IR) = RUNWAY USE INDICATOR FOR WIND CONDITION IW
C
C*** CARD TYPE 3 (RUNWAY ARRIVALS)
C
      READ (5,15) IDRW,(RNWYAR(IA,IR),IA=1,8)
15  FORMAT(I8,8F10.0)
C
C*  IDRW = RUNWAY IDENTIFICATION NUMBER
C*  RNWYAR(IA,IR) = ANNUAL ARRIVALS OF AIRCRAFT IACTYP(IA)
C
C*** CARD TYPE 4 (RUNWAY DEPARTURES)
C
      READ (5,15) IDRW,(RNWYDP(IA,IR),IA=1,8)
C
C*  IDRW = RUNWAY IDENTIFICATION NUMBER
C*  RNWYDP(IA,IR) = ANNUAL DEPARTURES OF AIRCRAFT IACTYP(IA)
C
C*** CARD TYPE 5 (RUNWAY TAXIWAYS)
C
      READ (5,5) IDRW,NIBTT(IR),NOBTT(IR)
C
C*  IDRW = RUNWAY IDENTIFICATION NUMBER
C*  NIBTT(IR) = NUMBER OF INBOUND TAXIWAYS (0<=NIBTT<=8)
C*  NOBTT(IR) = NUMBER OF OUTBOUND TAXIWAYS (0<=NOBTT<=8)
C
C*** PROCESS INBOUND TAXIWAYS
C
      NIN=NIBTT(IR)

```

```

      IF(NX.EQ.0) GO TO 2000
      DO 20 IX=1,NX
C
C*** CARD TYPE 6 (INBOUND TAXIWAY USAGE)
C
      READ (5,21) IDRW,IDIBTW(IX,IR),IDIBPA(IX,IR),
1      (TTARFR(IX,IA,IR),IA=1,8)
      21 FORMAT(3I5,8F10.0)
C
C*      IDRW = RUNWAY IDENTIFICATION NUMBER
C*      IDIBTW(IX,IR) = INBOUND TAXIWAY IDENTIFICATION NUMBER
C*      IDIBPA(IX,IR) = PARKING AREA IDENTIFICATION NUMBER
C*      TTARFR(IX,IA,IR) = FRACTIONAL TAXIWAY USAGE BY AIRCRAFT IACTYP(IA)
C
C*** CARD TYPE 7 (INBOUND TAXIWAY SEGMENTS)
C
      READ (5,24) IDRW,IDTX,IDPK,NIBSEG(IX,IR),(IIBSEG(IS,IX,IR),
1      IS=1,16)
      24 FORMAT(4I6,16I6)
C
C*      IDRW = RUNWAY IDENTIFICATION NUMBER
C*      IDTX = INBOUND TAXIWAY IDENTIFICATION NUMBER
C*      IDPK = PARKING AREA IDENTIFICATION NUMBER
C*      NIBSEG(IX,IR) = NUMBER OF TAXIWAY SEGMENTS (1<=NIBSEG<=16)
C*      IIBSEG(IS,IX,IR) = IDENTIFICATION NUMBER OF TAXIWAY SEGMENT IS
C
      20 CONTINUE
C
C*** PROCESS OUTBOUND TAXIWAYS
C
      2000 CONTINUE
      NX=NOBTT(IR)
      IF(NX.EQ.0) GO TO 10
      DO 10 IX=1,NX
C
C*** CARD TYPE 8 (OUTBOUND TAXIWAY USAGE)
C
      READ (5,21) IDRW,IDOBTW(IX,IR),IDOBPA(IX,IR),
1      (TTDPFR(IX,IA,IR),IA=1,8)
C
C*      IDRW = RUNWAY ID NUMBER
C*      IDOBTW(IX,IR) = OUTBOUND TAXIWAY IDENTIFICATION NUMBER
C*      IDOBPA(IX,IR) = PARKING AREA IDENTIFICATION NUMBER
C*      TTDPFR(IX,IA,IR) = FRACTIONAL TAXIWAY USAGE BY AIRCRAFT IACTYP(IA)
C
C*** CARD TYPE 9 (OUTBOUND TAXIWAY SEGMENTS)
C
      READ (5,24) IDRW,IDTX,IDPK,NOBSEG(IX,IR),(IOBSEG(IS,IX,IR),
1      IS=1,16)
C
C*      IDRW = RUNWAY IDENTIFICATION NUMBER
C*      IDTX = TAXIWAY IDENTIFICATION NUMBER
C*      IDPK = PARKING AREA IDENTIFICATION NUMBER
C*      NOBSEG(IX,IR) = NUMBER OF TAXIWAY SEGMENTS (1<=NOBSEG<=16)
C*      IOBSEG(IS,IX,IR) = IDENTIFICATION NUMBER OF TAXIWAY SEGMENT IS
C
      40 CONTINUE
C
C*** END RUNWAY LOOP
C
      10 CONTINUE
C
C*** RESET ERROR INDICATOR
C

```

IERR=0
RETURN
END

SUBROUTINE GRDSRV(IERR)

C***** ACCEPT AIRCRAFT GROUND SERVICE DATA

COMMON /ACEDB2/

```

1  NACTYP,NRNWYS,NPKAR,IEGFLG,
2  IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3  ARRFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4  RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5  ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6  ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7  IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8  NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9  NPASQ(6),IDPRKA(3),PAREA(6,3,3),IDIBPA(8,6),
+  IDOBPA(8,6),NLSEGS,ACLNSG(12,25)

```

COMMON /ACEDB3/

```

1  NWCASE,JESI(8),IRNWY(2,6)

```

COMMON /DEFAULT/

```

1  NPLTS,ITAPE,ACLNDY,ACLNDZ,
2  TCVSDF,TCHBDF,TCHODF,TCDYDF,
3  TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4  RUHBDF,RUHODF,RUDYDF,RUDZDF,
5  TFDZDF,TFQDF,TFHBDF,TFHODF,
6  EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7  ATDSOY,ATDSOZ,TCDSOY,TCTSDY,
8  FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9  PFDFLT,TFDFLT,TFDYDF,MINUS(6)

```

INTEGER GCNAME,GSNAME

COMMON /GSEDB1/

```

1  NSFLS,ISFMAP(5),
2  GCNAME(15),
3  GSNAME(50),IGSCAT(50),
4  IGSFLT(50),GSFF(50),GSEMFC(6,50),
5  GSRVCT(50,50),
6  GSFUEL(5),NGSTYP,IGSTYP(30),
7  GSUSGE(30),IGSAGN(8,30),
8  GSETIM(8,30)

```

C
C***** SET ERROR INDICATOR

IERR=1

C
C***** DATA SET 9 - GROUND SERVICE EQUIPMENT EMISSIONS

READ(5,8676) AB1234

8676 FORMAT(A1)

C
C*** ZERO DATA

```

DO 30 IU=1,5
  GSFUEL(IU)=0.
30 CONTINUE
DO 40 IG=1,30
  IGSTYP(IG)=0.
  GSUSGE(IG)=0.
  IGSAGN(IG,IG)=0.
40 CONTINUE

```

C
C** CARD TYPE 1 (GSE FUEL USAGE)

```

READ(5,41) NGSTYP,(GSFUEL(IU),IU=1,NSFLS)
41 FORMAT(I4,4X,5F8.3)

```

```

C
C* NGSTYP = NUMBER OF GSE TYPES
C* GSFUEL(IU) = ANNUAL CONSUMPTION OF FUEL IU (GAL)
C
C*      IU=1: GASOLINE
C*      IU=2: JP-4
C*      IU=3: DIESEL
C*      IU=4: JP-8
C*      IU=5: -UNASSIGNED-
C
C*** CARD TYPE 2 (GSE INVENTORY AND USAGE)
C
      DO 45 IG=1,NGSTYP
      READ(5,42) IGSTYP(IG),GSUSGE(IG),(IGSAGN(IA,IG),IA=1,NACTYP)
42  FORMAT(I4,F10.0,6X,8I1)
C
C*      IGSTYP(IG) = IDENTIFIER FOR GSE IG
C*      GSUSGE(IG) = PERCENTAGE USE OF GSE IG
C*      IGSAGN(IA,IG) = USE INDICATOR OF GSE IG ON AIRCRAFT IA
C
      45 CONTINUE
C
C**** DATA SET 10 - AIRCRAFT REFUELING, SPILLAGE, AND VENTING TOTALS
C
      READ(5,3676) AB1234
C
C*** ZERO DATA
C
      DO 20 IA=1,8
      JES1(IA)=0
      ACFUEL(IA)=0.
      ACSPIL(IA)=0.
      ARFLVT(IA)=0.
      DRFLVT(IA)=0.
      20 CONTINUE
C
C*** CARD TYPE 1 (FUEL IDENTIFICATION)
C
      READ(5,849) (JES1(IA),IA=1,NACTYP)
849  FORMAT(8X,8I8)
C
C*      JES1(IA) = FUEL IDENTIFIER FOR AIRCRAFT IA (1<=JES1<=7)
C
C*** CARD TYPE 2 (REFUELING DATA)
C
      READ(5,11) INFL,(ACFUEL(IA),IA=1,NACTYP)
11  FORMAT(I4,4X,8F8.3)
C
C*      INFL = DUPLICATION INDICATOR FOR REFUELING
C*      ACFUEL(IA) = REFUELING VALUE FOR AIRCRAFT IA (LITER/OP)
C
C*** CARD TYPE 3 (FUEL SPILLAGE)
C
      READ(5,11) INFS,(ACSPIL(IA),IA=1,NACTYP)
C
C*      INFS = DUPLICATION INDICATOR FOR SPILLAGE
C*      ACSPIL(IA) = FUEL SPILLAGE FOR AIRCRAFT IA (LITER/OP)
C
C*** CARD TYPE 4 (FUEL VENTING FOR ARRIVALS)
C
      READ(5,11) INAV,(ARFLVT(IA),IA=1,NACTYP)
C
C*      INAV = DUPLICATION INDICATOR FOR ARRIVAL VENTING
C*      ARFLVT(IA) = FUEL VENTING FOR ARRIVING AIRCRAFT IA (LITER/OP)

```

```

C
C*** CARD TYPE 5 (FUEL VENTING FOR DEPARTURES)
C
      READ(5,11) INDV,(DPFLVT(IA),IA=1,NACTYP)
C
C*      INDV = DUPLICATION INDICATOR FOR DEPARTURE VENTING
C*      DPFLVT(IA) = FUEL VENTING FOR DEPARTING AIRCRAFT IA (LITER/OP)
C
C*** CHECK FOR DUPLICATION
C
      DO 60 IA=1,NACTYP
      IF(INFL.LE.1) ACFUEL(IA)=ACFUEL(1)
      IF(INFS.LE.1) ACSPIL(IA)=ACSPIL(1)
      IF(INAV.LE.1) ARFLVT(IA)=ARFLVT(1)
      IF(INDV.LE.1) DPFLVT(IA)=DPFLVT(1)
60 CONTINUE
C
C**** RESET ERROR INDICATOR
C
      IERR=0
      RETURN
      END

```

SUBROUTINE ACEFCT

C
C***** COMPUTE AIRCRAFT EMISSION FACTORS
C

INTEGER ACNAME,EGNAME,ENGNO

REAL LNDSPD

COMMON /ACEDE1/

1 ACEMFC(8,18,6),ACNAME(58),EGNAME(58),ENGNO(58,2),
2 ASCNT1(58),ASCNT2(58),TXISPD(58),LNDSPD(58),
3 APSPD1(58),COHT1(58),APSPD2(58),TOSPD(58),
4 COSPD1(58),COSPD2(58),SRTUPT(58),DSCNT1(58),
5 EGCHKT(58),SHTDNT(58),DSCNT2(58),APPHT,
6 APPHT2(58),CLMBHT,TOWT(58)

COMMON /ACEDB2/

1 NACTYP,NRWYS,NPKAR,IEGFLG,
2 IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3 ARRFCH(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4 RNWY(7,6),IUSWD(28,6),RNWYAR(8,6),RNWYDP(8,6),
5 ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6 ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7 IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8 NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9 NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDISPA(8,6),
+ IDOSPA(8,6),NLSEGS,ACLNSG(12,25)

REAL LUEMFC

COMMON /EMFDB1/

1 EGEMFC(6,4,58),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFBRTH,ATBRTH,FLTFC(7),FIXFCT(7),
6 WRKFCT(7)

INTEGER THNAME

COMMON /EGEDB1/

1 MONAM1(18),THNAME(4),MONAM2(18),IDACEG(58),
2 IACABF(58),EGFF(4,58),IEGABF(58),IDRR(58)

DIMENSION ACEMHR(4)

C
C*** LOOP OVER AIRCRAFT TYPES
C

DO 248 IA=1,8
DO 218 IP=1,6
DO 218 IT=1,4
ACEMFC(IA,IT,IP)=0.

218 CONTINUE

IDAC=IACTYP(IA)
IF(IDAC.EQ.0) GO TO 248
IDEG=IDACEG(IDAC)

DO 228 IP=1,6
DO 228 IT=1,4
ACEMHR(IT)=EGEMFC(IP,IT,IDEG)*EGFF(IT,IDEG)/2.28462

228 CONTINUE

IF(IACABF(IDAC).EQ.0) ACEMHR(4)=ACEMHR(3)

ACEMFC(IA,1,IP)=ACEMHR(1)

IF(IDAC.EQ.0)

1 ACEMFC(IA,1,IP)=0.75*ACEMHR(1)+0.25*ACEMHR(2)

ACEMFC(IA,2,IP)=ACEMHR(1)

IF(IDAC.EQ.0)

1 ACEMFC(IA,2,IP)=0.75*ACEMHR(1)+0.25*ACEMHR(2)

ACEMFC(IA,3,IP)=ACEMHR(3)

IF(IDAC.EQ.0)

1 ACEMFC(IA,3,IP)=0.75*ACEMHR(1)+0.25*ACEMHR(2)

IF(IDAC.EQ.0)

```

1  ACEMFC(IA,3,IP)=ACEMHR(1)
   IF(IDAC.EQ.22)
1  ACEMFC(IA,3,IP)=ACEMHR(1)
   IF(IDAC.EQ.38)
1  ACEMFC(IA,3,IP)=ACEMHR(1)
   ACEMFC(IA,4,IP)=ACEMHR(4)
   ACEMFC(IA,5,IP)=ACEMHR(4)
   ACEMFC(IA,6,IP)=ACEMHR(3)
   ACEMFC(IA,7,IP)=ACEMHR(2)
   ACEMFC(IA,9,IP)=0.4*ACEMHR(1)+0.6*ACEMHR(2)
   ACEMFC(IA,9,IP)=ACEMHR(1)
   ACEMFC(IA,10,IP)=0.
230 CONTINUE
240 CONTINUE
   RETURN
   END

```

SUBROUTINE GSEFCT

```

C
C***** COMPUTE GSE EMISSION FACTORS
C
      INTEGER ACNAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1       ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2       ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3       APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4       COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5       EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6       APPHT2(50),CLMBHT,TOWT(50)
      COMMON /ACEDB2/
1       NACTYP,NRWYS,NPKAR,IEGFLG,
2       IACTYP(8),ANNARR(8),ANNDEP(8),ANNNGO(8),
3       ARFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4       RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5       ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6       ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7       IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8       NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9       NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+      IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
      COMMON /ANNMET/
1       TBAR,ADD,P,PA,
2       WSBAR,DTBAR,AMDBAR
      COMMON /DEFAULT/
1       NPLTS,ITAPE,ACLNDY,ACLNDZ,
2       TCVSDF,TCHBDF,TCHODF,TCDYDF,
3       TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4       RUH3DF,RUHODF,RUDYDF,RUDZDF,
5       TFDZDF,TFQDF,TFH3DF,TFHODF,
6       EGCKDY,EGCKDZ,ACMLPL,ARDSDZ,
7       ATDSOY,ATDSOZ,TCDSDF,TCTSDY,
8       FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9       PPDFLT,TFDFLT,TFDYDF,MINUS(6)
      INTEGER GCNAME,GSNAME
      COMMON /GSEGB1/
1       NSFLS,ISFMAP(5),
2       GCNAME(15),
3       GSNAME(50),IGSCAT(50),
4       IGSFLT(50),GSFF(50),GSEMFC(6,50),
5       GSRVCT(50,50),
6       GSFUEL(5),NGSTYP,IGSTYP(30),
7       GSUSGE(30),IGSAGN(8,30),
8       GSETIM(8,30)
      DIMENSION ANNLT0(8),TMPFCT(15)
      DATA THEAT/40./,TCOOL/80./
C
C*** ZERO OUTPUT
C
      DO 110 IU=1,5
      DO 110 IA=1,8
      DO 110 IP=1,6
      ARSVEM(IP,IA,IU)=0.
      DPSVEM(IP,IA,IU)=0.
110 CONTINUE
C
C*** COMPUTE ANNUAL LTO'S
C
      DO 120 IA=1,NACTYP
      ANNLT0(IA)=(ANNARR(IA)+ANNDEP(IA))/2.

```

```

120 CONTINUE
C
C*** IDENTIFY TRANSIENT AIRCRAFT
C
    IATR=0
    DO 130 IA=1, NACTYP
        IDAC=IACTYP(IA)
        IF (ACNAME(IDAC).EQ.'TRANSENT') IATR=IA
    130 CONTINUE
C
C*** COMPUTE TOTAL ANNUAL LTO'S LESS TRANSIENTS
C
    TANLTO=0.
    DO 140 IA=1, NACTYP
        IF (IA.NE.IATR) TANLTO=TANLTO+ANLTO(IA)
    140 CONTINUE
C
C*** ZERO GSE/TRANSIENT ASSIGNMENTS
C
    IF (IATR.EQ.0) GO TO 200
    DO 150 IG=1, NGSTYP
        IGSAGN(IATR,IG)=0
    150 CONTINUE
C
C*** COMPUTE TEMPERATURE ADJUSTMENT FACTORS
C
    200 CONTINUE
    TMPFCT(1)=1.-(TBAR-THEAT)/2./DTBAR
    IF (TMPFCT(1).LE.0.) TMPFCT(1)=0.
    IF (TMPFCT(1).GE.1.) TMPFCT(1)=1.
    TMPFCT(2)=1.-(TCOOL-TBAR)/2./DTBAR
    IF (TMPFCT(2).LE.0.) TMPFCT(2)=0.
    IF (TMPFCT(2).GE.1.) TMPFCT(2)=1.
    DO 210 IC=3, 15
        TMPFCT(IC)=1.
    210 CONTINUE
C
C*** INITIALIZE AVERAGE SERVICE TIMES
C
    DO 310 IG=1, NGSTYP
        IDGS=IGSTYP(IG)
        IC=IGSCAT(IDGS)
        USEFCT=GSUSGE(IG)*TMPFCT(IC)/100.
        DO 310 IA=1, NACTYP
            IDAC=IACTYP(IA)
            GSETIM(IA,IG)=0.
            IF (IGSAGN(IA,IG).NE.0) GSETIM(IA,IG)=USEFCT*GSRVCT(IDAC,IDGS)
        310 CONTINUE
C
C*** INITIALIZE AVERAGE SERVICE TIMES FOR TRANSIENTS
C
    IF (IATR.EQ.0) GO TO 400
    DO 320 IG=1, NGSTYP
        TIM=0.
        DO 320 IA=1, NACTYP
            IF (IA.NE.IATR) TIM=TIM+ANLTO(IA)*GSETIM(IA,IG)
        320 CONTINUE
        GSETIM(IATR,IG)=TIM/TANLTO
        IF (TIM.GT.0.) IGSAGN(IATR,IG)=1
    330 CONTINUE
C
C*** ADJUST AVERAGE SERVICE TIMES
C
    400 CONTINUE

```



```

DO 450 IU=1,NSFLS
GSF=0.
DO 420 IG=1,NGSTYP
IDGS=IGSTYP(IG)
IF(IGSFLT(IDGS).NE.IU) GO TO 420
FF=GSFF(IDGS)
DO 410 IA=1,NACTYP
GSF=GSF+ANNLTO(IA)*FF*GSETIM(IA,IG)
410 CONTINUE
420 CONTINUE
ADJ=1.
IF(GSF.GT.0.) ADJ=GSFUEL(IU)/GSF
DO 440 IG=1,NGSTYP
IDGS=IGSTYP(IG)
IF(IGSFLT(IDGS).NE.IU) GO TO 440
DO 430 IA=1,NACTYP
GSETIM(IA,IG)=ADJ*GSETIM(IA,IG)
430 CONTINUE
440 CONTINUE
450 CONTINUE
C
C*** COMPUTE ARRIVAL AND DEPARTURE SERVICE EMISSIONS
C
DO 540 IU=1,NSFLS
DO 530 IA=1,NACTYP
AF=ANNARR(IA)/ANNLTO(IA)
DF=ANNDEP(IA)/ANNLTO(IA)
DO 520 IP=1,NPLTS
SVEM=0.
DO 510 IG=1,NGSTYP
IDGS=IGSTYP(IG)
IF(IGSFLT(IDGS).EQ.IU)
1 SVEM=SVEM+GSEMFC(IP,IDGS)*GSFF(IDGS)*GSETIM(IA,IG)
510 CONTINUE
ARSVEM(IP,IA,IU)=AF*SVEM
DPSVEM(IP,IA,IU)=DF*SVEM
520 CONTINUE
530 CONTINUE
540 CONTINUE
RETURN
END

```

```

SUBROUTINE ADLNIV(IW,IA)
C
C***** DEFINE LINE-SOURCE GEOMETRY FOR ARRIVALS AND DEPARTURES
C***** OF AIRCRAFT IA IN WIND CONDITION IW
C
      INTEGER ACNAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1      ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2      ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3      APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4      COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5      EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6      APPHT2(50),CLMBHT,TOWT(50)
      COMMON /ACEDB2/
1      NACTYP,HRNWYS,NPKAR,IEGFLG,
2      IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3      ARFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4      RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5      ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6      ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7      IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8      NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9      NPASQ(6),IDPRKA(6),PA EA(6,3,3),IDIBPA(8,6),
+      IDCBPA(8,6),NLSEGS,ACLNSG(12,25)
      REAL LUEMFC
      COMMON /EMFDB1/
1      EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2      TFEHFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3      FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4      CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5      AFERTH,ATBRTH,FLTFC(7),FIXFCT(7),
6      WRKFC(7)
      COMMON /DSTRBT/
1      ACMO(13,50),ACDY(2,50),ACHR(24,50),VHMLMO(13),
2      VHMLDY(2),VHMLHR(24),CVABMO(13),CVABDY(2),
3      CVABHR(24),CVENMO(13),CVENDY(2),CVENHR(24),
4      FLMO(13,7),FLDY(2,7),FLHR(24,7)
      COMMON /ANNMET/
1      TBAR,ADD,P,PA,
2      WSBAR,DTSBAR,AMDBAR
      COMMON /DEFAULT/
1      NP LTS,ITAPE,ACLNDY,ACLNDZ,
2      TCVSDF,TCHBDF,TCHODF,TCYVDF,
3      TCDSDF,RUDSDF,RUTSDF,RUVSDF,
4      RUHSDF,RUHODF,RUDYDF,RUDZDF,
5      TFVZDF,TFQDF,TFH3DF,TFHODF,
6      EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7      ATDSOZ,ATDSOZ,TCDSDF,TCTSDF,
8      FPDFLT,TCDFLT,RPDFLT,SDFFLT,
9      PPDFLT,TFDFLT,TFDYDF,MINUS(6)
      COMMON /TOTS/
1      TOTEM(20,6),TOTEVP(10),EMISS(3,15,6)
      INTEGER THNAME
      COMMON /EGEDB1/
1      MOTAMI(10),THNAME(4),MONAN2(10),IDACEG(50),
2      IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
C
C***** ZERO OUTPUT
C
      DO 10 IR=1,6
      DO 10 L=1,24
      ARFCN(L,IR)=0.

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      DEFCN(L,IR)=0.
10 CONTINUE
C
C**** RETRIEVE AIRCRAFT ID
C
      IDAC=IACTYP(IA)
      IF(IDAC.LE.0.OR.51.LE.IDAC) RETURN
C
C**** COMPUTE ARRIVAL AND DEPARTURE TOTALS
C
      ARFSUM=0.0
      DEPSUM=0.0
      DO 20 IR=1,NRWYS
      IF(IUSWD(IW,IR).EQ.0) GO TO 20
      ARFSUM=ARFSUM+RNWYAR(IA,IR)
      DEPSUM=DEPSUM+RNWYDP(IA,IR)
20 CONTINUE
C
C**** LOOP OVER RUNWAYS
C
      DO 390 IR=1,NRWYS
C
C*** CHECK RUNWAY USAGE
C
      IF(IUSWD(IW,IR).EQ.0) GO TO 390
C
C*** RETRIEVE RUNWAY DATA
C
      X=RNWY(2,IR)
      Y=RNWY(3,IR)
      Z=RNWY(4,IR)
      XA=SIN(RNWY(7,IR))
      YA=COS(RNWY(7,IR))
C
C*** PROCESS ARRIVALS
C
      ARR=RNWYAR(IA,IR)
      IF(ARR.LE.0.0) GO TO 200
C
C*** COMPUTE TIME/DISTANCE DATA
C
      DIS23=APPHT2(IDAC)/SIN(DSCNT2(IDAC))
      DIS12=(APPHT-APPHT2(IDAC))/SIN(DSCNT1(IDAC))
      HDIS12=(APPHT-APPHT2(IDAC))/TAN(DSCNT1(IDAC))
      HDIS23=APPHT2(IDAC)/TAN(DSCNT2(IDAC))
      HDIS34=DISRNW(IR)
C
C
C
      TERMINAL END
C
      ARFCN(19,IR)=HDIS34*XA+X
      ARFCN(20,IR)=HDIS34*YA+Y
      ARFCN(21,IR)=Z
      ARFCN(22,IR)=TXISPD(IDAC)
C
C
C
      TOUCHDOWN POINT
C
      ARFCN(13,IR)=X+0.3048*XA
      ARFCN(14,IR)=Y+0.3048*YA
      ARFCN(15,IR)=Z
      ARFCN(16,IR)=LNDSPD(IDAC)
      ARFCN(17,IR)=HDIS34-0.3048
      ARFCN(18,IR)=2.0*ARFCN(17,IR)/(TXISPD(IDAC)+LNDSPD(IDAC))
C
C
C
      APPROACH PATH POINT 2

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C      ARFCN(7,IR)=ARFCN(13,IR)-HDIS23*XA
C      ARFCN(8,IR)=ARFCN(14,IR)-HDIS23*YA
C      ARFCN(9,IR)=1000.*APPHT2(IDAC)
C      ARFCN(10,IR)=APSPD2(IDAC)
C      ARFCN(11,IR)=DIS23
C      ARFCN(12,IR)=2.0*DIS23/(LNDSPD(IDAC)+APSPD2(IDAC))
C
C      APPROACH PATH POINT 1
C
C      ARFCN(1,IR)=ARFCN(7,IR)-HDIS12*XA
C      ARFCN(2,IR)=ARFCN(8,IR)-HDIS12*YA
C      ARFCN(3,IR)=1000.*APPHT
C      ARFCN(4,IR)=APSPD1(IDAC)
C      ARFCN(5,IR)=DIS12
C      ARFCN(6,IR)=2.0*DIS12/(APSPD2(IDAC)+APSPD1(IDAC))
C
C      *** PROCESS DEPARTURES
C
C      200 CONTINUE
C      DEP=RNWYDP(IA,IR)
C      IF(DEP.LE.0.0) GO TO 300
C
C      ** COMPUTE TIME/DISTANCE DATA
C
C      *****
C      BYPASS DEPARTURE CALCULATIONS
C      GO TO 300
C      *****
C
C      DIS23=COHT1(IDAC)/SIN(ASCNT1(IDAC))
C      DIS34=(CLMBHT-COHT1(IDAC))/SIN(ASCNT2(IDAC))
C      HDIS12=3.048E-4*RRDIST(IDRR(IDAC),PA,TBAR,TOWT(IDAC),1.9426*WSBAR)
C      HDIS23=COHT1(IDAC)/TAN(ASCNT1(IDAC))
C      HDIS34=(CLMBHT-COHT1(IDAC))/TAN(ASCNT2(IDAC))
C
C      START OF RUNWAY ROLL
C
C      NS=NOSSEG(1,IR)
C      IS=IOSSEG(NS,1,IR)
C      DEFCN(1,IR)=X
C      DEFCN(2,IR)=Y
C      DEFCN(3,IR)=Z
C      DEFCN(4,IR)=ACLNSG(10,IS)*TXISPD(IDAC)
C      DEFCN(5,IR)=HDIS12
C      DEFCN(6,IR)=2.0*HDIS12/(ACLNSG(10,IS)*TXISPD(IDAC)+TOSPD(IDAC))
C
C      LIFTOFF POINT
C
C      DEFCN(7,IR)=X+HDIS12*XA
C      DEFCN(8,IR)=Y+HDIS12*YA
C      DEFCN(9,IR)=Z
C      DEFCN(10,IR)=TOSPD(IDAC)
C      DEFCN(11,IR)=DIS23
C      DEFCN(12,IR)=2.0*DIS23/(TOSPD(IDAC)+COSPD1(IDAC))
C
C      CLIMBOUT - END PHASE
C
C      DEFCN(13,IR)=DEFCN(7,IR)+HDIS23*XA
C      DEFCN(14,IR)=DEFCN(8,IR)+HDIS23*YA
C      DEFCN(15,IR)=1000.*COHT1(IDAC)
C      DEFCN(16,IR)=COSPD1(IDAC)
C      DEFCN(17,IR)=DIS34
C      DEFCN(18,IR)=2.0*DIS34/(COSPD1(IDAC)+COSPD2(IDAC))

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C      FUNCTION RRDIST (IR,PA,TMP,GW,WS)
C      THIS FUNCTION (RUNWAY ROLL DISTANCE ) CALCULATES THE TAKE-OFF
C      DISTANCE FOR A GIVEN AIRCRAFT.
C      TMP = TEMPERATURE (F)
C      PA = PRESSURE ALTIUDE
C      GW = GROSS TAKE-OFF WEIGHT
C      WS = WIND SPEED
C      IR = ID NUMBER OF THE AIRCRAFT
C      RRDIST = TAKE-OFF DISTANCE (KM)
      T=TMP
      TOF=0.
      GR=0.
      FGR=0.0
      IF(IR.EQ.100) GO TO 100
C      CORRECT FUNCTION IS CHOSE BY AIRCRAFT ID NUMBER
      GO TO (1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,
1 23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,
2 2, 9,12,14,14,19,21,100,100,47,100,100,12),IR
      CONTINUE
1      TOF=(8.411893E-9*PA**2 + 1.427498E-5*PA +1.191424E-3)*T**2 +
      .(1.335216E-5*PA**2 + 5.277266E-4 *PA +1.191679E-1)*T +
      .(2.417770E-3*PA**2 + 2.489712E-1*PA +9.024811)
      GR=(1.194643E-5*GW**2 - 2.012500E-3*GW + 1.856286E-1)*TOF +
      .(2.349055E-4*GW**2 - 6.798513E-4*GW - 2.780857E-1 )
      FGR=(GR +(2.980819E-5*GR**2-1.290746E-2*GR - 5.796299E-2)*WS)*100.
      GO TO 100
3      CONTINUE
2      TOF=- (2.78-8.5714E-4*PA)*(1.82E-2+7.2857E-5*PA)*GW
      GR=(1.184E+1-4.2167E-1*T+1.0E-2*T**2-4.583E-5*T**3)+
      .(4.194+1.7197E-2*T-9.26018E-4*T**2)*TOF+
      .(1.0457+8.40E-3*T+2.117E-4*T**2+2.98E-7*T**3)*TOF**2
      FGR=(GR-(1.15E-1+9.0E-3*GR)*WS)*100.
      GO TO 100
4      CONTINUE
5      TOF=(1.589+6.883E-3*PA+1.2767E-4*PA**2)+
      .(8.819E-3+1.1007E-4*PA-3.924E-7*PA**2)*T+
      .(5.979E-5+3.38096E-7*PA+8.532E-9*PA**2)*T**2
      GR=(-13.25+8.75E-1*GW-1.25E-2*GW**2)+
      .(1.3925E+1-9.275E-1*GW+2.125E-2*GW**2)*TOF
      FGR=(GR-(1.316E-1+8.748E-3*GR)*WS)*100.
      GO TO 100
6      TOF=(9.3937E-1+2.0947E-2*PA+2.005E-4*PA**2)+
      .(3.746467E-2+4.05625E-4*PA)*T+
      .(1.9928E-4-5.75006E-6*PA+1.40234E-7*PA**2)*T**2
      GR=(1.4307E+1-7.57144E-1*GW+2.6785E-2*GW**2)+
      .(1.67257E+1-1.17762*GW+2.7381E-2*GW**2)*TOF
      FGR=(GR-(2.412799E-2+7.82971E-3*GR)*WS)*100.
      GO TO 100
7      TOF=(-1.06E-3+1.674E-2*PA+8.1888E-5*PA**2)+
      .(1.36E-2+9.592E-6*PA+1.755E-6*PA**2)*T+
      .(5.1099E-5+1.2099E-6*PA-6.123E-9*PA**2)*T**2
      GR=(-1.423E+1+6.349998E-1*GW+1.6667E-3*GW**2)+
      .(6.1857-3.2179E-1*GW+8.214E-3*GW**2)*TOF
      FGR=(GR-(6.293E-2+7.328E-3*GR)*WS)*100.
      GO TO 100
8      TOF=(9.503E-2+3.313E-2*PA+1.3666E-4*PA**2)+
      .(2.2546E-2+1.7848E-4*PA-4.04E-6*PA**2)*T+
      .(1.3438E-4-1.2166E-6*PA+4.1854E-8*PA**2)*T**2
      GR=(2.95E+1-2.394*GW+6.497E-2*GW**2)+
      .(3.1035+7.52E-2*GW-3.186E-3*GW**2)*TOF+
      .(1.2715-1.5535E-1*GW+4.3889E-3*GW**2)*TOF**2
      FGR=(GR-(-9.0E-2+1.807E-2*GR-7.143E-5*GR**2)*WS)*100.
      GO TO 100

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AD-A125 471

DEVELOPMENT OF A COMPUTER EMISSION INVENTORY ROUTINE
FOR AIRCRAFT GROUND. (U) RESEARCH TRIANGLE INST
RESEARCH TRIANGLE PARK NC SYSTEMS AND M.

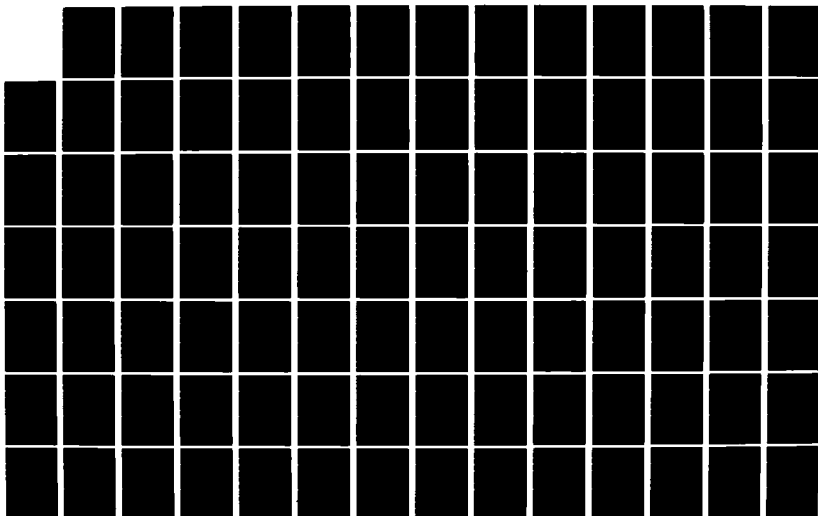
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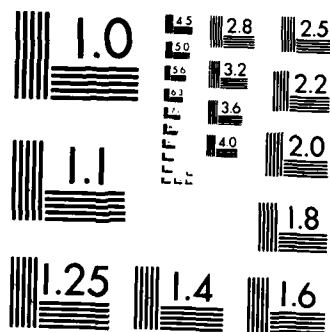
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A


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9   TOF=(3.36455E-3+5.63556E-2*PA)+
    . (4.417E-2-2.831E-3*PA+5.63E-5*PA**2-3.9954E-7*PA**3)*T+
    . (-9.2E-5+2.88E-5*PA-5.39E-7*PA**2+3.8E-9*PA**3)*T**2
    GR=(1.65838-3.869E-1*GW+8.1363E-2*GW**2)+
    . (-3.6111+3.63559E-1*GW)*TOF+
    . (7.3975E-1-8.78749E-2*GW+3.2487E-3*GW**2)*TOF**2
    FGR=(GR-(5.8E-2+7.4E-3*GR)*WS)*188.
    GO TO 188
18  TOF=(12.5546-5.7192E-2*PA+1.3875E-4*PA**2)-
    . (2.9832E-2-1.8254E-4*PA-1.45125E-7*PA**2)*T
    GR=(( -5.14955E+1+2.57957*GW-1.4425E-2*GW**2)-
    . (-1.1535E+1+5.915E-1*GW-4.6828E-3*GW**2)*TOF+
    . (-6.2285E-1+3.2375E-2*GW-2.9856E-4*GW**2)*TOF**2)*1888.
    FGR=(3.385E+1+9.729E-1*GR+2.31E-6*GR**2)-
    . (8.244+8.3598E-3*GR-1.44E-8*GR**2)*WS
    GO TO 188
11  TOF=(7.436E-1+4.29E-2*PA)+(2.1276E-2-3.1116E-5*PA)*T
    GR=(1.638E+1-7.78E-1*GW+2.84E-2*GW**2)+
    . (3.889-1.947E-1*GW+4.264E-3*GW**2)*TOF+
    . (-1.976E-1+1.5757E-2*GW+4.6189E-4*GW**2)*TOF**2
    FGR=(GR-(8.5E-2+8.25E-3*GR)*WS)*188.
    GO TO 188
12  TOF=(1.1485-4.659E-3*PA+1.28E-5*PA**2)-
    . (2.8146E-3-2.46E-5*PA+3.5514E-7*PA**2)*T
    GR=(-3.8829E+1-9.6225E-2*GW+1.25428E-1*GW**2)-
    . (-7.3845E+1+1.28433*GW+1.7857E-1*GW**2)*TOF+
    . (-3.57857E+1+7.857E-1*GW+7.14286E-2*GW**2)*TOF**2
    FGR=((3.17413E-1+9.762E-1*GR+2.657E-4*GR**2)-
    . (1.1114E-1+7.91177E-3*GR+4.48169E-5*GR**2)*WS)*188.
    GO TO 188
13  TOF=(9.166-5.485E-2*PA)-(3.412E-2-1.8E-4*PA)*T
    GR=(3.82E+2-3.519E+1*GW+1.841*GW**2)-
    . (1.386E+2-1.277E+1*GW+5.4E-1*GW**2)*TOF+
    . (2.8687E+1-1.715*GW+6.87E-2*GW**2)*TOF**2-
    . (1.1578-8.4228E-2*GW+2.46E-3*GW**2)*TOF**3
    FGR=(GR-(9.55E-2+7.15E-3*GR)*WS)*188.
    GO TO 188
14  TOF=(2.336+1.582E-2*PA+1.172E-4*PA**2)+
    . (5.684E-3+9.97746E-5*PA-5.8117147E-7*PA**2)*T+
    . (9.19269E-5-1.34357E-8*PA+1.61411E-8*PA**2)*T**2
    GR=(7.7366-2.52997E-1*GW+2.385E-3*GW**2)+
    . (-2.1871+4.2586E-2*GW+12.748E-4*GW**2)*TOF
    FGR=(GR-(1.8755E-1+1.4588E-2*GR-7.94156E-5*GR**2)*WS)*188.
    GO TO 188
15  CONTINUE
    TOF=(1.811985E-8 * PA**2 + 2.512143E-6 * PA + 1.88567E-4) * T**2 +
    . (7.32318E-8 * PA**2 - 2.86385E-4 * PA - 1.324775E-3) * T +
    . (5.85617E-5 * PA**2 + 1.65866E-2 * PA + 1.376288)
    GR=((1.29736E-2 * GW**2 - 2.76779E-1 * GW + 5.97192E-1) * TOF +
    . (6.58752E-3 * GW**2 - 8.64587E-1 * GW + 2.35388E+1))
    FGR=( GR - (4.38385E-3 * GR + .1178382) * WS ) * 188.
    GO TO 188
16  TOF=(7.6859-1.15E-1*PA+4.413E-4*PA**2)-
    . (2.925E-2-8.1128E-4*PA+6.999E-6*PA**2)*T-
    . (2.2289E-4+5.854E-6*PA-7.57E-8*PA**2)*T**2
    GR=(2.546E+1-2.3388*GW+1.8717E-1*GW**2)-
    . (7.9895E-6-7.434E-1*GW+2.1845E-2*GW**2)*TOF+
    . (6.899E-1-5.8858E-2*GW+1.434E-3*GW**2)*TOF**2
    FGR=(GR-(1.16E-1+7.27E-3*GR-3.64E-6*GR**2)*WS)*188.
    GO TO 188
17  CONTINUE
    TOF=(( 6.774587646E-8 * PA**2 - 6.939851559E-6 * PA
    . - 2.489344583E-5 ) * T**2 + ( - 1.441875268E-5 * PA**2
    . + 1.898539858E-3 * PA - 2.448131928E-2 ) * T +

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. (5.370048859E-4 * PA**2 - 7.074215531E-2 * PA + 1.14542412E+1 ))
GR=(((-1.21595262E-2 * GW**2 + 3.964180589E-1 * GW - 5.192737959 )
* TOF + ( 1.411936573E-1 * GW**2 - 4.191820782 * GW+53.79972331))
FGR=( GR - ( 1.08636364E-2 * GR + 1.0500E-1 ) * WS ) * 100.
GO TO 100
18 TOF=(2.118+1.058E-2*PA+1.014E-4*PA**2)+
. (2.102E-3+1.84E-4*PA-1.177E-6*PA**2)*T+
. (1.001E-4-7.046E-7*PA+1.355E-8*PA**2)*T**2
GR=(1.0E-5)+(-1.9687+4.209E-1*GW+3.9445E-2*GW**2)*TOF
FGR=(GR-(8.363E-2+1.488E-2*GR-9.78E-5*GR**2)*WS)*100.
GO TO 100
19 TOF=(4.65478+6.94444E-3*T)+(3.257E-1+2.7778E-4*T)*(PA/10.)
GR=(.1457+3.5625E-2*GW-6.763E-5*GW**2)+
. (5.1428-3.175E-2*GW+7.0089E-5*GW**2)*TOF
FGR=(GR-(.1+.0082*GR)*WS)*100.
GO TO 100
20 TOF=(1.2192956+2.2091577E-3*PA+3.380102E-4*PA**2)+
. (1.4628966E-2+2.6313968E-4*PA-1.3818053E-7*PA**2)*T-
. (2.4891E-4-6.875E-6*PA+7.8125E-8*PA**2)*T**2+
. (2.20314E-6-6.49E-8*PA+7.47E-10*PA**2)*T**3
GR=((2.3806396-5.9265772E-2*GW+6.67969E-4*GW**2)+
. (-1.19933136+5.041098E-2*GW-2.12517E-4*GW**2)*TOF)*10.
FGR=(1.0+9.7757143E+1*GR+6.4285714E-2*GR**2)-
. (4.8785706+5.4275515E-1*GR+4.438775E-3*GR**2)*WS
GO TO 100
21 TOF=(-4.799107E-1 + 3.3165178E-2*PA +2.7902E-4*PA**2) +
. (2.129E-2 + 2.2538E-4 * PA - 2.9186E-6 * PA ** 2) * T
GR = (1.16103 + 5.318E-2 * GW + 9.0525E-4 * GW ** 2 ) +
. (3.3695E1 - 6.94278E-1 * GW + 3.8559E-3 * GW ** 2 ) * TOF -
. (-9.041 + 2.307E-1 * GW - 1.264E-3 * GW ** 2 ) * TOF ** 2 +
. (-1.0708 + 2.477E-2 * GW - 1.108E-4 * GW ** 2 ) * TOF ** 3
FGR=(GR-(2.4131E-1+2.115E-4*GR + 1.935E-4*GR**2)*WS)*100.
GO TO 100
22 CONTINUE
23 TOF=(3.9116E-2+6.3976E-2*PA)+(1.6557E-2-7.6643E-6*PA)*T
GR=(5.625-9.5E-2*GW+1.3125E-3*GW**2)+
. (8.6496E-1-1.2768E-2*GW+1.077E-4*GW**2)*TOF+
. (4.0067E-1-5.982E-3*GW+3.627E-5*GW**2)*TOF**2
FGR=(GR-(1.508E-1+8.625E-3*GR)*WS)*100.
GO TO 100
24 TOF=(5.4067E+1-1.3375E-1*PA-2.2755E-4*PA**2+3.6508E-6*PA**3)-
. (7.395E-2-1.71E-4*PA-5.91E-6*PA**2+4.22E-8*PA**3)*T
GR=(8.6549E+3-7.75196E+1*GW+2.07846E-1*GW**2)-
. (5.6302E+2-4.9948*GW+1.30519E-2*GW**2)*TOF+
. (1.22509E+1-1.07805E-1*GW+2.759985E-4*GW**2)*TOF**2-
. (8.8948E-2-7.77463E-4*GW+1.956483E-6*GW**2)*TOF**3
FGR=(GR-(1.4123219E-1+8.5293578E-3*GR+5.709895E-6*GR**2)*WS)*100.
GO TO 100
25 TOF=(7.90371+6.68965E-2*PA+2.12622E-4*PA**2)+
. (3.00808E-2+2.67118E-5*PA+9.85E-6*PA**2)*T+
. (1.23149E-4+1.3589E-6*PA-3.1641E-8*PA**2)*T**2
GR=(2.1742857+2.04286E-1*GW-1.071429E-2*GW**2)+
. (1.14943-1.2707E-1*GW+5.1785E-3*GW**2)*TOF
FGR=(GR-(-2.7327E-2+1.904E-2*GR)*WS+
. (-6.308077E-4+1.9*654E-4*GR)*WS**2)*100.
GO TO 100
26 CONTINUE
27 CONTINUE
28 CONTINUE
29 TOF=(7.83935E-1+5.38189E-2*PA)+
. (1.20408E-2+9.888357E-5*PA-2.32448E-6*PA**2)*T-
. (9.72E-6+1.8278E-6*PA-2.405E-8*PA**2)*T**2
GR=(3.18978E+1-1.705*GW+3.602E-2*GW**2)+
. (-8.8285+5.1387E-1*GW-5.679E-3*GW**2)*TOF+

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. (-1.76441+4.82709E-2*GW)*TOF**2
FGR=(GR-(8.6457E-2+1.1414E-2*GR)*WS)*100.
GO TO 100
30 TOF=(-2.890514E-1+5.8370956E-2*PA)+
. (4.161561E-2-3.518445E-5*PA)*T+(-6.0515E-5+3.53095E-6*PA)*T**2
GR=(-2.684337E+1+3.224954*GW)+(-2.0581519+3.7024356E-1*GW)*TOF+
. (-8.061357E-1+8.3093188E-2*GW)*TOF**2
FGR=(GR-(1.3583333E-1+9.5833E-3*GR)*WS)*100.
GO TO 100
31 TOF=(7.46275E-1+1.789924E-2*PA+1.667729E-4*PA**2)+
. (6.1017875E-3+3.4816947E-4*PA-1.6406229E-6*PA**2)*T+
. (1.718525E-4-2.621825E-6*PA+4.184375E-8*PA**2)*T**2
GR=(-7.2378129E+1+3.8485684E+1*GW-6.565*GW**2+3.916E-1*GW**3)+
. (-5.477E+1+2.92E+1*GW-4.975*GW**2+2.906E-1*GW**3)*TOF
FGR=(( -1.607758+1.222176*GR-5.64375E-3*GR**2)-
. (.482382E-1+2.2260152E-2*GR-4.7462116E-4*GR**2)*WS)*100.
GO TO 100
32 TOF=(1.996+1.69E-2*PA+2.56E-5*PA**2)+
. (8.64E-3-7.5E-5*PA+1.61E-6*PA**2)*T
GR=(6.26E+1-1.299E+1*GW+6.886E-1*GW**2)+
. (-1.00004E+2+2.0317E+1*GW-9.67E-1*GW**2)*TOF+
. (1.30368E+1-2.689*GW+1.403E-1*GW**2)*TOF**2
FGR=(( -3.3E-1+1.047*GR-8.57E-4*GR**2)-
. (4.22E-2+9.47E-3*GR+1.9898E-5*GR)*WS)*100.
GO TO 100
33 TOF=(6.6742857E-1+4.4226786E-2*PA)+
. (1.027143E-2+3.051339E-4*PA)*T+(1.74994E-4+5.023E-7*PA)*T**2
GR=(-1.37666666E+1+1.679166666*GW)+(-3.55+4.71875E-1*GW)*TOF
FGR=(GR-(1.516666666E-1+1.008333333E-2*GR)*WS)*100.
GO TO 100
34 CONTINUE
35 CONTINUE
36 TOF=(-9.2083337E-1+5.9113889E-2*PA)+(2.291666E-2-2.7778E-5*PA)*T
GR=(3.711176E+1-1.640279E+1*GW+2.22809*GW**2)+
. (-2.09922E+1+8.6991796*GW-8.4586E-1*GW**2)*TOF+
. (2.248949-9.093486E-1*GW+1.061975E-1*GW**2)*TOF**2
FGR=(GR-(4.3358E-2+2.196E-2*GR)*WS+
. (8.79209E-4+8.21219E-5*GR)*WS**2)*100.
GO TO 100
37 TOF=(-6.46E-1+6.7857E-2*PA+2.723E-4*PA**2)+
. (3.69E-2-2.24E-3*PA+3.49E-5*PA**2)*T+
. (1.07E-4+3.85E-5*PA-4.688E-7*PA**2)*T**2
GR=(5.38-1.105*GW+1.14E-1*GW**2)+
. (8.02E-1-2.57E-1*GW+2.4E-2*GW**2)*TOF
FGR=(GR-(1.6E-2+2.44E-2*GR-2.128E-4*GR**2)*WS)*100.
GO TO 100
47 TOF =(-8.992457018E-8 * PA**2 + 4.120693445E-6 * PA +
. 6.88572952E-5) * T**2 + (1.317645171E-5 * PA**2 -
. 4.958847636E-4 * PA - 2.782090857E-4) * T + (-2.947026181E-4 *
. PA**2 + 2.102433582E-2 * PA + 1.005183175)
GR = (( 2.359239E-2 * GW**2 + 3.278735E-2 * GW - 3.84774) * TOF
. + ( 1.241648E-2 * GW**2 - 8.065467E-1 * GW + 1.126351E+1))
FGR = (GR - ( 7.56201E-2 + 7.70610E-3) * WS) * 100.
GO TO 100
100 RRDIST=FGR
RETURN
END

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SUBROUTINE TGLNIV(IA)
C
C***** DEFINE TOUCH-AND-GO LINE-SOURCE GEOMETRY
C***** FOR AIRCRAFT IA
C
      INTEGER ACHAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1      ACEMFC(8,1,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2      ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3      APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4      COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5      EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6      APPHT2(50),CLMBHT,TOWT(50)
      COMMON /ACEDB2/
1      NACTYP,NRNWYS,NPKAR,IEGFLG,
2      IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3      ARRFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4      RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5      ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6      ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(5),NIBSEG(8,6),
7      IIBSEG(16,8,6),IDIBTW(8,5),TTARFR(8,8,6),NOBTT(6),
8      NOSSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9      NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+      IDOSPA(8,6),NLSEGS,ACLNSG(12,25)
C
C**** ZERO DATA
C
      DO 11 J=1,3
      DO 11 K=1,4
      TGO(J,K)=0.0
11 CONTINUE
C
C**** RETRIEVE AIRCRAFT ID
C
      IDAC=IACTYP(IA)
      IF(IDAC.LE.0.OR.51.LE.IDAC) RETURN
C
C**** CHECK AIRCRAFT COUNT
C
      IF(ANNTGO(IA).LE.0) RETURN
C
C**** COMPUTE TIME/DISTANCE DATA
C
C** GROUND-PROJECTED DISTANCES FOR EACH PHASE
C
      TGO(1,2)=-APPHT2(IDAC)/TAN(DSCNT2(IDAC))
      TGO(1,1)=TGO(1,2)-(APPHT-APPHT2(IDAC))/TAN(DSCNT1(IDAC))
      TGO(1,3)=0.3048+COHT1(IDAC)/TAN(ASCNT1(IDAC))
      TGO(1,4)=TGO(1,3)+(CLMBHT-COHT1(IDAC))/TAN(ASCNT2(IDAC))
C
C** DISTANCES FOR EACH PHASE
C
      TGO(2,1)=(APPHT-APPHT2(IDAC))/SIN(DSCNT1(IDAC))
      TGO(2,2)=APPHT2(IDAC)/SIN(DSCNT2(IDAC))
      TGO(2,3)=COHT1(IDAC)/SIN(ASCNT1(IDAC))
      TGO(2,4)=(CLMBHT-COHT1(IDAC))/SIN(ASCNT2(IDAC))
C
C** TIMES FOR EACH PHASE
C
      TGO(3,1)=2.0*TGO(2,1)/(APSPD1(IDAC)+APSPD2(IDAC))
      TGO(3,2)=2.0*TGO(2,2)/(APSPD2(IDAC)+LNDSPD(IDAC))
      TGO(3,3)=2.0*TGO(2,3)/(TOSPD(IDAC)+COSPD1(IDAC))

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TGO(3,4)=2.0*TGO(2,4)/(COSPD1(IDAC)+COSPD2(IDAC))  
RETURN  
END
```

SUBROUTINE ARRDEP

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C
C***** COMPUTE ANNUAL EMISSIONS DUE TO
C***** AIRCRAFT ARRIVALS AND DEPARTURES
C
      INTEGER ACNAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1         ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2         ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3         APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4         COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5         EGCHK1(50),SHTDNT(50),DSCNT2(50),APPHT,
6         APPHT2(50),CLMBHT,TOWT(50)
      COMMON /ACEDB2/
1         NACTYP,NRNWYS,NPKAR,IEGFLG,
2         IACTYP(8),ANNARR(8),ANNDP(8),ANNTGO(8),
3         ARRCFN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4         RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5         ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6         ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7         IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8         NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9         NPASQ(6),IDPRKA(6),AREA(6,3,3),IDIBPA(8,6),
+        IDOBPA(6,6),NLSEGS,ACLNSG(12,25)
      COMMON /ANNMET/
1         TBAR,ADD,P,PA,
2         WSBAR,DTBAR,AMDBAR
      COMMON /DEFAULT/
1         NPLTS,ITAPE,ACLNDY,ACLNDZ,
2         TCVSDF,TCHBDF,TCHODF,TCODYDF,
3         TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4         RUHBDF,RUHODF,RUDYDF,RUDZDF,
5         TFDZDF,TFQDF,TFHBDF,TFHODF,
6         EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7         ATDSOY,ATDSOZ,TCDSOY,TCTSDY,
8         FPDFLT,TDDFLT,RFDFLT,SFDFLT,
9         PFDFLT,TFDFLT,TFDYDF,MINUS(6)
      COMMON /TOTES/
1         TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
      INTEGER THNAME
      COMMON /EGEDB1/
1         MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2         IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
      DIMENSION TER(6,11)

C
C***** LOOP OVER AIRCRAFT TYPES
C
      DO 390 IA=1,NACTYP
      IDAC=IACTYP(IA)

C
C*** RETRIEVE ENGINE DATA
C
      ENG1=ENGNO(IDAC,1)
      ENG2=ENGNO(IDAC,2)

C
C*** COMPUTE TOTAL AIRCRAFT EMISSION RATES
C
      DO 10 IP=1,NPLTS

C
C*   MODE 1
C
      ENG=ENG1

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C      TER(IP,1)=ENG*ACEMFC(IA,1,IP)
C*
C      MODE 2
C
C      IF(IEGFLG.NE.0) ENG=ENG2
C      TER(IP,2)=ENG*ACEMFC(IA,2,IP)
C
C*      MODE 3
C
C      ENG=ENG1
C      TER(IP,3)=ENG*ACEMFC(IA,3,IP)
C
C*      MODE 4
C
C      TER(IP,4)=ENG*ACEMFC(IA,4,IP)
C
C*      MODE 5
C
C      TER(IP,5)=ENG*ACEMFC(IA,5,IP)
C
C*      MODE 6
C
C      TER(IP,6)=ENG*ACEMFC(IA,6,IP)
C
C*      MODE 7
C
C      TER(IP,7)=ENG*ACEMFC(IA,7,IP)
C
C*      MODE 8
C
C      TER(IP,8)=ENG*ACEMFC(IA,8,IP)
C
C*      MODE 9
C
C      TER(IP,9)=ENG*ACEMFC(IA,9,IP)
C
C*      MODE 10
C
C      IF(IEGFLG.NE.0) ENG=ENG2
C      IF(IDAC.EQ.2) ENG=4.
C      IF(IDAC.EQ.3) ENG=3.
C      IF(IDAC.EQ.22) ENG=2.
C      IF(IDAC.EQ.28) ENG=4.
C      TER(IP,10)=ENG*ACEMFC(IA,2,IP)
C
C*      MODE 11
C
C      TER(IP,11)=ENG*ACEMFC(IA,1,IP)
10 CONTINUE
C
C***  LOOP OVER RUNWAYS
C
C      DO 290 IR=1,NRWYS
C
C**    PROCESS ARRIVALS
C
C      ARR=RNWYAR(IA,IR)
C      IF(ARR.LE.0.0) GO TO 200
C
C*      MODE 7
C
C      DIS=(APPHT-APPHT2(IDAC))/SIN(DSCNT1(IDAC))
C      SPD=(APSPD2(IDAC)+APSPD1(IDAC))/2.0
C      TIM=ARR*DIS/SPD

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DO 110 IP=1,NPLTS
EMISS(IA,7,IP)=EMISS(IA,7,IP)+TER(IP,7)*TIM
110 CONTINUE
C
C*
C  MODE 8
DIS=APPHT2(IDAC)/SIN(DSCNT2(IDAC))
SPD=(LNDSPD(IDAC)+APSPD2(IDAC))/2.0
TIM=ARR*DIS/SPD
DO 120 IP=1,NPLTS
EMISS(IA,8,IP)=EMISS(IA,8,IP)+TER(IP,8)*TIM
120 CONTINUE
C
C*
C  MODE 9
DIS=DISRNW(IR)-0.3048
SPD=(TXISPD(IDAC)+LNDSPD(IDAC))/2.0
TIM=ARR*DIS/SPD
DO 130 IP=1,NPLTS
EMISS(IA,9,IP)=EMISS(IA,9,IP)+TER(IP,9)*TIM
130 CONTINUE
C
C*
C  MODES 10 AND 11
NT=NIBTT(N)
DO 160 IT=1,NT
FR=TTARFR(IT,IA,IR)
IF(FR.LE.0.0) GO TO 160
NS=NIBSEG(IT,IR)
DO 140 N=1,NS
IS=IIBSEG(N,IT,IR)
DIS=ACLNSG(11,IS)
SPD=ACLNSG(9,IS)*TXISPD(IDAC)
TIM=ARR*FR*DIS/SPD
DO 140 IP=1,NPLTS
EMISS(IA,10,IP)=EMISS(IA,10,IP)+TER(IP,10)*TIM
140 CONTINUE
TIM=ARR*FR*SHTDNT(IDAC)/60.
DO 150 IP=1,NPLTS
EMISS(IA,11,IP)=EMISS(IA,11,IP)+TER(IP,11)*TIM
150 CONTINUE
160 CONTINUE
C
C**
C  PROCESS DEPARTURES
200 CONTINUE
DEP=RNWYDP(IA,IR)
IF(DEP.LE.0.0) GO TO 290
C
C*
C  MODE 1
TIM=DEP*SRTUPT(IDAC)/60.
DO 210 IP=1,NPLTS
EMISS(IA,1,IP)=EMISS(IA,1,IP)+TER(IP,1)*TIM
210 CONTINUE
C
C*
C  MODE 2
NT=NOBTT(IR)
DO 230 IT=1,NT
FR=TTDPFR(IT,IA,IR)
IF(FR.LE.0.0) GO TO 230
NS=NOBSEG(IT,IR)
DO 220 N=1,NS

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      IS=IOBSEG(N,IT,IR)
      DIS=ACLNSG(11,IS)
      SPD=ACLNSG(9,IS)*TXISPD(IDAC)
      TIM=DEP*FR*DIS/SPD
      DO 22# IP=1,NPLTS
      EMISS(IA,2,IP)=EMISS(IA,2,IP)+TER(IP,2)*TIM
22# CONTINUE
23# CONTINUE
C
C*   MODE 3
C
      TIM=DEP*EGCHKT(IDAC)/6#.
      DO 24# IP=1,NPLTS
      EMISS(IA,3,IP)=EMISS(IA,3,IP)+TER(IP,3)*TIM
24# CONTINUE
C
C*   MODE 4
C
      DIS=RRDIST(IDRR(IDAC),PA,TBAR,TOWT(IDAC),1.9426*WSBAR)*3.848E-4
      NS=NOBSEG(1,IR)
      IS=IOBSEG(NS,1,IR)
      SPD=(ACLNSG(18,IS)*TXISPD(IDAC)+TOSPD(IDAC))/2.#
      TIM=DEP*DIS/SPD
      DO 25# IP=1,NPLTS
      EMISS(IA,4,IP)=EMISS(IA,4,IP)+TER(IP,4)*TIM
25# CONTINUE
C
C*   MODE 5
C
      DIS=COHT1(IDAC)/SIN(ASCNT1(IDAC))
      SPD=(TOSPD(IDAC)+COSPD1(IDAC))/2.#
      TIM=DEP*DIS/SPD
      DO 26# IP=1,NPLTS
      EMISS(IA,5,IP)=EMISS(IA,5,IP)+TER(IP,5)*TIM
26# CONTINUE
C
C*   MODE 6
C
      DIS=(CLMBHT-COHT1(IDAC))/SIN(ASCNT2(IDAC))
      SPD=(COSPD1(IDAC)+COSPD2(IDAC))/2.#
      TIM=DEP*DIS/SPD
      DO 27# IP=1,NPLTS
      EMISS(IA,6,IP)=EMISS(IA,6,IP)+TER(IP,6)*TIM
27# CONTINUE
C
C***  END RUNWAY LOOP
C
29# CONTINUE
C
C****  END AIRCRAFT LOOP
C
39# CONTINUE
      RETURN
      END

```

SUBROUTINE GROUND

```

C
C***** COMPUTE ANNUAL EMISSIONS DUE TO
C***** GROUND SERVICE OPERATIONS
C
      INTEGER ACNAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1      ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2      ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3      APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4      COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5      EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6      APPHT2(50),CLMBHT,TOWT(50)
      COMMON /ACEDB2/
1      NACTYP,NRNWYS,NPKAR,IEGFLG,
2      IACTYP(8),ANNARR(8),ANNDEP(8),ANNTOGO(8),
3      ARFCN(24,6),DEFFCN(24,6),TGO(3,4),DISRNW(6),
4      RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5      ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6      ARSVEN(6,8,5),DPSVEN(6,8,5),NIBTT(6),NIBSEG(8,6),
7      IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8      NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9      NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+      IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
      COMMON /ACEDB3/
1      NWCASE,JES1(8),IRNWY(2,6)
      REAL LUEMFC
      COMMON /EMFDB1/
1      EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2      TEEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3      FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4      CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5      AFBRTH,ATBRTH,FLTFACT(7),FIXFCT(7),
6      WRKFCT(7)
      COMMON /ANNMET/
1      TEAR,ADD,P,PA,
2      WSSAR,DTBAR,AMDBAR
      COMMON /DEFAULT/
1      NPLTS,ITAPE,ACLNDY,ACLNDZ,
2      TCVSDF,TCHBDF,TCHODF,TCDYDF,
3      TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4      RUHBDF,RUHODF,RUDYDF,RUDZDF,
5      TFDZDF,TFQDF,TFHBDF,TFHODF,
6      EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7      ATOSDY,ATOSDZ,TCDSDF,TCTSDF,
8      FPDFLT,TDDFLT,RDFLT,SDFLT,
9      PPDFLT,TFDFLT,TFDYDF,MINUS(6)
      COMMON /TOTS/
1      TOTEM(20,6),TOTEVP(10),EMISS(8,15,5)
C
C***** LOOP OVER AIRCRAFT
C
      DO 90 IA=1,NACTYP
      IAU=JES1(IA)
C
C** ARRIVAL AND DEPARTURE SERVICE (MODE 12)
C
      DO 20 IP=1,NPLTS
      AVEM=0.0
      DVEM=0.0
      DO 10 IU=1,5
      AVEM=AVEM+ARSVEN(IP,IA,IU)

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      DVEM=DVEM+DPSVEM(IP,IA,IU)
10  CONTINUE
      EMISS(IA,12,IP)=EMISS(IA,12,IP)+
1      AVEM*ANNARR(IA)+DVEM*ANNDEP(IA)
20  CONTINUE
C
C**  FUEL VENTING (MODE 13)
C
      EMISS(IA,13,2)=EMISS(IA,13,2)+FLDENS(IAU)*
1      (ARFLVT(IA)*ANNARR(IA)+DPFLVT(IA)*ANNDEP(IA))
C
C**  FILL AND SPILL (MODE 14)
C
      TMP=5.*(TBAR-32.)/9.+273.1
      TVP=EXP(ALPHA(IAU)-BETA(IAU)/TMP)
      EMISS(IA,14,2)=(0.324*TVP*ACFUEL(IA)*0.5/1000.+ACSPIL(IA))*
1      FLDENS(IAU)*ANNARR(IA)
90  CONTINUE
      RETURN
      END

```

SUBROUTINE TRNFLT

```

C
C***** COMPUTE ANNUAL EMISSIONS DUE TO TRAINING FLIGHTS
C
      INTEGER ACNAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1      ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2      ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3      APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4      COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5      EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6      APPHT2(50),CLMEHT,TOWT(50)
      COMMON /ACEDS2/
1      NACTYP,NRNWYS,NPKAR,IEGFLG,
2      IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3      ARRFCN(24,6),DEPFEN(24,6),TGO(3,4),DISRNW(6),
4      RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5      ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6      ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7      IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8      NOBSEG(8,6),IOBSEG(16,8,5),IDOBTW(8,6),TTDPFR(8,8,6),
9      NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+      IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
      COMMON /DEFAULT/
1      NPLTS,ITAPE,ACLNDY,ACLNDZ,
2      TCVSDF,TCHBDF,TCHODF,TCDYDF,
3      TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4      RUHBDF,RUHODF,RUDYDF,RUDZDF,
5      TFDZDF,TFQDF,TFH8DF,TFHODF,
6      EGCKDY,EGCKDZ,ACMLPL,ARDSZ,
7      ATDSDF,ATDSZ,TCDSDF,TCTSD,
8      FPDFLT,TDOFLT,RSDFLT,SDFLT,
9      PFDFLT,TFDFLT,TFDYDF,MINUS(6)
      COMMON /TOTS/
1      TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
C
C***** LOOP OVER AIRCRAFT
C
      DO 90 IA=1,NACTYP
      IDAC=IACTYP(IA)
      ENG=ENGNO(IDAC,1)
      ATG=ANNTGO(IA)
C
C**  APPROACH 1
C
      DIS=(APPHT-APPHT2(IDAC))/SIN(DSCNT1(IDAC))
      SPD=(APSPD1(IDAC)+APSPD2(IDAC))/2.0
      TIM=ATG*DIS/SPD
      DO 10 IP=1,NPLTS
      TER=ENG*ACEMFC(IA,7,IP)
      EMISS(IA,15,IP)=EMISS(IA,15,IP)+TER*TIM
10  CONTINUE
C
C**  APPROACH 2
C
      DIS=APPHT2(IDAC)/SIN(DSCNT2(IDAC))
      SPD=(APSPD1(IDAC)+LNDSPD(IDAC))/2.0
      TIM=ATG*DIS/SPD
      DO 20 IP=1,NPLTS
      TER=ENG*ACEMFC(IA,8,IP)
      EMISS(IA,15,IP)=EMISS(IA,15,IP)+TER*TIM
20  CONTINUE

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 permit fully legible reproduction

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C
C**  RUNWAY ROLL
C
DIS=0.3048
SPD=(1.3*LNDSPD(IDAC)+0.7*TOSPD(IDAC))/2.0
TIM=ATG*DIS/SPD
DO 30 IP=1,NPLTS
TER=ENGNO(IA,1)*(0.3*ACEMFC(IA,9,IP)+0.7*ACEMFC(IA,4,IP))
EMISS(IA,15,IP)=EMISS(IA,15,IP)+TER*TIM
30 CONTINUE

C
C**  CLIMBOUT 1
C
DIS=COHT1(IDAC)/SIN(ASCNT1(IDAC))
SPD=(TOSPD(IDAC)+COSPD1(IDAC))/2.0
TIM=ATG*DIS/SPD
DO 40 IP=1,NPLTS
TER=ENG*ACEMFC(IA,5,IP)
EMISS(IA,15,IP)=EMISS(IA,15,IP)+TER*TIM
40 CONTINUE

C
C**  CLIMBOUT 2
C
DIS=(CLMBHT-COHT1(IDAC))/SIN(ASCNT2(IDAC))
SPD=(COSPD1(IDAC)+COSPD2(IDAC))/2.0
TIM=ATG*DIS/SPD
DO 50 IP=1,NPLTS
TER=ENG*ACEMFC(IA,6,IP)
EMISS(IA,15,IP)=EMISS(IA,15,IP)+TER*TIM
50 CONTINUE
90 CONTINUE
RETURN
END

```

```

SUBROUTINE ODINFO
C
C***** PRINT ENGINE DEFAULT INFORMATION
C
  INTEGER ACNAME,EGNAME,ENGNO
  REAL LNDSPD
  COMMON /ACEDB1/
1    ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2    ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3    APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4    COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5    EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6    APPHT2(50),CLMBHT,TOWT(50)
  REAL LUEMFC
  COMMON /EMFDB1/
1    EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2    TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3    FLDEMS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4    CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5    AFBRTH,ATBRTH,FLTFACT(7),FIXFCT(7),
6    WRKFCT(7)
  COMMON /DEFAULT/
1    NPLTS,ITAPE,ACLNDY,ACLNDZ,
2    TCVSDF,TCH8DF,TCH0DF,TC0VDF,
3    TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4    RUH8DF,RUH0DF,RUDYDF,RUDZDF,
5    TFDZDF,TFQDF,TFH8DF,TFH0DF,
6    EGCKDY,EGCKDZ,ACMLPL,ARDSZ,
7    ATDSY,ATDSZ,TCDSDF,TCTSDF,
8    FPDFLT,TDDFLT,RDFFLT,SDFLT,
9    PPDFLT,TFDFLT,TFDYDF,MINUS(6)
  INTEGER THNAME
  COMMON /EGEDB1/
1    MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2    IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
  INTEGER GCNAME,GSNAME
  COMMON /GSEDB1/
1    NSFLS,ISFMAP(5),
2    GCNAME(15),
3    GSNAME(50),IGSCAT(50),
4    IGSFLT(50),GSFF(50),GSEMFC(6,50),
5    GSRVCT(50,50),
6    GSFUEL(5),NGSTYP,IGSTYP(30),
7    GSUSGE(30),IGSAGN(8,30),
8    GSETIM(8,30)
  INTEGER EGTEST,GSTEST
  DATA EGTEST /'UNASSGND'/
  EQUIVALENCE (EGTEST,GSTEST)
C
C*** PRINT TITLE
C
  WRITE(6,11)
11  FORMAT(1H1,45X,
1    'A.  D E F A U L T   I N F O R M A T I O N*')
C
C*** PRINT ENGINE EMISSION FACTORS
C
C* PRINT HEADER
C
  WRITE(6,101)
101  FORMAT(1H0,48X,
1    '0.1  ENGINE POLLUTANT EMISSION DATA*')
  WRITE(6,102)

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```

102 FORMAT(1H0/1H0,29X,*THRUST*,11X,*FUEL RATE*,17X,
1  *POLLUTANT EMISSION DATA (POUNDS PER 1000 LBS OF FUEL)*/
2  14 ,2X,*NAME*,11X,*ID*,8X,*SETTING*,9X,*1000 LBS/HR*,
3  2X,6(8X,A4))
C
C*   PRINT ENGINE DATA
C
DO 190 IDEG=1.50
IF(EGNAME(IDEG).EQ.EGTEST) GO TO 190
WRITE(6,111) EGNAME(IDEG),IDEG,THNAME(1),EGFF(1,IDEG),
1  (EGEMFC(IP,1,IDEG),IP=1,NPLTS)
111 FORMAT(1H0,A8,111.8X,A8,9X,1PE9.3,4X,6E12.2)
DO 120 IT=2,3
IF(EGEMFC(1,IT,IDEG).LE.0..AND.EGEMFC(2,IT,IDEG).LE.0.)
1  GO TO 190
WRITE(6,112) THNAME(IT),EGFF(IT,IDEG),(EGEMFC(IP,IT,IDEG),
1  IP=1,NPLTS)
112 FORMAT(1H ,29X,A8,9X,1PE9.3,4X,6E12.2)
120 CONTINUE
IF(IEGABF(IDEG).EQ.1) WRITE(6,112)
1  THNAME(4),EGFF(4,IDEG),(EGEMFC(IP,4,IDEG),IP=1,NPLTS)
190 CONTINUE
C
C*** PRINT ENGINE EMISSION RATES
C
C*   PRINT HEADER
C
WRITE(6,201)
201 FORMAT(1H1,48X,
1  *A.2 ENGINE POLLUTANT EMISSION RATES*)
WRITE(6,202) (PLNAME(IP),IP=1,NPLTS)
202 FORMAT(1H0/1H0,29X,*THRUST*,11X,*FUEL RATE*,22X,
1  *POLLUTANT EMISSION RATE (KILOGRAMS PER HOUR)*/
2  1H ,2X,*NAME*,11X,*ID*,8X,*SETTING*,9X,*1000 LBS/HR*,
3  2X,6(8X,A4))
C
C*   COMPUTE AND PRINT EMISSION RATES
C
DO 290 IDEG=1.50
IF(EGNAME(IDEG).EQ.EGTEST) GO TO 290
DO 210 IT=1,4
DO 210 IP=1,6
EGEMFC(IP,IT,IDEG)=EGEMFC(IP,IT,IDEG)*EGFF(IT,IDEG)/2.20462
210 CONTINUE
WRITE(6,111) EGNAME(IDEG),IDEG,THNAME(1),EGFF(1,IDEG),
1  (EGEMFC(IP,1,IDEG),IP=1,NPLTS)
DO 220 IT=2,3
IF(EGEMFC(1,IT,IDEG).LE.0..AND.EGEMFC(2,IT,IDEG).LE.0.)
1  GO TO 290
WRITE(6,112) THNAME(IT),EGFF(IT,IDEG),(EGEMFC(IP,IT,IDEG),
1  IP=1,NPLTS)
220 CONTINUE
IF(IEGABF(IDEG).EQ.1) WRITE(6,112)
1  THNAME(4),EGFF(4,IDEG),(EGEMFC(IP,4,IDEG),IP=1,NPLTS)
290 CONTINUE
C
C*** PRINT GSE EMISSION FACTORS
C
C*   PRINT HEADER
C
WRITE(6,301)
301 FORMAT(1H1/1H ,50X,
1  *A.3 GSE POLLUTANT EMISSION DATA*)
WRITE(6,302) (PLNAME(IP),IP=1,NPLTS)

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302 FORMAT(1H0/1H0,48X,*FUEL RATE*,16X,
1  *POLLUTANT EMISSION DATA (KILOGRAMS PER GALLON)* /
2  1H ,2X,*NAME*,11X,*ID*,8X,*TYPE*,8X,*FUEL*,6X,
2  *GAL/HR*,1X,6(8X,A4))
C
C* PRINT EMISSION FACTORS
C
DO 390 IDGS=1,50
IF(GSNAME(IDGS).EQ.GSTEST) GO TO 390
IGC=IGSCAT(IDGS)
IGF=ISFMAP(IGSFLT(IDGS))
WRITE(6,311) GSNAME(IDGS),IDGS,GCNAME(IGC),FLNAME(IGF),
1 GSFF(IDGS),(GSEMFC(IP,IDGS),IP=1,NPLTS)
311 FORMAT(1H0,A8,I11,6X,A8,6X,A4,1PE14.3,6E12.2)
390 CONTINUE
C
C*** PRINT GSE POLLUTANT EMISSION RATES
C
C* PRINT HEADER
C
WRITE(6,401)
401 FORMAT(1H1,49X,
1  *A.4 GSE POLLUTANT EMISSION RATES*)
WRITE(6,402) (PLNAME(IP),IP=1,NPLTS)
402 FORMAT(1H0/1H0,50X,*FUEL RATE*,16X,
1  *POLLUTANT EMISSION RATES (KILOGRAMS PER HOUR)* /
2  1H ,4X,*NAME*,11X,*ID*,8X,*TYPE*,8X,*FUEL*,6X,
2  *GAL/HR*,1X,6(8X,A4))
C
C* COMPUTE AND PRINT EMISSION RATES
C
DO 490 IDGS=1,50
IF(GSNAME(IDGS).EQ.GSTEST) GO TO 490
IGC=IGSCAT(IDGS)
IGF=ISFMAP(IGSFLT(IDGS))
DO 410 IP=1,6
GSEMFC(IP,IDGS)=GSEMFC(IP,IDGS)*GSFF(IDGS)
410 CONTINUE
WRITE(6,311) GSNAME(IDGS),IDGS,GCNAME(IGC),FLNAME(IGF),
1 GSFF(IDGS),(GSEMFC(IP,IDGS),IP=1,NPLTS)
490 CONTINUE
RETURN
END

```



```

      1 *B. INPUT INFORMATION*)
C
C*** PRINT ANNUAL AIRCRAFT DATA
C
      WRITE(6,712)
712 FORMAT(1H0/1H ,29X,
      1 *B.1 INFORMATION ON AIRCRAFT ACTIVITY, PARKING AREAS, *
      2 *TAXIWAYS, AND RUNWAYS*)
C
C* AIRCRAFT ACTIVITY
C
      WRITE(6,61) NACTYP
61 FORMAT(1H0/1H0/1H ,58X,*AIRCRAFT ACTIVITY*/
      1 1H0,52X,*NUMBER OF AIRCRAFT TYPES =*,I2/
      2 1H0,25X,*AIRCRAFT*,34X,*ANNUAL NUMBER OF */
      3 1H ,27X,*NAME*,17X,*ARRIVALS*,15X,*DEPARTURES*,15X,*T/G CYCLES*/
      4 1H )
      DO 170 IA=1,NACTYP
      IDAC=IACTYP(IA)
      WRITE(6,161) (ACNAME(IDAC),ANNARR(IA),ANNDEP(IA),
      1 ANNTGO(IA),IA=1,NACTYP)
161 FORMAT(1H ,25X,A8,F22.0,F24.0,F25.0)
170 CONTINUE
C
C* PARKING AREAS
C
      WRITE(6,93) NPKAR
93 FORMAT(1H0/1H0/
      1 1H ,59X,*PARKING AREAS*/
      2 1H0,52X,*NUMBER OF PARKING AREAS =*,I2)
      DO 96 IK=1,NPKAR
      NQ=NPASQ(IK)
      WRITE(6,94) IDPRKA(IK),NQ
94 FORMAT(1H0/1H ,29X,*PARKING AREA NUMBER =*,I4,4X,
      1 *THE NUMBER OF SQUARES MAKING UP THIS AREA =*,I2/
      2 1H )
      DO 96 IQ=1,NQ
      WRITE(6,95) IQ,(PAREA(IK,IQ,J),J=1,3)
95 FORMAT(1H ,22X,*SQUARE NUMBER =*,I2,8X,*X =*,F9.3,5X,*Y =*,
      1 F9.3,8X,*LENGTH OF SIDE =*,F7.3,* KM*)
96 CONTINUE
C
C* TAXIWAYS
C
      WRITE(6,97) NLSEGS
97 FORMAT(1H0/1H0/
      1 1H ,62X,*TAXIWAYS*/
      2 1H0,38X,
      3 *NUMBER OF CATALOGUED AIRCRAFT TAXIWAY LINE SEGMENTS =*,I3)
      WRITE(6,98)
98 FORMAT(1H0/1H ,7X,*GROUND LEVEL COORDINATES*,2X,*AVERAGE*,
      1 *EMISSION*,27X,*GROUND LEVEL COORDINATES*,2X,*AVERAGE EMISSION*
      2 /1H ,*LINE*,6X,*OF ONE END OF LINE*,5X,* HEIGHT (METERS)*,4X,
      3 *WIDTH OF*,4X,*DELTA Z*,4X,*AT OPPOSITE END OF LINE*,3X,
      4 * HEIGHT (METERS)*,5X,*SEGMENT*/
      5 1H ,* NO. *,6X,*X(1)*,9X,*Y(1)*,9X,*X(1) Y(1)*,6X,*LINE (MET)*,
      6 3X,* (METERS)*,6X,*X(2)*,9X,*Y(2)*,9X,*X(2) Y(2)*,6X,
      7 *LENGTH (KM)*/)
      DO 991 IS=1,NLSEGS
      WRITE(6,99) IS,(ACLNSG(J,IS),J=1,8),ACLNSG(11,IS)
99 FORMAT(1H ,10,2F13.3,F14.2,F16.2,F13.2,2F13.3,F14.2,F17.3)
991 CONTINUE
C
C* RUNWAYS

```

SUBROUTINE OACSI1

C
C***** PRINT AIRCRAFT SOURCE INPUT INFORMATION
C

```

INTEGER ACNAME,EGNAME,ENGNO
REAL LNDSPD
COMMON /ACEDB1/
1  ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2  ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3  APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4  COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5  EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6  APPHT2(50),CLMBHT,TOWT(50)
COMMON /ACEDS2/
1  NACTYP,NRWYS,NPKAR,IEGFLG,
2  IACTYP(8),ANNARR(8),ANNDEP(8),ANNTO(8),
3  ARRFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4  RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5  ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6  ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7  IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8  NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9  NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+  IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
COMMON /ACEDS3/
1  NWCASE,JES1(8),IRNWY(2,6)
REAL LUEMFC
COMMON /EMFDB1/
1  EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2  TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3  FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4  CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5  AFSRTH,ATBRTH,FLTFACT(7),FIXFCT(7),
6  WRKFCT(7)
COMMON /DEFAULT/
1  NPLTS,ITAPE,ACLNDY,ACLNDZ,
2  TCVSDF,TCHBDF,TCHODF,TCDYDF,
3  TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4  RUHODF,RUHODF,RUDYDF,RUDZDF,
5  TFDZDF,TFQDF,TFHODF,TFHODF,
6  EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7  ATDSOY,ATDSOZ,TCDSOZ,TCTSDZ,
8  FPDFLT,TDDFLT,RFDFLT,SFDFLT,
9  PFDFLT,TFDFLT,TFDYDF,MINUS(6)
INTEGER THNAME
COMMON /EGEDB1/
1  MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2  IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
INTEGER GCNAME,GSNAME
COMMON /GSED1/
1  NSFLS,ISFMAP(5),
2  GCNAME(15),
3  GCNAME(50),IGSCAT(50),
4  IGSFLT(50),GSFF(50),GSEMFC(5,50),
5  GSRVCT(50,50),
6  GSFUEL(5),NGSTYP,IGSTYP(30),
7  GSUSGE(30),IGSAGN(8,30),
8  GSETIM(8,30)

```

C
C*** PRINT TITLE
C

```

WRITE(6,711)
711 FORMAT(1H1,45X,

```

```

C
WRITE(6,112) NRNWYS
112 FORMAT(1H0/1H0/
1 1H .63X,*RUNWAYS*/
2 1H0,56X,*NUMBER OF RUNWAYS =*,I2)
DO 52 IR=1,NRNWYS
WRITE(6,700) IRNWY(1,IR)
700 FORMAT(1H0/
2 1H .56X,*RUNWAY ID NUMBER =*,I3/
3 1H0,10X,*COORDINATES (KM)*,8X,*AVERAGE EMISSION*,6X,
3 *HORIZONTAL PLUME*,7X,*VERTICAL PLUME*,7X,*RUNWAY VECTOR*,
2 8X,*RUNWAY*/
4 1H .10X,*X)*,10X,*Y)*,10X,*HEIGHT (MET)*,8X,*DISPERSION (MET)*
4 .6X,*DISPERSION (MET)*,7X,*ANGLE (DEG)*,7X,*LENGTH (KM)*
WRITE(6,63) (RNWY(J,IR),J=2,7),DISRNW(IR)
63 FORMAT(1H ,F15.3,F13.3,F16.2,F23.2,F21.2,F21.2,F17.2)
WRITE(6,64) (IUSWD(IW,IR),IW=1,17)
64 FORMAT(1H0,52X,*RUNWAY USE BY WIND DIRECTION*/
2 1H .13X,
2 *(0= RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION*,6X,
2 *1= RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)*/
3 1H0,16X,*CALM N NNE NE ENE E ESE SE SSE*,
3 * S SSW SW WSW W WNW NW NNW*/
4 1H .13X,17I6)
WRITE(6,75) (IUSWD(IW,IR),IW=18,20)
75 FORMAT(1H0,45X,*RUNWAY USE BY SPECIAL CASE WIND CONDITIONS*/
2 1H .21X,
2 *(0= RUNWAY NOT USED DURING THIS SPECIAL CASE*,6X,
2 *1= RUNWAY USED DURING THIS SPECIAL CASE)*/
3 1H0,47X,*CASE 1*,10X,*CASE 2*,10X,*CASE 3*/
4 1H .34X,3I16)
WRITE(6,5001) (ACNAME(IA),IA=1,NACTYP)
5001 FORMAT(1H0/1H .41X,
1 *NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE*/
2 1H .13X,8(A8,6X))
WRITE(6,65) (RNWYAR(IA,IR),IA=1,NACTYP)
65 FORMAT(1H .4X,8F14.0)
WRITE(6,5002) (ACNAME(IA),IA=1,NACTYP)
5002 FORMAT(1H0/1H .40X,
1 *NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE*/
2 1H .13X,8(A8,6X))
WRITE(6,65) (RNWYDP(IA,IR),IA=1,NACTYP)
NX=IIBTT(IR)
IF(NX.EQ.0) GO TO 73
DO 70 IX=1,NX
WRITE(6,5003) IDIBTW(IX,IR),IDISPA(IX,IR)
5003 FORMAT(1H0/1H .51X,
1 *INBOUND TAXIWAY ID NUMBER =*,I4/
2 1H .39X,
2 *ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED =*,I4)
WRITE(6,5004) (ACNAME(IA),IA=1,NACTYP)
5004 FORMAT(1H0,42X,
1 *FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE*/
2 1H .13X,8(A8,6X))
WRITE(6,71) (TTARFR(IX,IA,IR),IA=1,NACTYP)
71 FORMAT(1H .4X,8F14.2)
NS=IIBSEG(IA,IR)
WRITE(6,72) NS,(IIBSEG(IS,IX,IR),IS=1,NS)
72 FORMAT(1H0,41X,
1 *NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY =*,I3/
2 1H .13X,
2 *SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY =*,
2 I3,9(*,*,I3)/
3 1H .86X,I3,6(*,*,I3))

```

```

70 CONTINUE
73 CONTINUE
  NX=NOBTT(IR)
  IF(NX.EQ.0) GO TO 62
  DO 80 IX=1,NX
    WRITE(6,5005) IDOBTW(IX,IR),IDOBPA(IX,IR)
5005 FORMAT(1H0/1H ,50X,
1  *OUTBOUND TAXIWAY ID NUMBER =*,I4/
2  1H ,39X,
2  *ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED = *,I3)
    WRITE(6,5004) (ACNAME(IA),IA=1,NACTYP)
    WRITE(6,71) (TTDPFR(IX,IA,IR),IA=1,NACTYP)
    NS=IOBSEG(IX,IR)
    WRITE(6,72) NS,(IOBSEG(IS,IX,IR),IS=1,NS)
80 CONTINUE
62 CONTINUE

C
C*** PRINT INFORMATION FOR AIRCRAFT SERVICE VEHICLES
C
  WRITE(6,401)
401 FORMAT(1H1,43X,
1  *2.2 INFORMATION FOR AIRCRAFT SERVICE VEHICLES*)

C
C* GSE FUEL CONSUMPTION
C
  WRITE(6,411)
411 FORMAT(1H0/1H ,44X,
1  *-- ANNUAL GSE FUEL CONSUMPTION (GALLONS) --*/)
  DO 420 IU=1,NSFLS
    I=ISFMAP(IU)
    WRITE(6,412) FLNAME(I),GSFUEL(IU)
412 FORMAT(55X,A4,F17.0)
420 CONTINUE

C
C* AIRCRAFT SERVICING INFORMATION
C
  DO 490 IA=1,NACTYP
    IDAC=IACTYP(IA)
    WRITE(6,421) ACNAME(IDAC)
421 FORMAT(1H0//1H ,48X,
1  *-- *,A8,* SERVICING INFORMATION --*)

C
C
C
  WRITE(6,431)
431 FORMAT(1H0/1H ,54X,
1  *GROUND SUPPORT EQUIPMENT*/
2  1H0,30X,*GSE NAME*,8X,*CATEGORY*,8X,*FUEL*,7X,*USAGE*,
3  4X,*SERVICE TIME (HR)*/
4  1H )
  DO 440 IG=1,NGSTYP
    IF(IGSAGH(IA,IG).EQ.0) GO TO 440
    IDGS=IGSTYP(IG)
    IU=ISFMAP(IGSFLT(IG))
    IC=IGSCATE(IG)
    WRITE(6,432) GSNAME(IDGS),GCHNAME(IC),FLNAME(IU),
1  GDSUSGE(IG),GSETIM(IA,IG)
432 FORMAT(1H ,32X,A8,8X,A6,8X,A4,8X,F4.0,10X,F5.2)
440 CONTINUE

C
C
C
  REFUELING

  I=JES1(IA)
  WRITE(6,111) FLNAME(I),ACFUEL(IA),ACSPIL(IA),

```

```

1 ARFLVT(IA),DPFLVT(IA)
111 FORMAT(1H0/1H ,57X,*REFUELING (*,A4,*)*)/
2 1H0,33X,
2 *AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)*,
2 12(*,*),F10.2/
3 1H ,33X,
3 *AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)*,
3 7(*,*),F10.2/
4 1H ,33X,
4 *AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)*,
4 7(*,*),F10.2/
5 1H ,33X,
5 *AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)*
5 5(*,*),F10.2)

```

490 CONTINUE

C

C*** PRINT LANDING AND TAKEOFF PARAMETERS

C

```

WRITE(6,6060)
6060 FORMAT(1H1.44X,
1 *B.3 AIRCRAFT LANDING AND TAKEOFF PARAMETERS*)
WRITE(6,6062)
6062 FORMAT(1H0/1H0,*AIRCRAFT*,9X,*TAXI SPEED*.8X,*LANDING SPEED*.7X,
1 *TAKEOFF SPEED*.5X,*IDLE START UP TIME*.3X,*ENGINE CHECK TIME*,
1 2X,*IDLE SHUT DOWN TIME*/
3 2X,*NAME*.13X,* (KM/HR)*.13X,* (KM/HR)*.12X,* (KM/HR)*.11X,
2 *(MIN/ENGINE)*.8X,* (MIN/ENGINE)*.8X,* (MIN/ENGINE)*//)
DO 6064 IA=1,NACTYP
WRITE(6,6066) ACNAME(IA),TXISPD(IA),LNDSPD(IA),TOSPD(IA),
1 SRTUPT(IA),EGCHKT(IA),SHTDNT(IA)
6066 FORMAT(1H ,A8.4X,1P6(E15.4,5X))
6064 CONTINUE
WRITE(6,6070)
6070 FORMAT(1H0/
2 1H ,*AIRCRAFT*.6X,*APPROACH ANGLE 1*.4X,*APPROACH ANGLE 2*,
2 4X,*APPROACH SPEED 1*.4X,*APPROACH SPEED 2*.4X,
2 *APPROACH HEIGHT 2*.4X,*TAKEOFF WEIGHT*/
3 3X,*NAME*.12X,* (DEGREES)*.11X,* (DEGREES)*.12X,* (KM/HR)*.13X,
3 *(KM/HR)*.14X,* (KM)*.13X,* (1000 LBS)*//)
DO 6072 IA=1,NACTYP
WRITE(6,6066) ACNAME(IA),DSCNT1(IA),DSCNT2(IA),APSPD1(IA),
1 APSPD2(IA),APPHT2(IA),TOWT(IA)
6072 CONTINUE
WRITE(6,7000)
7000 FORMAT(1H0/
2 1H ,*AIRCRAFT*.8X,*CLIMB ANGLE 1*.7X,*CLIMB ANGLE 2*.7X,
2 *CLIMB SPEED 1*.7X,*CLIMB SPEED 2*.6X,*CLIMB HEIGHT 1*/
3 1H ,2X,*NAME*.12X,* (DEGREES)*.11X,* (DEGREES)*.12X,* (KM/HR)*.
3 13X,* (KM/HR)*.14X,* (KM)*//)
DO 7001 IA=1,NACTYP
WRITE(6,6066) ACNAME(IA),ASCNT1(IA),ASCNT2(IA),COSPD1(IA),
1 COSPD2(IA),COHT1(IA)
7001 CONTINUE
WRITE(6,7010)
7010 FORMAT(1H0/1H ,*AIRCRAFT*.10X,*AIRCRAFT*.13X,*ENGINE*.13X,
1 *NUMBER OF*.12X,*AFTER-*.13X,*RUN ROLL*/1H ,2X,*NAME*.15X,
2 *ID*.18X,*ID*.16X,*ENGINES*.13X,*BURNER*.13X,*EQUATION*//)
DO 7020 IA=1,NACTYP
IDAC=IACTYP(IA)
WRITE(6,7021) ACNAME(IA),IDAC,IDACEG(IDAC),ENGNO(IA,1),
2 IACABF(IA),IDRR(IA)
7021 FORMAT(1H ,A8.4X,5(I11,9X))
7020 CONTINUE
WRITE(6,6076) APPHT,CLMBHT

```

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```
6676 FORMAT(1H0/1H ,*ALTITUDE AT START OF APPROACH =*,  
1 1PE11.4,* KILOMETERS*/1H0,*ALTITUDE AT END OF CLIMBOUT =*,  
2 E11.4,* KILOMETERS*)  
RETURN  
END
```

SUBROUTINE OINCLC

C ***** PRINT INTERIM CALCULATIONS
C

INTEGER ACNAME,EGNAME,ENGNO

REAL LNDSPD

COMMON /ACEDB1/

```
1 ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2 ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3 APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4 COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5 EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6 APPHT2(50),CLMBHT,TOWT(50)
```

COMMON /ACEDB2/

```
1 NACTYP,NRWYS,NPKAR,IEGFLG,
2 IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3 APRFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4 RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5 ACFUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6 ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),
7 IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(8,8,6),NOBTT(6),
8 NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,6),
9 NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+ IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
```

REAL LUEMFC

COMMON /EMFDB1/

```
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFBRT,ATBRT,FLTFACT(7),FIXFCT(7),
6 WRKFCT(7)
```

COMMON /DEFAULT/

```
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCDYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDF,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBD,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,AKDSOZ,
7 ATDSOY,ATDSOZ,TCDSDF,TCTSD,
8 FPDFLT,TDDFLT,RDFLT,SDFLT,
9 PPDFLT,TFDFLT,TFDYDF,MINUS(6)
```

INTEGER THNAME

COMMON /EGEDB1/

```
1 MONAM1(10),THNAME(4),MONAM2(10),IDACEG(50),
2 IACABF(50),EGFF(4,50),IEGABF(50),IDRR(50)
```

INTEGER GCNAME,GSNAME

COMMON /GSEDB1/

```
1 NSFLS,ISFMAP(5),
2 GCNAME(15),
3 GSNAME(50),IGSCAT(50),
4 IGSFLT(50),GSFF(50),GSEMFC(5,50),
5 GSRVCT(50,50),
6 GSFUEL(5),NGSTYP,IGSTYP(30),
7 GSUSGE(30),IGSAGN(8,30),
8 GSETIM(8,30)
```

DIMENSION MONAM(3,10)

DATA MONAM/

```
1 'IDLE', ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' ',
2 'TAXI', ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' ',
3 'ENGI', 'NE C', 'HECK', ' ', ' ', ' ', ' ', ' ', ' ',
4 'RUNW', 'AY R', 'OLL', ' ', ' ', ' ', ' ', ' ', ' '
```

```

5      CLIM', 'B 1', ' ', ' ', ' ', ' '
6      CLIM', 'B 2', ' ', ' ', ' ', ' '
7      APPR', 'OACH', ' ', '1', ' ', ' '
8      APPR', 'OACH', ' ', '2', ' ', ' '
9      LAND', 'ING', ' ', ' ', ' ', ' '
*

```

```

C
C*** PRINT TITLE
C
      WRITE(6,518)
518 FORMAT(1H1,45X,
1      *C. I N T E R I M   C A L C U L A T I O N S*)
C
C*** PRINT AIRCRAFT EMISSION FACTORS
C
      WRITE(6,519)
519 FORMAT(1H0,39X,
1      *C.1 AIRCRAFT EMISSION FACTORS BY AIRCRAFT TYPE *
2      *.KG PER ENGINE PER HOUR)* /
3      1H )
      DO 7 IA=1,NACTYP
      IDAC=IACTYP(IA)
      WRITE(6,511) ACNAME(IDAC),IDAC,EGNAME(IDAC),IDACEG(IDAC),
1      ENGNO:IDAC,1),(PLNAME(IP),IP=1,NPLTS)
511 FORMAT(1H0 /
1      1H0,21X,A8,6X,*ID =*,I3,6X,*ENGINE =*,A8,6X,*ENGINE ID =*,I3,
2      6X,*NUMBER OF ENGINES =*,I2 /
3      1H0,14X,*(MODE)*,15X,6(A4,12X))
      DO 7 IM=1,10
      IF(ACEMFC(IA,IM,1).LE.0..AND.ACEMFC(IA,IM,2).LE.0.) GO TO 7
      WRITE(6,512) (MONAM(J,IM),J=1,3),(ACEMFC(IA,IM,IP),IP=1,NPLTS)
512 FORMAT(1H .11X,3A4,8X,1P6(E10.3,6X))
7      CONTINUE
C
C*** PRINT GROUND SERVICE EQUIPMENT EMISSIONS
C
      WRITE(6,6969)
6969 FORMAT(1H1,47X,
1      *C.2 GROUND SERVICE EQUIPMENT EMISSIONS*)
      DO 34 IA=1,NACTYP
      IDAC=IACTYP(IA)
      WRITE(6,83) ACNAME(IDAC)
83 FORMAT(1H0/1H0,49X,A8,
1      * SERVICE VEHICLE EMISSIONS*)
      WRITE(6,113)
113 FORMAT(1H0.56X,*KILOGRAMS PER ARRIVAL*)
      WRITE(6,5007) (PLNAME(IP),IP=1,NPLTS)
5007 FORMAT(1H0.12X,*FUEL*,19X,6(A4,12X))
      DO 35 IU=1,NSFLS
      I=ISFMAP(IU)
      WRITE(6,87) FLNAME(I),(ARSVEM(IP,IA,IU),IP=1,NPLTS)
87 FORMAT(1H .12X,A4,14X,1P6(E10.3,6X))
85 CONTINUE
      WRITE(6,89)
89 FORMAT(1H0.55X,*KILOGRAMS PER DEPARTURE*)
      WRITE(6,5007) (PLNAME(IP),IP=1,NPLTS)
      DO 88 IU=1,NSFLS
      I=ISFMAP(IU)
      WRITE(6,87) FLNAME(I),(DPSVEM(IP,IA,IU),IP=1,NPLTS)
86 CONTINUE
84 CONTINUE
      RETURN
      END

```


OVERLAY(ABEMIV,3,0)
PROGRAM ABEMIV

C
C***** PROCESS AIRBASE EMISSION SOURCE INVENTORY
C

```

REAL LUEMFC
COMMON /EMFDB1/
1     EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2     TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3     FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4     CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5     AFSRTH,ATBRTH,FLTFACT(7),FIXFCT(7),
6     WRKFCT(7)
COMMON /DSTRBT/
1     ACMO(13,50),ACDY(2,50),ACHR(24,50),VHMLMO(13),
2     VHMLDY(2),VHMLHR(24),CVABMO(13),CVABDY(2),
3     CVASHR(24),CVENMO(13),CVENDY(2),CVENHR(24),
4     FLMO(13,7),FLDY(2,7),FLHR(24,7)
COMMON /ANNMET/
1     TBAR,ADD,P,PA,
2     WSEAR,DTBAR,AMDBAR
COMMON /DEFAULT/
1     NPLTS,ITAPE,ACLNDY,ACLNDZ,
2     TCVSDF,TCHBDF,TCHODF,TCDDYDF,
3     TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4     RUHBDY,RUHODF,RUDYDF,RUDZDF,
5     TFDZDF,TFQDF,TFHBDY,TFHQDF,
6     EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7     ATDSOY,ATDSOZ,TCDSDF,TCTSDY,
8     FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9     PFDFLT,TFDFLT,TFDYDF,MINUS(6)
COMMON /ARRAYS/
1     HCWRK(10,50),HC8RTH(5,100),HCEVP(3,50)
COMMON /SPACE/
1     SORCE(2100),SOREM(8,250)
COMMON /POINTR/
1     M,NSRCES,NMAX,NMAXE,
2     LSRCES,NTOT
COMMON /AUTOS/
1     XEMITT(2,6,6),YCLDST(6,6),SOAK,BRTH,
2     IAREA,IHDV,IAAT,IYEAR
COMMON /TOTS/
1     TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
DIMENSION VHTILE(4,3)

```

C
C***** ZERO ACCUMULATORS
C

```

DO 10 IP=1,6
DO 10 IM=8,20
TOTEM(IM,IP)=0.
10 CONTINUE
DO 20 IM=1,10
TOTEVP(IM)=0.
20 CONTINUE

```

C
C***** PRINT TITLE
C

```

WRITE(6,90)
90 FORMAT(1H,22(/),58X,19HS E C T I O N 1 I,///,
1 50X,29H A I R B A S E S O U R C E S)

```

C
C***** PERFORM VEHICLE EMISSION INVENTORY
C

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```

C READ AIRBASE VEHICLE AGE DISTRIBUTION
C DATA SET 11
  READ(5,8676)AB1234
  READ(5,11) IAREA,IHDVML,IHDVCV,IAATML,IAATCV,IYEAR
  IF(IHDVML.EQ.0)IHDVML=2
  IF(IHDVCV.EQ.0)IHDVCV=2
  11 FORMAT(20I4)
C PRINT AIRBASE VEHICLE AGE DISTRIBUTION
200 FORMAT(1H1,22X,93HA. VEHICLE AGE DISTRIBUTION AND EMISSION FACTORS /,
.1H-,50X,37HA.1 AIRBASE VEHICLE AGE DISTRIBUTION,/1H-,
.34H VEHICLE EMISSION AREA IS SET FOR ,4A4/1H-,10X,28HMILITARY VEHICLE INFORMATION/)
  WRITE(6,200) (VHTILE(I,IAREA),I=1,4)
  IHDV=IHDVML
  IAAT=IAATML
  IF (IHDV.EQ.1) WRITE(6,203)
203 FORMAT(1H0,113H NO GROSS VEHICLE WEIGHT DEPENDENCE FOR HEAVY DUTY GASOLINE-POWERED MILITARY VEHICLES EMISSION FACTOR CALCULATION )
  IF (IHDV.EQ.2) WRITE(6,204)
204 FORMAT(1H0,100H HEAVY DUTY GASOLINE POWERED MILITARY VEHICLE EMISSION FACTORS ARE DEPENDENT ON GROSS VEHICLE WEIGHT )
  IF (IAAT.EQ.0) WRITE(6,201)
201 FORMAT(1H0,51H MILITARY VEHICLE AGE DISTRIBUTION SUPPLIED BY USER)
  IF (IAAT.EQ.1) WRITE(6,202)
202 FORMAT(1H0,61H NATIONAL VEHICLE AGE DISTRIBUTION USED FOR MILITARY VEHICLES )
C SUBROUTINE VEFCTR FOR MILITARY VEHICLES
  CALL VEFCTR
  DO 21 I=1,6
  DO 21 J=1,6
    AFCSEM(J,I)=YCLDST(J,I)/1000.0
  DO 21 K=1,2
21 AFEMFC(K,J,I)=XEMITT(K,J,I)/1000.0
  AF5OAK=5OAK/1000.0
  AF3RTH=3RTH/1000.0
  IHDV=IHDVCV
  IAAT=IAATCV
  WRITE(6,700)
700 FORMAT(1H-/1H ,10X,28HCIVILIAN VEHICLE INFORMATION/)
  IF (IHDV.EQ.1) WRITE(6,207)
207 FORMAT(1H0,113H NO GROSS VEHICLE WEIGHT DEPENDENCE FOR HEAVY DUTY GASOLINE-POWERED CIVILIAN VEHICLES EMISSION FACTOR CALCULATION )
  IF (IHDV.EQ.2) WRITE(6,208)
208 FORMAT(1H0,100H HEAVY DUTY GASOLINE-POWERED CIVILIAN VEHICLE EMISSION FACTORS ARE DEPENDENT ON GROSS VEHICLE WEIGHT)
  IF (IAAT.EQ.0) WRITE(6,205)
205 FORMAT(1H0,51H CIVILIAN VEHICLE AGE DISTRIBUTION SUPPLIED BY USER)
  IF (IAAT.EQ.1) WRITE(6,206)
206 FORMAT(1H0,61H NATIONAL VEHICLE AGE DISTRIBUTION USED FOR CIVILIAN VEHICLES)
C SUBROUTINE VEFCTR FOR CIVILIAN VEHICLES
  CALL VEFCTR
  DO 22 I=1,6
  DO 22 J=1,6
    CSEMFC(J,I)=YCLDST(J,I)/1000.0
  DO 22 K=1,2
22 CTEMFC(K,J,I)=XEMITT(K,J,I)/1000.0
  C5OAK=5OAK/1000.0
  C3RTH=3RTH/1000.0
C PRINT EMISSION VALUES FOR MILITARY VEHICLES
50 FORMAT(1H1,42X,53HA.2 MILITARY AND CIVILIAN POLLUTION EMISSION FACTORS )
51 FORMAT(1H-, 36X,65HMILITARY VEHICLE COLD STARTS PLUS HOT RUNNING

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.G EMISSIONS (KG/MILE) )
52 FORMAT(1H-, 44X,48HMILITARY VEHICLE HOT RUNNING EMISSIONS (KG/M
   LD START))
53 FORMAT(1H-, 41X,53HMILITARY VEHICLE COLD START EMISSIONS (KG/CO
   LD START))
54 FORMAT(1H-, 10X,71HMILITARY VEHICLE CARBURETOR SOAK HYDROCARBON
   LOSSES PER VEHICLE START ,1PE10.3,5H (KG),/1H0,
   .10X,65HMILITARY VEHICLE HYDROCARBON BREATHING LOSSES PER VEHICLE S
   TART ,1PE10.3,5H (KG) )
55 FORMAT(1H-/1H0,36X,65HCIVILIAN VEHICLE COLD STARTS PLUS HOT RUNNIN
   G EMISSIONS (KG/MILE) )
56 FORMAT(1H-,43X,48HCIVILIAN VEHICLE HOT RUNNING EMISSIONS (KG/MILE)
   )
57 FORMAT(1H-,41X,53HCIVILIAN VEHICLE COLD START EMISSIONS (KG/COLD S
   TART))
58 FORMAT(1H-,10X,71HCIVILIAN VEHICLE CARBURETOR SOAK HYDROCARBON LOS
   SES PER VEHICLE START ,1PE10.3,5H (KG),/1H0,
   .10X,65HCIVILIAN VEHICLE HYDROCARBON BREATHING LOSSES PER VEHICLE S
   TART ,1PE10.3,5H (KG) )
60 FORMAT(1H0,10X,5HCLASS,14X,5(A4,14X),A4)
61 FORMAT(1H ,12X,11,4X,1P6(8X,E10.3))
   WRITE(6,50)
   WRITE(6,51)
   WRITE(6,50) (PLNAME(I),I=1,NPLTS)
   DO 250 J=1,6
250 WRITE(6,61) J,(AFEMFC(2,J,I),I=1,NPLTS)
   WRITE(6,52)
   WRITE(6,60) (PLNAME(I),I=1,NPLTS)
   DO 251 J=1,6
251 WRITE(6,61) J,(AFEMFC(1,J,I),I=1,NPLTS)
   WRITE(6,53)
   WRITE(6,60) (PLNAME(I),I=1,NPLTS)
   DO 252 I=1,6
252 WRITE(6,61) I,(AFCSEM(1,J),J=1,NPLTS)
   WRITE(6,54) AFSOAK,AFBRTH
C PRINT EMISSION VALUES FOR CIVILIAN VEHICLES
   WRITE(6,55)
   WRITE(6,53) (PLNAME(I),I=1,NPLTS)
   DO 250 J=1,6
250 WRITE(6,61) J,(ATEMFC(2,J,I),I=1,NPLTS)
   WRITE(6,56)
   WRITE(6,60) (PLNAME(I),I=1,NPLTS)
   DO 251 J=1,6
251 WRITE(6,61) J,(ATEMFC(1,J,I),I=1,NPLTS)
   WRITE(6,57)
   WRITE(6,60) (PLNAME(I),I=1,NPLTS)
   DO 252 I=1,6
252 WRITE(6,61) I,(CSEMFC(1,J),J=1,NPLTS)
   WRITE(6,58) ATSOAK,ATBRTH
C
C**** PERFORM AIRBASE AREA SOURCE INVENTORY
C
   NSRCES=0
   CALL ABPTIV
C
C**** PERFORM AIRBASE AREA SOURCE INVENTORY
C
   NSRCES=0
   CALL ABARIV
C
C**** PERFORM AIRBASE LINE EMISSION INVENTORY
C
   NSRCES=0
   CALL ABLNIV

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END

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SUBROUTINE VEFCTR
  INTEGER CLDSTR
  COMMON /AUTOS/
1  XEMITT(2,6,6),YCLDST(6,6),SOAK,BRTH,
2  IAREA,IHDV,IAAT,IYEAR
  DIMENSION EXEM(6,3),CSCO(6),CSHC(6),CRANK(6),EVAP(6,3)
  DO 1 J=1,6
  DO 1 K=1,6
  YCLDST(J,K)=0.0
  DO 1 I=1,2
1  XEMITT(I,J,K)=0.0
  M=2
  CLDSTR=0
  CALL TREFCT (CLDSTR,EXEM,CSCO,CSHC,EVAP,CRANK,IAREA,IHDV,IAAT,
1 IYEAR)
5  DO 10 J=1,6
  DO 11 K=1,3
  XEMITT(M,J,K)=EXEM(J,K)
  IF(K.EQ.2) XEMITT(M,J,2)=EXEM(J,2)+CRANK(J)
  IF(J.GT.2.AND.K.EQ.2) XEMITT(M,J,2)=XEMITT(M,J,2)+EVAP(J,2)
11 CONTINUE
  XEMITT(M,J,4)=0.58
  XEMITT(M,J,5)=0.20
  IF(J.LT.6) GO TO 10
  XEMITT(M,6,4)=1.2
  XEMITT(M,6,5)=2.4
10 CONTINUE
  IF(M.EQ.1) GO TO 15
  M=1
  CLDSTR=1
  CALL TFENTR (CLDSTR,EXEM,CSCO,CSHC,EVAP,CRANK,IAREA,IHDV,IAAT,
1 IYEAR)
  GO TO 5
15 SOAK=EVAP(1,3)
  BRTH=EVAP(1,1)
  DO 20 J=1,6
  YCLDST(J,1)=CSCO(J)
20 YCLDST(J,2)=CSHC(J)
  RETURN
  END

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SUBROUTINE TREFCT (CLDSTR, EXEMI, CSCO, CSHC, EVAP, CRANK, IAREA, IHV,
1 IAT, YEAR)
INTEGER TRETIT, OPT
INTEGER YEAR, RTROFT, CLDSTR
DIMENSION BYEFCO(6,31), BYEFHC(6,31), BYEFNO(6,31),
A DETCO(6,31,16), DETHC(6,31,16), DETNO(6,31,16),
B RCSCO(6,31), RCSHC(6,31),
C RTROCO(6,31), RTROHC(6,31), RTRONO(6,31),
D YEFCO(6,31), YEFHC(6,31), YEFNO(6,31),
E YEFCSC(6,31), YEFCSH(6,31),
F SNO(6),
G CREF(6,31), EVEF(6,31,3), REGIS(16,6), AAT(16,6), PAAT(16,6),
H SUM(6), PTRVL(6,16), WFCTR(6), WEVAP(3),
I EXEMI(6,3), CSCO(6), CSHC(6), CRANK(6), EVAP(6,3), Y(2)
DIMENSION FEXCO(31,3,3), FEXHC(31,3,3), FEXNO(31,3,3),
A HDVCO(31,3,3), HDVHC(31,3,3), HDVNO(31,3,3),
B FDEFHC(31), FDEFNO(31),
C FDETCO(21,18,2), FDETHC(21,18,2), FDETNO(21,18,2),
D FCHDCO(16), FCHDHC(16), FCHDNO(16),
E FFCSCO(31,3), FFCSHC(31,3),
F HDCSCO(4), HDCSHC(4),
G CM(18), FCRNK(31,2,2), FEVAP(31,2,2), CMH(16),
H SEV1(31,3,2), SEV2(31,3,2), SEV3(31,3,2)
DIMENSION TRETIT(16), OPT(6), RAGIS(16,6), RFGIS(16,6)
DATA TRETIT / 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 /
C USEPA EXHAUST EMISSION FACTORS -- 1960-1990 (GRAMS/VEHICLE-MILE)
C FIRST 31 VALUES ARE AUTOS, NEXT 31 ARE LIGHT DUTY TRUCKS, NEXT
C 31 ARE HEAVY DUTY GASOLINE-POWERED TRUCKS
DATA FEXCO /
A 8*87., 46., 39., 36., 34., 3*19., 12.5, 15*1.8,
B 8*87., 46., 39., 36., 34., 3*19., 12.5, 15*1.8,
C 10*140., 21*130.,
D 8*130., 74., 48., 72., 75., 3*42., 20.0, 15*1.8,
E 8*130., 74., 48., 72., 75., 3*42., 20.0, 15*1.8,
F 10*210., 21*190.,
G 6*87., 51., 50., 46., 39., 36., 34., 3*19., 2.8, 15*1.8,
H 6*87., 51., 50., 46., 39., 36., 34., 3*19., 2.8, 15*1.8,
I 10*140., 5*130., 16*81./
DATA FEXHC /
A 8*8.8, 4.5, 4.4, 3.6, 2.9, 3*2.7, 1.3, 15*.23,
B 8*8.8, 4.5, 4.4, 3.6, 2.9, 3*2.7, 1.3, 15*.23,
C 10*17., 4*16., 17*13.,
D 8*10., 6.0, 5.4, 6.1, 5.3, 3*4.9, 1.8, 15*.23,
E 8*10., 6.0, 5.4, 6.1, 5.3, 3*4.9, 1.8, 15*.23,
F 10*19., 4*18., 17*15.,
G 6*8.8, 6.0, 4.6, 4.5, 4.4, 3.6, 2.9, 3*2.7, .33, 15*.23,
H 6*8.8, 6.0, 4.6, 4.5, 4.4, 3.6, 2.9, 3*2.7, .33, 15*.23,
I 10*17., 2*16., 3*13., 16*4.1/
DATA FEXNO /
A 8*3.6, 4.3, 5.5, 5.1, 2*4.8, 2*2.3, 2.2, 1.6, 14*.31,
B 8*3.6, 4.3, 5.5, 5.1, 2*4.8, 2*2.3, 2.2, 1.6, 14*.31,
C 10*9.4, 21*9.2,
D 6*1.9, 2.2, 2.6, 2.8, 2*3.1, 2*1.4, 1.4, 1.0, 14*.31,
E 6*1.9, 2.2, 2.6, 2.8, 2*3.1, 2*1.4, 1.4, 1.3, 14*.31,
F 10*5.0, 21*4.9,
G 6*3.6, 2*3.4, 4.3, 5.5, 5.1, 2*3.5, 2*2.3, 1.1, 1.1, 14*.31,
H 6*3.6, 2*3.4, 4.3, 5.5, 5.1, 2*3.5, 2*2.3, 1.1, 1.1, 14*.31,
I 10*9.4, 5*9.2, 15*2.8/
C USEPA DIESEL EMISSION FACTORS -- 1960-1990
DATA FDEFHC / 10*49.2, 21*32.5/
DATA FDEFNO / 10*9.84, 21*3.78/
DATA FDEFNO / 10*51.5, 21*76.4/
C HEAVY DUTY VEHICLE EXHAUST EMISSION FACTORS 1960-1990 SWRI STUDY, FEB

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C FIRST 31 VALUES ARE FOR GVW 6000-16000 LBS
 C NEXT 31 VALUES ARE FOR GVW 16001-33000 LBS
 C NEXT 31 VALUES ARE FOR GVW GREATER THAN 33000 LBS
 DATA HDVCO/
 A 10*108.5,21*100.8, 10*146.2,21*135.7, 10*271.3,21*251.9,
 B 10*162.8,21*147.3, 10*219.2,21*198.4, 10*407.0,21*368.2,
 C 10*108.5,5*100.8,16*62.8,10*146.2,5*135.7,16*84.6,10*271.3,
 D 5*251.9,16*157.0/
 DATA HDVHC/
 A10*13.1,4*12.3,17*10.0,10*20.2,4*19.0,17*15.4,10*29.0,4*27.3,
 B17*22.3, 10*14.5,4*13.9,17*11.6,10*22.6,4*21.4,17*17.8,10*32.4,
 C4*30.7,17*25.6, 10*13.1,2*12.3,3*10.0,16*3.2,10*20.2,2*19.0,
 D3*15.4,16*4.9,10*29.0,2*27.3,3*22.2,16*7.0/
 DATA HDVNO/
 A 10*9.4,21*9.2, 10*9.6,21*9.4, 10*9.3,21*9.1,
 B 10*5.0,21*4.9, 10*5.1,21*5.0, 10*5.0,21*4.9,
 C 10*9.4,5*9.2,16*2.8, 10*9.6,5*9.4,16*2.9, 10*9.3,5*9.1,16*2.8/
 C COLD START RATIOS FOR LDV FROM 6-CITIES AND GM DATA 1960-1990
 DATA FFCSCO/ 0*.175, .274, .347, .305, 5*.322,15*1.369,
 A 8*.138, .220, .372, .285, 5*.237,15*1.369,
 B 6*.175, .349, .372, .274, .347, .305, 4*.322,16*1.369/
 DATA FFCSHC/ 8*.163, .227, .263, .229, 5*.221,15*.556,
 A 8*.199, .334, .396, .297, 5*.358, 15*.556,
 B 6*.163, .198, .291, .227, .263, .229, 4*.221,16*.556/
 C COLD START RATIOS FOR HDV FROM SWRI STUDY ALL MODEL YEARS AND AREAS
 C FIRST VALUE IS FOR ALL HDV, NEXT 3 ARE FOR GVW CLASSES
 DATA HDCSCO/ .105, .238, .076, .033/
 DATA HDCSHC/ .142, .171, .139, .131/
 C EPA CRANKCASE AND EVAPORATIVE EMISSIONS -- KIRCHER 1/12/73 1960-90 G
 C FIRST 31 VALUES ARE LIGHT-DUTY, NEXT 31 ARE HEAVY-DUTY
 DATA FCRNK/ 3*4.1, 5*0.8, 23*0.0, 8*5.2,23*0.0,
 A 4.1, 3*0.5, 27*0.0, 4*5.2,27*0.0/
 DATA FEVAP/ 11*3.0, 0.5, 19*0.2, 31*3.0,
 A 10*3.0,2*0.5,19*0.2, 13*3.0,18*0.2/
 C EVAPORATIVE EMISSION FACTORS BY SOURCE 1960-1990 6-CITIES STUDY
 C FIRST 31 VALUES ARE DIURNAL LOSS, NEXT 31 ARE RUNNING LOSS, NEXT
 C 31 ARE HOT SOAK LOSS
 DATA SEV1 /
 A 11*26.0, 16.3,19*6.5, 31*0.0, 11*14.7, 10.9,19*4.4,
 B 31*26.0, 31*0.0, 31*14.7 /
 DATA SEV2 /
 C 11*75.3, 47.2,19*18.9, 31*0.0, 11*46.7, 34.8,19*13.9
 D, 31*75.3, 31*0.0, 31*46.7 /
 DATA SEV3 /
 E 10*26.0,2*16.3,19*6.5, 31*0.0, 10*14.7,2*10.9,19*4.4,
 F 13*26.0,18*6.5, 31*0.0, 13*14.7,18*4.4 /
 C USEPA EXHAUST EMISSION DETERIORATION FACTORS 1960-1980 LIGHT DUTY
 C EACH SET OF 21 VALUES REPRESENTS THE AGE OF THE VEHICLE
 DATA FDETCO/ 21*1.00
 A 8*1.0, 1.24, 1.42, 5*1.18, 1.04, 5*1.16,
 B 8*1.0, 1.35, 1.53, 5*1.32, 1.30, 5*1.34,
 C 8*1.0, 1.41, 1.59, 5*1.38, 1.36, 5*1.50,
 D 8*1.0, 1.47, 1.63, 5*1.40, 1.43, 5*1.62,
 E 8*1.0, 1.53, 1.68, 5*1.44, 1.44, 5*1.75,
 F 8*1.0, 1.58, 1.71, 5*1.47, 1.49, 5*1.88,
 G 8*1.0, 1.62, 1.75, 5*1.50, 1.56, 5*2.00,
 H 8*1.0, 1.67, 1.79, 5*1.51, 1.63, 5*2.10,
 I 8*1.0, 1.72, 1.82, 5*1.56, 1.69, 5*2.22,
 E21*1.00,6*1.00,1.13,1.11,1.24,1.42,5*1.18,6*1.16, 6*1.00,1.21,
 F1.18,1.35,1.50,5*1.32,6*1.34, 6*1.00,1.24,1.23,1.41,1.59,
 G8*1.28,6*1.50, 6*1.00,1.25,1.29,1.47,1.63,5*1.40,6*1.62,
 H5*1.00,1.28,1.25,1.52,1.68,5*1.44,6*1.75, 6*1.00,1.29,1.40,1.58,
 I1.71,5*1.47,6*1.88, 6*1.00,1.31,1.46,1.63,1.75,5*1.50,6*2.00,
 J5*1.00,1.32,1.50,1.67,1.79,5*1.51,6*2.10, 6*1.00,1.34,1.56,1.72,

K1.82,5*1.56,6*2.22/

DATA FDETHC/

21*1.00

A 3*1.0, 1.12, 1.10, 5*1.05, 1.00, 5*1.14,
B 3*1.0, 1.19, 1.16, 5*1.10, 1.13, 5*1.30,
C 3*1.0, 1.21, 1.18, 5*1.13, 1.22, 5*1.44,
D 3*1.0, 1.23, 1.21, 5*1.15, 1.29, 5*1.55,
E 3*1.0, 1.25, 1.23, 5*1.17, 1.37, 5*1.67,
F 3*1.0, 1.25, 1.25, 5*1.20, 1.43, 5*1.77,
G 3*1.0, 1.30, 1.28, 5*1.22, 1.50, 5*1.88,
H 3*1.0, 1.32, 1.29, 5*1.24, 1.56, 5*1.96,
I 3*1.0, 1.35, 1.31, 5*1.26, 1.63, 5*2.07,

E21*1.00,5*1.00,1.14,1.07,1.12,1.10,5*1.05,6*1.14, 6*1.00,1.22,
F1.10,1.18,1.15,5*1.10,6*1.30, 6*1.00,1.25,1.12,1.21,1.18,5*1.13,
G6*1.44, 6*1.00,1.27,1.14,1.23,1.21,5*1.15,6*1.55, 6*1.00,1.29,
H1.15,1.26,1.23,5*1.17,6*1.67, 6*1.00,1.30,1.17,1.28,1.25,5*1.20,
I6*1.77, 6*1.00,1.32,1.18,1.30,1.28,5*1.22,6*1.88, 6*1.00,1.35,
J1.20,1.32,1.29,5*1.24,6*1.96, 6*1.00,1.35,1.21,1.35,1.31,5*1.25,
K5*2.07/

DATA FDETNO/

21*1.00

A 13*1.0,2*1.11,1.00,1.03,4*1.17, 13*1.0,2*1.18,1.18,1.07,4*1.37,
B 13*1.0,2*1.20,1.23,1.10,4*1.53, 13*1.0,2*1.21,1.21,1.13,4*1.67,
C 13*1.0,2*1.22,1.41,1.17,4*1.82, 13*1.0,2*1.23,1.45,1.19,4*1.94,
D 13*1.0,2*1.24,1.45,1.21,4*2.06, 13*1.0,2*1.25,1.45,1.24,4*2.17,
E 13*1.0,2*1.26,1.45,1.26,4*2.32,

F 21*1.00,

G 11*1.0,4*1.11,2*1.00,4*1.17, 11*1.0,4*1.18,2*1.07,4*1.37,
H 11*1.0,4*1.20,2*1.10,4*1.53, 11*1.0,4*1.21,2*1.13,4*1.67,
I 11*1.0,4*1.22,2*1.17,4*1.82, 11*1.0,4*1.23,2*1.19,4*1.94,
J 11*1.0,4*1.24,2*1.21,4*2.06, 11*1.0,4*1.25,2*1.24,4*2.17,
K 11*1.0,4*1.26,2*1.26,4*2.32/

DATA CM/ 4000., 20400., 25100., 48830., 61660., 73590., 84590.,

A 94620., 103750., 111980./

DATA FCHDCO/ 1.00, 1.24, 1.35, 1.43, 1.50, 1.57, 1.63, 1.69,

A 1.73, 7*1.77/

DATA FCHDHC/ 1.00, 1.12, 1.18, 1.22, 1.25, 1.28, 1.30, 1.33,

A 1.36, 7*1.38/

DATA FCHDNO/ 1.00, 1.11, 1.18, 1.20, 1.22, 1.23, 1.24, 1.25,

A 1.27, 7*1.28/

DATA CMH/ 4000., 22360., 39140., 54940., 69900., 82900., 95300.,

A 106300., 116700., 125700., 133650., 139150., 144650., 150150.,

B 155550., 161150./

C USEPA REGISTRATION (MID-YEAR) AND ANNUAL TRAVEL

DATA REGIS/ .078, .115, .110, .098, .106, .106, .068, .078,

A .063, .041, .035, .021, .060, 0., 0., 0.,

B .079, .116, .110, .098, .106, .106, .088, .078,

C .063, .041, .035, .021, .060, 0., 0., 0.,

D .071, .106, .087, .081, .084, .076, .065, .055,

E .047, .035, .037, .033, .223, 0., 0., 0.,

F .071, .106, .087, .081, .094, .076, .065, .055,

G .047, .035, .037, .033, .223, 0., 0., 0.,

H .071, .106, .087, .081, .084, .076, .065, .055,

I .047, .035, .037, .033, .223, 0., 0., 0.,

J .071, .106, .087, .081, .084, .076, .065, .055,

K .047, .035, .037, .033, .223, 0., 0., 0./

DATA AAT/15900., 15000., 14000., 13100., 12200., 11300., 10300., 9400.,

A 8500., 7600., 6700., 6700., 6700., 6700., 6700., 6700.,

B 15900., 15000., 14000., 13100., 12200., 11300., 10300., 9400.,

C 8500., 7600., 6700., 6700., 6700., 6700., 6700., 6700.,

D 17200., 17200., 15800., 15800., 13000., 13000., 11000., 11000.,

E 9000., 8000., 5500., 5500., 5500., 5500., 5500., 5500.,

F 17200., 17200., 15800., 15800., 13000., 13000., 11000., 11000.,

G 9000., 8000., 5500., 5500., 5500., 5500., 5500., 5500.,

H 17200., 17200., 15800., 15800., 13000., 13000., 11000., 11000.,

I 9000., 8000., 5500., 5500., 5500., 5500., 5500., 5500.,


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J      17200.,17200.,15800.,15800.,13000.,13000.,11800.,11000.,
K      9000., 9000., 5500., 5500., 5500., 5500., 5500., 5500./
DATA PAAT/ .38,15*.30. .38,15*.30. .37,15*.30. .37,15*.30.
A      .37,15*.30. .37,15*.30/
DATA WFCTR/ .821, .100, .045, .018, .010, .006/
DATA Y /4HMD-,4HEND- /
DATA IAUO,ILDT,IDIESL,IDET,ICRNK,ICLDST,IWTFTR,IEVAP,RTROFT,
1 ITIME,SPEED / 7*1,2,2*0,19.6 /

```

C

```

      IZZ=1
C***** INITIALIZE DATA ARRAYS *****
      IF (IAUTO.EQ.0) GO TO 101
      DO 1 M=1,31
        BYEFCO(1,M) = FEXCO(M,1,IAREA)
        BYEFHC(1,M) = FEXHC(M,1,IAREA)
        BYEFNO(1,M) = FEXNO(M,1,IAREA)
      1 CONTINUE
      GO TO 2
101 READ(5,210)(BYEFCO(1,M),M=1,31)
      READ(5,210)(BYEFHC(1,M),M=1,31)
      READ(5,210)(BYEFNO(1,M),M=1,31)
      2 IF (ILDT.EQ.0) GO TO 102
      DO 3 M=1,31
        BYEFCO(2,M) = FEXCO(M,2,IAREA)
        BYEFHC(2,M) = FEXHC(M,2,IAREA)
        BYEFNO(2,M) = FEXNO(M,2,IAREA)
      3 CONTINUE
      GO TO 4
102 READ(5,210)(BYEFCO(2,M),M=1,31)
      READ(5,210)(BYEFHC(2,M),M=1,31)
      READ(5,210)(BYEFNO(2,M),M=1,31)
      4 IH=IHDV+1
      GO TO(103,5.7),IH
      DO 6 M=1,31
        DO 5 J=3,5
          BYEFCO(J,M) = FEXCO(M,3,IAREA)
          BYEFHC(J,M) = FEXHC(M,3,IAREA)
          BYEFNO(J,M) = FEXNO(M,3,IAREA)
        6 CONTINUE
      GO TO 9
      DO 8 M=1,31
        DO 8 J=3,5
          BYEFCO(J,M) = HDVCO(M,J-2,IAREA)
          BYEFNO(J,M) = HDVNO(M,J-2,IAREA)
          BYEFHC(J,M) = HDVHC(M,J-2,IAREA)
      8 CONTINUE
      GO TO 9
103 DO 104 J=3,5
      READ(5,210)(BYEFCO(J,M),M=1,31)
      READ(5,210)(BYEFHC(J,M),M=1,31)
      READ(5,210)(BYEFNO(J,M),M=1,31)
104 CONTINUE
      9 IF (IDIECL.EQ.0) GO TO 106
      DO 105 M=1,31
        BYEFCO(6,M) = FDEFNO(M)
        BYEFHC(6,M) = FDEFHC(M)
        BYEFNO(6,M) = FDEFNO(M)
      105 CONTINUE
      GO TO 107
106 READ(5,210)(BYEFCO(6,M),M=1,31)
      READ(5,210)(BYEFHC(6,M),M=1,31)
      READ(5,210)(BYEFNO(6,M),M=1,31)
      107 IDET=1
      ICD=MAX0(IAREA-1,1)

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```

GO TO(118,123,115),IDT
122 DO 111 J=1,2
DO 118 N=1,18
DO 109 M=1,21
DETCO(J,M,N)=FDETCO(M,N,IAD)
DETHC(J,M,N)=FDETHC(M,N,IAD)
DETNO(J,M,N)=FDETNO(M,N,IAD)
109 CONTINUE
DO 118 M=22,31
DETCO(J,M,N)=FDETCO(21,N,IAD)
DETHC(J,M,N)=FDETHC(21,N,IAD)
DETNO(J,M,N)=FDETNO(21,N,IAD)
118 CONTINUE
DO 111 N=11,16
DO 111 M=1,31
DETCO(J,M,N)=DETCO(J,M,18)
DETHC(J,M,N)=DETHC(J,M,18)
DETNO(J,M,N)=DETNO(J,M,18)
111 CONTINUE
DO 112 J=3,6
DO 112 N=1,16
DO 112 M=1,31
DETCO(J,M,N)=1.8
DETHC(J,M,N)=1.8
DETNO(J,M,N)=1.8
112 CONTINUE
IF(AREA.NE.3) GO TO 128
DO 113 J=3,5
DO 113 M=16,31
DO 113 N=1,16
DETCO(J,M,N) = FCHDCO(N)
DETHC(J,M,N) = FCHDHC(N)
DETNO(J,M,N) = FCHDNO(N)
113 CONTINUE
115 GO TO 128
C MILEAGE DEPENDANT DETERIORATION FACTORS WILL BE
C INITIALIZED AFTER REGISTRATION DATA IS INPUT
118 DO 119 J=1,6
DO 119 M=1,31
READ(5,238) (DETCO(J,M,N),N=1,16)
READ(5,238) (DETHC(J,M,N),N=1,16)
READ(5,238) (DETNO(J,M,N),N=1,16)
119 CONTINUE
120 IF(ICRNK.EQ.8)GO TO 122
DO 121 M=1,31
CREF(1,M) = FCRNK(M,1,IAD)
CREF(2,M) = FCRNK(M,1,IAD)
CREF(3,M) = FCRNK(M,2,IAD)
CREF(4,M) = FCRNK(M,2,IAD)
CREF(5,M) = FCRNK(M,2,IAD)
CREF(6,M) = 8.
121 CONTINUE
GO TO 124
122 DO 123 J=1,6
READ(5,214) (CREF(J,M),M=1,31)
123 CONTINUE
124 IEV=IEVAP+1
GO TO(138,125,125),IEV
125 DO 126 M=1,31
EVEF(1,M,2) = FEVAP(M,1,IAD)
EVEF(2,M,2) = FEVAP(M,1,IAD)
EVEF(3,M,2) = FEVAP(M,2,IAD)
EVEF(4,M,2) = FEVAP(M,2,IAD)
EVEF(5,M,2) = FEVAP(M,2,IAD)

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```

EVEF(6,M,2) = 0.
125 CONTINUE
127 GO TO ( 501,502,503), IAREA
501 DO 511 M=1,31
    DO 511 K=1,3,2
        EVEF(1,M,K) = SEV1(M,K,1)
        EVEF(2,M,K) = SEV1(M,K,1)
        EVEF(3,M,K) = SEV1(M,K,2)
        EVEF(4,M,K) = SEV1(M,K,2)
        EVEF(5,M,K) = SEV1(M,K,2)
        EVEF(6,M,K) = 0.
511 CONTINUE
    GO TO 135
502 DO 512 M=1,31
    DO 512 K=1,3,2
        EVEF(1,M,K) = SEV2(M,K,1)
        EVEF(2,M,K) = SEV2(M,K,1)
        EVEF(4,M,K) = SEV2(M,K,2)
        EVEF(3,M,K) = SEV2(M,K,2)
        EVEF(6,M,K) = 0.
        EVEF(5,M,K) = SEV2(M,K,2)
512 CONTINUE
    GO TO 135
503 DO 513 M=1,31
    DO 513 K=1,3,2
        EVEF(1,M,K) = SEV3(M,K,1)
        EVEF(2,M,K) = SEV3(M,K,1)
        EVEF(3,M,K) = SEV3(M,K,2)
        EVEF(4,M,K) = SEV3(M,K,2)
        EVEF(5,M,K) = SEV3(M,K,2)
        EVEF(6,M,K) = 0.
513 CONTINUE
    GO TO 135
130 DO 131 J=1,6
    DO 131 K=1,3
    READ(5,210)(EVEF(J,M,K),M=1,31)
131 CONTINUE
135 IF(ICLDST.EQ.0)GO TO 140
    DO 139 M=1,31
        RCSCO(1,M) = FFCSCO(M,IAREA)
        RCSHC(1,M) = FFCSHC(M,IAREA)
        RCSCO(2,M) = FFCSCO(M,IAREA)
        RCSHC(2,M) = FFCSHC(M,IAREA)
        RCSCO(6,M) = 0.
        RCSHC(6,M) = 0.
        IF(IHDV.EQ.2)GO TO 137
        DO 136 J=3,5
            RCSCO(J,M) = HDCSCO(J)
            RCSHC(J,M) = HDCSHC(J)
136 CONTINUE
        GO TO 139
137 DO 138 J=3,5
        RCSCO(J,M) = HDCSCO(J-1)
        RCSHC(J,M) = HDCSHC(J-1)
138 CONTINUE
139 CONTINUE
    GO TO 142
140 DO 141 J=1,6
    READ(5,210)(RCSCO(J,M),M=1,31)
    READ(5,210)(RCSHC(J,M),M=1,31)
141 CONTINUE
142 IF(LAAT.NE.2)GO TO 1247
    IYEAR1=YEAR-1
    IYEAR2=YEAR-2

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 permit fully legible reproduction

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WRITE(6,1197)YEAR,IYEAR1,IYEAR2,(TRETIT(IQ),IQ=1,16)
DO 143 J=1,6
READ(5,205) JJ,OPT(JJ),(RFGIS(N,JJ),N=1,16)
IF(OPT(JJ).EQ.0) WRITE(6,1198) JJ,OPT(JJ),(RFGIS(N,JJ),N=1,16)
IF(OPT(JJ).EQ.1) WRITE(6,1198) JJ,OPT(JJ),(REGIS(N,JJ),N=1,16)
143 CONTINUE
WRITE(6,1196)
DO 1246 I=1,6
IF (OPT(I).EQ.1) GO TO 1244
DO 1243 J=1,16
1243 RAGIS(J,I)=RFGIS(J,I)
GO TO 1246
1244 DO 1245 J=1,16
1245 RAGIS(J,I)=REGIS(J,I)
1246 CONTINUE
GO TO 144
1247 DO 1248 I=1,6
DO 1248 J=1,16
1248 RAGIS(J,I)=REGIS(J,I)
144 DO 145 J=1,6
SUM(J)=0.0
DO 145 N=1,16
PTRVL(J,N)=RAGIS(N,J)*AAT(N,J)
SUM(J)=SUM(J)+PTRVL(J,N)
145 CONTINUE
DO 146 J=1,6
DO 146 N=1,16
PTRVL(J,N)=PTRVL(J,N)/SUM(J)
146 CONTINUE
IF(IWTFTR.NE.0)GO TO 147
READ(5,210)(WFCTR(J),J=1,6)
147 CONTINUE
IF(IDET.NE.2) GO TO 199
DO 160 J=1,2
XMILES=0.0
DO 160 N=1,16
XMILES=XMILES+AAT(N,J)
XM = XMILES - AAT(N,J)*(1.-PAAT(N,J))
DO 151 N1=1,10
IF(XM.LE.CM(N1)) GO TO 154
151 CONTINUE
DO 152 M=1,21
DETCO(J,M,N) = FDETCO(M,10,IAD)
DETHC(J,M,N) = FDETHC(M,10,IAD)
DETNO(J,M,N) = FDETNO(M,10,IAD)
152 CONTINUE
DO 153 M=22,31
DETCO(J,M,N) = DETCO(J,21,N)
DETHC(J,M,N) = DETHC(J,21,N)
DETNO(J,M,N) = DETNO(J,21,N)
153 CONTINUE
GO TO 160
154 IF(CN1.NE.1)GO TO 156
DO 155 M=1,31
DETCO(J,M,N) = 1.0
DETHC(J,M,N) = 1.0
DETNO(J,M,N) = 1.0
155 CONTINUE
GO TO 160
156 DO 157 M=1,31
DETCO(J,M,N) = (FDETCO(M,N1,IAD)-FDETCO(M,N1-1,IAD))/
(CM(N1)-CM(N1-1))*(XM-CM(N1-1)) + FDETCO(M,N1-1,IAD)
DETHC(J,M,N) = (FDETHC(M,N1,IAD)-FDETHC(M,N1-1,IAD))/
(CM(N1)-CM(N1-1))*(XM-CM(N1-1)) + FDETHC(M,N1-1,IAD)

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      DETNO(J,M,N) = (FDETNO(M,N1,IAD)-FDETNO(M,N1-1,IAD))/
      (CM(N1)-CM(N1-1))*(XM-CM(N1-1)) + FDETNO(M,N1-1,IAD)
157 CONTINUE
      DO 158 M=22,31
      DETCO(J,M,N) = DETCO(J,21,N)
      DETHC(J,M,N) = DETHC(J,21,N)
      DETNO(J,M,N) = DETNO(J,21,N)
158 CONTINUE
160 CONTINUE
      DO 161 J=3,6
      DO 161 M=1,31
      DO 161 N=1,16
      DETCO(J,M,N) = 1.0
      DETHC(J,M,N) = 1.0
      DETNO(J,M,N) = 1.0
161 CONTINUE
      IF (AREA.NE.3) GO TO 199
      DO 170 J=3,6
      XMILES = 0.0
      DO 170 N=1,16
      XMILES = XMILES + AAT(N,J)
      XM = XMILES - AAT(N,J)*(1.-PAAT(N,J))
      DO 162 N1=1,16
      IF (XM.LE.CMH(N1)) GO TO 164
162 CONTINUE
      DO 163 M=16,31
      DETCO(J,M,N) = FCHDCO(16)
      DETHC(J,M,N) = FCHDHC(16)
      DETNO(J,M,N) = FCHDNO(16)
163 CONTINUE
      GO TO 170
164 IF (N1.EQ.1) GO TO 170
      DO 165 M=16,31
      DETCO(J,M,N) = (FCHDCO(N1)-FCHDCO(N1-1))/(CMH(N1)-CMH(N1-1))
      * (XM-CMH(N1-1)) + FCHDCO(N1-1)
      DETHC(J,M,N) = (FCHDHC(N1)-FCHDHC(N1-1))/(CMH(N1)-CMH(N1-1))
      * (XM-CMH(N1-1)) + FCHDHC(N1-1)
      DETNO(J,M,N) = (FCHDNO(N1)-FCHDNO(N1-1))/(CMH(N1)-CMH(N1-1))
      * (XM-CMH(N1-1)) + FCHDNO(N1-1)
165 CONTINUE
170 CONTINUE
129 IF (IZZ) 198,198,10
C
C***** WRITE OUT BASIC DATA SET *****
198 WRITE(6,1000) AREA,IAUTO,ILDT,IHDV,IDIEST,IDET,ICRKN,IEVAP,
      A ICLDST,IAAT,IWTFTR
1000 FORMAT(1H1, 'BASIC OPTIONS SELECTED FOR THIS RUN' / 1H, 5X,
      A 'IAREA =', 12, 2X, 'IAUTO =', 12, 2X, 'ILDT =', 12, 2X,
      B 'IHDV =', 12, 2X, 'IDIEST =', 12, 2X, 'IDET =', 12, 2X,
      C 'ICRKN =', 12, 2X, 'IEVAP =', 12, 2X, 'ICLDST =', 12, 2X,
      D 'IAAT =', 12, 2X, 'IWTFTR =', 12)
C***** READ YEARLY CALCULATION OPTION CARD *****
10 CONTINUE
      ENTRY TFENTR
C      ENTRY TFENTR (ICLDSTR,EXEMI,CSCO,CSHC,EVAP,CRANK)
C***** CALCULATE EMISSION FACTORS *****
C SPEED CORRECTION
      SPDCC = 12.5 * ((SPEED)**(-0.845))
      IF (SPEED.EQ.19.6) SPDCC = 1.0
      SPDHC = 7.0 * ((SPEED)**(-0.649))
      IF (SPEED.EQ.19.6) SPDHC = 1.0
      SPDNO = 1.0 + (SPEED-19.6)*0.01262
      DO 11 J=1,5
      DO 11 J)=SPDCC

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      SHC(J)=SPDHC
      SNO(J)=SPDNO
11  CONTINUE
      SCO(6)=1.0
      SHC(6)=1.0
      SNO(6)=1.0
C  INITIALIZE YEARLY EMISSION FACTORS
      DO 12 I = 1,31
      DO 12 K = 1,6
      YEFHC(K,I) = BYEFHC(K,I)
      YEFNO(K,I) = BYEFNO(K,I)
12  CONTINUE
      IF(RTROFT)21,25,23
21  DO 22 J=1,6
      READ(5,210)(RTROCO(J,M),M=1,31)
      READ(5,210)(RTROHC(J,M),M=1,31)
      READ(5,210)(RTRONO(J,M),M=1,31)
22  CONTINUE
23  DO 24 M=1,31
      DO 24 J=1,6
      YEFHC(J,M)=YEFHC(J,M)*(1.-RTROCO(J,M))
      YEFNO(J,M)=YEFNO(J,M)*(1.-RTRONO(J,M))
24  CONTINUE
25  DO 26 J=1,6
      CSCO(J)=0.0
      CSHC(J)=0.0
26  CONTINUE
30  IF(CLDSTR.EQ.0)GO TO 40
      DO 33 M=1,31
      DO 31 J=1,6
      YEFCSH(J,M)=YEFHC(J,M)*7.5*RCSCO(J,M)
      YEFCSH(J,M)=YEFHC(J,M)*7.5*RCSHC(J,M)
31  CONTINUE
      DO 32 J=1,2
      YEFHC(J,M)=YEFHC(J,M)*(1.-.43*RCSCO(J,M))
      YEFHC(J,M)=YEFHC(J,M)*(1.-.43*RCSHC(J,M))
32  CONTINUE
33  CONTINUE
      DO 35 J=1,6
      K=YEAR-1958-ITIME
      DO 35 N=1,16
      K=MAX0(K-1,1)
      CSCO(J)=CSCO(J)+PTRVL(J,N)*YEFCSH(J,K)*DETCO(J,K,N)
      CSHC(J)=CSHC(J)+PTRVL(J,N)*YEFCSH(J,K)*DETHC(J,K,N)
35  CONTINUE
40  DO 41 J=1,6
      DO 41 L=1,3
      EXEMI(J,L)=0.0
41  CONTINUE
      DO 42 J=1,6
      K=YEAR-1958-ITIME
      DO 42 N=1,16
      K=MAX0(K-1,1)
      EXEMI(J,1)=EXEMI(J,1)+YEFHC(J,K)*DETCO(J,K,N)*SCO(J)*PTRVL(J,N)
      EXEMI(J,2)=EXEMI(J,2)+YEFHC(J,K)*DETHC(J,K,N)*SHC(J)*PTRVL(J,N)
      EXEMI(J,3)=EXEMI(J,3)+YEFNO(J,K)*DETNO(J,K,N)*SNO(J)*PTRVL(J,N)
42  CONTINUE
      DO 51 J=1,6
      CPARK(J)=J.0
      DO 51 I=1,3
      EPARK(J,I)=0.0
51  CONTINUE

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DO 62 J=1,6
<=YEAR-1953+ITIME
DO 62 N=1,16
K=MAX0(K-1,1)
CRANK(J)=CRANK(J)+CREP(J,K)*PTRVL(J,N)
DO 62 I=1,3
EVAP(J,I)=EVAP(J,I)+EVEP(J,K,I)*PTRVL(J,N)
62 CONTINUE
WEXCO=0.0
WEXHC=0.0
WEXNO=0.0
WCSO=0.0
WCSHC=0.0
WCRNK=0.0
DO 81 I=1,3
WEVAP(I)=0.0
81 CONTINUE
DO 82 J=1,6
WEXCO=WEXCO+EXEMI(J,1)*WFCTR(J)
WEXHC=WEXHC+EXEMI(J,2)*WFCTR(J)
WEXNO=WEXNO+EXEMI(J,3)*WFCTR(J)
WCSO=WCSO+CSCO(J)*WFCTR(J)
WCSHC=WCSHC+CSHC(J)*WFCTR(J)
WCRNK=WCRNK+CRANK(J)*WFCTR(J)
DO 82 I=1,3
WEVAP(I)=WEVAP(I)+EVAP(J,I)*WFCTR(J)
C
82 CONTINUE
IF(IZZ) 96,96,999
C*****
C PRINT TABLE OF EMISSION FACTORS FOR YEAR *YEAR*
C*****
C 96 WRITE(6,1100)TITLE
96 IV=ITIME+1
WRITE(6,1105)YEAR,Y(IV),SPEED,(J,J=1,6)
IF(CLDSTR.EQ.0) WRITE(6,1110)
IF(CLDSTR.NE.0) WRITE(6,1111)
WRITE(6,1120)(EXEMI(J,1),J=1,6),WEXCO
WRITE(6,1130)(EXEMI(J,2),J=1,6),WEXHC
WRITE(6,1140)(EXEMI(J,3),J=1,6),WEXNO
IF(CLDSTR.NE.0) WRITE(6,1160)CSCO,WCSO,CSHC,WCSHC
WRITE(6,1142)
WRITE(6,1144)(EVAP(J,1),J=1,6),WEVAP(1)
WRITE(6,1145)(EVAP(J,2),J=1,6),WEVAP(2)
WRITE(6,1148)(EVAP(J,3),J=1,6),WEVAP(3)
WRITE(6,1152)
WRITE(6,1154)(CRANK(J),J=1,6),WCRNK
IF(RTROFT.NE.0) WRITE(6,1150)
99 RETURN
C
200 FORMAT(4I6,F6.2)
205 FORMAT(2(I2.2X),16F4.4)
210 FORMAT(9F8.0)
220 FORMAT(10A8)
225 FORMAT(11I3)
230 FORMAT(16F5.0)
C1100 FORMAT(1H1, 6X,10A3)
C1105 FORMAT(1H1, 16X,*MOTOR VEHICLE EMISSION FACTORS FOR *,
1105 FORMAT(1H0,16X,*MOTOR VEHICLE EMISSION FACTORS FOR *,
A 14,1X,A4,*YEAR AT A SPEED OF *, F5.2,* MPH*/1H,20X,
3 *CLASS*,17,5I8)
1110 FORMAT(1H1, 80X,*WEIGHTED*/1H, 12X,*EXHAUST EMISSIONS -- *,
A *GRAMS/VEHICLE-MILE*)
1111 FORMAT(1H1, 80X,*WEIGHTED*/1H, 12X,*EXHAUST EMISSIONS -- *,

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      A      *GRAMS/VEHICLE-MILE -- HOT OPERATING ONLY*)
1120 FORMAT(1H , 8X, *CARBON MONOXIDE*, 3X, 6F8.2, F14.2)
1130 FORMAT(1H , 8X, *HYDROCARBONS   *, 3X, 6F8.2, F14.2)
1140 FORMAT(1H , 8X, *NITROGEN OXIDES*, 3X, 6F8.2, F14.2)
1142 FORMAT(1H ,12X,*EVAPORATIVE HYDROCARBON EMISSIONS*)
1144 FORMAT(1H , 8X, *DIURNAL   (GRAMS)*, 2X, 6F8.2, F14.2)
1146 FORMAT(1H , 8X, *RUNNING (GMS/MI)*, 2X, 6F8.2, F14.2)
1148 FORMAT(1H , 8X, *HOT SOAK (GRAMS)*, 2X, 6F8.2, F14.2)
1150 FORMAT( 1H ,5X,*NOTE      RETROFIT INCLUDED*)
1152 FORMAT(1H ,12X, *CRANKCASE HYDROCARBON EMISSIONS -- GRAMS/VEHICLE-
.MILE*)
1154 FORMAT(1H , 26X, 6F8.2, F14.2)
1160 FORMAT(1H , 12X, *COLD START EMISSIONS -- GRAMS*/
      A 1H , 8X, *CARBON MONOXIDE*, 3X, 6F8.2, F14.2/
      B 1H , 8X, *HYDROCARBONS   *, 3X, 6F8.2, F14.2)

C
999 RETURN
1196 FORMAT(1H0.5X,30HOPTION 0 IS USER SUPPLIED DATA / 6X,24HOPTION 1 I
.S DEFAULT DATA )
1197 FORMAT(1H0.13X,70HDISTRIBUTION OF VEHICLE CLASSES (BREAKDOWN BY AG
1E. 2 THROUGH 15 YEARS),6H, 0= .14,5H, 1= .14,5H, 2= .14,3(1X,1H.)
2/1H,5HCLASS.8H OPTION,2X,16(1H(,12,1H),3X) )
1198 FORMAT(1H ,14,4X,13,4X,16(F4.3,3X))
      END

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SUBROUTINE ASPTIV
COMMON /POINTR/
1 M, NSRCS, NMAX, NMAXE,
2 LSRCS, NTOT
COMMON /ANNMET/
1 TBAR, ADD, P, PA,
2 WSBAR, DTBAR, AMDBAR
COMMON /SPACE/
1 SORCE(2100), SOREM(8,250)
REAL LUFCM
COMMON /EMFDB1/
1 EEMFC(6,4,50), PLNAME(6), PPEMFC(22,6), EMFCIN(5,6),
2 TEEMFC(6), LUEMFC(9,6), ALPHA(7), BETA(7),
3 FLDEMS(7), FLNAME(7), AFEMFC(2,6,6), ATEMFC(2,6,6),
4 CSEMFC(6,6), AFCSEM(6,6), AFISOAK, ATSOAK,
5 AFERTH, ATBRTH, FLTFACT(7), FIXFCT(7),
6 WRKFCT(7)
COMMON /DEFAULT/
1 NPLTS, ITAPE, ACLNDY, ACLNDZ,
2 TCVSDF, TCH8DF, TCHODF, TCDYDF,
3 TCDZDF, RUDSDF, RUTSDF, RUVSDF,
4 RUHEDF, RUHODF, RUDYDF, RUDZDF,
5 TFDZDF, TFQDF, TFH8DF, TFHODF,
6 EGCKDY, EGCKDZ, ACMLPL, ARDSOZ,
7 ATSDY, ATSDZ, TCDSDF, TCTSDF,
8 FPDFLT, TDDFLT, RFDFLT, SFDFLT,
9 PFDFLT, TFDFLT, TFDYDF, MINUS(6)
COMMON /TOTE/
1 TOTEM(20,6), TOTEVP(10), EMISS(8,15,5)
DIMENSION TIME(4), IDPL(6), CNTRL(6), FCTR(6), TVP(7)
DIMENSION ABPTS(11,150)
DIMENSION IFUNTP(2,22), IFULTP(22), IHTIN(22), IFULUS(22)
DIMENSION TEMP(6)
EQUIVALENCE (ABPTS(1), SORCE(1))
DATA((IFUNTP(I,J), I=1,2), J=1,22)/10H UTILITY, 10HINDUSTRY 10HCO
10HMERICAL 10HINDUSTRY
10H SPREADER, 10H STOKER 10H HAND-10HFIRE 10HPULVERI
2Z. 10HORY BOTTOM, 10H OVERFEED, 10H STOKERS 10H OVERFEED, 10H ST
20KERS
2 10H HAND-10HFIRE 10H POWER 10HPLANT 10HCOMME
2RICAL, 10HINDUSTRY 10H RESI, 10HDUAL
3 10H DISTI, 10HLLATE 10H DOME, 10HSTIC 10H I
3NDUS, 10HTRIAL 10H COMME, 10HRCIAL
4 10H DOME, 10HSTIC 10HINDUS PROC, 10H (BUTANE) 10HINDUS
4PROC, 10H (PROPANE), 10H COMM BOIL, 10H (BUTANE)
510HDOMES BOIL, 10H (BUTANE), 10H COMM BOIL, 10H (PROPANE), 10HDOMES B
5OIL, 10H (PROPANE)
DATA IFULTP/4*(10HBITUM COAL), 4*(10HANTHR COAL), 4*(10H FUEL OIL),
14*(10H NAT GAS), 6*(10H L P G) /
DATA IHTIN/10H OVER 100 10H10 TO 100 2*(10H BELOW 10) 10HUNDEF
10HED 10H OVER 10 10H BELOW 10 10HUNDEFINED 10H OVER 100 2*(
10H10 TO 100 10H BELOW 10 10H OVER 100 9*(10HUNDEFINED) / 3
DATA IFULUS/6*(8HMET TONS), 4*(8HCUB MET), 4*(8HCU MET) 3
16*(8HCUD MET) /
C
M=7
NTOT=NPLTS+11
C
3676 DATA SET 12
FORMAT(A1)
READ(5,8575) AS1234
READ 1, NMAX
IF (NMAX.EQ.0) GO TO 900
C
DATA SET 12

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        LSRCE=NSRCE+1
        NSRCE=NSRCE+NMAX
        IO=2
        PRINT 106
106  FORMAT(1H0,17X,6HSOURCE,11X,5HENGINE,8X,6HANNUAL,10X,4HIDLE,
        .10X,6HNORMAL,8X,8HMILITARY,6X,11HAFTERBURNER/1H ,19X,2HID,15X,2HID
        .,10X,5HTESTS,11X,4HTIME,11X,4HTIME,11X,4HTIME,11X,4HTIME)
        DO 130 N=LSRCE,NSRCE
        DO 105 I=1,NPLTS
        SOREM(I+2,N)=0.
105  CONTINUE
        READ 2,(ABPTS(I,N),I=1,11)
        NENG=ABPTS(2,N)
        ABPTS(2,N)=1.
        IF (ABPTS(5,N).LE.0.) ABPTS(5,N)=TCHODF
        IF (ABPTS(6,N).LE.0.) ABPTS(6,N)=TCDYDF
        IF (ABPTS(7,N).LE.0.) ABPTS(7,N)=TCDZDF
        IF (ABPTS(8,N).LE.0.) ABPTS(8,N)=TCTSDF
        IF (ABPTS(9,N).LE.0.) ABPTS(9,N)=TCVSDF
        IF (ABPTS(10,N).LE.0.) ABPTS(10,N)=TCDSDF
        IF (ABPTS(11,N).LE.0.) ABPTS(11,N)=TCHBDF
        DO 120 K=1,NENG
        READ 101,SID,IDENG,TESTS,(TIME(I),I=1,4)
101  FORMAT(F10.0,14,5F8.4)
        IF (SID.NE.ABPTS(1,N)) GO TO 9000
        PRINT 107,SID,IDENG,TESTS,(TIME(I),I=1,4)
107  FORMAT(1H ,F20.0,115,6F15.1)
        DO 120 I=1,NPLTS
        A=0.
        DO 110 J=1,4
110  A=A+ (TIME(J)*EGEMFC(I,J,IDENG))
        SOREM(I+2,N)=SOREM(I+2,N)+A*TESTS/60.
120  CONTINUE
        DO 125 I=1,NPLTS
        TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)/1000.
125  CONTINUE
        SOREM(1,N)=SID
130  CONTINUE
        CALL OABPTS(IO)
C
C      DATA SET 15
200  READ(5,8676)AB1234
        READ 1,NMAX
        NRUC=NMAX
C****NMAX = NO. OF RUNUP STAND SITES
        IF (NMAX.EQ.0) GO TO 300
        PRINT 204
204  FORMAT(1H1.55X,25HB.3 AIRBASE RUNUP STANDS./1H-,
        .49X,38HENGINE INPUTS (TIMES TAKEN IN MINUTES))
        LSRCE=NSRCE+1
        NSRCE=NSRCE+NMAX
        IO=0
        WRITE(6,106)
        DO 230 N=LSRCE,NSRCE
        DO 205 I=1,NPLTS
        SOREM(I+2,N)=0.
205  CONTINUE
        READ 2,(ABPTS(I,N),I=1,11)
        NENG=ABPTS(2,N)
C CHANGE MADE BY TOD DELANEY
        ABPTS(2,N)=1.0
        IF (ABPTS(5,N).LE.0.) ABPTS(5,N)=RUHODF
        IF (ABPTS(6,N).LE.0.) ABPTS(6,N)=RUCYDF
        IF (ABPTS(7,N).LE.0.) ABPTS(7,N)=RUDZDF

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      READ(5,8676)AB1234
      READ 1,NMAX
      NTFS=NMAX
1    FORMAT(14)
      IF (NMAX.EQ.0) GO TO 100
      LSRCES=NSRCES+1
      NSRCES=NSRCES+NMAX
      IO=1
      DO 40 N=LSRCES,NSRCES
      READ 2,(ABPTS(I,N),I=1,10)
2    FORMAT(2F4.0,9F8.2)
C*****POINT SOURCE INPUT
C      ABPTS(1,N)=ID
C      ABPTS(3,N)=X (KM)
C      ABPTS(4,N)=Y (KM)
C      ABPTS(5,N)=H0 (M)
C      ABPTS(6,N)=DY
C      ABPTS(7,N)=DE (M)
C      ABPTS(8,N)=TS (DEG F); FOR TRAINING FIRES THIS IS Q (KCAL/SEC)
C      ABPTS(9,N)=VS (M/S)
C      ABPTS(10,N)=DS (M)
C      ABPTS(11,N)=HB (M)
C*****
      IF (ABPTS(2,N).LE.0) ABPTS(2,N)=3.
      IF (ABPTS(5,N).LE.0) ABPTS(5,N)=TFHODF
      IF (ABPTS(6,N).LE.0) ABPTS(6,N)=TFDYDF
      IF (ABPTS(7,N).LE.0) ABPTS(7,N)=TFDZDF
      IF (ABPTS(8,N).LE.0) ABPTS(8,N)=TFQDF
      ANFIRE=ABPTS(9,N)
      GALPF=ABPTS(10,N)
      SOREM(1,N)=ABPTS(1,N)
      DO 30 I=1,NPLTS
      SOREM(I+2,N)=GALPF*ANFIRE*TFEMFC(I)*3.785*FLDENS(2)/1000.
      TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)/1000.
30  CONTINUE
40  CONTINUE
      WRITE(6,51)
      WRITE(6,90)
51  FORMAT(1H1,45X,45HB. AIRBASE POINT SOURCE S/,
.1H-.52X,32HB.1 AIRBASE TRAINING FIRE SITES /1H-,
.63X,11HSOURCE DATA )
60  FORMAT(1H-,48X,5HSTACK,36X,4HHEAT/1H ,
.5X,5HSOURCE,3X,5HPLUME,8X,11HCOORDINATES,10X,6HHEIGHT,6X,
.7HDELTA Y,6X,7HDELTA Z,7X,8HEMISSION,6X,10HANNUAL NO.,5X,
.8HFUEL/FIRE /1H ,
.7X,2HID,6X,4HFLAG,6X,3H(X),9X,3H(Y),2X,3(5X,8H(METERS)),5X,
.12H KCAL/SEC),6X,8HOF FIRES,6X,9H(GALLONS))
91  FORMAT(1H .5X,F5.0,F8.0,3F12.3,2F13.3,F15.3,F14.3,F15.3)
      DO 93 N=LSRCES,NSRCES
93  WRITE(6,91) (ABPTS(I,N),I=1,10)
      CALL OABPTS(IO)
      DO 41 N=LSRCES,NSRCES
      DO 41 I=9,11
41  ABPTS(I,N)=0.0
C
C      DATA SET 1A
100 READ(5,8676)AB1234
      READ1,NMAX
      NTCS=NMAX
C*****NTMAX = NO. OF TEST CELL SITES
      IF (NMAX.EQ.0) GO TO 200
      PRINT 104
104 FORMAT(1H1,55X,23HB.2 AIRBASE TEST CELLS /1H-,
.45X,36HENGINE INPUTS (TIMES TAKEN IN MINUTES))

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IF (ABPTS(8,N).LE.0.) ABPTS(8,N)=RUTSDF
IF (ABPTS(9,N).LE.0.) ABPTS(9,N)=RUVSDF
IF (ABPTS(10,N).LE.0.) ABPTS(10,N)=RUDSDF
IF (ABPTS(11,N).LE.0.) ABPTS(11,N)=RUHBSDF
DO 220 K=1,NENG
READ 101,SID,IDENG,TESTS,(TIME(I),I=1,4)
IF (SID.NE.ABPTS(1,N)) GO TO 9000
PRINT 107,SID,IDENG,TESTS,(TIME(I),I=1,4)
DO 220 I=1,NPLTS
A=0.
DO 210 J=1,4
210 A=A+ (TIME(J)*EGEMFC(I,J,IDENG))
SOREM(I+2,N)=SOREM(I+2,N)+A*TESTS/60.
220 CONTINUE
DO 225 I=1,NPLTS
TOTEM(10+M,I)=TOTEM(10+M,I)+SOREM(I+2,N)/1000.
225 CONTINUE
SOREM(1,N)=SID
230 CONTINUE
CALL OABPTS(10)
C
C DATA SET 16
300 READ(5,8676)AB1234
READ1,NMAX
NPPS=NMAX
C***NMAX = NO. OF AIRBASE POWER PLANT POINT SOURCES
IF (NMAX.EQ.0) GO TO 400
PRINT 304
334 FORMAT(1H1.56X.25H8.4 AIRBASE POWER PLANTS )
LSRCS=NSRCS+1
NSRCS=NSRCS+NMAX
ID=1
WRITE(6,301) (PLNAME(II),II=1,NPLTS)
301 FORMAT(1H-, 6HSOURCE,7X,7HFURNACE,11X,4HFUEL,
14X,10HHEAT INPUT,2X, 7HPERCENT,2X,7HPERCENT,5X,6HANNUAL, 4X,
2 7HCONTROL,7X,26HFRACTION EMISSION CONTROLS ,/1H ,2X,2HID,10X,
3 4HTYPE,12X,6HBURNED,4X,9H(MIL BTU),2X,6HSULFUR,5X,3HASH,6X,8HFUEL
4 USE, 5X,4HFLAG,3X,A4.5(4X,A4) )
DO 340 N=LSRCS,NSRCS
DO 13 IO=1,5
IOPL(IO)=0.
CNTRL(IO)=0.
13 TEMP(IO)=0.0
READ 2,(ABPTS(I,N),I=1,11)
IF (ABPTS(2,N).LE.0.) ABPTS(2,N)=2.
READ 302,SID,MFCID,S.A,ANNUSE,MCFLG
302 FORMAT(F4.0,14.3F8.2,14)
IF (SID.NE.ABPTS(1,N)) GO TO 9000
A1=1.0
S1=1.0
IF (MFCID.EQ.9) A1=.055
IF (MFCID.EQ.10) A1=.042
IF (MFCID.EQ.11) A1=.014
IF (MFCID.EQ.12) A1=.001
IF (MFCID.EQ.13) S1=.00055
IF (MFCID.EQ.14) S1=.00055
IF (MFCID.EQ.15) S1=.00055
IF (MFCID.EQ.16) S1=.00055
IF (S.EQ.0.0) S=S1
IF (A.EQ.0.0) A=A1
WRITE(6,303)SID,(IFUNTP(JJ1,MFCID),JJ1=1,2),IFULTP(MFCID),IHTIN(MF
101),S.A,ANNUSE,IFULUS(MFCID),MCFLG
303 FORMAT(1H 1F6.0,1X,2A10.2(1X,A10),F8.3,F9.3,F9.1,1X,A8,1X,14)
DO 210 K=1,NPLTS

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310 FCTR(K)=1.0
   FCTR(4)=A
   FCTR(5)=S
   IF (MCFLG.EQ.0) GO TO 330
   READ 311,SID,NPLTCT,(IDPL(K),CNTRL(K),K=1,NPLTCT)
311 FORMAT(F4.0,I4,9(I4,F4.3))
   IF (SID.NE.ABPTS(1,N)) GO TO 9000
   DO 10 I=1,NPLTCT
   10 TEMP(IDPL(I))=CNTRL(I)
   DO 320 K=1,NPLTCT
   KK=IDPL(K)
320 FCTR(KK)=FCTR(KK)*(1.-CNTRL(K))
330 CONTINUE
312 FORMAT(1H+.90X,5(F5.3,3X),F5.3)
   WRITE(6,312) (TEMP(K),K=1,NPLTS)
   SOREM(1,N)=SID
   DO 340 I=1,NPLTS
   SOREM(I+2,N)=(PPMF(C(MFCID,I)*ANNUSE*FCTR(I))
   TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)/1000.
340 CONTINUE
   CALL OABPTS(10)

C
C   DATA SET 17
400 READ(5,8576)A81234
   READ1,NMAX
   NICS=NMAX
C****NMAX = NO. OF INCINERATORS
   IF (NMAX.EQ.0) GO TO 500
   PRINT 401
401 FORMAT(1H1.55X,25HB.5 AIRBASE INCINERATORS )
   LSRCES=NSRCES+1
   NSRCES=NSRCES+NMAX
   IO=5
   WRITE(6,401) (PLNAME(I),I=1,NPLTS)
401 FORMAT(1H-.51X,14HEMISSION INPUT / 1H0.42X,6HWASTE , / 1H .11X,
16HSOURCE,7X,8HEMISSION,5X,15HMATERIAL BURNED,5X,7HCONTROL,15X,
225HPERCENT EMISSION CONTROLS / 1H .13X,2HID,8X,9HFACTOR ID,8X,
31WHMET TONS) .8X,4HFLAG,11X,6(A4,5X) )
   DO 420 N=LSRCES,NSRCES
   DO 26 IK=1,6
   IDPL(IK)=N.
   CNTRL(IK)=0.
26 TEMP(IK)=0.0
   READ 2,(ABPTS(1,N),I=1,11)
   IF (ABPTS(2,N).LE.0.) ABPTS(2,N)=2.
   READ 402,SID,MFCID,ANNUSE,MCFLG
402 FORMAT(F4.0,I4,F8.2,I4)
   IF (SID.NE.ABPTS(1,N)) GO TO 9000
   PRINT 403,SID,MFCID,ANNUSE,MCFLG
403 FORMAT(1H .F17.0,I11,F20.2,I13)
   SOREM(1,N)=SID
   DO 410 K=1,NPLTS
410 CNTRL(K)=0.0
   IF (MCFLG.EQ.0) GO TO 415
   READ 311,SID,NPLTCT,(IDPL(K),CNTRL(IDPL(K)),K=1,NPLTCT)
   IF (SID.NE.ABPTS(1,N)) GO TO 9000
   DO 17 IY=1,NPLTCT
27 TEMP(IDPL(IY))=CNTRL(IDPL(IY))
415 CONTINUE
411 FORMAT(1H+.72X,6(F4.3,5X))
   WRITE(6,411) (TEMP(K),K=1,NPLTS)
   DO 420 I=1,NPLTS
   SOREM(I+2,N)=(EMFCIN(MFCID,I)*ANNUSE*(1.-CNTRL(I)))
   TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)/1000.

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425 CONTINUE
    CALL OABPTS(10)
C
C   DATA SET 15
500 READ(5,8676)AB1234
    READ1,NMAX
    NSTS=NMAX
C****NMAX = NO. OF STORAGE TANK SOURCES
    IF (NMAX.EQ.0) GO TO 600
    PRINT 504
504 FORMAT(1H1,55X,26H8.6 AIRBASE STORAGE TANKS)
    WRKTOT=0.0
    BRTOT1=0.0
    BRTOT2=0.0
    LSRCES=NSRCES+1
    NSRCES=NSRCES+NMAX
    IO=5
    PRINT 502
502 FORMAT(1H-,51X,14HEMISSION INPUT/
1 1H,23X,6HANNUAL,26X,9HAVG DAILY,5X,4HTANK,5X,9HTANK TYPE,3X,
25HVNUMBER,3X,5HVAPOR/1H,6HSOURCE,2X,4HFUEL,2X,4HROOF,4X,
35HFUEL USE,4X,8HTANK CAP,2X,9HTANK TEMP,2X,8HTEMP VAR,4X,
48HDIAMETER,2X,11H(ABOVE,8E-,4X,2HOF,5X,6HHEIGHT,2X,10HTHROUGHPUT,
5 2X,5HPAINT,3X,8HDIAMETER/1H,2X,2HID,5X,2HID,4X,2HID,5X,
6 3H(KILOLIT),3X,9H(KILOLIT),2X,7H(DEG F),4X,7H(DEG F),4X,
76H(METERS),2X,11HLOW GROUND),3X,5HTANKS,2X,8H(METERS),3X,
85HFACTOR,4X,6HFACTOR,3X,6HFACTOR)
    DO 500 N=1,NSRCES,NSRCES
    READ 2,(ABPTS(I,N),I=1,7)
    READ 501,SID,1DFUEL,1ROOF,ANNUSE,CAP,TTMP,TMPDIF,DIAM
501 FORMAT(F4.0,4X,2I4,5F8.4)
    IF (TMPDIF.EQ.0.) TMPDIF=DTBAR
    IF (ABPTS(2,N).LE.0.) ABPTS(2,N)=0.
    IF (TTMP.EQ.0.) TTMP=TBAR
C
C IF BELOW GROUND TANK, THE DAILY AVG TEMP VARIATION
C OF THE VAPOR SPACE ABOVE THE FUEL WILL BE ZERO.
C IN ORDER TO PRINT ZERO INSTEAD OF THE DEFAULT VALUE,
C THE PRINT STATEMENT WAS MOVED AFTER TANK LOCATION
C IS DETERMINED.
C SCRINVC.3413 WAS DELETED.
C
503 FORMAT(1H, F6.0,15,16,F14.3,F11.3,F9.2,F11.2,F12.2)
    TP=(5./9.)*(TTMP-32.)+273.
    DO 505 J=1,7
    TP(J)=EXP(ALPHA(J)-BETA(J)/TP)
505 CONTINUE
    GO TO (510,530),1ROOF
510 READ(5,511)SID,NTANKS,HVS,C1,C2,C3,IUNGRT
511 FORMAT(F4.0,14,4F8.4,14)
    IF (IUNGRT.GE.1) TMPDIF=0.
    PRINT 503,SID,1DFUEL,1ROOF,ANNUSE,CAP,TTMP,TMPDIF,DIAM
    IF (SID.NE.ABPTS(1,N)) GO TO 9000
    IF (HVS.EQ.0.) HVS=(2.0*CAP)/((DIAM**2)*3.14159)
    IF (C1.EQ.0.) C1=TFDFT
    IF (C2.EQ.0.) C2=FPDFT
    IF (C3.EQ.0.) C3=TFDFT
    IKTYP=5HABOVE
    IF (IUNGRT.GE.1) IKTYP=5HBELOW
    WRITE(6,512)IKTYP,NTANKS,HVS,C1,C2,C3
    HVS=HVS*3.281
512 FORMAT(1H+,50X,A5,19,3F10.2,F9.2)
    WRKLOS=(NTANKS * WRKFCT(1DFUEL)*C1*TVP(1DFUEL)*FLDENS(1DFUEL)*
    .ANNUSE)

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WRKTOT=WRKTOT+WRKLOS/1000.
IF (NTANKS.NE.0) GO TO 520
BRLOSS=0.
GO TO 540
520 BRLOSS=(NTANKS*FIXFCT(IDFUEL)*42.0*3.785*FLDENS(IDFUEL)*
1 ((TVP(IDFUEL)/(14.7-TVP(IDFUEL)))**0.68)*
2 ((DIAM*3.281)**1.73)*(HVS**0.51)*(TMPDIF**.5)*C2*C3)
BRTOT1=BRTOT1+BRLOSS/1000.
GO TO 540
530 WRKLOS=0.
PRINT 503,SID,IDFUEL,IROOF,ANNUSE,CAP,TTMP,TMPDIF,DIAM
READ 511,SID,NTANKS,C1,C2,C3
IF (SID.NE.ABPTS(1,N)) GO TO 9000
IF (C1.EQ.0.) C1=RFDFLT
IF (C2.EQ.0.) C2=SFDFLT
IF (C3.EQ.0.) C3=PFDFLT
ITKTYP=5HABOVE
WRITE(6,512)ITKTYP,NTANKS,C1,C2,C3
BRLOSS=NTANKS*((TVP(IDFUEL)/(14.7-TVP(IDFUEL)))**0.7)*
1 ((WSDAR*2.237)**0.7)* FLTFACT(IDFUEL)*
2 ((DIAM*3.281)**1.5)*C1*C2*C3*42.0*3.785*FLDENS(IDFUEL))
BRTOT2=BRTOT2+BRLOSS/1000.
540 CONTINUE
SOREM(1,N)=SID
SOREM(3,N)=WRKLOS
SOREM(4,N)=BRLOSS
SOREM(5,N)=IDFUEL
SOREM(6,N)=IROOF
DO 550 I=8,11
ABPTS(I,N)=J.J
550 CONTINUE
PRINT 551
551 FORMAT(1H-/1H0.63X,11HSOURCE DATA /1H0,
.14X,6HSOURCE,10X,5HPLUME,17X,11HCOORDINATES,16X,8HSTACK HT,
.10X,7HDELTA Y,10X,7HDELTA Z /1H ,
.16X,2HID,13X,4HFLAG,12X,3H(X),14X,3H(Y),2X,2(10X,8H(METERS)),
.9X,8H(METERS))
DO 560 N=LSRCES,NSRCES
PRINT 552,(ABPTS(I,N),I=1,7)
552 FORMAT(1H ,F20.0,F14.0,F18.3,F17.3,F17.3,F16.3,F17.3)
560 CONTINUE
PRINT 561
561 FORMAT(1H-/1H0.50X,37HSOURCE EMISSION DATA (KILOGRAMS/YEAR) /1H0,
.14X,6HSOURCE,54X,10HFIXED ROOF,22X,14HFLOATING ROOF /1H ,
.15X,2HID,22X,12HWORKING LOSS,2(20X,14HBREATHING LOSS))
DO 580 N=LSRCES,NSRCES
IROOF=SOREM(6,N)
GO TO (570,575),IROOF
570 PRINT 571,SOREM(1,N),(SOREM(I,N),I=3,4)
571 FORMAT(1H ,F20.0,F30.3,F32.3)
GO TO 580
575 PRINT 576,SOREM(1,N),(SOREM(I,N),I=3,4)
576 FORMAT(1H ,F20.0,F30.3,F67.3)
580 CONTINUE
WRITE(6,52) (MINUS(JK),JK=1,3)
82 FORMAT(1H ,42X,A3,24X,A6,27X,A6)
WRKTOT=WRKTOT*1000.
BRTOT1=BRTOT1*1000.
BRTOT2=BRTOT2*1000.
WRITE(6,83) WRKTOT,BRTOT1,BRTOT2
90 FORMAT(1H ,11X,12HTOTAL ANNUAL,F27.3,F32.3,F35.3)
WRKTOT=WRKTOT/1000.
BRTOT1=BRTOT1/1000.
BRTOT2=BRTOT2/1000.

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DO 590 N=LSRCES,NSRCES
J=SOREM(5,N)
SOREM(3,N)=SOREM(3,N)/TVP(J)
SOREM(4,N)=SOREM(4,N)/(TVP(J)/(14.7-TVP(J)))*.69
590 CONTINUE
TOTEVP(1)=WRKTOT
TOTEVP(2)=BRTOT1
TOTEVP(3)=BRTOT2

C
C DATA SET 19
600 READ(5,8676)AB1234
READ1,NMAX
NXS=NMAX
C****NMAX = NO. OF OTHER AIRBASE POINT SOURCES (IF ANY)
IF (NMAX.EQ.0) GO TO 900
PRINT 604
604 FORMAT(1H1,50X,25HB,7 AIRBASE OTHER POINTS )
LSRCES=NSRCES+1
NSRCES=NSRCES+NMAX
IO=5
DO 620 N=LSRCES,NSRCES
READ 2,(ABPTS(I,N),I=1,11)
READ 612,SID, SOREM(I+2,N),I=1,NPLTS)
612 FORMAT(F4.2,X,9F8.2)
IF (SID.NE.ABPTS(1,N)) GO TO 9000
SOREM(1,N)=SID
DO 620 I=1,NPLTS
TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)
SOREM(I+2,N)=SOREM(I+2,N)*1000.
620 CONTINUE
CALL OASPTS(IO)
GO TO 900
9000 PRINT 9001, ABPTS(1,N),SID
9001 FORMAT (*AIRBASE POINT SOURCE ID =*,F5.0,
1 *, CONTINUATION ID =*,F5.0)
STOP
900 WRITE(ITAPE) NSRCES,NTOT,NTFS,NTCS,NRUS,NPPS,NICS,NSTS,NXS,
(ABPTS(I,N),I=1,11),(SOREM(I+2,N),I=1,NPLTS),N=1,NSRCES)
RETURN
END

```



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SUBROUTINE ABARIV
COMMON /TOTS/
1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
COMMON /POINTR/
1 M.NSRCES,NMAX,NMAXE,
2 LSRCES,NTOT
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PFEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CGEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFBRTH,ATBRTH,FLTFACT(7),FIXFACT(7),
6 WRKFACT(7)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCV3DF,TCHBDF,TCHODF,TCVYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDF,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBDF,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSZ,
7 ATDSY,ATDSZ,TCDSDF,TCTSD,
8 FPDFLT,TDDFLT,RDFLT,SDFLT,
9 PPDFLT,TFDFLT,TFDYDF,MINUS(6)
COMMON /SPACE/
1 SOURCE(2100),SOREM(8,250)
COMMON /ARRAYS/
1 HCWRK(10,50),HCBRTH(5,100),HCEVP(3,50)
DIMENSION TEMP(6)
DIMENSION ABARS(7,300)
DIMENSION FCTR(6),IDPL(6),CNTR(6)
EQUIVALENCE (ABARS(1),SOURCE(1))
C****SET UP GEOMETRY OF AIRBASE AREA SOURCES
I1=7
I2=300
M=11
NWRK=0
NERT=0
NTEMP=0
NTOT=0
NGHS=0
NORVHS=0
NMVHAR=0
NCHVHAR=0
C DATA SET 20
8676 FORMAT(A1)
READ(5,8676)AB1234
READ 1,NMAX
C****NMAX = NO. OF AIRBASE AREA SOURCES
1 FORMAT(I4)
IF (NMAX.EQ.0) GO TO 500
DO I=1,NMAX
READ 2,(ABARS(I,N),I=1,7)
C*****AREA SOURCE INPUT
C ABARGM(1,N)=ID
C ABARGM(3,N)=X (KM)
C ABARGM(4,N)=Y (KM)
C ABARGM(5,N)=Z (M)
C ABARGM(6,N)=L (M)
C ABARGM(7,N)=DZ (M)
C*****
2 FORMAT(2F4.0,2F8.2)
IF (ABARS(7,N).LE.0.0) ABARS(7,N)=ARDSZ

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22 CONTINUE
IO=1
CALL OABARS(IO)
CALL EVAPHC(NWRK,NBRT,NXEVP)

C
C DATA SET 26
120 READ(5,8676)AB1234
READ1,NMAXE
NSHS=NMAXE
C****NMAXE = NO. OF SPACE HEATING EMISSIONS
C THESE USE THE SAME BASIC EMISSION FACTORS AS
C THOSE USED FOR THE POWER PLANTS BUT INVOLVE
C SMALLER BOILERS.
C
IF (NMAXE.EQ.0) GO TO 220
LSRCES=NSRCES+1
NSRCES=NSRCES+NMAXE
WRITE(6,121) (PLNAME(II),II=1,NPLTS)
121 FORMAT(1H1,55X,26HC.7 AIREASE SPACE HEATING /1H-,
.55X,23HFUEL AND FURNANCE INPUT,/1H0,
.7X,8HSOURCE.5X,8HEMISSION,6X,7HPERCENT,5X,7HPERCENT,5X,
.10HFUEL USAGE,6X,7HCONTROL,13X,25HPERCENT EMISSION CONTROLS/1H,
.9X,2HID,6X,9HFACTOR ID,6X,6HSULFUR,8X,3HASH,6X,12HAPPROX UNITS,
.5X,2HFLAG,5X,6(4X,A4))
IO=2
DO 160 N=LSRCES,NSRCES
DO 13 IO=1,6
IDPL(IO)=0.
CNTR(IO)=0.
13 TEMP(IO)=0.0
READ 3,SID,IDEMFC,S,A,ANNUSE,ICNTRL
3 FORMAT(F4.0,14,3F8.2,14)
A1=1.0
S1=1.0
IF(IDEMFC.EQ.9) A1=.056
IF(IDEMFC.EQ.10) A1=.042
IF(IDEMFC.EQ.11) A1=.014
IF(IDEMFC.EQ.12) A1=.001
IF(IDEMFC.EQ.13) S1=.00056
IF(IDEMFC.EQ.14) S1=.00056
IF(IDEMFC.EQ.15) S1=.00056
IF(IDEMFC.EQ.16) S1=.00056
IF(C.EQ.0.0) C=S1
IF(A.EQ.0.0) A=A1
PRINT 122,SID,IDEMFC,S,A,ANNUSE,ICNTRL
122 FORMAT(1H ,F13.0,19,F15.3,F12.3,F15.2,112)
DO 110 J=1,NMAX
IF (SID.EQ.ABARS (1,J)) GO TO 120
110 CONTINUE
GO TO 92000
120 SOREM(1,N)=SID
SOREM(2,N)=J
DO 130 J=1,NPLTS
130 FCTR(J)=1.0
FCTR(4)=A
FCTR(5)=S
IF (ICNTRL.EQ.0) GO TO 150
READ 131,SID,NPLTCT,(IDPL(K),CNTR(K),K=1,NPLTCT)
131 FORMAT(F4.0,14,9(14,F4.3))
IF (SID.NE. SOREM(1,N)) GO TO 91000
DO 14 J=1,NPLTCT
14 TEMP(IDPL(J))=CNTR(J)
DO 140 K=1,NPLTCT
140 IDPL(K)

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140 FCTR(KK)=FCTR(KK)*(1.-CNTR(K))
150 CONTINUE
310 FORMAT(1H+.85X,6(F4.3,4X))
WRITE(6,310) (TEMP(K),K=1,NPLTS)
DO 160 I=1,NPLTS
SOREM(2+I,N)=(PPMFCT(IDMFCT,I)*ANNUSE*FCTR(I))
TOTEM(10+M,I)=TOTEM(10+M,I)+SOREM(2+I,N)/1000.
160 CONTINUE
CALL OABARS(10)
C****OFF ROAD VEHICLES
C DATA SET 27
200 READ(5,8676)AB1234
READ1,NMAXE
NMVHAR=NMAXE
C****NMAXE = NO. OF DIESEL AREA SOURCES
IF (NMAXE.EQ.0) GO TO 300
LSRCES=NSRCES+1
NSRCES=NSRCES+NMAXE
IO=1
PRINT 202
202 FORMAT(1H1,53X,30HC.8 AIRBASE OFF ROAD VEHICLES /1H-.
.52X,12HDIESEL INPUT/1H0,
.25X,6HSOURCE,15X,25HANNUAL DIESEL CONSUMPTION,16X,
.22HDIESEL CONSUMPTION RATE/1H ,
.27X,2HID,19X,21HIN AREA (KILOGALLONS),17X,
.25HPER VEHICLE (MILES/GALLON))
DO 230 N=LSRCES,NSRCES
READ 201,SID,ANNGAL,XMIGAL
201 FORMAT(F4.0,4X,2F8.2)
DO 210 J=1,NMAX
IF (SID.EQ.ABARS (1,J)) GO TO 220
210 CONTINUE
GO TO 9000
220 SOREM(1,N)=SID
SOREM(2,N)=J
IF (XMIGAL.LE.0.0)XMIGAL=3.0
PRINT 203,SID,ANNGAL,XMIGAL
203 FORMAT(1H ,F31.0,F30.2,F41.2)
DO 230 I=1,NPLTS
SOREM(2+I,N)=AFEMFC(1,6,I)*ANNGAL*XMIGAL*1000.
TOTEM(10+M,I)=TOTEM(10+M,I)+SOREM(2+I,N)/1000.
230 CONTINUE
CALL OABARS(10)
C
C DATA SET 26
300 READ(5,8676)AB1234
READ1,NMAXE
NMVHAR=NMAXE
C****NMAXE = NO. OF MILITARY VEHICLE AREA SOURCES
IF (NMAXE.EQ.0) GO TO 400
LSRCES=NSRCES+1
NSRCES=NSRCES+NMAXE
IO=1
PRINT 301
301 FORMAT(1H1,47X,42HC.9 AIRBASE MILITARY VEHICLE AREA SOURCES)
CALL VEHIC (ABARS,10, SOREM,AFEMFC,AFCTSEM,I1,I2,AFSOAK)
CALL OABARS(10)
C
C DATA SET 29
400 READ(5,8676)AB1234
READ1,NMAXE
NMVHAR=NMAXE
C****NMAXE = NO. OF CIVILIAN VEHICLE AREA SOURCES
IF (NMAXE.EQ.0) GO TO 500

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      LSRCES=NSRCES+1
      NSRCES=NSRCES+NMAXE
      IO=8
      PRINT 401
401  FORMAT(1H1,47X,43HC,10 AIRBASE CIVILIAN VEHICLE AREA SOURCES)
      CALL VEHIC (ABARS,IO,      SOREM,ATEMFC,CSEMFC,I1,I2,ATSOAK)
      CALL OABARS(IO)
C
      GO TO 500
C
9000 PRINT 9001,SID
9001 FORMAT(*SID=,F5.0,* DOES NOT CORRESPOND TO ANY OF THE AIRBASE AREA
1 SOURCE ID NUMBERS*)
      STOP
9100 PRINT 9101, SOREM(1,N),SID
9101 FORMAT(*SPACE HEATING SOURCE ID =,F5.0,
1 *, CONTINUATION ID =,F5.0)
      STOP
500  NTOT=NPLTS+2
      WRITE(ITAPE) NMAX,NTOT,NWRK,NBRT,NXEVP,NSHS,NORVHS,
      NMVHAR,NCVHAR,NSRCES,((ABARS (I,N),I=1,7),N=1,NMAX ),
      ((HCWRK(I,N),I=1,10),N=1,NWRK),
      ((HCBRT(I,N),I=1,5),N=1,NBRT),
      ((HCEVP(I,N),I=1,3),N=1,NXEVP),
      ((SOREM(I,N),I=1,NTOT),N=1,NSRCES)
      RETURN
      END

```

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SUBROUTINE EVAPHC(NWRK,NHCBR,NXEVP)
COMMON /TOTS/
1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
COMMON /ANNMET/
1 TSAR,ADD,P,PA.
2 WSBAR,DTBAR,AMDBAR
COMMON /POINTR/
1 M,NSRCES,NMAX,NMAXE,
2 LSRCES,NTOT
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFCMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDEMS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFERTH,ATBRTH,FLTFACT(7),FIXFCT(7),
6 WRKFCT(7)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCODYF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDY,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBDY,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARSDZ,
7 ATDSDY,ATDSDZ,TCDSDF,TCTSDF,
8 FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9 FPDFLT,TFDFLT,TFDYDF,MINUS(6)
COMMON /SPACE/
1 SORCE(100),SOREM(8,250)
COMMON /ARRAYS/
1 HCWRK(10,50),HCBRTH(5,100),HCEVP(3,50)
DIMENSION TVP(7),YRUSE(7),CC(7),TSAVE1(7,50)
DIMENSION ABARS(7,300)
EQUIVALENCE (ABARS(1),SORCE(1))
C
FXROOF(FX,A,P,D,H,T,C1,C2)=FX *42.0*3.785*A*
1 (P/(14.7-P))**.58*(D*3.28)**1.73*(H*3.281)**0.51*
2 T**0.5*C1*C2
FLROOF(FL,A,P,W,D,C1,C2,C3)=FL*42.0*3.785*A*
1 (P/(14.7-P))**.7*(W*2.237)**0.7*(D*3.281)**1.5*
2 C1*C2*C3
C****CALCULATION OF HYDROCARBON FILLING AND WORKING
C LOSSES FROM ALL AIRBASE SOURCES INCLUDING
C TANK TRUCK FILLING
C AC FILLING
C SERVICE VEHICLE FILLING
C ALL PETROLEUM STORAGE AND DISTRIBUTION TANKS
C EXCEPT THOSE TREATED AS POINT SOURCES.
C AMOUNT LOST DUE TO SPILLAGE IS ALSO CALCULATED HERE
C****
TP= 5.0/9.0*(TSAR -32.)*273.
DO 10 J=1,7
10 WTP(J)=EXP(ALPHA(J)-BETA(J)/TP)
C
C DATA SET 1.
8676 FOR IAT(1)
READ(5,3575)AB1204
READ 1,NMAXE
NMP=NMAKE
1 FORMAT(I4)
C****NMAKE = NO. OF AIRBASE AREA SOURCES
IF (NMAKE.EQ.0) GO TO 100
PRINT 13

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13 FORMAT(1H1.52X,32HC.2 AIRBASE HYDROCARBON FILLING)
WRITE(6,2)
2 FORMAT(1H-.61X,14HEMISSION INPUT)
WRITE(6,14) (FLNAME(I),I=1,7)
14 FORMAT(1H0.1X,6HSOURCE,42X,28HKILOLITERS OF FUEL PROCESSED,38X,
.15HANNUAL SPILLAGE /1H .3X,2HID,7X,7(A4,11X),11H(M-TONS/YR)/1H ,)
DO 50 N=1,NMAXE
READ 11,SID,(YRUSE(J),J=1,7)
11 FORMAT(F4.0,4X,7F8.2)
READ 2222,(CC(J),J=1,7),SPILL
2222 FORMAT(8X,3F8.2)
DO 3333 J=1,7
IF(CC(J).LE.0.0) CC(J)=TFDFLT
3333 TSAVE1(J,N)=CC(J)
DO 20 J=1,NMAX
IF (SID.EQ.ABARS (1,J)) GO TO 30
20 CONTINUE
GO TO 9000
30 HCWRK(1,N)=SID
HCWRK(2,N)=J
PRINT 12, SID,(YRUSE(J),J=1,7),SPILL
12 FORMAT(1H .F7.0,3X,1P7(E9.3,6X).3X,1PE9.3)
WRKLSS=0.0
DO 50 J=1,7
A=WKFCCT(J)*CC(J)*TVP(J)*FLDENS(J)*YRUSE(J)
WRKLSS=WRKLSS+A
50 HCWRK(2+J,N)=A
TOTEVP(4)=TOTEVP(4)+WRKLSS/1000.
TOTEVP(5)=TOTEVP(5)+SPILL
HCWRK(10,N)=1000.*SPILL
60 CONTINUE
WRITE(6,5555) (FLNAME(I),I=1,7)
5555 FORMAT(1H0.1X,6HSOURCE,42X,30HESTIMATES OF THROUGHPUT FACTOR /
.1H .0X,2HID,6X,7(A4,10X)/1H ,)
DO 4444 N=1,NMAXE
WRITE(6,6666) HCWRK(1,N),(TSAVE1(J,N),J=1,7)
6666 FORMAT(1H .F7.0,F10.2,4X,6(F10.2,4X))
4444 CONTINUE
PRINT 3
3 FORMAT(1H-/1H0,50X,37HSOURCE EMISSION DATA (KILOGRAMS/YEAR))
WRITE(6,7)
7 FORMAT(1H0.61X,14H(WORKING LOSS))
WRITE(6,61) (FLNAME(I),I=1,7)
61 FORMAT(1H0.1X,6HSOURCE/1H .3X,2HID,7X,7(A4,11X),1X,8HSPILLAGE/1H )
DO 55 N=1,NMAXE
PRINT 62,HCWRK(1,N),(HCWRK(2+J,N),J=1,7),HCWRK(10,N)
62 FORMAT(1H .F7.0,3X,1P7(E9.3,6X).3X,1PE9.3)
DO 55 J=1,7
HCWRK(2+J,N)=HCWRK(2+J,N)/TVP(J)
65 CONTINUE
PRINT 4
4 FORMAT(1H-.48X,41HTOTAL ANNUAL SOURCE EMISSION RATE (KG/YR))
TOTEVP(4)=TOTEVP(4)*1000.
TOTEVP(5)=TOTEVP(5)*1000.
PRINT 66,TOTEVP(J),J=4,5)
TOTEVP(4)=TOTEVP(4)/1000.
TOTEVP(5)=TOTEVP(5)/1000.
66 FORMAT(1H0.47X,12HWORKING LOSS,20X,8HSPILLAGE/1H0,49X,1PE9.3,
.20X,E9.3)
C****CALCULATION OF HYDROCARBON BREATHING LOSSES FROM ALL
C AIRBASE PETROLEUM TANKS. THIS IS TO BE ACCOMPLISHED
C BY THE KIND OF ACTIVITY, I.E., TANK TYPE, IN WHICH
C THE FUEL IS STORED. IF THE TANKS ARE PRESSURIZED
C ADEQUATELY THERE SHOULD BE NO BREATHING LOSSES.

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C****
C DATA SET 22
100 READ(5,8676)AB1234
READ1,NMAXE
C*****NMAXE = NO. OF PETROLEUM STORAGE TANK AREAS
NHCBR=0
IF (NMAXE.EQ.0) GO TO 200
BRLOSS=0.0
LHCBR=NHCBR+1
NHCBR=NHCBR+NMAXE
PRINT 102
102 FORMAT(1H1,50X,36HC.3 AIRBASE PETROLEUM STORAGE TANKS )
PRINT 2
PRINT 103
103 FORMAT(1H0,3X,6HSOURCE,4X,4HFUEL,4X,4HROOF,4X,7HNUM. OF,4X,
.8HANG TANK,4X,5HPAINT,5X,28HROOF ID 1 = TANK DIAM FACTOR,4X,
.37HRCOF ID 1 = AVG HT OF VAPOR SPACE (M) /1H,
.5X,2HID,1X,2(6X,2HID),6X,5HTANKS,5X,8HDIAMETER,4X,6HFACTOR,4X,
.20HRCOF ID 2 = SEAL FACTOR,9X,24HROOF ID 2 = RIVET FACTOR )
DO 150 N=LHCBR,NHCBR
READ 101,SID,IDFUEL,IDROOF,NTANKS,DIAM, C1,C2,C3
101 FORMAT(F4.0,3I4,5F8.2)
DO 110 J=1,NMAX
IF (SID.EQ.ABARS (1,J)) GO TO 120
110 CONTINUE
GO TO 9000
120 HCBRTH(1,N)=SID
HCBRTH(2,N)=J
HCBRTH(3,N)=IDFUEL
HCBRTH(4,N)=IDROOF
GO TO (130,140),IDROOF
130 IF (C1.LE.0.0) C1=PFDFLT
IF (C2.LE.0.0) C2=TDDFLT
HVS=C3
A=NTANKS*FXROOF(FIXFCT(IDFUEL),FLDENS(IDFUEL),TVP(IDFUEL),DIAM,
. HVS, DTBAR,C1,C2)
TOTEVP(6)=TOTEVP(6)+A
HCBRTH(5,N)=A
PRINT 131,SID,IDFUEL,IDROOF,NTANKS,DIAM,C1,C2,HVS
131 FORMAT(1H ,F9.0,17,I3,110,F13.2,F10.2,F21.2,F35.2)
GO TO 150
140 IF (C1.LE.0.0) C1=PFDFLT
IF (C2.LE.0.0) C2=SFDFLT
IF (C3.LE.0.0) C3=RFDFLT
A=NTANKS*FLROOF(FLTFCT(IDFUEL),FLDENS(IDFUEL),TVP(IDFUEL),WSBAR,
1 DIAM,C1,C2,C3)
TOTEVP(7)=TOTEVP(7)+A
HCBRTH(5,N)=A
PRINT 131,SID,IDFUEL,IDROOF,NTANKS,DIAM,C1,C2,C3
150 CONTINUE
PRINT 3
PRINT 151
151 FORMAT(1H0,41X,6HSOURCE,12X,10HFIXED ROOF,12X,14HFLOATING ROOF /
.1H ,43X,2HID,12X,2(14HBREATHING LOSS,10X))
DO 170 N=LHCBR,NHCBR
IDROOF=HCBRTH(4,N)
GO TO (160,165),IDROOF
160 PRINT 161,HCBRTH(1,N),HCBRTH(5,N)
161 FORMAT(1H ,F47.0,12X,1PE9.3)
J=HCBRTH(3,N)
HCBRTH(5,N)=HCBRTH(5,N)/(TVP(J)/(14.7-TVP(J))**.68
GO TO 170
165 PRINT 166,HCBRTH(1,N),HCBRTH(5,N)
166 FORMAT(1H0,F47.0,36X,1PE9.3)

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      J=HCBRTH(3,N)
      HCBRTH(5,N)=HCBRTH(5,N)/(TVP(J)/(14.7-TVP(J))**.7
170 CONTINUE
      WRITE(6,160) (MINUS(JK),JK=1,2)
160 FORMAT(1H,60X,A8,15X,A8)
      PRINT 171,(TOTEVP(J),J=6,7)
      TOTEVP(6)=TOTEVP(6)/1000.
      TOTEVP(7)=TOTEVP(7)/1000.
171 FORMAT(1H,38X,12HTOTAL ANNUAL,9X,1PE9.3,15X,E9.3)
C
C DATA SET 23
200 READ(5,8676)A81234
      READ1,NMAXE
C***NMAXE = NO. OF TANK TRUCK PARKING AREA SOURCES
      IF (NMAXE.EQ.0) GO TO 300
      IDROOF=1
      BPLOSS=0.0
      LHCBR=NHCBR+1
      HHCBR=NHCBR+NMAXE
      PRINT 200
200 FORMAT(1H1,53X,32HC.4 AIRBASE TANK TRUCK PARKING )
      PRINT 2
      PRINT 200
200 FORMAT(1H0,70X,8HAVG TANK,14X,7HAVERAGE,11X,8HAVG TANK /1H,
.17X,9HSOURCE,10X,4HFUEL,11X,9HNUMBER OF,13X,9HCAPACITY,12X,
.11HFACTION OF,10X,8HDIAMETER /1H,
.6X,2(13X,2HID),11X,11HTANK TRUCKS,10X,12H(KILOLITERS),10X,
.11HTANK FILLED,10X,8H(METERS))
      DO 230 N=LHCBR,NHCBR
      READ 201,SID,IDFUEL,NTRKS,TNKCAP,FRCFUL,DIAM
201 FORMAT(F4.3,2I4,4X,3F8.2)
      DO 210 J=1,NMAX
      IF (SID.EQ.ABARS (1,J)) GO TO 220
210 CONTINUE
      GO TO 9000
220 HCBRTH(1,N)=SID
      HCBRTH(2,N)=0
      HCBRTH(3,N)=IDFUEL
      HCBRTH(4,N)=IDROOF
      HVS=(1.0-FRCFUL)*4.0*TNKCAP/(3.14159*DIAM**2)
      C1=PPDFLT
      C2=TDDFLT
      A=NTRKS*FXROOF(FIXFCT(IDFUEL),FLDENS(IDFUEL),TVP(IDFUEL),DIAM,HVS,
      1 DTBAR,C1,C2)
      TOTEVP(8)=TOTEVP(8)+A
      HCBRTH(5,N)=A
      PRINT 221,SID,IDFUEL,NTRKS,TNKCAP,FRCFUL,DIAM
221 FORMAT(1H,1F20.0,1I3,1I7,F24.2,2F20.2)
230 CONTINUE
      PRINT 3
      PRINT 231
231 FORMAT(1H0,49X,9HSOURCE ID,15X,14HBREATHING LOSS /1H )
      DO 240 N=LHCBR,NHCBR
      PRINT 230,HCBRTH(1,N),HCBRTH(3,N)
232 FORMAT(1H,1F56.0,19X,1PE9.3)
      J=HCBRTH(3,N)
      HCBRTH(5,N)=HCBRTH(5,N)/(TVP(J)/(14.7-TVP(J))**.68
240 CONTINUE
      WRITE(6,75) (MINUS(JK),JK=1,1)
75 FORMAT(1H,75X,A8)
      PRINT 241,TOTEVP(8)
      TOTEVP(8)=TOTEVP(8)/1000.
241 FORMAT(1H,49X,12HTOTAL ANNUAL,14X,1PE9.3)
C

```

```

C DATA SET 24
300 READ(5,8676)A81234
   READ1,NMAXE
C****NMAXE = NO. OF VEHICLE PARKING AREA SOURCES,BOTH
C MILITARY AND CIVILIAN
   IF (NMAXE.EQ.0) GO TO 400
   IDROOF=1
   BRLOSS=0.0
   LHCSR=NHCSR+1
   NHCSR=NHCSR+NMAXE
   PRINT 300
302 FORMAT(1H1,54X,28HC.5 AIRBASE VEHICLE PARKING )
   PRINT 2
   PRINT 303
303 FORMAT(1H0,60X,6HNUM OF,11X,6HAVG TANK,12X,7HAVERAGE /1H ,
.29X,6HSOURCE,10X,4HFUEL,10X,9HVEHICLES,10X,8HCAPACITY,10X,
.11HFRACTION OF /1H ,
.31X,2HID,10X,2HID,11X,7HIN AREA,11X,8H(LITERS),10X,11HTANK FILLED)
   DO 300 N=LHCSR,NHCSR
   READ 301,SID,IDFUEL,NVEH,TNKCAP,FRCFUL
301 FORMAT(F4.0,2I4,4X,2F8.2)
   WRITE(6,213) SID,IDFUEL,NVEH,TNKCAP,FRCFUL
213 FORMAT(1H ,F35.0,I13,I16,2F19.2)
   TNKCAP=TNKCAP/1000.
   DO 310 J=1,NMAX
   IF (SID.EQ.ABARS (1,J)) GO TO 320
310 CONTINUE
   GO TO 9000
320 HCBRTH(1,N)=SID
   HCBRTH(2,N)=J
   HCBRTH(3,N)=IDFUEL
   HCBRTH(4,N)=IDROOF
   EFDIAM=(4.0*TNKCAP/3.14159)**.33333333
   HVS=(1.0-FRCFUL)*EFDIAM
   C1=FPDFLT
   C2=TDDEFLT
   A=NVEH*FXROOF(FIXFCT(IDFUEL),FLDENS(IDFUEL),TVP(IDFUEL),EFDIAM,
. HVS, DTBAR,C1,C2)
   TOTETVP(9)=TOTETVP(9)+A
   HCBRTH(5,N)=A
330 CONTINUE
   PRINT 3
   PRINT 231
   DO 340 N=LHCSR,NHCSR
   PRINT 232,HCBRTH(1,N),HCBRTH(5,N)
   J=HCBRTH(3,N)
   HCBRTH(5,N)=HCBRTH(5,N)/(TVP(J)/(14.7-TVP(J))**.68
340 CONTINUE
   WRITE(6,75) (MINUS(1))
   PRINT 241,TOTETVP(9)
   TOTETVP(9)=TOTETVP(9)/1000.

C
C DATA SET 25
400 READ(5,8676)A81234
   READ1,NMAXE
   NHEP=NMAXE
C****NMAXE = NO. OF EVAPORATIVE HYDROCARBONS FROM OTHER SOURCES,
C E.G., PAINT SPRAY BOOTHS, DEICERS, DRY CLEANING, ETC.
   IF (NMAXE.EQ.0) GO TO 500
   HCSM=0.0
   PRINT 400
402 FORMAT(1H1,47X,43HC.5 OTHER AIRBASE EVAPORATIVE HYDROCARBONS )
   WRITE(6,571)
571 FORMAT(1H-,50X,31HEMISSION INPUT (KILOGRAMS/YEAR))

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```

      WRITE(6,403)
403  FORMAT(1H0,51X,9HSOURCE ID,12X,15HANNUAL EMISSION)
      DO 430 N=1,NMAXE
      READ 401,SID,ANNEM
401  FORMAT(F4.0,4X,F8.2)
      ANNEM=ANNEM*1000.
      WRITE(6,404) SID,ANNEM
      ANNEM=ANNEM/1000.
404  FORMAT(1H ,53X,F5.0,17X,1PE9.3)
      DO 410 J=1,NMAX
      IF (SID.EQ.ABARS (1,0)) GO TO 420
410  CONTINUE
      GO TO 9000
420  HCEVP(1,N)=SID
      HCEVP(2,N)=J
      HCEVP(3,N)=ANNEM*1000.
      TOTEVP(10)=TOTEVP(10)+ANNEM
430  CONTINUE
      PRINT 3
      PRINT 431
431  FORMAT(1H0,51X,9HSOURCE ID,15X,9HEMISSIONS )
      DO 440 N=1,NMAXE
      PRINT 432,HCEVP(1,N),HCEVP(3,N)
432  FORMAT(1H ,53X,F5.0,17X,1PE9.3)
440  CONTINUE
      TOTEVP(6)=TOTEVP(6)+HCSUM
      TOTEVP(10) = TOTEVP(10)*1000.
      WRITE(6,45) (MINUS(JK),JK=1,1)
      45  FORMAT(1H ,75X,A8)
      PRINT 441,TOTEVP(10)
441  FORMAT(1H ,49X,12HTOTAL ANNUAL,14X,1PE9.3)
      TOTEVP(10)=TOTEVP(10)/1000.
C
      GO TO 500
C
9000 PRINT 9001,SID
9001 FORMAT(*SID*,F5.0,* DOES NOT CORRESPOND TO ANY OF THE AIRBASE AREA
1 SOURCE ID NUMBERS*)
      STOP
500  RETURN
      END

```

```

SUBROUTINE VEHIC( GM,IO, AVH,EMFC,CSEM,I1,I2,SOAK)
COMMON /POINTR/
1     M,NSRCES,NMAX,NMAXE,
2     LSRCEG,NTOT
COMMON /TOTS/
1     TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
COMMON /DEFAULT/
1     NPLTS,ITAPE,ACLNDY,ACLNDZ,
2     TCVSDF,TCHBDF,TCHODF,TCDYDF,
3     TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4     RUHBDF,RUHODF,RUDYDF,RUDZDF,
5     TFDZDF,TFQDF,TFHBD,TFHODF,
6     EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7     ATDSOY,ATDSOZ,TCDSDF,TCTSD,
8     FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9     PPDFLT,TFDFLT,TFDYDF,MINUS(6)
DIMENSION AVH(8,150),EMFC(2,6,6),CSEM(6,6),VM(6),SPDC(6),NCDST(6),
. GM(I1,I2)
PRINT 1
1 FORMAT(1H-.61X,13HVEHICLE INPUT,/1H0,20X,5HSPEED,9X,
145HTHOUSANDS OF MILES PER VEHICLE CLASS PER YEAR,7X,
236HCOLD STARTS PER VEHICLE CLASS PER YEAR,3X, 8HANN. HOT /
31H .3X,2HID.5X,6HOPTION,4X,5H(MPH),10X,3H(1),5X,3H(2),5X,3H(3),5X,
43H(4),5X,3H(5),5X,3H(6),8X,3H(1),4X,3H(2),4X,3H(3),4X,3H(4),4X,
53H(5),4X,3H(6),5X,5H(SOAKS) )
DO 10 J=4,NPLTS
10 SPDC(J)=1.0
DO 20 N=LSRCEG,NSRCES
DO 20 J=1,3
20 SPDC(J)=1.0
READ 21,SID,IOPT,SPEED,(VM(J),J=1,6)
21 FORMAT(F4.0,I4,9F8.2)
PRINT 31,SID,IOPT,SPEED,(VM(J),J=1,6)
31 FORMAT(1H .2X,F5.0,I6,F12.2,6X,6F8.2)
DO 30 J=1,NMAX
IF (SID.EQ.GM(1,J)) GO TO 40
30 CONTINUE
RETURN
40 AVH(1,N)=SID
AVH(2,N)=J
IF (SPEED.NE.19.6) SPDC(1)=12.5*(SPEED**(-0.845))
IF (SPEED.NE.19.6) SPDC(2)=7.0*(SPEED**(-0.649))
IF (SPEED.NE.19.6) SPDC(3)=1.0*(SPEED-19.6)*0.01262
C
K=IOPT
IF (IOPT.NE.3) GO TO 50
READ 41,SID,(NCDST(J),J=1,6)
41 FORMAT(F4.0,6I4)
PRINT 42,(NCDST(J),J=1,6)
42 FORMAT(1H+,T84.6I7)
IF (SID.NE.AVH(1,N)) GO TO 9000
READ 43,SID,NHISOAK
IF (SID.NE.AVH(1,N)) GO TO 9000
PRINT 43,NHISOAK
43 FORMAT(1H+,T127,I7)
K=1
C
50 CONTINUE
IF (IOPT.EQ.0) GO TO 51
DO 150 IKL=1,6
150 NCDST(IKL)=0
NHISOAK=0
WRITE(6,42),(NCDST(J),J=1,6)

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```

WRITE(6,43)NHSAOKS
51 CONTINUE
DO 70 I=1,NPLTS
  AVH(2+I,N)=0.0
  A=0.
  DO 60 J=1,5
    A=SPDC(I)*VM(J)*EMFC(K,J,I)+A
    IF(I.OPT.EQ.3.AND.I.NE.2) A=A+CSEM(J,I)*NCDST(J)
    IF(I.OPT.EQ.3.AND.I.EQ.2) A=A+CSEM(J,I)*NCDST(J)+SOAK*NHSAOK
  60 CONTINUE
  AVH(2+I,N)=AVH(2+I,N)+A*1000.
  TOTEM(IO+M,I)=TOTEM(IO+M,I)+AVH(2+I,N)/1000.
  70 CONTINUE
  RETURN
C
9000 PRINT 9001,AVH(1,N),SID
9001 FORMAT(*0VEHICLE SOURCE ID =*,F6.0,*, CONTINUATION ID =*,F6.0)
STOP
RETURN
END

```

```

SUBROUTINE OABARS(10)
COMMON /TOTS/
1 TOTEM(20,6),TOTEVP(10),EMISS(3,15,6)
COMMON /PCINTR/
1 M,NSRCES,NMAX,NMAXE,
2 LSRCES,NTOT
COMMON /SPACE/
1 SORCE(2100),SOREM(8,250)
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDEMS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFERTH,ATBRTH,FLTFC(7),FIXFC(7),
6 WRKFC(7)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCYDF,
3 TCDSDF,RUDSDF,RUTSDF,RUVSDF,
4 RUH2DF,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFH2DF,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7 ATDSOY,ATDSOZ,TCDSDF,TCTSD,
8 FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9 PPDFLT,TFDFLT,TFDYDF,MINUS(6)
DIMENSION ABARS(7,300)
EQUIVALENCE (ABARS(1),SORCE(1))
IF (10.GT.1) GO TO 200

C
100 PRINT 101
101 FORMAT(1H1,47X,43HC. AIRBASE AREA SOURCES /
.1H-.51X,35HC.1 AIRBASE AREA SOURCE GEOMETRIES )

C
110 PRINT 111
111 FORMAT(1H-.28X,24HAREA SOURCE GROUND LEVEL,14X,16HAVERAGE EMISSION
.12X,16HLENGTH /1H ,
.9X,16HSOURCE,10X,31HCOORDINATES OF CENTER AREA (KM),10X,
.16HHEIGHT (METERS),10X,7HOF SIDE,10X,7HDELTA Z /1H ,
.11X,2HID,14X,3H(X),21X,3H(Y),18X,3H(Z),6X,2(10X,8H(METERS))/1H ,)

C
DO 120 N=1,NMAX
PRINT 112,ABARS (1,N),(ABARS (1,N),I=3,7)
112 FORMAT(1H ,F15.0,F17.3,F24.3,F20.2,F23.3,F15.2)
120 CONTINUE
RETURN

C
200 CONTINUE
54 FORMAT(1H-/1H0,50X,37HSOURCE EMISSION DATA (KILOGRAMS/YEAR) )
55 FORMAT(1H0,10X,9HSOURCE ID,11X,A4,5(15X,A4))
56 FORMAT(1H ,10X,F5.0,1P6(9X,E10.4))
57 FORMAT(1H ,15X,6(11X,A8) )
58 FORMAT(1H ,8X,12HTOTAL ANNUAL,6X,1PE10.4,5(9X,E10.4))
7. WRITE(6,54)
WRITE(6,55) (PLNAME(I),I=1,NPLTS)
DO 62 N=LSRCES,NSRCES
62 WRITE(6,56) SOREM(1,N),(SOREM(I+2,N),I=1,NPLTS)
WRITE(6,57) (MINUS(JK),JK=1,NPLTS)
DO 26 I=1,NPLTS
26 TOTEM(10+M,I)=TOTEM(10+M,I)*1000.
WRITE(6,58) (TOTEM(10+M,I),I=1,NPLTS)
DO 27 I=1,NPLTS
27 TOTEM(10+M,I)=TOTEM(10+M,I)/1000.

```

CC

RETURN
END

```

SUBROUTINE ABLNIV
COMMON /POINTR/
1 M,NSRCES,NMAX,NMAXE,
2 LSRCES,NTOT
COMMON /SPACE/
1 SORCE(2100),SOREM(8,250)
REAL LUEMFC
COMMON /EMFDS1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,5),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFBRTH,ATBRTH,FLTFCT(7),FIXFCT(7),
6 WRKFCT(7)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCDYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHEDF,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHSDF,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7 ATDSOY,ATDSOZ,TCDSOY,TCTSDY,
8 FPDFLT,TDDFLT,RDFFLT,SDFFLT,
9 PPDFLT,TFDFLT,TFDYDF,MINUS(6)
COMMON /TOTS/
1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
DIMENSION ABLNS(10,100)
DIMENSION EM(6)
EQUIVALENCE (ABLNS(1),SORCE(1))
I1=10
I2=100
N=16
NMVHLN = 0
NCVHLN = 0
NMLI = 0
C****SET UP AIRBASE NON-AIRCRAFT LINE SOURCE GEOMETRIES
C DATA SET 00
8676 FORMAT(A1)
READ(5,8676)AB1234
READ 1,NMAX
C****NMAX = NO. OF LINES
1 FORMAT(I4)
IF (NMAX.EQ.0) GO TO 400
DO 20 N=1,NMAX
READ 2, (ABLNS(1,N),I=1,10)
2 FORMAT(2F4.0,9F8.2)
C*****LINE SOURCE INPUT
C ABLNGM(1,N)=ID
C ABLNGM(3,N)=X1 (KM)
C ABLNGM(4,N)=Y1 (KM)
C ABLNGM(5,N)=Z1 (M)
C ABLNGM(6,N)=W (M)
C ABLNGM(7,N)=DZ (M)
C ABLNGM(8,N)=X2 (KM)
C ABLNGM(9,N)=Y2 (KM)
C ABLNGM(10,N)=Z2 (M)
C*****
C IF (ABLNS(6,N).LE.0.0) ABLNS(6,N)=ATDSOY
IF (ABLNS(7,N).LE.0.0) ABLNS(7,N)=ATDSOZ
20 CONTINUE
C
C OABLNS(10)

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C
C DATA SET 31
100 READ(5,8675)A81234
READ1,NMAXE
NMVHLN=NMAXE
C****NMAXE = NO. OF MILITARY VEHICLE AIRBASE LINE SOURCES
IF (NMAXE.EQ.0) GO TO 200
LSRCES=NSRCES+1
NSRCES=NSRCES+NMAXE
IO=2
PRINT 101
101 FORMAT(1H1,51X,35HD,2 AIRBASE MILITARY VEHICLE LINES)
CALL VEHIC (ABLNS,IO, SOREM,AFEMFC,AFCEM,I1,I2)
CALL CABLNS(IO)

C
C DATA SET 32
200 READ(5,8675)A81234
READ1,NMAXE
NMVHLN=NMAXE
C****NMAXE = NO. OF CIVILIAN VEHICLE AIRBASE LINE SOURCES
IF (NMAXE.EQ.0) GO TO 300
LSRCES=NSRCES+1
NSRCES=NSRCES+NMAXE
IO=3
PRINT 201
201 FORMAT(1H1,51X,35HD,3 AIRBASE CIVILIAN VEHICLE LINES)
CALL VEHIC (ABLNS,IO,SOREM,ATENFC,CSEMFC,I1,I2)
CALL CABLNS(IO)

C
C DATA SET 33
300 READ(5,8676)A81234
READ1,NMAXE
NMVHLN=NMAXE
C****NMAXE = NO. OF OTHER AIRBASE NON-AIRCRAFT LINE SOURCES
IF (NMAXE.EQ.0) GO TO 400
LSRCES=NSRCES+1
NSRCES=NSRCES+NMAXE
IO=4
WRITE(6,302)
302 FORMAT(1H1,50X,37HD,4 AIRBASE OTHER NON-AIRCRAFT LINES)
DO 303 N=LSRCES,NSRCES
READ 301,SID,(EM(J),J=1,NPLTS)
301 FORMAT(F4.0,4X,9F8.2)
WRITE(6,303) (PLNAME(IJ),IJ=1,NPLTS)
303 FORMAT(1H-.50X,31HEMISSION INPUT (KILOGRAMS/YEAR) /1H0,
.10X,9HSOURCE ID,11X,A4,5,15X,A4))
DO 44 IA=1,NPLTS
44 EM(IA)=EM(IA)*1000.
WRITE(6,305) SID,(EM(IK),IK=1,NPLTS)
DO 45 IA=1,NPLTS
45 EM(IA)=EM(IA)/1000.
305 FORMAT(1H.12X,F5.0,1P6(9X,E10.4))
DO 312 J=1,NMAX
IF (SID.EQ.ABLNS (1,J)) GO TO 320
310 CONTINUE
GO TO 3000
320 SOREM(1,N)=SID
SOREM(2,N)=0
DO 332 J=1,NPLTS
SOREM(3+J,N)=EM(J) *1000.
TOTEM(IO+M ,J)=TOTEM(IO+M ,J)+EM(J)
330 CONTINUE
CALL CABLNS(IO)
C

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```

      GO TO 400
C
3320 PRINT 9001,SID
9001 FORMAT("SID",F6.0," DOES NOT CORRESPOND TO ANY OF THE AIRBASE LINE
. SOURCE ID NUMBERS")
STOP
400 CONTINUE
NTOT=NPLTS+2
WRITE(ITAPE) NMAX,NTOT ,NMVHLN,NCVHLN,NXLN,NSRCES,
. ((ABLNS(I,N),I=1,10),N=1,NMAX),
. ((COREM(I ,N),I=1,NTOT ),N=1,NSRCES)
RETURN
END

```

```

SUBROUTINE VEHIC( GM,IO, AVH,EMFC,CSEM,I1,I2,SOAK)
COMMON /POINTR/
1 M,NSRCES,NMAX,NMAXE,
2 LSRCES,NTOT
COMMON /TOT5/
1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCDYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDF,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBDF,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7 ATDSOY,ATDSOZ,TCDSDF,TCTSDF,
8 FPDFLT,TDDFLT,RFDFLT,SFDFLT,
9 PFDFLT,TFDFLT,TFDYDF,MINUS(6)
DIMENSION AVH(8,150),EMFC(2,6,6),CSEM(6,6),VM(6),SPDC(6),NCDST(5),
. GM(I1,I2)
PRINT 1
1 FORMAT(1H-.61X,13HVEHICLE INPUT,/1H0,20X,5HSPEED,9X,
145HTHOUSANDS OF MILES PER VEHICLE CLASS PER YEAR,7X,
238HCOLD STARTS PER VEHICLE CLASS PER YEAR,3X, 8HANN. HOT /
31H .3X,2HID,5X,6HOPTION,4X,5H(MPH),10X,3H(1),5X,3H(2),5X,3H(3),5X,
43H(4),5X,3H(5),5X,3H(6),8X,3H(1),4X,3H(2),4X,3H(3),4X,3H(4),4X,
55H(5),4X,3H(6),5X,5HSOAKS )
DO 10 J=4,NPLTS
10 SPDC(J)=1.0
DO 10 N=LSRCES,NSRCES
DO 10 J=1,3
20 SPDC(J)=1.0
READ 21,SID,IOPT,SPEED,(VM(J),J=1,6)
21 FORMAT(F4.0,I4,9F8.2)
PRINT 31,SID,IOPT,SPEED,(VM(J),J=1,6)
31 FORMAT(1H .2X,F5.0,I6,F12.2,6X,6F8.2)
DO 30 J=1,NMAX
IF (SID.EQ.GM(1,J)) GO TO 40
30 CONTINUE
RETURN
40 AVH(1,N)=SID
AVH(2,N)=J
IF (SPEED.NE.19.6) SPDC(1)=12.5*(SPEED**(-0.845))
IF (SPEED.NE.19.6) SPDC(2)=7.0*(SPEED**(-0.649))
IF (SPEED.NE.19.6) SPDC(3)=1.0*(SPEED-19.6)*0.01262
C
N=IOPT
IF (IOPT.NE.3) GO TO 50
READ 41,SID,(NCDST(J),J=1,6)
41 FORMAT(F4.0,6I4)
PRINT 42,(NCDST(J),J=1,6)
42 FORMAT(1H+.T84.6I7)
IF (SID.NE.AVH(1,N)) GO TO 9000
READ 41,SID,NH5OAK
IF (SID.NE.AVH(1,N)) GO TO 9000
PRINT 43,NH5OAK
43 FORMAT(1H+.T127.17)
N=1
C
50 CONTINUE
IF (IOPT.EQ.3) GO TO 51
DO 150 IKL=1,6
150 NCDST(1:IKL)=0
NH5OAK=0
WRITE(6,42)(NCDST(J),J=1,6)

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WRITE(6,43)NHSOAKS
51 CONTINUE
DO 70 I=1,NPLTS
  AVH(2+I,N)=0.0
  A=0.
  DO 60 J=1,3
    A=SPDC(I)*VM(J)*EMFC(K,J,I)+A
    IF(IOPT.EQ.3.AND.I.NE.2) A=A+CSEM(J,I)*NCDST(J)
    IF(IOPT.EQ.3.AND.I.EQ.2) A=A+CSEM(J,I)*NCDST(J)+SOAK*NHSOAK
60 CONTINUE
  AVH(2+I,N)=AVH(2+I,N)+A*1000.
  TOTEM(IO+M,I)=TOTEM(IO+M,I)+AVH(2+I,N)/1000.
70 CONTINUE
RETURN
C
9000 PRINT 9001,AVH(1,N),SID
9001 FORMAT(*0VEHICLE SOURCE ID =*,F6.0,*, CONTINUATION ID =*,F6.0)
STOP
RETURN
END

```

```

SUBROUTINE OABLNS(10)
COMMON /POINTR/
1 M,NSRCES,NMAX,NMAXE,
2 LSRCES,NTOT
COMMON /SPACE/
1 SORCE(2100),SOREM(8,250)
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AFBRTH,ATBRTH,FLTFCT(7),FIXFCT(7),
6 WRKFCT(7)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDY,RUHODF,RUDYDF,RUDZDF,
5 TFDZDF,TFQDF,TFHBDY,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSZ,
7 ATDSY,ATDSZ,TCDSDF,TCTSDY,
8 FPDFLT,TDDFLT,RDFLT,SDFLT,
9 PPDFLT,TFDFLT,TFDYDF,MINUS(6)
COMMON /TOTS/
1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
DIMENSION ABLNS(10,100)
EQUIVALENCE (ABLNS(1),SORCE(1))
IF (10.GT.1) GO TO 200

C
100 WRITE(6,101)
101 FORMAT(1H1,47X,43HD. AIRBASE LINE SOURCES)
WRITE(6,102)
102 FORMAT(1H-,45X,48HD.1 AIRBASE NON-AIRCRAFT LINE SOURCE GEOMETRIES)

C
110 PRINT 111
111 FORMAT(1H-,11X,24HGROUND LEVEL COORDINATES,5X,16HAVERAGE EMISSION,
.30X,24HGROUND LEVEL COORDINATES,5X,16HAVERAGE EMISSION /
.1H .5HSOURCE,8X,18HOF ONE END OF LINE,8X,16HHEIGHT (METERS),6X,
.8HWIDTH OF,6X,7HDELTA Z,5X,23HAT OPPOSITE END OF LINE,6X,
.16HHEIGHT (METERS) /1H ,
.1H ID,10X,4HX(1),9X,4HY(1),12X,10HX(1) Y(1),8X,10HLINE (MET),
.5X,5H(METERS),8X,4HX(2),9X,4HY(2),12X,10HX(2) Y(2) )

C
DO 120 N=1,NMAX
PRINT 112,ASLNS (1,N),(ABLNS (1,N),I=3,10)
112 FORMAT(1H ,F6.0,1X,2F13.3,F17.2,F19.2,F13.2,F16.3,F13.3,F17.2)
120 CONTINUE
RETURN

C
200 CONTINUE
51 FORMAT(1H-/1H0,50X,37HSOURCE EMISSION DATA (KILOGRAMS/YEAR) )
55 FORMAT(1H0,10X,9HSOURCE ID,11X,A4.5(15X,A4))
56 FORMAT(1H .12X,F5.0,1P6(9X,E10.4))
57 FORMAT(1H .15X,6(11X,A2) )
58 FORMAT(1H .9X,12HTOTAL ANNUAL,6X,1PE10.4.5(9X,E10.4))
71 WRITE(6,54)
WRITE(6,55) (PLNAME(I),I=1,NPLTS)
DO 52 N=LSRCES,NSRCES
62 WRITE(6,56) SOREM(1,N),(SOREM(I-2,N),I=1,NPLTS)
WRITE(6,57) (MINUS(JK),JK=1,NPLTS)
DO 56 I=1,NPLTS

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```
26 TOTEM(IO+M,I)=TOTEM(IC+M,I)*1000.  
   WRITE(6,58) (TOTEM(IO+M,I),I=1,NPLTS)  
   DO 27 I=1,NPLTS  
27 TOTEM(IO+M,I)=TOTEM(IC+M,I)/1000.
```

C
C

```
   RETURN  
   END
```

```

OVERLAY(ENEMIV,4,8)
PROGRAM ENEMIV
COMMON /POINTR/
1 M,NSRCS,NMAX,NMAXE,
2 LSRCS,NTOT
COMMON /SPACE/
1 SORCE(2100),SOREM(8,250)
COMMON /ARRAYS/
1 HCWRK(10,50),HCBRTH(5,100),HCEVP(3,50)
COMMON /TOTS/
1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
REAL LUEMFC
COMMON /EMFDB1/
1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2 TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5 AF3RTH,ATBRTH,FLTFACT(7),FIXFCT(7),
6 WRKFCT(7)
COMMON /DEFAULT/
1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
2 TCVSDF,TCHBDF,TCHODF,TCBYDF,
3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4 RUHBDF,RUHODF,RUDYDF,RJZDF,
5 TFDZDF,TFQDF,TFH3DF,TFHODF,
6 EGCKDY,EGCKDZ,ACMLPL,ARDSDF,
7 ATDSDF,ATDSDF,TCDSDF,TCTSD,
8 FPDFLT,TDDFLT,RFDFLT,SFDFLT,
9 PFDFLT,TFDFLT,TFDYDF,MINUS(6)
DIMENSION ENPTS(11,100),ENARS(7,100),ENLNS(10,20)
EQUIVALENCE (ENPTS(1),SORCE(1)),(ENARS(1),SORCE(1))
. (ENLNS(1),SORCE(1))
DIMENSION FRCTLU(9),VM(6), CDSTN(6),SPDC(6)

C
WRITE(6,40)
40 FORMAT(1H1,28(/),57X,21HSECTION I I I,///,
.50X,29HEN V I R O N S O U R C E S/)
NSRCS=0
M=0
NTOT=NPLTS+2

C
C****NMAX = NO. OF ENVIRON POINT SOURCES
C
C DATA SET 34
8675 FORMAT(A1)
READ(5,8675)AB1234
READ 1,NMAX
1 FORMAT(I4)
IF (NMAX.EQ.0) GO TO 50
LSRCS=1
NSRCS=NSRCS+NMAX
IO=1
PRINT 10
10 FORMAT(1H1,45X,45HA. ENVIRON POINT SOURCES)
DO 20 N=LSRCS,NSRCS
READ 2,(ENPTS(I,N),I=1,11)

C
C****POINT SOURCE INPUT****
C
C ENPTS(1,N) = ID
C ENPTS(2,N) = PLMD
C ENPTS(3,N) = X (KM)
C ENPTS(4,N) = Y (KM)

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```

C      ENPTS(5,N) = H0 (M)
C      ENPTS(6,N) = DY (M)
C      ENPTS(7,N) = DZ (M)
C      ENPTS(8,N) = TS (DEG. F)
C      ENPTS(9,N) = VS (M/S)
C      ENPTS(10,N) = DS (M)
C      ENPTS(11,N) = HB (M)
C
C*****
C
C      2 FORMAT(2F4.0,9F8.2)
C
C      READ 3,SID,(SOREM(I,N),I=3,NTOT)
C*****EMISSIONS INPUT (KGM=10**3/YEAR)
C
C      SOREM(3,N)=CO
C      SOREM(4,N)=HC
C      SOREM(5,N)=H2O
C      SOREM(6,N)=PART
C      SOREM(7,N)=SOX
C      SOREM(8,N)=POL 6
C
C      SOREM(12,N)=POL 10
C
C*****
C
C      3 FORMAT(F4.0,4X,9F8.2)
C      IF (SID.NE.ENPTS(1,N)) GO TO 3000
C      SOREM(1,N)=SID
C      DO 20 I=1,NPLTS
C      TOTEM(10+M,I)=TOTEM(10+M,I)+SOREM(I+2,N)
C      SOREM(I+2,N)=SOREM(I+2,N)*1000.
C 20 CONTINUE
C
C      CALL CENEM(10)
C      NLEN=NPLTS+11
C      WRITE(ITAPE) NSRCES,NLEN,((ENPTS(I,N),I=1,11),(SOREM(I,N),
C      I=3,NTOT),N=1,NSRCES)
C      GO TO 100
C 50 NLEN=0
C      WRITE(ITAPE) NSRCES,NLEN,((ENPTS(I,N),I=1,NLEN),N=1,NSRCES)
C
C*****AREA SOURCES
C
C      100 NSRCES=0
C      DATA SET 35
C      READ(5,8676)AB1234
C      READ 1,IOPT
C      WRITE(6,76)
C 70 FORMAT(1H1.47X.43HB. ENVIRON AREA SOURCES )
C      PRINT 900, IOPT
C 900 FORMAT(1H-.52X.26HENVIRON AREA SOURCE OPTION,12,5H USED)
C      IF (IOPT.EQ.0) GO TO 490
C      GO TO (110,300,400),IOPT
C
C*****OPTION 1 NMAX1 = NO. OF ENVIRON STATIONARY AREA SOURCES
C
C      110 READ 1,NMAX1
C      IF (NMAX1.EQ.0) GO TO 200
C      NSRCES=1
C      NSRCES=NSRCES+NMAX1
C      IC=1

```



```

      PRINT 111
111  FORMAT(1H-.54X.29HB.1  ENVIRON STATIONARY AREAS)
      DO 120 N=LSRCES,NSRCES
      READ 2,(ENARS(I,N),I=1,7)
C
C****AREA SOURCE INPUT
C
C      ENARS(1,N) = ID
C      ENARS(2,N) = PLMD
C      ENARS(3,N) = X (KM)
C      ENARS(4,N) = Y (KM)
C      ENARS(5,N) = ZBAR (M)
C      ENARS(6,N) = C (M)
C      ENARS(7,N) = DZ (M)
C
C*****
C      IF (ENARS(7,N).LE.0.0) ENARS(7,N)=ARDSDZ
C
C      READ 3,SID,(SOREM(I,N),I=3,NTOT)
C
C      IF (SID.NE.ENARS(1,N)) GO TO 9000
C      SOREM(1,N)=SID
C
C      DO 120 I=1,NPLTS
C      TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)
C      SOREM(I+2,N)=SOREM(I+2,N)*1000.
120  CONTINUE
      CALL OENEM(IO)
C
C****OPTION 1  NMAX2 = NO. OF ENVIRON MOBILE AREA SOURCES
C
200  READ 1,NMAX2
      IF (NMAX2.EQ.0) GO TO 450
      LSRCES=NSRCES-1
      NSRCES=NSRCES+NMAX2
      DO 210 J=4,NPLTS
      SPDC(J)=1.0
210  CONTINUE
      IO=0
      PRINT 201
201  FORMAT(1H-.56X.25HB.2  ENVIRON MOBILE AREAS)
      PRINT 221
221  FORMAT(1H-.61X.13HVEHICLE INPUT./1H0.20X.5HSPEED.9X,
.4BH THOUSANDS OF MILES PER VEHICLE CLASS PER YEAR,7X,
.1H .3X.2HID.5X.6HOPTION.4X.5H(MPH).10X.3H(1).5X.3H(2).5X.3H(3).5X,
.3H(4).5X.3H(5).5X.3H(6).9X.3H(1).4X.3H(2).4X.3H(3).4X.3H(4).4X,
.3H(5).4X.3H(6).5X.5HSOAKS )
      DO 260 N=LSRCES,NSRCES
      READ 2,(ENARS(I,N),I=1,7)
      IF (ENARS(7,N).LE.0.0) ENARS(7,N)=ATDSDZ
C
C      DO 230 J=1,3
C      SPDC(J)=1.0
230  CONTINUE
C
      READ 2,SID,CLDST,SPEED,(VM(J),J=1,6)
      PRINT 232,SID,CLDST,SPEED,(VM(J),J=1,6)
232  FORMAT(1H .2X.F5.0,F7.3,F11.2,6X,6F8.2)
      IF (SID.NE.ENARS(1,N)) GO TO 9000
      SOREM(1,N)=SID
      IF (SPEED.NE.19.6) SPDC(1)=12.5*(SPEED**(-0.845))
      IF (SPEED.NE.19.6) SPDC(2)=7.0*(SPEED**(-0.649))
      IF (SPEED.NE.19.6) SPDC(3)=1.0+(SPEED-19.5)*0.01262

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```

C
  <=CLDST
  IF (CLDST.NE.3.0) GO TO 240
  READ 231,SID,(CDSTN(J),J=1,6)
231 FORMAT(7F4.0)
  PRINT 233,(CDSTN(J),J=1,6)
233 FORMAT(1H+.T04,6F7.1)
  IF (SID.NE.ENARS(1,N)) GO TO 9000
  READ 231,SID,HSAOKN
  IF (SID.NE.ENARS(1,N)) GO TO 9000
  PRINT 234,HSAOKN
234 FORMAT(1H+.T129,F6.0)
  K=1

C
240 DO 260 I=1,NPLTS
  SOREM(I+2,N)=0.0
  DO 250 J=1,6
  A=SFDC(I)*VM(J)*ATEMFC(K,J,I)
  IF (CLDST.EQ.3.0.AND.J.NE.1) A=A+CSEMFC(J,I)*CDSTN(J)
  IF (CLDST.EQ.3.0.AND.J.EQ.1) A=A+CSEMFC(J,I)*CDSTN(J)+ATSOAK*HSAOKN
  SOREM(I+2,N)=SOREM(I+2,N)+A*1000.
250 CONTINUE
  TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)/1000.
260 CONTINUE
  CALL GENEM(IO)
  GO TO 450

C
C****OPTION 2 NMAX1 = NO. OF ENVIRON LAND USE AREAS
C
300 READ 1,NMAX1
  IF (NMAX1.EQ.0) GO TO 490
  LSRCS=1
  NSRCS=NMAX1
  IO=1
  PRINT 302
302 FORMAT(1H-.54X,25H8.1 ENVIRON LAND USE AREA /1H-.
.46X.40HFRACTIONAL BREAKDOWN OF AREA BY LAND USE /1H0,
.6X.7HAREA ID.6X.11HCITY CENTER,6X.10HURBAN AREA,6X.13HSUBURBAN ARE
.2.6X.10HSEMI-RURAL,6X.5HRURAL,6X.8HCEMETARY,6X.4HPARK,6X.7HAIRPORT
.71H )
  DO 320 N=LSRCS,NSRCS
  READ 2,(ENARS(I,N),I=1,7)
  READ 301,SID,(FRCTLU(I),I=1,8)
301 FORMAT(F4.0,4X,8F8.7)
  PRINT 303,SID,(FRCTLU(I),I=1,8)
303 FORMAT(1H .F12.0,F14.2,F16.2,F18.2,F17.2,F14.2,3F12.2)
  IF (SID.NE.ENARS(1,N)) GO TO 9000
  SOREM(1,N)=SID
  AREA=(ENARS(6,N)**2)*1.0E-6
  IF (ENARS(7,N).LE.0.0) ENARS(7,N)=ARDSDZ
  DO 320 I=1,NPLTS
  SOREM(I+2,N)=0.0
  DO 310 J=1,8
  SOREM(I+2,N)=SOREM(I+2,N)+LUEMFC(J,I)*AREA*FRCTLU(J)*
    3000.*24.*365./1000.
310 CONTINUE
  TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)/1000.
320 CONTINUE
  CALL GENEM(IO)
  GO TO 450

C
C****OPTION 3 NMAX1 = NO. OF ENVIRON COMBINED AREA SOURCES
C
400 READ 1,NMAX1

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```

      IF (NMAX1.EQ.0) GO TO 490
      LSRCES=1
      NSRCES=NMAX1
      IO=3
      PRINT 401
401  FORMAT(1H-.55X.27HS.1  ENVIRON COMBINED AREAS)
      DO -10 N=LSRCES,NSRCES
      READ 2,(ENARS(I,N),I=1,7)
      IF (ENARS(7,N).LE.0.0) ENARS(7,N)=ARSDSZ
      READ 3,SID,(SOREM(I,N),I=3,NTOT)
      IF (SID.NE.ENARS(1,N)) GO TO 9000
      SOREM(1,N)=SID
      SOREM(1,N)=SID
C
      DO -10 I=1,NPLTS
      TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)
      SOREM(I+2,N)=SOREM(I+2,N)-1000.
410  CONTINUE
      CALL OENEM(IO)
C
450  NLEN=NPLTS-7
      WRITE(ITAPE) NSRCES,NLEN,IOPT,NMAX1,NMAX2,
      . ((ENARS(I,N),I=1,7),(SOREM(I+2,N),I=1,NPLTS),N=1,NSRCES)
      GO TO 500
C
490  NLEN=0
      NMAX1=0
      NMAX2=0
      WRITE(ITAPE) NSRCES,NLEN,IOPT,NMAX1,NMAX2,((ENARS(I,N),
      . I=1,NLEN),N =1,NSRCES)
C
C****NMAX1 = NO. OF ROADWAY LINE SOURCES
C
500  NSRCES=0
      DATA SET 36
      READ(5,6676)AS1234
      READ 1,NMAX1
      IF (NMAX1.EQ.0) GO TO 600
      LSRCES=1
      NSRCES=NMAX1
      IO=3
910  FORMAT(1H1.44X.43HC.  ENVIRON LINE SOURCES )
      WRITE(6,910)
      PRINT 501
501  FORMAT(1H-/1H0.55X.26HC.1  ENVIRON ROADWAY LINES)
      PRINT 221
      DO 810 N=LSRCES,NSRCES
      READ 2,(ENLNS(I,N),I=1,10)
C
C****LINE SOURCE INPUT
C      ENLNS(1,N) = ID
C      ENLNS(2,N) = PLMD
C      ENLNS(3,N) = X1 (KM)
C      ENLNS(4,N) = Y1 (KM)
C      ENLNS(5,N) = Z1 (M)
C      ENLNS(6,N) = W (M)
C      ENLNS(7,N) = DZ (M)
C      ENLNS(8,N) = X2 (KM)
C      ENLNS(9,N) = Y2 (KM)
C      ENLNS(10,N) = Z2 (M)
C
C*****
      IF (ENLNS(6,N).LE.0.0) ENLNS(6,N)=ATDSOY

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      IF (ENLNS(7,N).LE.0.0) ENLNS(7,N)=ATDSDZ
C
      DO 530 J=1,6
      SPDC(J)=1.0
530 CONTINUE
C
      READ 2,SID,CLDST,SPEED,(VM(J),J=1,6)
      PRINT 232,SID,CLDST,SPEED,(VM(J),J=1,6)
      IF (SID.NE.ENLNS(1,N)) GO TO 9000
      SOREM(1,N)=SID
      IF (SPEED.NE.19.6) SPDC(1)=12.5*(SPEED**(-0.845))
      IF (SPEED.NE.19.6) SPDC(2)=7.0*(SPEED**(-0.649))
      IF (SPEED.NE.19.6) SPDC(3)=1.0*(SPEED-19.6)*0.01262
C
      K=CLDST
      IF (CLDST.NE.3.0) GO TO 540
      READ 231,SID,(CDSTN(J),J=1,6)
      PRINT 233,(CDSTN(J),J=1,6)
      IF (SID.NE.ENLNS(1,N)) GO TO 9000
      READ 231,SID,HSOAKN
      IF (SID.NE.ENARS(1,N)) GO TO 9000
      PRINT 234,HSOAKN
      K=1
C
540 DO 510 I=1,NPLTS
      SOREM(I+2,N)=0.0
      DO 550 J=1,6
      A=SPDC(J)*VM(J)*ATEMFC(K,J,I)
      IF (CLDST.EQ.3.0.AND.J.NE.1) A=A+CSEMFC(J,I)*CDSTN(J)
      IF (CLDST.EQ.3.0.AND.J.EQ.1) A=A+CSEMFC(J,I)*CDSTN(J)+ATSOAK*HSOAKN
      SOREM(I+2,N)=SOREM(I+2,N)+A*1000.
550 CONTINUE
      TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)/1000.
510 CONTINUE
C
      CALL OENEM(IO)
C
C*****NMAX2 = NO. OF NON-ROADWAY LINE SOURCES
C
C      DATA SET 37
500 READ(5,8675)AS1234
      READ 1,NMAX2
      IF (NMAX2.EQ.0) GO TO 650
      LSRCES=NSRCES+1
      NSRCES=NSRCES+NMAX2
      IO=7
      PRINT 601
601 FORMAT(1H1,53X,30HC.2 ENVIRON NON-ROADWAY LINES)
      DO 610 N=LSRCES,NSRCES
      READ 2,(ENLNS(I,N),I=1,10)
C
      IF (ENLNS(6,N).LE.0.0) ENLNS(6,N)=ATDSDY
      IF (ENLNS(7,N).LE.0.0) ENLNS(7,N)=ATDSDZ
C
      READ 3,SID,(SOREM(I,N),I=3,NTOT)
      IF (SID.NE.ENLNS(1,N)) GO TO 9000
      SOREM(1,N)=SID
      IF (NPLTS.EQ.10) READ 3,SID,SOREM(12,N)
      SOREM(11,N)=SID
C
      DO 610 I=1,NPLTS
      TOTEM(IO+M,I)=TOTEM(IO+M,I)+SOREM(I+2,N)
      SOREM(I+2,N)=SOREM(I+2,N)*1000.
610 CONTINUE

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```

      CALL GENEM/IO)
C
655 IF (NSRCES.EQ.0) GO TO 690
      NLEN=NPLTS-10
      WRITE(ITAPE) NSRCES,NLEN,NMAX1,NMAX2,
      . ((ENLNS(I,N),I=1,10),(SOREM(I+2,N),I=1,NPLTS),N=1,NSRCES)
      GO TO 700
C
690 NLEN=0
      WRITE(ITAPE) NSRCES,NLEN,NMAX1,NMAX2,((ENLNS(I,N),
      . I=1,NLEN),N =1,NSRCES)
C
700 GO TO 710
C
9000 PRINT 9001,SID
9001 FORMAT('CONTINUATION ID ',F4.0,
      . ' DOES NOT AGREE WITH PREVIOUS CARD. ')
      STOP
710 CONTINUE
C
      RETURN
      END

```

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```

SUBROUTINE DENEM(10)
COMMON /POINTR/
1   M,NSRCES,NMAX,NMAXE,
2   LSRCES,NTOT
COMMON /SPACE/
1   SORCE(2100),SOREM(8,250)
COMMON /TOTS/
1   TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
REAL LUEMFC
COMMON /EMFCB1/
1   EGEMFC(6,4,50),PLNAME(6),PEMFC(22,6),EMFCIN(5,6),
2   TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3   FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4   CGEMFC(6,6),AFCEM(6,6),AFSOAK,ATSOAK,
5   AFBRTN,ATBRTN,FLTFCT(7),FIXFCT(7),
6   WRKFCT(7)
COMMON /DEFAULT/
1   NPLTS,ITAPE,ACLNDY,ACLNDZ,
2   TCVSDF,TCHBDF,TCHODF,TCJYDF,
3   TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4   RUHODF,RUHODF,RUDYDF,RUDZDF,
5   TFDZDF,TFQDF,TFHODF,TFHODF,
6   EGCKDY,EGCKDZ,ACMLPL,ARDSZ,
7   ATDSOY,ATDSOZ,TCDSDF,TCTSDF,
8   RFDFLT,TDDFLT,RFDFLT,SFDFLT,
9   RFDFLT,TFDFLT,TFDYDF,MINUS(6)
DIMENSION ENPTS(11,100),ENARS(7,100),ENLNS(10,20)
EQUIVALENCE (ENPTS(1),SORCE(1)),(ENARS(1),SORCE(1))
      ,(ENLNS(1),SORCE(1))
IF (10.GE.5) GO TO 600
IF (10.GE.2) GO TO 200
100 PRINT 101
101 FORMAT(1H-/1H0.63X.11H$SOURCE DATA /1H0,
.15X.5H$STACK.34X.5H$STACK.8X.5H$STACK.7X.5H$STACK.6X.3H$BUILDING/1H .
.5X.5H$SOURCE.2X.5H$PLUME.2X.11H$COORDINATES.10X.6H$HEIGHT.6X.7H$DELTA Y
.15X.7H$DELTA Z.7X.4H$TEMP.8X.3H$VELOCITY.4X.9H$DIAMETER.5X.6H$HEIGHT/
.1H .7X.2HID.6X.4H$FLAG.6X.3H(X).9X.3H(Y).7X.8H(METERS).5X,
.8H(METERS).5X.8H(METERS).6X.5H(KCAL).7X.7H(M/SEC).2(4X.6H(METERS))

21 FORMAT(1H .6X.F5.0.F7.3,3F12.3,4F13.3,2F12.3)
DO 22 N=LSRCES,NSRCES
22 WRITE(6,21) (ENPTS(I,N),I=1,11)
150 CONTINUE
54 FORMAT(1H-/1H0.50X.37H$SOURCE EMISSION DATA (KILOGRAMS/YEAR) )
55 FORMAT(1H0.10X.9H$SOURCE ID.11X.A4.5(15X.A1))
56 FORMAT(1H .12X.F5.0.1P6(9X.E10.4))
57 FORMAT(1H .16X.6(11X.A8) )
58 FORMAT(1H .8X.12H$TOTAL ANNUAL.6X.1P6(9X.E10.4))
71 WRITE(6,54)
DO 55 I=1,NPLTS
55 WRITE(6,55) PLNAME(I),I=1,NPLTS
DO 56 N=LSRCES,NSRCES
56 WRITE(6,56) SOREM(1,N), (SOREM(I+2,N),I=1,NPLTS)
57 WRITE(6,57) (MINUS(JK),JK=1,NPLTS)
DO 58 I=1,NPLTS
23 TOTEM(10+M,1)=TOTEM(10+M,1)+1000.
58 WRITE(6,58) TOTEM(10+M,1),I=1,NPLTS
DO 27 I=1,NPLTS
27 TOTEM(10+M,1)=TOTEM(10+M,1)/1000.

GO TO 190
201 PRINT 201

```

```

201 FORMAT(1H-/1H0,63X,11HSOURCE DATA/1H0,
.26X,24HAREA SOURCE GROUND LEVEL,14X,16HAVERAGE EMISSION,10X,6HLENG
.7H/1H,9X,6HSOURCE,10X,31HCOORDINATES OF CENTER AREA (KM),10X,
.16HHEIGHT (METERS),10X,7HOF SIDE,10X,7HDELTA Z /1H,
.11X,2HID,14X,3H(X),21X,3H(Y),18X,3H(Z),6X,2(10X,8H(METERS))/1H, )
C
DO 660 N=LSRCES,NSRCES
PRINT 253, ENARS(1,N),(ENARS(I,N),I=3,7)
253 FORMAT(1H ,F15.0,F17.3,F24.3,F20.2,F21.2,F18.2)
C
260 CONTINUE
GO TO 150
C
500 PRINT 601
601 FORMAT(1H-,63X,11HSOURCE DATA,/1H0,
.11X,24HGROUND LEVEL COORDINATES,5X,16HAVERAGE EMISSION,
.33X,24HGROUND LEVEL COORDINATES,5X,16HAVERAGE EMISSION /
.1H,6HSOURCE,2X,18HOF ONE END OF LINE,8X,16HHEIGHT (METERS),6X,
.8HWIDTH OF,2X,7HDELTA Z,6X,23HAT OPPOSITE END OF LINE,6X,
.16HHEIGHT (METERS) /1H,
.4H ID,10X,4HX(1),9X,4HY(1),12X,10HX(1) Y(1),8X,10HLINE (MET),
.3X,8H(METERS),8X,4HX(2),9X,4HY(2),12X,10HX(2) Y(2) )
C
DO 660 N=LSRCES,NSRCES
PRINT 653, ENLNS(1,N),(ENLNS(I,N),I=3,10)
653 FORMAT(1H ,F5.0,1X,2F13.3,F17.2,F19.2,F13.2,F15.2,F13.2,F18.2)
C
660 CONTINUE
GO TO 150
190 RETURN
END

```

```

      OVERLAY(LAST,5,8)
      PROGRAM LAST
C
C***** PRINT SOURCE INVENTORY SUMMARY
C
      DIMENSION SUMEMI(4,6)
C
C*** PRINT TITLE
C
      WRITE(6,1)
      1 FORMAT(1H1,23(/),58X,
      1  *S E C T I O N   I V*/
      2  2(/),61X,
      3  *S U M M A R Y*)
C
C*** ZERO ACCUMULATORS
C
      DO 10 IP=1,NPLTS
      DO 10 IC=1,4
      SUMEMI(IC,IP)=0.
      10 CONTINUE
C
C*** PRINT METEOROLOGICAL SUMMARY
C
      CALL METSUM
C
C*** PRINT TEMPORAL DISTRIBUTION FRACTION SUMMARY
C
      CALL TDFSUM
C
C*** PRINT AIRCRAFT EMISSION SUMMARY
C
      CALL ACESUM(SUMEMI)
C
C*** PRINT AIRBASE EMISSION SUMMARY
C
      CALL ABESUM(SUMEMI)
C
C*** PRINT ENVIRON EMISSION SUMMARY
C
      CALL ENESUM(SUMEMI)
C
C*** PRINT TOTAL SUMMARY
C
      CALL TOTSUM(SUMEMI)
      RETURN
      END

```



```

SUBROUTINE METSUM
C
C***** PRINT METEOROLOGICAL SUMMARY.
C
COMMON /ANNMET/
1   TBAR,ADD,P,PA,
2   WSBAR,DTBAR,AMCBAR
C
C*** PRINT SUBTITLE
C
WRITE(6,1)
1  FORMAT(1H1/'**'/
1  1H0,41X,
1  'M E T E R O L O G I C A L   D A T A   S U M M A R Y')
C
C*** PRINT DATA
C
WRITE(6,11) TBAR,ADD,PA,WSBAR,DTBAR
11 FORMAT(1H0/1H0/
1  1H0,28X,
1  'AVERAGE ANNUAL TEMPERATURE (DEGREES F)*,32(*.*),F10.2/
2  1H0,28X,
2  'ANNUAL DEGREE DAYS*,52(*.*),F10.2/
3  1H0,28X,
3  'PRESSURE ALTITUDE (HUNDREDS OF FEET)*,34(*.*),F10.2/
4  1H0,28X,
4  'AVERAGE ANNUAL WIND SPEED (METERS PER SECOND)*,25(*.*),F10.2/
5  1H0,28X,
5  'DAILY AVERAGE TEMPERATURE VARIATION (DEGREES F)*,23(*.*),F10.2)
RETURN
END

```

```

SUBROUTINE TDFSUM
C
C***** PRINT TEMPORAL DISTRIBUTION FRACTION SUMMARY
C
      INTEGER ACNAME,EGNAME,ENGNO
      REAL LNDSPD
      COMMON /ACEDB1/
1      ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),
2      ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),
3      APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),
4      COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),
5      EGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,
6      APPHT2(50),CLMBHT,TOWT(50)
      COMMON /ACEDB2/
1      NACTYP,NRNWYS,NPKAR,IEGFLG,
2      IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),
3      ARFCN(24,6),DEPFCN(24,6),TGO(3,4),DISRNW(6),
4      RNWY(7,6),IUSWD(20,6),RNWYAR(8,6),RNWYDP(8,6),
5      ACUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),
6      ARSVEM(6,8,5),DPSVEM(6,3,5),NIBTT(5),NIBSEG(8,6),
7      IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(3,8,6),NOBTT(6),
8      NOSSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(3,8,6),
9      NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBPA(8,6),
+      IDOBPA(8,6),NLSEGS,ACLNSG(12,25)
      REAL LUEMFC
      COMMON /EMFDB1/
1      EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2      TEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3      FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4      CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSUAK,
5      AFBRT,ATBRT,FLTFC(7),FIXFCT(7),
6      WRKFC(7)
      COMMON /DSTRBT/
1      ACMO(13,50),ACDY(2,50),ACHR(24,50),VHMLMO(13),
2      VHMLDY(2),VHMLHR(24),CVABMO(13),CVABDY(2),
3      CVABHR(24),CVENMO(13),CVENDY(2),CVENHR(24),
4      FLMO(13,7),FLDY(2,7),FLHR(24,7)
C
C*** PRINT SUBTITLE
C
      WRITE(6,1000)
1000 FORMAT(1H1,25X,
1      '8. TEMPORAL DISTRIBUTION FRACTION',
1      '1 ON SUMMARY*/
2      1H)
      WRITE(6,1000)
      WRITE(6,1001)(II,II=1,24)
1001 FORMAT(1H-.48X.40H HOURLY DISTRIBUTION OF AIRCRAFT ACTIVITY /1H ,
1      .9H AIRCRAFT.2415)
      DO 5000 JJ=1,NACTYP
      LL=IACTYP(JJ)
5000 WRITE(6,1002)ACNAME(LL),(ACHR(KK,LL),KK=1,24)
1002 FORMAT(1H .1X.A8.1X.24(1X,F1.3))
      WRITE(6,1000)
1003 FORMAT(1H-.48X.40H WEEKLY DISTRIBUTION OF AIRCRAFT ACTIVITY /1H ,
1      .47X 3HAIRCRAFT.10X.7HWEEKDAY.10X.7HWEEKEND)
      DO 6002 JJ=1,NACTYP
      LL=IACTYP(JJ)
6002 WRITE(6,1004)ACNAME(LL),(ACDY(KK,LL),KK=1,2)
1004 FORMAT(1H .47X.A8.F15.3.F17.3)
      WRITE(6,1000)
1005 FORMAT(1H-.48X.41H MONTHLY DISTRIBUTION OF AIRCRAFT ACTIVITY /1H ,
1      .4X 3HAIRCRAFT.18.11110)

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DO 6003 JJ=1,NACTYP
LL=IACTYP(JJ)
6003 WRITE(6,1006)ACNAME(LL),(ACMO(KK,LL),KK=1,12)
1006 FORMAT(1H,4X,A8,F9.3,11F10.3)
WRITE(6,1009)(II,II=1,24)
1009 FORMAT(1H-,44X,48H HOURLY DISTRIBUTION OF MILITARY VEHICLE ACTIVITY
./1H,10X,24I5)
WRITE(6,6007)(VHMLHR(II),II=1,24)
6007 FORMAT(1H,10X,24(1X,F4.3))
WRITE(6,6006)
6006 FORMAT(1H-,44X,48H WEEKLY DISTRIBUTION OF MILITARY VEHICLE ACTIVITY
./1H,56X,7H WEEKDAY,10X,7H WEEKEND)
WRITE(6,6010)(VHMLDY(II),II=1,2)
6010 FORMAT(1H,10X,2(1X,F61.3,F17.3))
WRITE(6,6011)(II,II=1,12)
6011 FORMAT(1H-,43X,49H MONTHLY DISTRIBUTION OF MILITARY VEHICLE ACTIVITY
./1H,12X,18,11I10)
WRITE(6,6012)(VHMLMO(II),II=1,12)
6012 FORMAT(1H,12X,F9.3,11F10.3)
WRITE(6,6014)(II,II=1,24)
6014 FORMAT(1H-,44X,48H HOURLY DISTRIBUTION OF CIVILIAN VEHICLE ACTIVITY
./1H,10X,24I5)
WRITE(6,6016)(CVABHR(II),II=1,24)
6016 FORMAT(1H,10X,24(1X,F4.3))
WRITE(6,6018)
6018 FORMAT(1H-,44X,48H WEEKLY DISTRIBUTION OF CIVILIAN VEHICLE ACTIVITY
./1H,56X,7H WEEKDAY,10X,7H WEEKEND)
WRITE(6,6020)(CVABDY(II),II=1,2)
6020 FORMAT(1H,10X,2(1X,F61.3,F17.3))
WRITE(6,6022)(II,II=1,12)
6022 FORMAT(1H-,43X,49H MONTHLY DISTRIBUTION OF CIVILIAN VEHICLE ACTIVITY
./1H,12X,18,11I10)
WRITE(6,6024)(CVABMO(II),II=1,12)
6024 FORMAT(1H,12X,F9.3,11F10.3)
WRITE(6,6026)(II,II=1,24)
6026 FORMAT(1H-,45X,47H HOURLY DISTRIBUTION OF ENVIRON VEHICLE ACTIVITY/
./1H,10X,24I5)
WRITE(6,6028)(CVENHR(II),II=1,24)
6028 FORMAT(1H,10X,24(1X,F4.3))
WRITE(6,6030)
6030 FORMAT(1H-,45X,47H WEEKLY DISTRIBUTION OF ENVIRON VEHICLE ACTIVITY/
./1H,56X,7H WEEKDAY,10X,7H WEEKEND)
WRITE(6,6032)(CVENDY(II),II=1,2)
6032 FORMAT(1H,10X,2(1X,F61.3,F17.3))
WRITE(6,6034)(II,II=1,12)
6034 FORMAT(1H-,44X,48H MONTHLY DISTRIBUTION OF ENVIRON VEHICLE ACTIVITY
./1H,12X,18,11I10)
WRITE(6,6036)(CVENMO(II),II=1,12)
6036 FORMAT(1H,12X,F9.3,11F10.3)
WRITE(6,6038)(II,II=1,24)
6038 FORMAT(1H-,45X,47H HOURLY DISTRIBUTION OF FUEL PROCESSING ACTIVITY/
./1H,10X,24I5)
DO 6040 JJ=1,7
6040 WRITE(6,6042)FLNAME(JJ),(FLHR(II,JJ),II=1,24)
6042 FORMAT(1H,4X,A4,4X,24(1X,F4.3))
WRITE(6,6044)
6044 FORMAT(1H-,45X,47H WEEKLY DISTRIBUTION OF FUEL PROCESSING ACTIVITY/
./1H,49X,4H FUEL,10X,7H WEEKDAY,10X,7H WEEKEND)
DO 6046 JJ=1,7
6046 WRITE(6,6048)FLNAME(JJ),(FLDY(II,JJ),II=1,2)
6048 FORMAT(1H,49X,A4,F15.3,F17.3)
WRITE(6,6050)(II,II=1,12)
6050 FORMAT(1H-,44X,48H MONTHLY DISTRIBUTION OF FUEL PROCESSING ACTIVITY
./1H,4X,4H FUEL,4X,18,11I10)

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```
DO 6052 JJ=1,7
6052 WRITE(6,6054)FLNAME(JJ),(FLMO(I,JJ),I=1,12)
6054 FORMAT(1H ,4X,A8,F9.3,11F10.3)
      RETURN
      END
```

SUBROUTINE ACESUM(SUMEMI)

C ***** PRINT AIRCRAFT EMISSION SUMMARY

C DIMENSION SUMEMI(4,6)

INTEGER ACNAME,EGNAME,ENGNO

REAL LNDSPD

COMMON /ACEDB1/

1 ACEMFC(8,10,6),ACNAME(50),EGNAME(50),ENGNO(50,2),

2 ASCNT1(50),ASCNT2(50),TXISPD(50),LNDSPD(50),

3 APSPD1(50),COHT1(50),APSPD2(50),TOSPD(50),

4 COSPD1(50),COSPD2(50),SRTUPT(50),DSCNT1(50),

5 SGCHKT(50),SHTDNT(50),DSCNT2(50),APPHT,

6 APPHT2(50),CLMBHT,TOWT(50)

COMMON /ACEDB2/

1 NACTYP,NRNWYS,NPKAR,IEGFLG,

2 IACTYP(8),ANNARR(8),ANNDEP(8),ANNTGO(8),

3 ARFCN(24,6),DEFCN(24,6),TGO(3,4),DISRNW(6),

4 RNW(7,6),IUSWD(20,6),RNWVAR(8,6),RNWYDP(8,6),

5 ACTUEL(8),ARFLVT(8),DPFLVT(8),ACSPIL(8),

6 ARSVEM(6,8,5),DPSVEM(6,8,5),NIBTT(6),NIBSEG(8,6),

7 IIBSEG(16,8,6),IDIBTW(8,6),TTARFR(3,8,6),NOBTT(6),

8 NOBSEG(8,6),IOBSEG(16,8,6),IDOBTW(8,6),TTDPFR(8,8,3),

9 NPASQ(6),IDPRKA(6),PAREA(6,3,3),IDIBFA(8,6),

+ IOBFA(8,6),NLSEGS,ACLNSG(12,25)

REAL LUEMFC

COMMON /EMFDB1/

1 EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),

2 TEEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),

3 ELDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),

4 CSEMFC(6,6),AFCEM(6,5),AFSOAK,ATSOAK,

5 AFBRTH,ATBRTH,FLTFACT(7),FIXFCT(7),

6 WRKFCT(7)

COMMON /DEFAULT/

1 NPLTS,ITAPE,ACLNDY,ACLNDZ,

2 TCVSDF,TCHBDF,TCHODF,TCVYDF,

3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,

4 RUHBDF,RUHODF,RUDYDF,RUDZDF,

5 TFDZDF,TFQDF,TFHEDF,TFHODF,

6 EGCKDY,EGCKDZ,ACMLPL,APDSOZ,

7 ATOSDY,ATOSDZ,TCDSDF,TCTSDF,

8 PFDFLT,TDDFLT,RFDFLT,SFDFLT,

9 PFDFLT,TDDFLT,TFDYDF,MINUS(6)

COMMON /TOTS/

1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,5)

C DIMENSION ACEM(6),TMISS(15,6)

DIMENSION OPNAM(3,16)

DATA OPNAM

1	STAR	TUR															
2	TAXI	OUT															
3	ENGIN	NE	CL	HECK													
4	RUNW	AY	R	CLL													
5	CLIM	B	1														
6	CLIM	B	2														
7	APPR	OACH		1													
8	APPR	OACH		2													
9	LAND	ING															
10	TAXI	IN															
11	SHUT	DOWN															
12	ARR	+	DE	P	SV												
13	FUEL	VEN	TING														
14	FILL	+	S	PILL													

```

5          TOUC', 'H + ', 'GO '
6          TOTA', 'L '
DATA LINE/-----/
C
901 FORMAT(1H0,15X,'OPERATION',12X,5(A4,12X))
902 FORMAT(1H )
903 FORMAT(1H ,13X,3A4,8X,1P,6(E10.4,6X))
904 FORMAT(1H ,34X,6(2A4,8X))
C
C*** PRINT SUBTITLE
C
      WRITE(6,1)
1  FORMAT(1H1,42X,
1  'C. AIRCRAFT EMISSION SUMMARY')
C
C*** PRINT SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE
C
C* PRINT HEADER
C
      WRITE(6,101)
101 FORMAT(1H0,42X,
1  'C.1 SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE*/
2  1H ,52X,'ALL POLLUTANTS IN METRIC TONS')
C
C* LOOP OVER AIRCRAFT
C
      DO 150 IA=1,NACTYP
      IDAC=IACTYP(IA)
C
C      PRINT SUBHEADER
C
      WRITE(6,111) ACNAME(IDAC)
111 FORMAT(1H0/1H0,64X,A8)
      WRITE(6,901) (PLNAME(IP),IP=1,NPLTS)
      WRITE(6,902)
C
C      COMPUTE AIRCRAFT TOTALS
C
      DO 120 IP=1,NPLTS
      ACEM(IP)=0.
      DO 120 IM=1,15
      ACEM(IP)=ACEM(IP)+EMISS(IA,IM,IP)
120 CONTINUE
C
C      PRINT DATA
C
      DO 130 IM=1,15
      WRITE(6,903) (OPNAM(J,IM),J=1,3),(EMISS(IA,IM,IP),IP=1,NPLTS)
130 CONTINUE
      WRITE(6,904) (LINE,LINE,IP=1,NPLTS)
      WRITE(6,903) (GPNAM(J,16),J=1,3),(ACEM(IP),IP=1,NPLTS)
C
C* END AIRCRAFT LOOP
C
150 CONTINUE
C
C*** PRINT ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES
C
C* PRINT HEADER
C
      WRITE(6,201)
201 FORMAT(1H1,41X,
1  'C.2 SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES*/
2  1H ,53X,'ALL POLLUTANTS IN METRIC TONS')

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3 1H )
WRITE(6,901) (PLNAME(IP),IP=1,NPLTS)
WRITE(6,902)
C
C* COMPUTE TOTALS
C
DO 220 IP=1,NPLTS
SUMEMI(1,IP)=0.
DO 220 IM=1,15
TMISS(IM,IP)=0.
DO 210 IA=1,NACTYP
TMISS(IM,IP)=TMISS(IM,IP)+EMISS(IA,IM,IP)
210 CONTINUE
SUMEMI(1,IP)=SUMEMI(1,IP)+TMISS(IM,IP)
220 CONTINUE
C
C* PRINT DATA
C
DO 230 IM=1,15
WRITE(6,903) (OPNAM(J,IM),J=1,3),(TMISS(IM,IP),IP=1,NPLTS)
230 CONTINUE
WRITE(6,904) (LINE,LINE,IP=1,NPLTS)
WRITE(6,905) (OPNAM(J,16),J=1,3),(SUMEMI(1,IP),IP=1,NPLTS)
RETURN
END

```

```

SUBROUTINE ABESUM(SUMEMI)
C
C***** PRINT AIRBASE EMISSION SUMMARY
C
  DIMENSION SUMEMI(4,6)
  REAL LUEMFC
  COMMON /EMFDB1/
  1    EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
  2    TEEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
  3    FLDBENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
  4    CSEMFC(6,6),AFCSEM(5,6),AFSOAK,ATSOAK,
  5    AFBRTN,ATBRTN,FLTFACT(7),FIXFACT(7),
  6    WRKFACT(7)
  COMMON /DEFAULT/
  1    NPLTS,ITAPE,ACLNDY,ACLNDZ,
  2    TCVSDF,TCHBDF,TCHODF,TCDYDF,
  3    TCDZDF,RUDSDF,RUTSDF,RUVSDF,
  4    RUHEDF,RUHODF,RUDYDF,RUDZDF,
  5    TFDZDF,TFQDF,TFH8DF,TFHODF,
  6    EGCKDY,EGCKDZ,ACMLPL,ARDSDF,
  7    ATDSDF,ATDSDF,TCDSDF,TCTSDF,
  8    FPDFLT,TDDFLT,RFDFLT,SFDFLT,
  9    PFDFLT,TFDFLT,TFDYDF,MINUS(6)
  COMMON /TOTS/
  1    TOTEM(20,6),TOTEMP(10),EMISS(8,15,6)
  DIMENSION OPNAM(3,14)
  DATA OPNAM/
  1    'TRAI','N FI','RES',
  2    'TEST','CEL','LS',
  3    'RUN-','UP S','TDS',
  4    'POWE','R PL','ANTS',
  5    'INCI','NERA','TORS',
  6    'OTHE','R AB','PTS',
  7    'SPAC','E HE','ATNG',
  8    'OFF','ROAD','VEH',
  9    'MILI','TARY','VEH',
  10   'CIVI','LIAN','VEH',
  11   'MIL','VEH','LINE',
  12   'CIV','VEH','LINE',
  13   'OTHE','R AB','LNS',
  14   'TOTA','L',
  DATA LINE/'-----'/
C
  901 FORMAT(1H0,15X,'*OPERATION*',12X,5(A4,12X))
  902 FORMAT(1H )
  903 FORMAT(1H ,13X,3A4,8X,1P,6(E10,4,6X))
  904 FORMAT(1H ,34X,6(2A4,8X))
C
C*** PRINT SUBTITLE
C
  WRITE(6,1)
  1 FORMAT(1H1,40X,
  1 'D. AIRBASE EMISSION SUMMARY*)
C
C*** PRINT ANNUAL EMISSIONS FROM GROUND MOBILE SOURCES
C
C* PRINT HEADER
C
  WRITE(6,101)
  101 FORMAT(1H0,39X,
  1 '*0.1 SUMMARY OF ANNUAL EMISSIONS FROM GROUND MOBILE SOURCES*/
  2 '1- .50X,*ALL POLLUTANTS IN METRIC TONS*/
  3 '2- ')

```

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```

WRITE(6,901) (PLNAME(IP),IP=1,NPLTS)
WRITE(6,902)

C
C* COMPUTE TOTALS
C
DO 110 IP=1,NPLTS
SUMEMI(2,IP)=0.
DO 110 IM=15,20
SUMEMI(2,IP)=SUMEMI(2,IP)+TOTEM(IM,IP)
110 CONTINUE

C
C* PRINT DATA
C
DO 120 IM=15,20
WRITE(6,903) (OPNAM(J,IM-7),J=1,3),(TOTEM(IM,IP),IP=1,NPLTS)
120 CONTINUE
WRITE(6,904) (LINE,LINE,IP=1,NPLTS)
WRITE(6,905) (OPNAM(J,14),J=1,3),(SUMEMI(2,IP),IP=1,NPLTS)
WRITE(6,199)
199 FORMAT(1H0)

C
C*** PRINT ANNUAL EMISSIONS FROM AIRBASE FACILITIES
C
C* PRINT HEADER
C
WRITE(6,201)
201 FORMAT(1H0,40X,
1 *0.2 SUMMARY OF ANNUAL EMISSIONS FROM AIRBASE FACILITIES*/
2 1H ,53X,*ALL POLLUTANTS IN METRIC TONS*/
3 1H )
WRITE(6,901) (PLNAME(IP),IP=1,NPLTS)
WRITE(6,902)

C
C* COMPUTE TOTALS
C
DO 210 IP=1,NPLTS
SUMEMI(3,IP)=0.
DO 210 IM=8,14
SUMEMI(3,IP)=SUMEMI(3,IP)+TOTEM(IM,IP)
210 CONTINUE

C
C* PRINT DATA
C
DO 220 IM=8,14
WRITE(6,903) (OPNAM(J,IM-7),J=1,3),(TOTEM(IM,IP),IP=1,NPLTS)
220 CONTINUE
WRITE(6,904) (LINE,LINE,IP=1,NPLTS)
WRITE(6,905) (OPNAM(J,14),J=1,3),(SUMEMI(3,IP),IP=1,NPLTS)

C
C*** PRINT ANNUAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS
C
C* PRINT HEADER
C
WRITE(6,301)
301 FORMAT(1H0,35X,
1 *0.3 SUMMARY OF ANNUAL EMISSIONS FROM EVAPORATIVE HYDRO*,
2 *CARBONS*,71X,56X,*ALL LOSSES IN METRIC TONS*)
WRITE(6,302)
302 FORMAT(1H0,15X,*OPERATION*,10X,*WORKING*,8X,*FIXED ROOF*,4X,
1 *FLOATING ROOF*,5X,*SPILLAGE*,9X,*OTHER*/
2 1H ,36X,*LOSS*,7X,*BREATHING LOSS*,2X,*BREATHING LOSS*)

C
C* COMPUTE TOTALS
C

```

```

      THCEVL=0.
      DO 310 IM=1,10
      THCEVL=THCEVL+TOTEVP(IM)
310  CONTINUE
      SUMEMI(3,2)=SUMEMI(3,2)+THCEVL
C
C*  PRINT DATA
C
      WRITE(6,321) (TOTEVP(IM),IM=1,10)
321  FORMAT(1H0,13X,"STORAGE TANKS",1X,1P,3E16.4/
2    1H,13X,"FILLING",13X,E10.4,38X,E10.4/
3    1H,13X,"PET STOR TKS",24X,E10.4,6X,E10.4/
4    1H,13X,"TNK TRUCK PK",24X,E10.4/
5    1H,13X,"VEH PARKING",25X,E10.4/
6    1H,13X,"OTHERS",78X,E10.4)
      WRITE(6,322) THCEVL
322  FORMAT(1H0,13X,
1    "TOTAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ARE ",
2    1P,E10.4," METRIC TONS")
      RETURN
      END

```

```

SUBROUTINE ENESUM(SUMEMI)
C
C***** PRINT ENVIRON EMISSION SUMMARY
C
  DIMENSION SUMEMI(4,6)
  REAL LUEMFC
  COMMON /EMFDB1/
  1 EGEMFC(6,4,50),PLNAME(5),PPEMFC(22,6),EMFCIN(5,6),
  2 TPEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
  3 FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
  4 CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
  5 AFERTH,ATBRTH,FLTFACT(7),FIXFACT(7),
  6 WEXFCT(7)
  COMMON /TOTS/
  1 TOTEM(20,6),TOTEVP(10),EMISS(8,15,6)
  COMMON /DEFAULT/
  1 NPLTS,ITAPE,ACLNDY,ACLNDZ,
  2 TCVSDF,TCHBDF,TCHODF,TCDYDF,
  3 TCDZDF,RUDSDF,RUTSDF,RUVSDF,
  4 RUH3DF,RUHODF,RUDYDF,RUDZDF,
  5 TFDZDF,TFQDF,TFH3DF,TFHODF,
  6 EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
  7 ATDSOY,ATDSOZ,TCDSDF,TCTSDF,
  8 FPDFLT,TDDFLT,RFDFLT,SFDFLT,
  9 PFDFLT,TFDFLT,TFDYDF,MINUS(6)

  DIMENSION OPNAM(3,8)
  DATA OPNAM/
  1 'ENVI','RON','PTS',
  2 'ENV','STA','AREA',
  3 'ENV','MOB','AREA',
  4 'ENV','LAND','USE',
  5 'ENV','COM','AREA',
  6 'ENV','ROAD','WAY',
  7 'ENV','NON-','ROAD',
  8 'TOTA','L',
  DATA LINE/'-----'/

  901 FORMAT(1H0,15X,'*OPERATION*',12X,6(A4,12X))
  902 FORMAT(1H )
  903 FORMAT(1H ,13X,3A4,8X,1P,6(E10,4,6X))
  904 FORMAT(1H ,34X,6(2A4,8X))

  C*** PRINT SUBTITLE
  C
  WRITE(6,1)
  1 FORMAT(1H1,40X,
  1 '*E. ENVIRON EMISSION SUMMARY*')

  C*** PRINT ANNUAL EMISSION FROM ENVIRONS
  C
  C* PRINT HEADER
  C
  WRITE(6,101)
  101 FORMAT(1H0,45X,
  1 '*E.1 SUMMARY OF ANNUAL EMISSIONS FROM ENVIRONS*/
  2 1H ,56X,*ALL POLLUTANTS IN METRIC TONS*/
  3 1H )
  WRITE(6,901) (PLNAME(IP),IP=1,NPLTS)
  WRITE(6,902)

  C* COMPUTE TOTALS
  C

```

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```

DO 110 IP=1,NPLTS
SUMEMI(4,IP)=0.
DO 110 IM=1,7
SUMEMI(4,IP)=SUMEMI(4,IP)+TOTEM(IM,IP)
110 CONTINUE
C
C* PRINT DATA
C
DO 120 IM=1,7
WRITE(6,903) (OPNAM(J,IM),J=1,3),(TOTEM(IM,IP),IP=1,NPLTS)
120 CONTINUE
WRITE(6,904) (LINE,LINE,IP=1,NPLTS)
WRITE(6,905) (OPNAM(J,8),J=1,3),(SUMEMI(4,IP),IP=1,NPLTS)
RETURN
END

```

```

      SUBROUTINE TOTSUM(SUMEMI)
C
C***** PRINT TOTAL SUMMARY
C
      DIMENSION SUMEMI(4,6)
C
      REAL LUEMFC
      COMMON /EMFDS1/
1      EGEMFC(6,4,50),PLNAME(6),PPEMFC(22,6),EMFCIN(5,6),
2      TFEMFC(6),LUEMFC(9,6),ALPHA(7),BETA(7),
3      FLDENS(7),FLNAME(7),AFEMFC(2,6,6),ATEMFC(2,6,6),
4      CSEMFC(6,6),AFCSEM(6,6),AFSOAK,ATSOAK,
5      AF5RTH,ATBRTH,FLTFACT(7),FIXFACT(7),
6      WRKFACT(7)
      COMMON /DEFAULT/
1      NPLTS,ITAPE,ACLNDY,ACLNDZ,
2      TCVSDF,TCHBDF,TCHODF,TCDYDF,
3      TCDZDF,RUDSDF,RUTSDF,RUVSDF,
4      RUHBDF,RUHODF,RUDYDF,RUDZDF,
5      TFDZDF,TFQDF,TFHBDF,TFHODF,
6      EGCKDY,EGCKDZ,ACMLPL,ARDSOZ,
7      ATDSOY,ATDSOZ,TCDSDF,TCTSDF,
8      PDEFLT,TDDFLT,RFDFLT,SDFFLT,
9      PFDFLT,TFDFLT,TFDYDF,MINUS(6)
      DIMENSION TSUMEM(6)
      DIMENSION OPNAM(3,5)
      DATA OPNAM/
1      , 'AIRC', 'RAFT', , ,
2      , 'GRCU', 'ND M', 'OBIL',
3      , 'FACI', 'LITI', 'ES',
4      , 'ENVI', 'RONS', , ,
5      , 'GRAN', 'D TO', 'TAL' /
      DATA LINE/'----'/
C
901 FORMAT(1H0,15X,*OPERATION*,12X,6(A4,12X))
902 FORMAT(1H )
903 FORMAT(1H ,15X,3A4,8X,1P,6(E10.4,6X))
904 FORMAT(1H ,34X,6(2A4,8X))
C
C*** PRINT SUBTITLE
C
      WRITE(6,1)
1  FORMAT(1H1,55X,
1  *P. TOTAL SUMMARY*)
C
C*** PRINT ANNUAL EMISSIONS
C
C* PRINT HEADER
C
      WRITE(6,101)
101 FORMAT(1H1,55X,
1  *P.1 SUMMARY OF ALL ANNUAL EMISSIONS*/
2  ,15X,
2  *ALL POLLUTANTS IN METRIC TONS*/
      WRITE(6,901) (PLNAME(IP),IP=1,NPLTS)
      WRITE(6,902)
C
C* COMPUTE TOTALS
C
      DO 110 IP=1,NPLTS
      TSUMEM(IP)=0.
      DO 110 IC=1,4
      TSUMEM(IP)=TSUMEM(IP)+SUMEMI(IC,IP)

```

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```

110 CONTINUE
C
C*   PRINT DATA
C
DO 120 IC=1,4
WRITE(6,903) (OPNAM(J,IC),J=1,3),(SUMEMI(IC,IP),IP=1,NPLTS)
120 CONTINUE
WRITE(6,904) (LINE,LINE,IP=1,NPLTS)
WRITE(6,903) (OPNAM(J,5),J=1,3),(TSUMEM(IP),IP=1,NPLTS)
C
C*** PRINT PERCENTAGE BREAKDOWN
C
C*   PRINT HEADER
C
WRITE(6,201)
201 FORMAT(1H0/
1 1H0,43X,
2 *F.2 EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES*/
3 1H )
WRITE(6,901) (PLNAME(IP),IP=1,NPLTS)
WRITE(6,902)
C
C*   COMPUTE PERCENTAGES
C
DO 210 IC=1,4
DO 210 IP=1,NPLTS
SUMEMI(IC,IP)=100.*SUMEMI(IC,IP)/TSUMEM(IP)
210 CONTINUE
C
C*   PRINT DATA
C
DO 230 IC=1,4
WRITE(6,221) (OPNAM(J,IC),J=1,3),(SUMEMI(IC,IP),IP=1,NPLTS)
221 FORMAT(1H ,13X,3A4,5X,6(F10.3,6X))
230 CONTINUE
RETURN
END

```

APPENDIX D

INPUT DATA SETS AND OUTPUT LISTINGS FOR GRISSOM AIR FORCE BASE

INPUT DATA: SETS 2 AND 9 FOR ORIGINAL GSE ROUTINE

AD-A125 471

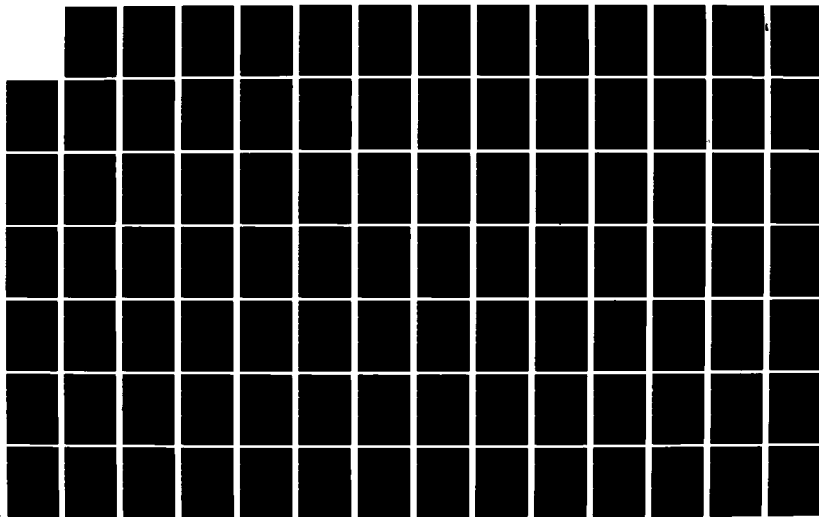
DEVELOPMENT OF A COMPUTER EMISSION INVENTORY ROUTINE
FOR AIRCRAFT GROUND. (U) RESEARCH TRIANGLE INST
RESEARCH TRIANGLE PARK NC SYSTEMS AND M.
J E SICKLES ET AL. 30 SEP 81

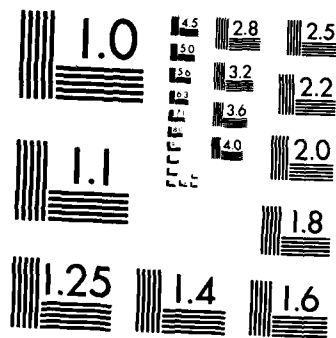
3/5

UNCLASSIFIED

F/G 9/2

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

```

*2
SEGDATA
$
$ACDATA
ASCNT1(22)=8.0, TXISPD(22)=27.7,
$
SDSDATA
ACMO(1,22)=0.186,ACMO( 2,22)=0.088,ACMO( 3,22)=0.077,ACMO( 4,22)=0.091,
ACMO(5,22)=0.106,ACMO( 6,22)=0.089,ACMO( 7,22)=0.068,ACMO( 8,22)=0.068,
ACMO(9,22)=0.088,ACMO(10,22)=0.083,ACMO(11,22)=0.063,ACMO(12,22)=0.073,
ACMO(1,18)=0.094,ACMO( 2,18)=0.078,ACMO( 3,18)=0.063,ACMO( 4,18)=0.092,
ACMO(5,18)=0.107,ACMO( 6,18)=0.105,ACMO( 7,18)=0.074,ACMO( 8,18)=0.071,
ACMO(9,18)=0.089,ACMO(10,18)=0.082,ACMO(11,18)=0.073,ACMO(12,18)=0.072,
ACMO(1,35)=0.079,ACMO( 2,35)=0.065,ACMO( 3,35)=0.065,ACMO( 4,35)=0.096,
ACMO(5,35)=0.112,ACMO( 6,35)=0.078,ACMO( 7,35)=0.088,ACMO( 8,35)=0.081,
ACMO(9,35)=0.094,ACMO(10,35)=0.083,ACMO(11,35)=0.085,ACMO(12,35)=0.074,
ACMO(1,21)=0.081,ACMO( 2,21)=0.067,ACMO( 3,21)=0.072,ACMO( 4,21)=0.098,
ACMO(5,21)=0.114,ACMO( 6,21)=0.056,ACMO( 7,21)=0.089,ACMO( 8,21)=0.082,
ACMO(9,21)=0.095,ACMO(10,21)=0.085,ACMO(11,21)=0.086,ACMO(12,21)=0.075,
ACMO(1,27)=0.088,ACMO( 2,27)=0.065,ACMO( 3,27)=0.054,ACMO( 4,27)=0.098,
ACMO(5,27)=0.120,ACMO( 6,27)=0.043,ACMO( 7,27)=0.089,ACMO( 8,27)=0.089,
ACMO(9,27)=0.099,ACMO(10,27)=0.089,ACMO(11,27)=0.089,ACMO(12,27)=0.077,
ACMO(1,12)=0.079,ACMO( 2,12)=0.066,ACMO( 3,12)=0.079,ACMO( 4,12)=0.097,
ACMO(5,12)=0.114,ACMO( 6,12)=0.059,ACMO( 7,12)=0.090,ACMO( 8,12)=0.079,
ACMO(9,12)=0.097,ACMO(10,12)=0.082,ACMO(11,12)=0.086,ACMO(12,12)=0.072,
ACMO(1,32)=0.079,ACMO( 2,32)=0.066,ACMO( 3,32)=0.062,ACMO( 4,32)=0.097,
ACMO(5,32)=0.112,ACMO( 6,32)=0.078,ACMO( 7,32)=0.088,ACMO( 8,32)=0.081,
ACMO(9,32)=0.095,ACMO(10,32)=0.083,ACMO(11,32)=0.086,ACMO(12,32)=0.073,
ACMO(1,20)=0.086,ACMO( 2,20)=0.064,ACMO( 3,20)=0.054,ACMO( 4,20)=0.097,
ACMO(5,20)=0.118,ACMO( 6,20)=0.064,ACMO( 7,20)=0.086,ACMO( 8,20)=0.086,
ACMO(9,20)=0.097,ACMO(10,20)=0.086,ACMO(11,20)=0.086,ACMO(12,20)=0.076,
ACDY(1,22)=0.196,ACDY(2,22)=0.010,
ACDY(1,18)=0.146,ACDY(2,18)=0.135,
ACDY(1,35)=0.146,ACDY(2,35)=0.135,
ACDY(1,21)=0.146,ACDY(2,21)=0.135,
ACDY(1,27)=0.146,ACDY(2,27)=0.135,
ACDY(1,12)=0.146,ACDY(2,12)=0.135,
ACDY(1,32)=0.146,ACDY(2,32)=0.135,
ACDY(1,20)=0.145,ACDY(2,20)=0.135,
ACHR( 1,22)=0.015,ACHR( 2,22)=0.005,ACHR( 3,22)=0.005,ACHR( 4,22)=0.005,
ACHR( 5,22)=0.005,ACHR( 6,22)=0.005,ACHR( 7,22)=0.004,ACHR( 8,22)=0.007,
ACHR( 9,22)=0.045,ACHR(10,22)=0.007,ACHR(11,22)=0.004,ACHR(12,22)=0.045,
ACHR(13,22)=0.009,ACHR(14,22)=0.004,ACHR(15,22)=0.075,ACHR(16,22)=0.006,
ACHR(17,22)=0.005,ACHR(18,22)=0.007,ACHR(19,22)=0.005,ACHR(20,22)=0.005,
ACHR(21,22)=0.006,ACHR(22,22)=0.045,ACHR(23,22)=0.004,ACHR(24,22)=0.002,
ACHR( 1,18)=0.000,ACHR( 2,18)=0.000,ACHR( 3,18)=0.000,ACHR( 4,18)=0.000,
ACHR( 5,18)=0.000,ACHR( 6,18)=0.000,ACHR( 7,18)=0.000,ACHR( 8,18)=0.000,
ACHR( 9,18)=0.002,ACHR(10,18)=0.007,ACHR(11,18)=0.008,ACHR(12,18)=0.009,
ACHR(13,18)=0.011,ACHR(14,18)=0.017,ACHR(15,18)=0.020,ACHR(16,18)=0.009,
ACHR(17,18)=0.007,ACHR(18,18)=0.004,ACHR(19,18)=0.001,ACHR(20,18)=0.001,
ACHR(21,18)=0.003,ACHR(22,18)=0.001,ACHR(23,18)=0.000,ACHR(24,18)=0.000,
ACHR( 1,35)=0.000,ACHR( 2,35)=0.000,ACHR( 3,35)=0.000,ACHR( 4,35)=0.000,
ACHR( 5,35)=0.000,ACHR( 6,35)=0.000,ACHR( 7,35)=0.002,ACHR( 8,35)=0.004,
ACHR( 9,35)=0.005,ACHR(10,35)=0.006,ACHR(11,35)=0.008,ACHR(12,35)=0.006,
ACHR(13,35)=0.008,ACHR(14,35)=0.007,ACHR(15,35)=0.007,ACHR(16,35)=0.006,
ACHR(17,35)=0.007,ACHR(18,35)=0.012,ACHR(19,35)=0.009,ACHR(20,35)=0.007,
ACHR(21,35)=0.003,ACHR(22,35)=0.002,ACHR(23,35)=0.001,ACHR(24,35)=0.000,
ACHR( 1,21)=0.000,ACHR( 2,21)=0.000,ACHR( 3,21)=0.000,ACHR( 4,21)=0.000,
ACHR( 5,21)=0.000,ACHR( 6,21)=0.000,ACHR( 7,21)=0.002,ACHR( 8,21)=0.005,
ACHR( 9,21)=0.005,ACHR(10,21)=0.006,ACHR(11,21)=0.006,ACHR(12,21)=0.007,
ACHR(13,21)=0.006,ACHR(14,21)=0.007,ACHR(15,21)=0.006,ACHR(16,21)=0.006,
ACHR(17,21)=0.006,ACHR(18,21)=0.008,ACHR(19,21)=0.010,ACHR(20,21)=0.007,
ACHR(21,21)=0.006,ACHR(22,21)=0.004,ACHR(23,21)=0.003,ACHR(24,21)=0.000,

```

ACHR(1,27)=0.00,ACHR(2,27)=0.00,ACHR(3,27)=0.00,ACHR(4,27)=0.00,
 ACHR(5,27)=0.00,ACHR(6,27)=0.00,ACHR(7,27)=0.02,ACHR(8,27)=0.05,
 ACHR(9,27)=0.05,ACHR(10,27)=0.06,ACHR(11,27)=0.06,ACHR(12,27)=0.07,
 ACHR(13,27)=0.05,ACHR(14,27)=0.07,ACHR(15,27)=0.06,ACHR(16,27)=0.06,
 ACHR(17,27)=0.06,ACHR(18,27)=0.08,ACHR(19,27)=0.10,ACHR(20,27)=0.07,
 ACHR(21,27)=0.06,ACHR(22,27)=0.04,ACHR(23,27)=0.03,ACHR(24,27)=0.00,
 ACHR(1,12)=0.00,ACHR(2,12)=0.00,ACHR(3,12)=0.00,ACHR(4,12)=0.00,
 ACHR(5,12)=0.00,ACHR(6,12)=0.00,ACHR(7,12)=0.02,ACHR(8,12)=0.05,
 ACHR(9,12)=0.05,ACHR(10,12)=0.06,ACHR(11,12)=0.06,ACHR(12,12)=0.07,
 ACHR(13,12)=0.06,ACHR(14,12)=0.07,ACHR(15,12)=0.06,ACHR(16,12)=0.06,
 ACHR(17,12)=0.06,ACHR(18,12)=0.08,ACHR(19,12)=0.10,ACHR(20,12)=0.07,
 ACHR(21,12)=0.06,ACHR(22,12)=0.04,ACHR(23,12)=0.03,ACHR(24,12)=0.00,
 ACHR(1,32)=0.00,ACHR(2,32)=0.00,ACHR(3,32)=0.00,ACHR(4,32)=0.00,
 ACHR(5,32)=0.00,ACHR(6,32)=0.00,ACHR(7,32)=0.02,ACHR(8,32)=0.05,
 ACHR(9,32)=0.05,ACHR(10,32)=0.06,ACHR(11,32)=0.06,ACHR(12,32)=0.07,
 ACHR(13,32)=0.06,ACHR(14,32)=0.07,ACHR(15,32)=0.06,ACHR(16,32)=0.06,
 ACHR(17,32)=0.06,ACHR(18,32)=0.08,ACHR(19,32)=0.10,ACHR(20,32)=0.07,
 ACHR(21,32)=0.06,ACHR(22,32)=0.04,ACHR(23,32)=0.03,ACHR(24,32)=0.00,
 ACHR(1,20)=0.00,ACHR(2,20)=0.00,ACHR(3,20)=0.00,ACHR(4,20)=0.00,
 ACHR(5,20)=0.00,ACHR(6,20)=0.00,ACHR(7,20)=0.02,ACHR(8,20)=0.05,
 ACHR(9,20)=0.05,ACHR(10,20)=0.06,ACHR(11,20)=0.06,ACHR(12,20)=0.07,
 ACHR(13,20)=0.06,ACHR(14,20)=0.07,ACHR(15,20)=0.06,ACHR(16,20)=0.06,
 ACHR(17,20)=0.06,ACHR(18,20)=0.08,ACHR(19,20)=0.10,ACHR(20,20)=0.07,
 ACHR(21,20)=0.06,ACHR(22,20)=0.04,ACHR(23,20)=0.03,ACHR(24,20)=0.00,
 VHMLMO(1)=.08333,VHMLMO(2)=.08333,VHMLMO(3)=.08333,VHMLMO(4)=.08333,
 VHMLMO(5)=.08333,VHMLMO(6)=.08333,VHMLMO(7)=.08333,VHMLMO(8)=.08333,
 VHMLMO(9)=.08333,VHMLMO(10)=.08333,VHMLMO(11)=.08333,VHMLMO(12)=.08333,
 VHMLDY(1)=0.2,VHMLDY(2)=0.0,
 VHMLHR(1)=0.0,VHMLHR(2)=0.0,VHMLHR(3)=0.0,VHMLHR(4)=0.0,
 VHMLHR(5)=0.0,VHMLHR(6)=0.0,VHMLHR(7)=0.1,VHMLHR(8)=0.1,
 VHMLHR(9)=0.1,VHMLHR(10)=0.1,VHMLHR(11)=0.1,VHMLHR(12)=0.1,
 VHMLHR(13)=0.1,VHMLHR(14)=0.1,VHMLHR(15)=0.1,VHMLHR(16)=0.0333,
 VHMLHR(17)=0.0333,VHMLHR(18)=0.0333,VHMLHR(19)=0.0,VHMLHR(20)=0.0,
 VHMLHR(21)=0.0,VHMLHR(22)=0.0,VHMLHR(23)=0.0,VHMLHR(24)=0.0,
 CVABMO(1)=0.08333,CVABMO(2)=0.08333,CVABMO(3)=0.08333,CVABMO(4)=0.08333,
 CVABMO(5)=0.08333,CVABMO(6)=0.08333,CVABMO(7)=0.08333,CVABMO(8)=0.08333,
 CVABMO(9)=0.08333,CVABMO(10)=0.08333,CVABMO(11)=0.08333,CVABMO(12)=0.08333,
 CVABDY(1)=0.1486,CVABDY(2)=0.1285,
 CVABHR(1)=0.0160,CVABHR(2)=0.0160,CVABHR(3)=0.0160,CVABHR(4)=0.0333,
 CVABHR(5)=0.0333,CVABHR(6)=0.0333,CVABHR(7)=0.1090,CVABHR(8)=0.1090,
 CVABHR(9)=0.1090,CVABHR(10)=0.0333,CVABHR(11)=0.0333,CVABHR(12)=0.0333,
 CVABHR(13)=0.0333,CVABHR(14)=0.0333,CVABHR(15)=0.0333,CVABHR(16)=0.0963,
 CVABHR(17)=0.0963,CVABHR(18)=0.0963,CVABHR(19)=0.0133,CVABHR(20)=0.0133,
 CVABHR(21)=0.0133,CVABHR(22)=0.0286,CVABHR(23)=0.0286,CVABHR(24)=0.0286,
 FLMO(1,1)=0.08333,FLMO(2,1)=0.08333,FLMO(3,1)=0.08333,FLMO(4,1)=0.08333,
 FLMO(5,1)=0.08333,FLMO(6,1)=0.08333,FLMO(7,1)=0.08333,FLMO(8,1)=0.08333,
 FLMO(9,1)=0.08333,FLMO(10,1)=0.08333,FLMO(11,1)=0.08333,FLMO(12,1)=0.08333,
 FLMO(1,2)=0.0646,FLMO(2,2)=0.0969,FLMO(3,2)=0.0646,FLMO(4,2)=0.0674,
 FLMO(5,2)=0.0807,FLMO(6,2)=0.1036,FLMO(7,2)=0.0577,FLMO(8,2)=0.0756,
 FLMO(9,2)=0.1030,FLMO(10,2)=0.0920,FLMO(11,2)=0.1181,FLMO(12,2)=0.0755,
 FLMO(1,3)=0.0833,FLMO(2,3)=0.0833,FLMO(3,3)=0.0833,FLMO(4,3)=0.0833,
 FLMO(5,3)=0.0833,FLMO(6,3)=0.0833,FLMO(7,3)=0.0833,FLMO(8,3)=0.0833,
 FLMO(9,3)=0.0833,FLMO(10,3)=0.0834,FLMO(11,3)=0.0834,FLMO(12,3)=0.0835,
 FLMO(1,4)=0.08333,FLMO(2,4)=0.08333,FLMO(3,4)=0.08333,FLMO(4,4)=0.08333,
 FLMO(5,4)=0.08333,FLMO(6,4)=0.08333,FLMO(7,4)=0.08333,FLMO(8,4)=0.08333,
 FLMO(9,4)=0.08333,FLMO(10,4)=0.08333,FLMO(11,4)=0.08333,FLMO(12,4)=0.08333,
 FLDY(1,1)=0.20,FLDY(2,1)=0.00,
 FLDY(1,2)=0.16,FLDY(2,2)=0.10,
 FLDY(1,3)=0.16,FLDY(2,3)=0.10,
 FLDY(1,4)=0.20,FLDY(2,4)=0.00,
 FLHR(1,1)=0.0,FLHR(2,1)=0.0,FLHR(3,1)=0.0,FLHR(4,1)=0.0,
 FLHR(5,1)=0.0,FLHR(6,1)=0.0,FLHR(7,1)=0.0,FLHR(8,1)=0.0,
 FLHR(9,1)=0.125,FLHR(10,1)=0.125,FLHR(11,1)=0.125,FLHR(12,1)=0.125,
 FLHR(13,1)=0.0,FLHR(14,1)=0.125,FLHR(15,1)=0.125,FLHR(16,1)=0.125,

FLHR(17,1)=0.125, FLHR(18,1)=0.0, FLHR(19,1)=0.0, FLHR(20,1)=0.0,
 FLHR(21,1)=0.0, FLHR(22,1)=0.0, FLHR(23,1)=0.0, FLHR(24,1)=0.0,
 FLHR(1,2)=0.0, FLHR(2,2)=0.0, FLHR(3,2)=0.0, FLHR(4,2)=0.0,
 FLHR(5,2)=0.0, FLHR(6,2)=0.0, FLHR(7,2)=0.0, FLHR(8,2)=0.0,
 FLHR(9,2)=0.125, FLHR(10,2)=0.125, FLHR(11,2)=0.125, FLHR(12,2)=0.125,
 FLHR(13,2)=0.0, FLHR(14,2)=0.125, FLHR(15,2)=0.125, FLHR(16,2)=0.125,
 FLHR(17,2)=0.125, FLHR(18,2)=0.0, FLHR(19,2)=0.0, FLHR(20,2)=0.0,
 FLHR(21,2)=0.0, FLHR(22,2)=0.0, FLHR(23,2)=0.0, FLHR(24,2)=0.0,
 FLHR(1,3)=0.0, FLHR(2,3)=0.0, FLHR(3,3)=0.0, FLHR(4,3)=0.0,
 FLHR(5,3)=0.0, FLHR(6,3)=0.0, FLHR(7,3)=0.0, FLHR(8,3)=0.0,
 FLHR(9,3)=0.125, FLHR(10,3)=0.125, FLHR(11,3)=0.125, FLHR(12,3)=0.125,
 FLHR(13,3)=0.0, FLHR(14,3)=0.125, FLHR(15,3)=0.125, FLHR(16,3)=0.125,
 FLHR(17,3)=0.125, FLHR(18,3)=0.0, FLHR(19,3)=0.0, FLHR(20,3)=0.0,
 FLHR(21,3)=0.0, FLHR(22,3)=0.0, FLHR(23,3)=0.0, FLHR(24,3)=0.0,
 FLHR(1,4)=0.0, FLHR(2,4)=0.0, FLHR(3,4)=0.0, FLHR(4,4)=0.0,
 FLHR(5,4)=0.0, FLHR(6,4)=0.0, FLHR(7,4)=0.0, FLHR(8,4)=0.0,
 FLHR(9,4)=0.125, FLHR(10,4)=0.125, FLHR(11,4)=0.125, FLHR(12,4)=0.125,
 FLHR(13,4)=0.0, FLHR(14,4)=0.125, FLHR(15,4)=0.125, FLHR(16,4)=0.125,
 FLHR(17,4)=0.125, FLHR(18,4)=0.0, FLHR(19,4)=0.0, FLHR(20,4)=0.0,
 FLHR(21,4)=0.0, FLHR(22,4)=0.0, FLHR(23,4)=0.0, FLHR(24,4)=0.0,
 FLMO(1,5)=0., FLMO(2,5)=0., FLMO(3,5)=0., FLMO(4,5)=0., FLMO(5,5)=0., FLMO(6,5)=0.,
 FLMO(7,5)=0., FLMO(8,5)=0., FLMO(9,5)=0., FLMO(10,5)=0., FLMO(11,5)=0.,
 FLMO(1,6)=0., FLMO(2,6)=0., FLMO(3,6)=0., FLMO(4,6)=0., FLMO(5,6)=0., FLMO(6,6)=0.,
 FLMO(7,6)=0., FLMO(8,6)=0., FLMO(9,6)=0., FLMO(10,6)=0., FLMO(11,6)=0.,
 FLMO(1,7)=0., FLMO(2,7)=0., FLMO(3,7)=0., FLMO(4,7)=0., FLMO(5,7)=0., FLMO(6,7)=0.,
 FLMO(7,7)=0., FLMO(8,7)=0., FLMO(9,7)=0., FLMO(10,7)=0., FLMO(11,7)=0.,
 FLMO(12,5)=0., FLMO(12,6)=0., FLMO(12,7)=0.,
 FLDY(2,6)=0., FLDY(2,7)=0., FLDY(2,5)=0.,
 FLDY(1,6)=0., FLDY(1,7)=0., FLDY(1,5)=0.,
 S

AEROSPACE GROUND EQUIPMENT

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OUTPUT LISTING FOR ORIGINAL GSE ROUTINE

SECTION I
AIRCRAFT SOURCES

A. DEFAULT INFORMATION

A.1 ENGINE POLLUTANT EMISSION DATA

NAME	ID	THRUST SETTING	FUEL RATE 1000 LBS/HR	CO	HC	NOX	PM	SOX
J 79-G15	1	IDLE	1.311E+00	5.70E+01	1.20E+01	2.50E+00	6.00E-01	1.00E+00
		APPROACH	2.720E+00	1.42E+01	1.00E+00	4.10E+00	1.40E+00	1.00E+00
		MILITARY AFTER BR	8.929E+00	2.50E+00	2.00E-01	8.90E+00	2.20E+00	1.00E+00
J57-P218	2	IDLE	3.224E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
		APPROACH	1.003E+00	7.20E+01	6.00E+01	2.30E+00	1.00E-01	1.00E+00
		MILITARY AFTER BR	2.500E+00	1.57E+01	4.20E+00	4.30E+00	7.20E-01	1.00E+00
J57-S9W	3	IDLE	7.693E+00	2.00E+00	1.00E-01	9.00E+00	2.00E+00	1.00E+00
		APPROACH	3.610E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
		MILITARY AFTER BR	1.250E+00	6.50E+01	5.20E+01	2.40E+00	1.30E-01	1.00E+00
TF33-P3	4	IDLE	1.800E+00	3.20E+01	1.42E+01	3.30E+00	2.00E-01	1.00E+00
		APPROACH	7.000E+00	2.40E+00	2.00E-01	1.13E+01	8.40E-01	1.00E+00
		MILITARY AFTER BR	1.213E+01	2.11E+01	2.20E+00	2.70E+00	2.25E+01	1.00E+00
TF38-P7	5	IDLE	9.001E-01	8.40E+01	1.07E+02	1.00E+00	2.30E-01	1.00E+00
		APPROACH	3.797E+00	6.30E+00	2.60E+00	5.00E+00	9.90E-01	1.00E+00
		MILITARY AFTER BR	7.436E+00	1.70E+00	6.00E-01	1.00E+01	1.73E+00	1.00E+00
J 85-S	6	IDLE	9.300E-01	5.30E+01	3.00E+01	3.00E+00	2.10E-02	1.00E+00
		APPROACH	2.100E+00	1.15E+01	3.20E+00	6.10E+00	1.20E-01	1.00E+00
		MILITARY AFTER BR	7.250E+00	8.00E-01	1.00E-01	2.00E+01	3.50E-01	1.00E+00
J75-P17	7	IDLE	3.040E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
		APPROACH	4.600E-01	1.70E+02	3.90E+01	1.30E+00	3.00E-03	1.00E+00
		MILITARY AFTER BR	1.000E+00	7.36E+01	6.40E+00	1.00E+00	7.00E-03	1.00E+00
TF39	8	IDLE	2.57E+00	2.90E+01	8.00E-01	2.60E+00	1.00E-02	1.00E+00
		APPROACH	8.323E+00	2.60E+01	7.00E-02	1.99E+00	8.00E-03	1.00E+00
		MILITARY AFTER BR	1.552E+00	8.60E+01	7.20E+01	2.30E+00	2.30E-01	1.00E+00
T 56-A7	9	IDLE	3.500E+00	1.75E+01	5.20E+00	4.30E+00	4.40E-01	1.00E+00
		APPROACH	1.294E+01	1.30E+00	1.00E-01	1.20E+01	1.00E+00	1.00E+00
		MILITARY AFTER BR	5.370E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
T 76	10	IDLE	1.133E+00	6.70E+01	2.30E+01	3.00E+00	1.50E-02	1.00E+00
		APPROACH	1.500E+00	3.92E+01	1.37E+01	3.90E+00	1.60E-02	1.00E+00
		MILITARY AFTER BR	1.269E+01	7.00E-01	2.00E-01	2.00E+01	2.50E-02	1.00E+00
0470	11	IDLE	7.250E-01	3.20E+01	2.10E+01	3.90E+00	8.30E-01	1.00E+00
		APPROACH	8.270E-01	2.22E+01	1.24E+01	4.40E+00	9.70E-01	1.00E+00
		MILITARY AFTER BR	1.907E+00	2.10E+00	4.00E-01	9.30E+00	5.00E-01	1.00E+00
0363	12	IDLE	2.500E-01	2.30E+01	7.40E+00	7.40E+00	3.00E-01	1.00E+00
		APPROACH	4.500E-01	1.72E+01	8.00E-01	8.50E+00	5.00E-01	1.00E+00
		MILITARY AFTER BR	9.000E-01	2.30E+00	6.00E-02	1.03E+01	7.10E-01	1.00E+00
J57-P43W	13	IDLE	1.500E-02	7.43E+02	1.91E+02	1.10E+00	6.00E+01	5.00E-01
		APPROACH	6.100E-02	7.13E+02	2.04E+01	1.00E+00	4.55E+01	6.00E-01
		MILITARY AFTER BR	1.310E-01	1.16E+03	2.04E+01	9.40E+00	2.00E+01	6.00E-01
0363	12	IDLE	3.000E-02	8.40E+02	1.45E+02	1.10E+00	6.00E+01	6.00E-01
		APPROACH	4.000E-02	8.79E+02	2.50E+01	2.50E+00	5.50E+01	6.00E-01
		MILITARY AFTER BR	9.000E-02	1.03E+03	2.25E+01	5.30E+00	2.00E+01	6.00E-01
J57-P43W	13	IDLE	9.000E-01	7.00E+01	7.50E+01	2.20E+00	1.40E-01	1.00E+00
		APPROACH	1.800E+00	2.40E+01	9.20E+00	3.32E+01	2.93E-01	1.00E+00
		MILITARY AFTER BR	7.775E+00	1.50E+00	1.00E-01	1.10E+01	1.74E+00	1.00E+00

J69-T25	14	IDLE APPROACH MILITARY	2.31E+01 2.84E+01 1.29E+01	1.29E+02 1.07E+02 3.20E+01	1.90E+01 1.11E+01 5.00E-01	1.50E+00 1.70E+00 3.60E+00	5.50E-01 2.80E-01 2.00E-02	1.00E+00 1.00E+00 1.00E+00
J79-G17	15	IDLE APPROACH MILITARY AFTER BR	1.06E+00 3.34E+00 9.02E+00 3.49E+01	4.01E+01 2.85E+01 1.00E+00 4.00E+00	9.00E+00 6.30E+00 1.40E-02 1.00E-02	2.70E+00 5.30E+00 1.40E+01 3.11E+00	2.30E-01 8.20E-01 2.22E+00 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF30P100	16	IDLE APPROACH MILITARY AFTER BR	9.40E+01 2.10E+00 9.87E+00 5.40E+01	4.00E+01 9.90E+00 7.00E-01 4.00E+00	1.90E+01 1.70E+00 1.00E-01 1.00E-02	2.90E+00 6.30E+00 2.80E+01 3.11E+00	2.00E-02 8.00E-02 2.40E-01 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF34-100	17	IDLE APPROACH MILITARY	3.00E+01 1.25E+00 2.56E+00	1.06E+02 8.30E+00 2.30E+00	3.20E+01 6.00E-01 1.00E-01	2.00E+00 5.00E+00 1.00E+01	4.00E-02 2.00E-02 5.00E-02	1.00E+00 1.00E+00 1.00E+00
TF41	18	IDLE APPROACH MILITARY	1.00E+00 3.50E+00 8.41E+00	1.19E+02 1.02E+01 1.00E+00	9.20E+01 2.20E+00 2.00E-01	1.50E+00 6.80E+00 2.10E+01	1.50E-01 3.60E-01 6.70E-01	1.00E+00 1.00E+00 1.00E+00
F100	19	IDLE APPROACH MILITARY AFTER BR	1.41E+00 3.00E+00 1.03E+01 4.00E+01	2.40E+01 5.00E+00 9.00E-01 4.00E+00	3.20E+00 1.90E+00 1.00E-01 6.00E-01	3.30E+00 6.70E+00 2.70E+01 3.11E+00	1.20E-01 2.70E-01 3.40E-01 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
F101	20	IDLE APPROACH MILITARY AFTER BR	0.00E+00 0.00E+00 0.00E+00 0.00E+00	5.72E+01 8.00E+00 1.40E+00 4.00E+00	1.20E+01 2.00E-01 2.00E-01 1.00E-02	3.50E+00 8.40E+00 2.40E+01 3.11E+00	4.40E-02 4.50E-02 5.00E-02 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
T 56-A15	21	IDLE APPROACH MILITARY	4.93E+01 8.27E+01 2.39E+00	1.01E+01 8.50E+00 1.60E+00	1.51E+01 3.40E+00 2.00E-01	2.40E+00 3.70E+00 1.17E+01	3.00E-01 4.70E-01 7.10E-01	1.00E+00 1.00E+00 1.00E+00
TF39 LS	22	IDLE APPROACH MILITARY	1.13E+00 1.50E+00 1.26E+01	5.00E+01 4.84E+01 5.00E-01	1.50E+01 1.45E+01 1.00E-01	3.50E+00 4.60E+00 4.00E+01	4.00E-02 4.00E-02 4.00E-02	1.00E+00 1.00E+00 1.00E+00
J60-P58	23	IDLE APPROACH MILITARY	4.63E+01 5.00E+01 2.46E+00	7.00E+01 5.00E+01 4.00E+00	9.20E+00 5.00E+00 1.00E-01	1.50E+00 1.70E+00 4.60E+00	2.00E-02 3.00E-02 1.70E-01	1.00E+00 1.00E+00 1.00E+00
J-33	24	IDLE APPROACH MILITARY	1.20E+00 2.00E+00 5.52E+00	1.27E+02 8.46E+01 3.13E+01	1.95E+01 6.50E+00 5.00E-01	1.50E+00 1.90E+00 3.60E+00	7.30E-01 5.70E-01 2.00E-02	1.00E+00 1.00E+00 1.00E+00
JT-20	25	IDLE APPROACH MILITARY	9.59E+01 1.50E+00 8.75E+00	5.00E+01 4.62E+01 1.20E+00	9.60E+00 8.50E+00 6.00E-01	2.00E+00 2.10E+00 4.30E+00	6.00E-01 7.00E-01 2.50E+00	1.00E+00 1.00E+00 1.00E+00
R-4300	26	IDLE APPROACH MILITARY	1.00E+01 7.93E+01 1.21E+00	7.43E+02 6.92E+02 1.16E+03	1.91E+02 9.46E+00 2.04E+01	1.00E+00 9.37E+00 1.11E+01	6.00E-01 4.00E+01 2.00E+01	1.00E+00 1.00E+00 1.00E+00
R-3350	27	IDLE APPROACH MILITARY	1.07E+01 6.10E+01 9.36E+01	7.43E+02 6.92E+02 1.16E+03	1.91E+02 9.46E+00 2.04E+01	1.00E+00 9.37E+00 1.11E+01	6.00E-01 4.00E+01 2.00E+01	1.00E+00 1.00E+00 1.00E+00
J57-P19W	28	IDLE APPROACH MILITARY	9.50E+01 3.37E+00 7.46E+00	7.90E+01 7.90E+00 1.90E+00	7.00E+01 1.40E+00 1.00E-01	2.20E+00 5.00E+00 1.10E+01	1.60E-01 9.30E-01 1.72E+00	1.00E+00 1.00E+00 1.00E+00

J75-19W	29	IDLE APPROACH MILITARY	1.552E+00 1.789E+00 1.368E+01	6.20E+01 5.04E+01 1.50E+00	3.80E+01 2.73E+01 3.00E+01	2.60E+00 2.80E+00 1.00E+01	2.30E-01 2.50E-01 1.04E+00	1.00E+00 1.00E+00 1.00E+00
TF30-P3	30	IDLE APPROACH MILITARY	8.500E-01 2.100E+00 6.140E+00	7.20E+01 9.20E+00 8.00E-01	6.20E+01 2.10E+00 3.00E-02	2.30E+00 4.80E+00 1.20E+01	6.00E-03 5.00E-02 4.00E-01	1.00E+00 1.00E+00 1.00E+00
TF33-P7	31	IDLE APPROACH MILITARY	1.067E+00 2.500E+00 8.711E+00	9.30E+01 1.37E+01 8.00E-01	7.70E+01 3.60E+00 3.00E-02	1.00E+00 3.00E+00 1.20E+01	1.10E-01 3.90E-01 9.10E-01	1.00E+00 1.00E+00 1.00E+00
J79-G15"	32	IDLE APPROACH MILITARY AFTER BR	1.130E+00 3.500E+00 8.929E+00 3.224E+01	5.70E+01 9.40E+00 2.20E+00 4.00E+00	1.20E+01 1.10E+00 2.00E-01 1.00E-02	2.50E+00 4.00E+00 8.90E+00 3.11E+00	5.00E-01 1.80E+00 2.20E+00 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF33-P3"	33	IDLE APPROACH MILITARY	9.000E-01 3.550E+00 7.436E+00	8.40E+01 7.10E+00 1.70E+00	1.07E+02 3.10E+00 6.00E-01	1.00E+00 5.40E+00 1.00E+01	2.30E-01 9.30E-01 1.73E+00	1.00E+00 1.00E+00 1.00E+00
TF33-P3"	34	IDLE APPROACH MILITARY	9.000E-01 3.000E+00 7.436E+00	8.40E+01 1.00E+01 1.70E+00	1.07E+02 4.60E+00 6.00E-01	1.00E+00 4.00E+00 1.00E+01	2.30E-01 7.00E-01 1.73E+00	1.00E+00 1.00E+00 1.00E+00
J 85-5"	35	IDLE APPROACH MILITARY AFTER BR	4.530E-01 1.462E+00 2.630E+00 8.323E+00	1.70E+02 4.30E+01 2.90E+01 2.60E+01	3.00E+01 3.50E+00 8.00E-01 7.00E-02	1.30E+00 2.30E+00 2.60E+00 1.99E+00	3.00E-03 1.10E-02 1.00E-02 8.00E-03	1.00E+00 1.00E+00 1.30E+00 1.00E+00
8360"	36	IDLE APPROACH MILITARY	3.000E-02 6.200E-02 9.000E-02	8.40E+02 9.40E+02 1.03E+03	1.45E+02 2.36E+01 2.25E+01	1.10E+00 5.50E+00 5.30E+00	6.00E-01 4.00E+01 2.00E+01	6.00E-01 6.00E-01 6.00E-01
J79-G17"	37	IDLE APPROACH MILITARY AFTER BR	1.060E+00 3.500E+00 9.820E+00 3.496E+01	4.01E+01 2.77E+01 1.00E+00 4.00E+00	9.00E+00 6.20E+00 6.00E-03 1.00E-02	2.70E+00 5.50E+00 1.40E+01 3.11E+00	2.30E-01 8.60E-01 2.22E+00 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
J57-P43"	38	IDLE APPROACH MILITARY	9.860E-01 3.000E+00 7.779E+00	7.00E+01 9.70E+00 1.50E+00	7.50E+01 1.00E+00 1.00E-01	2.20E+00 2.11E+01 1.10E+01	1.40E-01 5.20E-01 1.74E+00	1.00E+00 1.00E+00 1.00E+00

A.2 ENGINE POLLUTANT EMISSION RATES

NAME	ID	THRUST SETTING	FUEL RATE 1000 LBS/HR	CO	HC	POLLUTANT EMISSION RATE (KILOGRAMS PER HOUR)	PM	SOX
J 79-G15	1	IDLE	1.311E+00	3.39E+01	7.14E+00	1.49E+00	2.97E-01	5.95E-01
		APPROACH	2.720E+00	1.75E+01	2.22E+00	5.06E+00	1.73E+00	1.23E+00
		MILITARY	8.929E+00	8.91E+00	8.10E-01	3.08E+01	6.91E+00	4.09E+00
		AFTER BR	3.224E+01	5.86E+01	1.46E-01	4.55E+01	2.19E+00	1.46E+01
J57-P218	2	IDLE	1.063E+00	3.47E+01	2.89E+01	1.11E+00	7.71E-02	4.82E-01
		APPROACH	2.500E+00	1.78E+01	4.76E+00	4.08E+00	8.16E-01	1.13E+00
		MILITARY	7.693E+00	6.98E+00	3.49E-01	3.42E+01	6.98E+00	3.49E+00
		AFTER BR	3.610E+01	6.55E+01	1.64E-01	5.89E+01	2.46E+00	1.64E+01
J57-59W	3	IDLE	1.250E+00	3.65E+01	3.00E+01	1.36E+00	7.37E-02	5.67E-01
		APPROACH	1.850E+00	2.73E+01	1.19E+01	2.77E+00	1.85E-01	8.39E-01
		MILITARY	7.900E+00	8.60E+00	7.17E-01	4.05E+01	3.01E+00	3.58E+00
		AFTER BR	1.213E+01	1.16E+02	1.21E+01	1.49E+01	1.24E+02	5.50E+00
Tf33-P3	4	IDLE	9.001E-01	3.43E+01	4.37E+01	7.35E-01	9.39E-02	4.00E-01
		APPROACH	3.797E+00	1.09E+01	4.40E+00	9.99E+00	1.71E+00	1.72E+00
		MILITARY	7.436E+00	5.73E+00	2.02E+00	3.37E+01	5.84E+00	3.37E+00
Tf30-P7	5	IDLE	9.350E-01	2.25E+01	1.27E+01	1.27E+00	8.91E-03	4.24E-01
		APPROACH	2.100E+00	1.10E+01	3.05E+00	5.01E+00	1.14E-01	9.53E-01
		MILITARY	7.250E+00	2.63E+00	3.29E-01	6.58E+01	1.16E+00	3.29E+00
		AFTER BR	3.840E+01	6.97E+01	1.74E-01	5.42E+01	2.61E+00	1.74E+01
J 85-5	6	IDLE	4.690E-01	3.79E+01	6.36E+00	2.77E-01	6.30E-04	2.13E-01
		APPROACH	1.000E+00	3.34E+01	2.90E+00	8.16E-01	3.10E-03	4.54E-01
		MILITARY	2.527E+00	3.32E+01	9.17E-01	2.98E+00	2.06E-02	1.15E+00
		AFTER BR	8.323E+00	9.03E+01	2.64E-01	7.51E+00	3.02E-02	3.78E+00
375-P17	7	IDLE	1.552E+00	6.05E+01	5.07E+01	1.62E+00	1.62E-01	7.04E-01
		APPROACH	3.500E+00	2.70E+01	8.26E+00	6.03E+00	6.99E-01	1.59E+00
		MILITARY	1.294E+01	7.63E+00	5.87E-01	7.05E+01	6.34E+00	5.87E+00
		AFTER BR	5.370E+01	9.74E+01	2.44E-01	7.58E+01	3.65E+00	2.44E+01
Tf39	8	IDLE	1.133E+00	3.44E+01	1.18E+01	1.54E+00	7.71E-03	5.14E-01
		APPROACH	1.500E+00	2.67E+01	8.90E+00	2.55E+00	1.09E-02	6.00E-01
		MILITARY	1.269E+01	4.03E+00	1.15E+00	1.61E+02	1.44E-01	5.75E+00
T 56-A7	9	IDLE	7.250E-01	1.05E+01	6.91E+00	1.20E+00	2.73E-01	3.29E-01
		APPROACH	8.270E-01	8.33E+00	4.65E+00	1.85E+00	3.64E-01	3.75E-01
		MILITARY	1.967E+00	1.07E+00	3.57E-01	8.30E+00	4.46E-01	8.92E-01
T 76	10	IDLE	2.500E-01	2.70E+00	8.39E-01	8.39E-01	4.31E-02	1.13E-01
		APPROACH	4.500E-01	3.51E+00	1.63E-01	1.73E+00	1.02E-01	2.04E-01
		MILITARY	9.000E-01	9.39E-01	2.45E-02	4.20E+00	2.90E-01	2.08E-01
8470	11	IDLE	1.500E-02	5.06E+00	1.30E+00	7.48E-03	4.00E-01	4.00E-03
		APPROACH	6.100E-02	1.97E+01	4.73E-01	2.77E-02	1.26E+00	1.66E-02
		MILITARY	1.310E-01	6.89E+01	1.21E+00	5.69E-01	1.19E+00	3.57E-02
0360	12	IDLE	3.000E-02	1.15E+01	1.97E+00	1.50E-02	8.16E-01	8.16E-03
		APPROACH	4.000E-02	1.59E+01	1.28E+00	4.54E-02	9.99E-01	1.09E-02
		MILITARY	9.000E-02	4.20E+01	9.19E-01	2.16E-01	8.16E-01	2.45E-02
J57-P43W	13	IDLE	9.060E-01	3.49E+01	3.35E+01	9.04E-01	5.26E-02	4.47E-01
		APPROACH	1.849E+00	2.01E+01	7.72E+00	2.78E+01	2.46E-01	8.39E-01
		MILITARY	7.775E+00	5.20E+00	3.53E-01	3.08E+01	6.14E+00	3.53E+00
J69-T25	14	IDLE	2.310E-01	1.35E+01	1.99E+00	1.57E-01	5.76E-02	1.05E-01

[illegible]

TF30-P3	30	IDLE APPROACH MILITARY	8.500E-01 2.100E+00 6.140E+00	2.78E+01 8.76E+00 2.23E+00	2.39E+01 2.00E+00 8.37E-02	8.07E-01 4.57E+00 3.35E+01	2.31E-03 4.76E-02 1.12E+00	3.06E-01 9.53E-01 2.79E+00
TF33-P7	31	IDLE APPROACH MILITARY	1.067E+00 2.500E+00 8.711E+00	4.50E+01 1.55E+01 3.16E+00	3.73E+01 4.08E+00 1.19E-01	8.71E-01 4.31E+00 4.74E+01	5.32E-02 4.42E-01 3.60E+00	4.84E-01 1.13E+02 3.95E+00
J79-G15*	32	IDLE APPROACH MILITARY AFTER BR	1.139E+00 3.500E+00 8.929E+00 3.224E+01	2.92E+01 1.49E+01 8.91E+00 5.85E+01	6.15E+00 1.75E+00 8.10E-01 1.46E-01	1.50E+00 7.62E+00 3.68E+01 4.55E+01	2.56E-01 2.86E+00 8.91E+00 2.19E+00	5.13E-01 1.59E+00 4.05E+00 1.46E+01
TF33-P3*	33	IDLE APPROACH MILITARY	9.000E-01 3.550E+00 7.436E+00	3.43E+01 1.14E+01 5.73E+00	4.37E+01 4.99E+00 2.02E+00	7.35E-01 8.70E+00 3.37E+01	9.39E-02 1.50E+00 5.84E+00	4.08E-01 1.51E+00 3.37E+00
TF33-P3*	34	IDLE APPROACH MILITARY	9.000E-01 3.000E+00 7.436E+00	3.43E+01 1.36E+01 5.73E+00	4.37E+01 6.26E+00 2.02E+00	7.35E-01 6.53E+00 3.37E+01	9.39E-02 1.06E+00 5.84E+00	4.08E-01 1.36E+00 3.37E+00
J 05-5*	35	IDLE APPROACH MILITARY AFTER BR	4.530E-01 1.462E+00 2.630E+00 8.323E+00	3.66E+01 2.85E+01 3.46E+01 9.63E+01	6.16E+00 2.32E+00 9.54E-01 2.64E-01	2.67E-01 1.53E+00 3.10E+00 7.51E+00	6.16E-04 7.29E-03 2.15E-02 3.02E-02	2.05E-01 6.63E-01 1.19E+00 3.70E+00
0360*	36	IDLE APPROACH MILITARY	3.000E-02 6.200E-02 9.000E-02	1.15E+01 2.66E+01 4.20E+01	1.97E+00 6.64E-01 9.19E-01	1.50E-02 1.55E-01 2.16E-01	8.10E-01 1.15E+00 8.10E-01	8.16E-03 1.69E-02 2.45E-02
J79-G17*	37	IDLE APPROACH MILITARY AFTER BR	1.060E+00 3.500E+00 9.820E+00 3.495E+01	1.93E+01 4.40E+01 8.02E+00 6.34E+01	4.33E+00 9.84E+00 2.67E-02 1.59E-01	1.30E+00 8.73E+00 6.59E+01 4.93E+01	1.11E-01 1.37E+00 9.69E+00 2.30E+00	4.81E-01 1.59E+00 4.45E+00 1.59E+01
J57-P43*	38	IDLE APPROACH MILITARY	9.860E-01 3.000E+00 7.779E+00	3.49E+01 1.32E+01 5.29E+00	3.35E+01 2.45E+00 3.53E-01	9.84E-01 2.07E+01 3.08E+01	6.26E-02 7.00E-01 6.14E+00	4.47E-01 1.36E+00 3.53E+00

B. INPUT INFORMATION

B.1 INFORMATION ON AIRCRAFT ACTIVITY, PARKING AREAS, TAXIWAYS, AND RUNWAYS

AIRCRAFT NAME	AIRCRAFT ACTIVITY		T/G CYCLES
	NUMBER OF AIRCRAFT TYPES = 8	(ANNUAL NUMBER OF) DEPARTURES	
KC 135A	ARRIVALS		
A 37	2865.	2865.	14883.
O 1	3814.	3814.	6198.
C 138	2925.	2925.	8.
C 97	766.	766.	8.
F 4-C/F	91.	91.	8.
T 38	298.	298.	8.
C 9A	588.	588.	8.
	93.	93.	8.

PARKING AREAS

NUMBER OF PARKING AREAS = 4

PARKING AREA NUMBER = 1 THE NUMBER OF SQUARES MAKING UP THIS AREA = 3

SQUARE NUMBER = 1 X = 571.528 Y = 4581.327 LENGTH OF SIDE = 8.382 KM

SQUARE NUMBER = 2 X = 571.838 Y = 4581.327 LENGTH OF SIDE = 8.382 KM

SQUARE NUMBER = 3 X = 572.132 Y = 4581.327 LENGTH OF SIDE = 8.382 KM

PARKING AREA NUMBER = 2 THE NUMBER OF SQUARES MAKING UP THIS AREA = 1

SQUARE NUMBER = 1 X = 572.482 Y = 4581.273 LENGTH OF SIDE = 8.198 KM

PARKING AREA NUMBER = 3 THE NUMBER OF SQUARES MAKING UP THIS AREA = 3

SQUARE NUMBER = 1 X = 572.519 Y = 4581.288 LENGTH OF SIDE = 8.876 KM

SQUARE NUMBER = 2 X = 572.595 Y = 4581.343 LENGTH OF SIDE = 8.876 KM

SQUARE NUMBER = 3 X = 572.671 Y = 4581.398 LENGTH OF SIDE = 8.876 KM

PARKING AREA NUMBER = 4 THE NUMBER OF SQUARES MAKING UP THIS AREA = 3

SQUARE NUMBER = 1 X = 573.832 Y = 4588.579 LENGTH OF SIDE = 8.163 KM

SQUARE NUMBER = 2 X = 573.832 Y = 4588.742 LENGTH OF SIDE = 8.163 KM

SQUARE NUMBER = 3 X = 573.832 Y = 4588.985 LENGTH OF SIDE = 8.164 KM

TAXIWAYS

NUMBER OF CATALOGUED AIRCRAFT TAXIWAY LINE SEGMENTS = 28

LINE NO.	GROUND LEVEL COORDINATES OF ONE END OF LINE X(1) Y(1)	AVERAGE EMISSION HEIGHT (METERS) X(1) Y(1)	WIDTH OF LINE (MET)	DELTA Z (METERS)	GROUND LEVEL COORDINATES AT OPPOSITE END OF LINE X(2) Y(2)	AVERAGE EMISSION HEIGHT (METERS) X(2) Y(2)	SEGMENT LENGTH (KM)
1	578.848	4498.898	8.83	8.88	578.265	4498.668	8.322
2	578.588	4499.418	8.82	8.88	578.848	4498.898	8.758
3	578.588	4499.418	28.88	8.88	578.798	4499.188	8.311
4	571.858	4588.678	28.88	8.88	578.588	4499.418	1.789
5	571.858	4581.158	8.82	8.88	571.858	4588.678	8.488
6	571.838	4581.338	8.84	8.88	571.858	4581.158	8.181
7	572.388	4581.158	8.85	8.88	571.858	4581.158	8.538
8	572.488	4581.278	8.19	8.88	572.388	4581.158	8.122
9	572.478	4581.158	8.85	8.88	572.388	4581.158	8.898
10	572.588	4581.158	8.85	8.88	572.478	4581.158	8.898
11	572.478	4581.158	8.82	8.88	572.478	4588.848	8.318
12	572.658	4581.348	8.85	8.88	572.588	4581.158	8.212
13	572.618	4581.348	8.81	8.88	572.658	4581.388	8.864
14	572.808	4581.458	8.86	8.88	572.658	4581.388	8.212
15	572.808	4581.458	8.83	8.88	572.948	4581.318	8.198
16	572.968	4581.618	8.81	8.88	572.808	4581.458	8.226
17	572.968	4581.618	8.82	8.88	572.998	4581.498	8.123
18	572.998	4581.498	8.85	8.88	572.948	4581.318	8.187
19	572.948	4581.318	8.82	8.88	573.848	4581.238	8.128
20	573.848	4581.238	8.82	8.88	573.838	4588.748	8.498

RUNWAYS

NUMBER OF RUNWAYS = 2

RUNWAY ID NUMBER = 4

COORDINATES (KM) (X) (Y)	AVERAGE EMISSION HEIGHT (MET)	HORIZONTAL PLUME DISPERSION (MET)	VERTICAL PLUME DISPERSION (MET)	RUNWAY VECTOR ANGLE (DEG)	RUNWAY LENGTH (KM)
578.266 4498.658	4.88	28.88	8.88	45.88	3.67

(8- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)

CALN	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

(8- RUNWAY NOT USED DURING THIS SPECIAL CASE 1- RUNWAY USED DURING THIS SPECIAL CASE)

CASE 1	CASE 2	CASE 3
8	8	8

NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE
KC 135A 826. 1286. A 37 1286. C 138 386. C 97 36. F 4-C/F 116. T 38 232. C 9A 37.

NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE
KC 135A 826. 1286. A 37 1286. C 138 386. C 97 36. F 4-C/F 116. T 38 232. C 9A 37.

INBOUND TAXIWAY ID NUMBER = 8

KC 135A 0.49	A 37 0.00	ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 1			
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE			
		O 1 C 130 C 97 F 4-C/F		T 38	C 9A
		0.00 0.00 0.00 0.00		0.00	0.00
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 7			
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 15, 14, 12, 10, 9, 7, 6,			
KC 135A 0.40	A 37 0.00	ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 2			
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE			
		O 1 C 130 C 97 F 4-C/F		T 38	C 9A
		0.00 0.00 0.00 0.00		0.00	0.00
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 6			
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 15, 14, 12, 10, 9, 8,			
KC 135A 0.00	A 37 0.00	ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 3			
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE			
		O 1 C 130 C 97 F 4-C/F		T 38	C 9A
		0.00 0.00 0.00 0.00		0.00	0.00
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 3			
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 15, 14, 13,			
KC 135A 0.02	A 37 0.00	ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 4			
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE			
		O 1 C 130 C 97 F 4-C/F		T 38	C 9A
		0.00 0.00 0.00 0.00		0.00	0.00
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 2			
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 19, 20,			
KC 135A 0.49	A 37 0.00	ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 1			
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE			
		O 1 C 130 C 97 F 4-C/F		T 38	C 9A
		0.00 0.00 0.00 0.00		0.00	0.00
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 4			
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 11, 9, 7, 6,			
KC 135A 0.00	A 37 0.00	ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 2			
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE			
		O 1 C 130 C 97 F 4-C/F		T 38	C 9A
		0.00 0.00 0.00 0.00		0.00	0.00
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 3			
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 11, 9, 8,			

INBOUND TAXIWAY ID NUMBER - 14
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 3
 KC 135A A 37 8.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 O 1 C 138 C 97 F 4-C/F
 8.00 8.00 8.00 8.00
 T 38 C 9A
 8.00 8.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 4
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 11, 10, 12, 13.

OUTBOUND TAXIWAY ID NUMBER - 56
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 1
 KC 135A A 37 8.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 O 1 C 138 C 97 F 4-C/F
 8.00 8.00 8.00 8.00
 T 38 C 9A
 8.00 8.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 5
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 6, 5, 4, 2, 1.

OUTBOUND TAXIWAY ID NUMBER - 57
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 2
 KC 135A A 37 8.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 O 1 C 138 C 97 F 4-C/F
 1.00 1.00 1.00 1.00
 T 38 C 9A
 1.00 1.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 6
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 8, 7, 5, 4, 2, 1.

OUTBOUND TAXIWAY ID NUMBER - 58
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 3
 KC 135A A 37 8.20
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 O 1 C 138 C 97 F 4-C/F
 8.00 8.00 8.00 8.00
 T 38 C 9A
 8.00 8.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 9
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 13, 12, 10, 9, 7, 5, 4, 2, 1.

OUTBOUND TAXIWAY ID NUMBER - 59
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 3
 KC 135A A 37 8.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 O 1 C 138 C 97 F 4-C/F
 8.00 8.00 8.00 8.00
 T 38 C 9A
 8.00 8.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 8
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 13, 12, 10, 9, 7, 5, 4, 3.

OUTBOUND TAXIWAY ID NUMBER - 60
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 4
 KC 135A A 37 8.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 O 1 C 138 C 97 F 4-C/F
 8.00 8.00 8.00 8.00
 T 38 C 9A
 8.00 8.00

NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 12

RUNWAY ID NUMBER = 22

COORDINATES (KM) (X) (Y)	AVERAGE EMISSION HEIGHT (MET)	HORIZONTAL PLUME DISPERSION (MET)	VERTICAL PLUME DISPERSION (MET)	RUNWAY VECTOR ANGLE (DEG)	RUNWAY LENGTH (KM)
572.941	4.88	28.88	8.88	225.88	3.67
4581.388	4.88	28.88	8.88	225.88	3.67

(0= RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION)
 1= RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)
 RUNWAY USE BY WIND DIRECTION

CALN	I
N	a
NNN	3N
ENE	a
E	a
ESE	a
ES	i
SSE	i
S	i
SSS	i
MS	i
MMA	i
B	i
B	i
MM	i

RUNWAY NOT USED DURING THIS SPECIAL CASE 1= RUNWAY USED DURING THIS SPECIAL CASE
 RUNWAY USE BY SPECIAL CASE WIND CONDITIONS

CASE 1	CASE 2	CASE 3
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE			
	O 1	F 133	C 97
KC 135A	A 37		
	1888.		
1239.	1755.	458.	55.
		174.	
			T 38
			348.
			C 9A
			56.

NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE			
	O 1	C 13W	C 97
			F 4-C/F
KC 135A	A 37		T 38
1239.	1898.	157.	348.
		468.	
		95.	
		174.	
			C 9A
			56.

INBOUND TAXIWAY ID NUMBER - 1
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 1

FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE						
	A 37	O 1	C 130	F 4-C/F	T 38	C 9A
KC 135A	8.00	0.00	0.00	0.00	0.00	0.00
B 49	8.49	0.00	0.00	0.00	0.00	0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 1. 2. 4. 5. 6.

INBOUND TAXIWAY ID NUMBER = 2
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 2

	FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE	T 38	C 9A
KC 135A	A 37	.	B-2B
O 1	C 13W	C 97	.6-.2B
	F 4-C/F	D-2B	S-2B

NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 6
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 1, 2, 4, 5, 7, 8,

INBOUND TAXIWAY ID NUMBER - 3
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYED - 3

FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE		T 38		C 9A	
KC 135A	A 37	O 1	F 4-C/F		
100	8.28	C 138	C 97	0.28	8.88
100	8.88				

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 1, 2, 4, 5, 7, 9, 10, 12, 13, NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 9

KC 135A 8.82	A 37 8.88	INBOUND TAXIWAY ID NUMBER = 4		ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 4		
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE		F 4-C/F		
		O 1	C 138	C 97		T 38
		8.88	8.88	8.88	8.88	8.88
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 12		1, 2, 4, 5, 7, 9, 18, 12, 14, 15		C 9A 8.88
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 1, 2, 4, 5, 7, 9, 18, 12, 14, 15				
KC 135A 8.49	A 37 8.88	INBOUND TAXIWAY ID NUMBER = 5		ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 1		
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE		F 4-C/F		
		O 1	C 138	C 97		T 38
		8.88	8.88	8.88	8.88	8.88
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 4		3, 4, 5, 6		C 9A 8.88
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3, 4, 5, 6				
KC 135A 8.88	A 37 8.88	INBOUND TAXIWAY ID NUMBER = 6		ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 2		
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE		F 4-C/F		
		O 1	C 138	C 97		T 38
		8.88	8.88	8.88	8.88	8.88
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 5		3, 4, 5, 7, 8		C 9A 8.88
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3, 4, 5, 7, 8				
KC 135A 8.88	A 37 8.88	INBOUND TAXIWAY ID NUMBER = 7		ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 3		
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE		F 4-C/F		
		O 1	C 138	C 97		T 38
		8.88	8.88	8.88	8.88	8.88
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 8		3, 4, 5, 7, 9, 18, 12, 13		C 9A 8.88
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3, 4, 5, 7, 9, 18, 12, 13				
KC 135A 8.98	A 37 8.88	OUTBOUND TAXIWAY ID NUMBER = 51		ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 1		
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE		F 4-C/F		
		O 1	C 138	C 97		T 38
		8.88	8.88	8.88	8.88	8.88
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 7		6, 7, 9, 18, 12, 14, 15		C 9A 8.88
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 6, 7, 9, 18, 12, 14, 15				
KC 125A 8.88	A 37 8.88	OUTBOUND TAXIWAY ID NUMBER = 52		ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 2		
		FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE		F 4-C/F		
		O 1	C 138	C 97		T 38
		1.88	1.88	1.88	1.88	1.88
		NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 1		1		C 9A 1.88
		SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 1				

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 6
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 8, 9, 10, 12, 14, 15,

OUTBOUND TAXIWAY ID NUMBER - 53
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3

KC 135A A 37 0 1 C 138 C 97 F 4-C/F T 38 C 9A
 1.28 8.75 8.88 8.88 8.88 8.88 8.88 8.88

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 3
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 13, 14, 15,

OUTBOUND TAXIWAY ID NUMBER - 54
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3

KC 135A A 37 0 1 C 138 C 97 F 4-C/F T 38 C 9A
 2.88 8.25 8.88 8.88 8.88 8.88 8.88 8.88

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 5
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 13, 14, 16, 17, 18,

OUTBOUND TAXIWAY ID NUMBER - 55
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 4

KC 135A A 37 0 1 C 138 C 97 F 4-C/F T 38 C 9A
 8.82 8.88 8.88 8.88 8.88 8.88 8.88 8.88

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 2
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 28, 19,

8.2 INFORMATION FOR AIRCRAFT SERVICE VEHICLES

KC 135A SERVICE VEHICLE EMISSIONS					
KILOGRAMS PER ARRIVAL					
GSE FUEL	CO	HC	NOX	PM	SOX
AM G	4.510E+01	2.640E+00	1.360E-01	3.160E-01	3.000E-02
JP 4	1.570E+00	1.570E-01	3.140E-01	1.570E-01	3.140E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
KILOGRAMS PER DEPARTURE					
GSE FUEL	CO	HC	NOX	PM	SOX
AM G	4.510E+01	2.640E+00	1.360E-01	3.160E-01	3.000E-02
JP 4	1.570E+00	1.570E-01	3.140E-01	1.570E-01	3.140E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
KC 135A REFUELING INFORMATION (JP 4)					
AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....					45420.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....					1.05
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....					1.05
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....					0.00

A 37 SERVICE VEHICLE EMISSIONS						
KILOGRAMS PER ARRIVAL						
GSE FUEL	CO	HC	NOX	PM	SOX	
AM G	1.130E+01	6.620E-01	3.400E-02	7.910E-02	7.500E-03	
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01	
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01	
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01	
KILOGRAMS PER DEPARTURE						
GSE FUEL	CO	HC	NOX	PM	SOX	
AM G	1.130E+01	6.620E-01	3.400E-02	7.910E-02	7.500E-03	
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01	
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01	
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01	
A 37 REFUELING INFORMATION (JP 4)						
AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....					1892.50	
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....					0.19	
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....					0.19	
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....					0.00	

0 1 SERVICE VEHICLE EMISSIONS
KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

O 1 REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	200.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	0.00
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	0.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.00

C 130 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM 3	0.900E-01	5.200E-02	2.700E-03	6.300E-03	6.000E-04
JP 4	3.900E-02	3.900E-03	7.920E-03	3.900E-03	7.900E-04
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	0.900E-01	5.200E-02	2.700E-03	6.300E-03	6.000E-04
JP 4	3.900E-02	3.900E-03	7.920E-03	3.900E-03	7.900E-04
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 130 REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	17032.50
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	0.13
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	0.13
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.00

C 97 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	1.070E-01	6.200E-03	3.000E-04	7.000E-04	7.000E-05
JP 4	4.200E-03	5.000E-04	9.400E-04	5.000E-04	9.000E-05
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	1.072E-01	6.308E-03	3.000E-04	7.000E-04	7.000E-05
JP 4	4.700E-03	5.000E-04	9.400E-04	5.000E-04	9.000E-05
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 97 REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	12000.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	0.02
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	0.02
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.00

F 4-C/F SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL					
GSE FUEL	CO	HC	NOX	PM	SOX
AM G	3.400E-01	1.900E-02	1.000E-03	2.400E-03	2.000E-04
JP 4	1.400E-02	1.400E-03	2.900E-03	1.400E-03	3.000E-04
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	3.400E-01	1.900E-02	1.000E-03	2.400E-03	2.000E-04
JP 4	1.400E-02	1.400E-03	2.900E-03	1.400E-03	3.000E-04
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

F 4-C/F REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	5450.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	0.05
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	0.05
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.00

T 38 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL					
GSE FUEL	CO	HC	NOX	PM	SOX
AM G	6.700E-01	3.900E-02	2.000E-03	4.700E-03	4.000E-04
JP 4	2.900E-02	2.900E-03	5.900E-03	2.900E-03	6.000E-04
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	6.700E-01	3.900E-02	2.000E-03	4.700E-03	4.000E-04
JP 4	2.900E-02	2.900E-03	5.900E-03	2.900E-03	6.000E-04
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

T 38 REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 1862.28
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 0.18
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 0.18
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 0.88

C 9A SERVICE VEHICLE EMISSIONS

GSE FUEL	KILOGRAMS PER ARRIVAL					SOX
	CO	HC	NOX	PM	SOX	
AM G	1.898E-01	6.488E-03	3.388E-04	7.788E-04	7.888E-05	
JP 4	4.888E-03	5.888E-04	9.888E-04	5.888E-04	9.888E-05	
DESL	8.888E-01	8.888E-01	8.888E-01	8.888E-01	8.888E-01	
JP 8	8.888E-01	8.888E-01	8.888E-01	8.888E-01	8.888E-01	

KILOGRAMS PER DEPARTURE

GSE FUEL	KILOGRAMS PER DEPARTURE					SOX
	CO	HC	NOX	PM	SOX	
AM G	1.898E-01	6.488E-03	3.388E-04	7.788E-04	7.888E-05	
JP 4	4.888E-03	5.888E-04	9.888E-04	5.888E-04	9.888E-05	
DESL	8.888E-01	8.888E-01	8.888E-01	8.888E-01	8.888E-01	
JP 8	8.888E-01	8.888E-01	8.888E-01	8.888E-01	8.888E-01	

C 9A REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 1688.88
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 0.82
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 0.82
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 0.88

8.3 AIRCRAFT LANDING AND TAKEOFF PARAMETERS

AIRCRAFT NAME	TAXI SPEED (KM/HR)	LANDING SPEED (KM/HR)	TAKEOFF SPEED (KM/HR)	IDLE START UP TIME (MIN/ENGINE)	ENGINE CHECK TIME (MIN/ENGINE)	IDLE SHUT DOWN TIME (MIN/ENGINE)
KC 135A	2.7700E+01	2.9600E+02	3.0500E+02	1.0000E+01	1.0000E+01	4.5000E+00
A 37	2.2000E+01	1.6500E+02	1.8500E+02	8.0000E+00	2.0000E+00	2.0000E+00
O 1	2.7000E+01	1.1100E+02	1.2900E+02	1.0000E+01	2.0000E+00	2.0000E+00
C 130	8.5000E+00	1.8500E+02	2.1500E+02	2.0000E+00	5.0000E+00	2.5000E+00
C 97	2.7000E+01	1.6600E+02	1.8300E+02	1.5000E+01	3.0000E+00	2.0000E+00
F 4-C/F	3.7000E+01	2.0700E+02	3.1400E+02	6.4000E+00	8.0000E+01	4.0000E+01
T 38	2.1000E+01	2.4000E+02	2.8700E+02	5.2000E+00	3.0000E+01	7.0000E+01
C 9A	3.2500E+01	2.1200E+02	2.6000E+02	3.2000E+00	1.0000E+01	3.0000E+01
AIRCRAFT NAME	APPROACH ANGLE 1 (DEGREES)	APPROACH ANGLE 2 (DEGREES)	APPROACH SPEED 1 (KM/HR)	APPROACH SPEED 2 (KM/HR)	APPROACH HEIGHT 2 (KM)	TAKEOFF WEIGHT (1000 LBS)
KC 135A	2.5000E+00	2.5000E+00	3.2920E+02	3.1000E+02	1.0000E+01	2.2000E+02
A 37	5.5000E+00	2.5000E+00	2.5600E+02	2.1940E+02	8.0000E+02	1.1000E+01
O 1	4.0000E+00	2.5000E+00	2.1940E+02	2.0110E+02	1.7000E+01	4.5000E+00
C 130	3.5000E+00	2.5000E+00	2.2200E+02	2.0400E+02	2.3000E+01	1.5500E+02
C 97	3.5000E+00	2.5000E+00	2.7430E+02	2.1940E+02	2.1000E+01	5.0000E+01
F 4-C/F	3.5000E+00	3.4000E+00	4.3890E+02	3.1000E+02	2.0000E+01	5.0000E+01
T 38	3.0000E+00	2.5000E+00	5.4370E+02	3.6500E+02	6.0000E+02	1.2000E+01
C 9A	3.0000E+00	2.5000E+00	2.5200E+02	2.5200E+02	2.6000E+01	1.0200E+02
AIRCRAFT NAME	CLIMB ANGLE 1 (DEGREES)	CLIMB ANGLE 2 (DEGREES)	CLIMB SPEED 1 (KM/HR)	CLIMB SPEED 2 (KM/HR)	CLIMB HEIGHT 1 (KM)	
KC 135A	6.0000E+00	5.7000E+00	3.3100E+02	4.8100E+02	3.0000E+01	
A 37	5.0000E+00	6.1000E+00	3.6600E+02	4.3900E+02	2.0000E+01	
O 1	6.0000E+00	6.0000E+00	2.8100E+02	2.1900E+02	1.7000E+01	
C 130	4.0000E+00	1.0000E+01	2.3900E+02	4.6300E+02	2.0000E+01	
C 97	5.0000E+00	1.0300E+01	2.5600E+02	4.0200E+02	2.2000E+01	
F 4-C/F	6.0000E+00	1.2700E+01	5.5400E+02	5.5400E+02	3.0000E+01	
T 38	5.0000E+00	9.1000E+00	5.5600E+02	5.5600E+02	1.0000E+01	
C 9A	5.0000E+00	1.1400E+01	2.5200E+02	2.5200E+02	2.7000E+01	
AIRCRAFT NAME	ENGINE ID	ENGINE ID	NUMBER OF ENGINES	AFTER-BURNER	RUN ROLL EQUATION	
KC 135A	22	3	4	0	22	
A 37	18	35	2	0	18	
O 1	35	11	1	0	35	
C 130	21	9	4	0	21	
C 97	27	26	4	0	27	
F 4-C/F	12	32	2	1	12	
T 38	32	35	2	1	32	
C 9A	20	25	2	0	20	

ALTITUDE AT START OF APPROACH = 9.1440E-01 KILOMETERS

ALTITUDE AT END OF CLIMBOUT = 9.1440E-01 KILOMETERS

C. I N T E R I M C A L C U L A T I O N S
C.1 AIRCRAFT EMISSION FACTORS BY AIRCRAFT TYPE (KG PER ENGINE PER HOUR)

KC 135A		ID = 22	ENGINE = J57-59W	ENGINE ID = 3	NUMBER OF ENGINES = 4
(MODE)	CO	HC	NOX	PM	SOX
IDLE	3.685E+01	2.999E+01	1.361E+00	7.371E-02	5.670E-01
TAXI	3.685E+01	2.999E+01	1.361E+00	7.371E-02	5.670E-01
ENGINE CHECK	3.685E+01	2.999E+01	1.361E+00	7.371E-02	5.670E-01
RUNWAY ROLL	8.600E+00	7.167E-01	4.849E+01	3.810E+00	3.583E+00
CLIMB 1	8.600E+00	7.167E-01	4.849E+01	3.810E+00	3.583E+00
CLIMB 2	8.600E+00	7.167E-01	4.849E+01	3.810E+00	3.583E+00
APPROACH 1	2.727E+01	1.192E+01	2.769E+00	1.846E-01	8.991E-01
APPROACH 2	3.111E+01	1.915E+01	2.266E+00	1.483E-01	7.303E-01
LANDING	3.685E+01	2.999E+01	1.361E+00	7.371E-02	5.670E-01

A 37		ID = 18	ENGINE = J 85-5*	ENGINE ID = 35	NUMBER OF ENGINES = 2
(MODE)	CO	HC	NOX	PM	SOX
IDLE	3.658E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01
TAXI	3.658E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01
ENGINE CHECK	3.658E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01
RUNWAY ROLL	3.460E+01	9.544E-01	3.102E+00	2.147E-02	1.193E+00
CLIMB 1	3.460E+01	9.544E-01	3.102E+00	2.147E-02	1.193E+00
CLIMB 2	3.460E+01	9.544E-01	3.102E+00	2.147E-02	1.193E+00
APPROACH 1	2.852E+01	2.321E+00	1.825E+00	7.295E-03	6.632E-01
APPROACH 2	3.174E+01	3.858E+00	1.822E+00	4.623E-03	4.881E-01
LANDING	3.658E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01

O 1		ID = 35	ENGINE = 8470	ENGINE ID = 11	NUMBER OF ENGINES = 1
(MODE)	CO	HC	NOX	PM	SOX
IDLE	5.855E+00	1.300E+00	7.484E-03	4.882E-01	4.882E-03
TAXI	5.855E+00	1.300E+00	7.484E-03	4.882E-01	4.882E-03
ENGINE CHECK	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
RUNWAY ROLL	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
CLIMB 1	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
CLIMB 2	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
APPROACH 1	1.973E+01	4.731E-01	2.767E-02	1.259E+00	1.668E-02
APPROACH 2	1.386E+01	9.837E-01	1.960E-02	9.187E-01	1.159E-02
LANDING	5.855E+00	1.300E+00	7.484E-03	4.882E-01	4.882E-03

C 130		ID = 21	ENGINE = T 56-A7	ENGINE ID = 9	NUMBER OF ENGINES = 4
(MODE)	CO	HC	NOX	PM	SOX
IDLE	1.852E+01	6.986E+00	1.283E+00	2.729E-01	3.289E-01
TAXI	1.852E+01	6.986E+00	1.283E+00	2.729E-01	3.289E-01
ENGINE CHECK	1.874E+00	3.559E-01	8.296E+00	4.461E-01	8.922E-01
RUNWAY ROLL	1.874E+00	3.559E-01	8.296E+00	4.461E-01	8.922E-01
CLIMB 1	1.874E+00	3.559E-01	8.296E+00	4.461E-01	8.922E-01
CLIMB 2	1.874E+00	3.559E-01	8.296E+00	4.461E-01	8.922E-01
APPROACH 1	8.328E+00	4.652E+00	1.651E+00	3.639E-01	3.711E-01
APPROACH 2	9.126E+00	5.553E+00	1.583E+00	3.275E-01	3.506E-01
LANDING	1.852E+01	6.986E+00	1.283E+00	2.729E-01	3.289E-01

C 97		ID = 27	ENGINE = R-4360	ENGINE ID = 26	NUMBER OF ENGINES = 4
(MODE)		CO	HC	NOX	PM
IDLE		4.728E+01	1.216E+01	6.364E-02	3.818E+00
TAXI		4.728E+01	1.216E+01	6.364E-02	3.818E-02
ENGINE CHECK		6.489E+02	1.127E+01	6.132E+00	3.818E-01
RUNWAY ROLL		6.489E+02	1.127E+01	6.132E+00	3.315E-01
CLIMB 1		6.489E+02	1.127E+01	6.132E+00	3.315E-01
CLIMB 2		6.489E+02	1.127E+01	6.132E+00	3.315E-01
APPROACH 1		2.491E+02	3.487E+00	3.374E+00	2.161E-01
APPROACH 2		1.684E+02	6.965E+00	2.858E+00	1.449E-01
LANDING		4.728E+01	1.216E+01	6.364E-02	3.818E-02

F 4-C/F		ID = 12	ENGINE = J79-G15*	ENGINE ID = 32	NUMBER OF ENGINES = 2
(MODE)		CO	HC	NOX	PM
IDLE		2.922E+01	6.151E+00	1.281E+00	2.563E-01
TAXI		2.922E+01	6.151E+00	1.281E+00	2.563E-01
ENGINE CHECK		8.910E+00	8.180E-01	3.685E+01	8.910E+00
RUNWAY ROLL		5.858E+01	1.482E-01	4.548E+01	2.194E+00
CLIMB 1		5.858E+01	1.482E-01	4.548E+01	1.462E+01
CLIMB 2		8.910E+00	8.180E-01	3.685E+01	8.910E+00
APPROACH 1		1.492E+01	1.746E+00	7.620E+00	2.858E+00
APPROACH 2		2.864E+01	3.588E+00	5.885E+00	1.817E+00
LANDING		2.922E+01	6.151E+00	1.281E+00	2.563E-01

T 38		ID = 32	ENGINE = J 85-S*	ENGINE ID = 35	NUMBER OF ENGINES = 2
(MODE)		CO	HC	NOX	PM
IDLE		3.658E+01	6.164E+00	2.671E-01	6.164E-04
TAXI		3.658E+01	6.164E+00	2.671E-01	6.164E-04
ENGINE CHECK		3.468E+01	9.544E-01	3.182E+00	2.147E-02
RUNWAY ROLL		9.631E+01	2.643E-01	7.513E+00	3.820E-02
CLIMB 1		9.631E+01	2.643E-01	7.513E+00	3.820E-02
CLIMB 2		3.468E+01	9.544E-01	3.182E+00	2.147E-02
APPROACH 1		2.852E+01	2.321E+00	1.525E+00	7.295E-03
APPROACH 2		3.174E+01	3.858E+00	1.822E+00	4.623E-03
LANDING		3.658E+01	6.164E+00	2.671E-01	6.164E-04

C 9A		ID = 28	ENGINE = JT-8D	ENGINE ID = 25	NUMBER OF ENGINES = 2
(MODE)		CO	HC	NOX	PM
IDLE		2.175E+01	4.176E+00	8.700E-01	2.610E-01
TAXI		2.175E+01	4.176E+00	8.700E-01	2.610E-01
ENGINE CHECK		4.765E+00	2.383E+00	1.706E+01	9.928E+00
RUNWAY ROLL		4.765E+00	2.383E+00	1.706E+01	9.928E+00
CLIMB 1		4.765E+00	2.383E+00	1.706E+01	9.928E+00
CLIMB 2		4.765E+00	2.383E+00	1.706E+01	9.928E+00
APPROACH 1		2.143E+01	5.855E+00	1.423E+00	5.387E-01
APPROACH 2		2.756E+01	5.384E+00	1.205E+00	4.228E-01
LANDING		2.175E+01	4.176E+00	8.700E-01	2.610E-01

SECTION IV

SUMMARY

A. METEOROLOGICAL DATA SUMMARY

AVERAGE ANNUAL TEMPERATURE (DEGREES F).....	55.88
ANNUAL DEGREE DAYS.....	5699.80
PRESSURE ALTITUDE (HUNDREDS OF FEET).....	7.86
AVERAGE ANNUAL WIND SPEED (METERS PER SECOND).....	3.96
DAILY AVERAGE TEMPERATURE VARIATION (DEGREES F).....	18.70

C 138 SERVICE VEHICLE EMISSIONS
KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	7.408E+01	3.081E+00	1.865E+00	1.237E-01	1.467E-02
JP 4	1.774E-01	1.475E-03	3.501E-02	4.622E-03	8.364E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	7.408E+01	3.081E+00	1.865E+00	1.237E-01	1.467E-02
JP 4	1.774E-01	1.475E-03	3.501E-02	4.622E-03	8.364E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 97 SERVICE VEHICLE EMISSIONS
KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	5.151E+01	2.182E+00	1.286E+00	8.647E-02	1.099E-02
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	5.151E+01	2.182E+00	1.286E+00	8.647E-02	1.099E-02
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

F 4-C/F SERVICE VEHICLE EMISSIONS
KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	1.893E+01	7.899E-01	4.741E-01	3.167E-02	3.830E-03
JP 4	6.791E-01	5.634E-03	1.337E-01	1.899E-02	3.180E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	1.893E+01	7.899E-01	4.741E-01	3.167E-02	3.830E-03
JP 4	6.791E-01	5.634E-03	1.337E-01	1.899E-02	3.180E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

T 38 SERVICE VEHICLE EMISSIONS
KILOGRAMS PER ARRIVAL

B. TEMPORAL DISTRIBUTION FRACTION SUMMARY

C. AIRCRAFT EMISSION SUMMARY
C.1 SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE
ALL POLLUTANTS IN METRIC TONS

OPERATION	KC 135A			
	CO	HC	NOX	SOX
STARTUP	5.0736E+01	4.1292E+01	1.0733E+00	7.0056E-01
TAXI OUT	2.5107E+01	2.0433E+01	9.2703E-01	3.8626E-01
ENGINE CHECK	5.0736E+01	4.1292E+01	1.0733E+00	7.0056E-01
RUNWAY ROLL	6.4120E+01	5.3434E+02	3.0190E+00	2.6717E-01
CLIMB 1	4.0153E+01	4.0120E+02	2.2672E+00	2.0064E-01
CLIMB 2	1.1861E+00	9.0043E-02	5.5846E+00	4.9421E-01
APPROACH 1	1.1650E+01	5.1778E+00	1.2033E+00	3.6463E-01
APPROACH 2	3.4940E+00	2.1507E+00	2.4777E-01	8.2031E-02
LANDING	6.3309E+00	5.1589E+00	2.3405E-01	9.7521E-02
TAXI IN	7.5990E+00	6.1859E+00	2.8061E-01	1.1694E-01
SHUTDOWN	5.7307E+00	4.6639E+00	2.1159E-01	8.0164E-02
ARR + DEP SV	1.9275E+02	1.1552E+01	1.8585E+00	2.5350E-01
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.4045E+01	0.0000E-01	0.0000E-01
TOUCH + GO	1.2298E+02	5.4104E+01	6.8422E+01	8.3445E+00
TOTAL	4.7963E+02	2.0625E+02	0.0000E+01	1.2257E+01

A 37

OPERATION	A 37			
	CO	HC	NOX	SOX
STARTUP	2.9397E+01	4.9545E+00	2.1459E-01	1.6515E-01
TAXI OUT	1.0031E+01	3.0390E+00	1.3169E-01	1.0130E-01
ENGINE CHECK	6.9514E+00	1.9170E-01	6.2373E-01	2.3970E-01
RUNWAY ROLL	1.0307E+00	2.8434E-02	9.2411E-02	3.5643E-02
CLIMB 1	1.7370E+00	4.7910E-02	1.8573E-01	5.9097E-02
CLIMB 2	3.4833E+00	9.6089E-02	3.1229E-03	1.2011E-01
APPROACH 1	6.2955E+00	5.1242E-01	3.3673E-01	2.7543E-02
APPROACH 2	1.9210E+00	2.2136E-01	5.8634E-02	4.4008E-02
LANDING	7.9047E+00	1.3323E+00	5.7731E-02	2.8810E-02
TAXI IN	5.1296E+00	8.6455E-01	3.7464E-02	4.9534E-03
SHUTDOWN	0.0170E-01	1.4868E-01	6.4394E-03	4.5210E-02
ARR + DEP SV	6.0110E+01	3.9005E+00	2.0495E-01	0.0000E-01
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.1900E+00	0.0000E-01	0.0000E-01
TOUCH + GO	2.8196E+01	1.8002E+00	1.0247E+00	7.4750E-01
TOTAL	1.7097E+02	1.0486E+01	4.0567E+00	1.7665E+00

O 1

OPERATION	O 1			
	CO	HC	NOX	SOX
STARTUP	2.4645E+00	6.3353E-01	3.6406E-03	1.9901E-03
TAXI OUT	1.1585E+00	2.9762E-01	1.7152E-03	9.3555E-04
ENGINE CHECK	6.7205E+00	1.1819E-01	5.4459E-02	3.4761E-03
RUNWAY ROLL	5.0304E-01	1.0253E-02	1.0052E-02	3.0157E-04
CLIMB 1	1.9873E+00	3.4948E-02	1.6104E-02	1.0279E-03

CLIMB 2	6.0371E+00	1.2024E-01	5.5401E-02	1.1700E-01	3.5364E-03
APPROACH 1	2.9297E+00	7.0243E-02	4.1878E-03	1.8698E-01	2.4647E-03
APPROACH 2	1.0127E+00	5.0712E-02	1.8698E-03	6.7110E-02	8.4695E-04
LANDING	7.2224E-01	1.8698E-01	1.8698E-03	5.8323E-02	5.8323E-04
TAXI IN	1.1120E+00	2.8582E-01	1.8698E-03	8.9795E-02	8.9795E-04
SHUTDOWN	2.9573E-01	7.0243E-02	1.8698E-03	2.3882E-02	2.3882E-04
ARR + DEP SV	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	2.5823E+01	1.9687E+00	1.4475E-01	9.9655E-01	1.6299E-02

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.5047E+00	9.0746E-01	1.8339E-01	3.9020E-02	4.7022E-02
TAXI OUT	0.0104E+00	5.2620E+00	9.7724E-01	2.0798E-01	2.5057E-01
ENGINE CHECK	4.7041E-01	9.1125E-02	2.1167E+00	1.1391E-01	2.2781E-01
RUNWAY ROLL	7.0972E-02	1.3510E-02	3.1430E-01	1.6898E-02	3.3795E-02
CLIMB 1	7.2510E-02	1.3011E-02	3.2112E-01	1.7244E-02	3.4529E-02
CLIMB 2	6.7289E-02	1.2017E-02	2.9799E-01	1.6021E-02	3.2042E-02
APPROACH 1	1.3430E+00	7.5013E-01	2.6610E-01	5.8080E-02	5.0494E-02
APPROACH 2	7.6459E-01	4.6120E-01	1.2407E-01	2.7204E-02	2.9622E-02
LANDING	1.1232E+00	7.3708E-01	1.3689E-01	2.9132E-02	3.5099E-02
TAXI IN	0.6032E+00	5.6450E-00	1.0485E+00	2.2315E-01	2.6885E-01
SHUTDOWN	1.3435E+00	8.0166E-01	1.6374E-01	3.4847E-02	4.1984E-02
ARR + DEP SV	1.4364E+00	8.6650E-02	1.6270E-02	1.5718E-02	2.1295E-03
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.0000E+00	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	2.4826E+01	1.6744E+01	5.9692E+00	7.9902E-01	1.0640E+00

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	4.3020E+00	1.1061E+00	5.7912E-03	3.4747E-01	3.4747E-03
TAXI OUT	1.3357E+00	3.4440E-01	1.8031E-03	1.0019E-01	1.0019E-03
ENGINE CHECK	1.1604E-01	2.0512E-01	1.1161E-01	2.0110E-01	5.0330E-03
RUNWAY ROLL	2.3833E+00	4.1913E-02	2.2086E-02	4.1092E-02	1.2327E-03
CLIMB 1	2.6827E+00	4.7170E-02	2.5670E-02	4.6253E-02	1.5075E-03
CLIMB 2	2.7637E+00	4.8427E-02	2.6350E-02	4.7177E-02	1.2435E-03
APPROACH 1	4.2378E+00	5.7961E-02	5.7410E-02	2.4508E-01	3.6762E-03
APPROACH 2	1.5311E+00	6.2094E-02	1.8643E-02	9.2406E-02	1.3170E-03
LANDING	6.0109E-01	1.5452E-01	0.9081E-04	4.8541E-02	4.8541E-04
TAXI IN	1.4526E+00	3.7342E-01	1.9551E-03	1.1731E-01	1.1731E-03
SHUTDOWN	5.7371E-01	1.4748E-01	7.7215E-04	4.6329E-02	4.6329E-04
ARR + DEP SV	2.0220E-02	1.2370E-03	2.2568E-04	2.1840E-04	2.9120E-05
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.4520E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	3.3543E+01	2.7358E+00	2.7385E-01	1.3415E+00	2.1779E-02

F 4-C/F

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.8875E+00	2.8052E-01	7.9276E-02	1.5855E-02	3.1710E-02
TAXI OUT	9.6862E-01	2.8395E-01	4.2492E-02	8.4904E-03	1.6997E-02
ENGINE CHECK	6.8906E-02	6.2642E-03	1.7850E-01	6.8966E-02	3.1321E-02
RUNWAY ROLL	1.4212E-01	5.6050E-04	1.7444E-01	8.4135E-03	3.5550E-02
CLIMB 1	2.2436E-01	2.3700E-03	1.0547E-01	2.6078E-02	5.6090E-02
CLIMB 2	2.6078E-02	3.1616E-02	1.3796E-01	5.1735E-02	1.1850E-02
APPROACH 1	2.7017E-01	2.2952E-02	3.3268E-02	1.1809E-02	2.8742E-02
APPROACH 2	1.3504E-01	7.4216E-02	1.5462E-02	3.0923E-03	7.5736E-03
LANDING	3.5252E-01	2.1853E-01	4.5577E-02	9.1054E-03	6.1846E-03
TAXI IN	1.0308E+00	2.3783E-02	4.9547E-04	9.9095E-04	1.8211E-02
SHUTDOWN	1.1297E-01	1.2405E-02	2.2142E-03	2.2562E-03	1.9819E-03
ARR + DEP SV	2.0584E-01	0.0000E-01	0.0000E-01	0.0000E-01	2.9000E-04
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	5.3523E+00	1.1974E+00	1.9304E+00	2.1214E-01	2.4648E-01

T 38

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	3.6770E+00	5.1972E-01	2.6855E-02	6.1972E-05	2.8657E-02
TAXI OUT	4.1170E+00	6.9388E-01	3.0068E-02	6.9388E-05	2.3129E-02
ENGINE CHECK	2.0063E-01	5.5353E-03	1.7990E-02	1.2454E-04	6.9191E-03
RUNWAY ROLL	4.8965E-01	1.3633E-03	3.7420E-02	1.5043E-04	1.8804E-02
CLIMB 1	5.5876E-01	1.5029E-03	4.2701E-02	1.7166E-04	2.1458E-02
CLIMB 2	3.3515E-01	9.2456E-03	3.0048E-02	2.0003E-04	1.1557E-02
APPROACH 1	1.1810E+00	9.6127E-02	6.3169E-02	3.0211E-04	2.7455E-02
APPROACH 2	1.6720E-01	2.0325E-02	5.3837E-03	2.4355E-05	2.5290E-03
LANDING	1.8923E+00	1.8418E-01	7.9770E-03	1.0416E-05	6.1368E-03
TAXI IN	4.4111E+00	7.0341E-01	3.2215E-02	8.3424E-06	2.4781E-02
SHUTDOWN	4.9498E-01	0.3424E-02	3.6150E-03	8.9260E-03	1.1600E-03
ARR + DEP SV	8.2332E-01	4.9636E-02	9.2508E-03	0.0000E-01	0.0000E-01
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.0784E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	1.7547E+01	2.6961E+00	3.6670E-01	1.0134E-02	1.6738E-01

C 9A

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	2.1576E-01	4.1426E-02	8.6303E-03	2.5891E-03	4.3152E-03
TAXI OUT	2.6248E-01	5.0396E-02	1.0499E-02	3.1498E-03	5.2496E-03
ENGINE CHECK	1.4773E-03	7.3864E-04	5.2936E-03	3.0777E-03	1.2311E-03
RUNWAY ROLL	1.1198E-02	5.5950E-03	4.0897E-02	2.3312E-02	9.3250E-03
CLIMB 1	1.0726E-02	5.3631E-03	3.4435E-02	2.2345E-02	8.9385E-03
CLIMB 2	1.1467E-02	5.7336E-03	4.1891E-02	2.3897E-02	9.5560E-03
APPROACH 1	2.9010E-01	5.6806E-02	1.3187E-02	4.8979E-03	6.2753E-03
APPROACH 2	1.3171E-01	2.5345E-02	5.7590E-03	2.0205E-03	2.7824E-03
LANDING	1.1153E-01	2.1413E-02	4.4610E-03	1.3305E-03	2.3005E-03
TAXI IN	5.4312E-02	5.4312E-02	1.1315E-02	3.3945E-03	5.6575E-03
SHUTDOWN	2.0587E-02	3.8036E-03	8.0909E-04	2.4273E-04	4.4455E-04
ARR + DEP SV	2.1157E-02	1.2034E-03	2.3994E-04	2.3427E-04	2.8760E-05
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

FILL + SPILL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	1.3707E+00	1.9750E-01	0.0000E-01	0.0000E-01	5.5999E-02

C-2 SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	9.4185E+01	5.8815E+01	2.3956E+00	7.8599E-01	1.8549E+00
TAXI OUT	5.9882E+01	3.8325E+01	2.1225E+00	4.7195E-01	7.8553E-01
ENGINE CHECK	7.6821E+01	4.1918E+01	5.8833E+00	6.8877E-01	1.2971E+00
RUNWAY ROLL	5.3522E+00	1.5482E-01	3.6413E+00	3.2198E-01	4.8178E-01
CLIMB 1	7.7548E+00	1.9141E-01	3.8414E+00	2.9832E-01	3.8397E-01
CLIMB 2	1.4788E+01	3.9376E-01	6.4532E+00	6.4885E-01	6.8425E-01
APPROACH 1	2.8398E+01	6.7521E+00	2.8928E+00	6.2845E-01	6.8816E-01
APPROACH 2	9.8573E+00	3.8235E+00	4.9577E-01	2.1675E-01	1.5425E-01
LANDING	1.8246E+01	7.8891E+00	4.9845E-01	1.5326E-01	1.9265E-01
TAXI IN	2.9658E+01	1.4371E+01	1.4593E+00	4.5811E-01	4.6531E-01
SHUTDOWN	9.4552E+00	5.8287E+00	3.5236E-01	1.1778E-01	1.4897E-01
ARR + DEP SV	2.6337E+02	1.5693E+01	2.8918E+00	2.4577E+00	3.8243E-01
FUEL VENTING	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.7872E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	1.5118E+02	5.5964E+01	7.8247E+01	5.8114E+00	9.8921E+00
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TOTAL	7.6787E+02	2.5854E+02	9.9964E+01	1.2188E+01	1.5595E+01

D. AIRBASE EMISSION SUMMARY

D.1 SUMMARY OF ANNUAL EMISSIONS FROM GROUND MOBILE SOURCES ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
OFF ROAD VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
MILITARY VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
CIVILIAN VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
MIL VEH LINE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
CIV VEH LINE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
OTHER AG LMS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

D.2 SUMMARY OF ANNUAL EMISSIONS FROM AIRBASE FACILITIES ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
TRAIN FIRES	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TEST CELLS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
RUN-UP STDS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
POWER PLANTS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
INCINERATORS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
OTHER AB PTS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
SPACE HEATING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

D.3 SUMMARY OF ANNUAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ALL LOSSES IN METRIC TONS

OPERATION	WORKING LOSS	FIXED ROOF BREATHING LOSS	FLOATING ROOF BREATHING LOSS	SPILLAGE	OTHER
STORAGE TANKS	0.0000E-01	0.0000E-01	0.0000E-01		
FILLING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	
PET STOR TKS		0.0000E-01	0.0000E-01		
TNK TRUCK PK		0.0000E-01			
VEH PARKING		0.0000E-01			
OTHERS					0.0000E-01

TOTAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ARE 0.0000E-01 METRIC TONS

E. ENVIRON EMISSION SUMMARY
 E.1 SUMMARY OF ANNUAL EMISSIONS FROM ENVIRONS
 ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
ENVIRON PTS.	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV STA AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV HOC AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV LAND USE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV LUN AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV ROAD WAY	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV RUN-ROAD	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

F. TOTAL SUMMARY

F.1 SUMMARY OF ALL ANNUAL EMISSIONS ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	7.67E+02	2.5854E+02	9.9964E+01	1.2100E+01	1.5595E+01
GROUND MOBIL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FACILITIES	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENVIRONS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
GRAND TOTAL	7.67E+02	2.5854E+02	9.9964E+01	1.2100E+01	1.5595E+01

F.2 EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	100.000	100.000	100.000	100.000	100.000
GROUND MOBIL	0.000	0.000	0.000	0.000	0.000
FACILITIES	0.000	0.000	0.000	0.000	0.000
ENVIRONS	0.000	0.000	0.000	0.000	0.000

INPUT DATA: SETS 2 AND 9 FOR REVISED GSE ROUTINE

*2

NAMLIST(EGDATA,ACDATA,DSDATA)

SEGDATA

S

SACDATA

ASCNT1(22)=8.0.TXISPD(22)=27.7,

S

SDSDATA

ACMO(1,22)=0.105,ACMO(2,22)=0.088,ACMO(3,22)=0.077,ACMO(4,22)=0.091,
ACMO(5,22)=0.106,ACMO(6,22)=0.089,ACMO(7,22)=0.068,ACMO(8,22)=0.068,
ACMO(9,22)=0.088,ACMO(10,22)=0.083,ACMO(11,22)=0.063,ACMO(12,22)=0.073,
ACMO(1,18)=0.094,ACMO(2,18)=0.078,ACMO(3,18)=0.063,ACMO(4,18)=0.092,
ACMO(5,18)=0.107,ACMO(6,18)=0.105,ACMO(7,18)=0.074,ACMO(8,18)=0.071,
ACMO(9,18)=0.089,ACMO(10,18)=0.082,ACMO(11,18)=0.073,ACMO(12,18)=0.072,
ACMO(1,35)=0.079,ACMO(2,35)=0.065,ACMO(3,35)=0.065,ACMO(4,35)=0.096,
ACMO(5,35)=0.112,ACMO(6,35)=0.078,ACMO(7,35)=0.088,ACMO(8,35)=0.081,
ACMO(9,35)=0.094,ACMO(10,35)=0.083,ACMO(11,35)=0.085,ACMO(12,35)=0.074,
ACMO(1,21)=0.081,ACMO(2,21)=0.067,ACMO(3,21)=0.072,ACMO(4,21)=0.098,
ACMO(5,21)=0.114,ACMO(6,21)=0.056,ACMO(7,21)=0.089,ACMO(8,21)=0.082,
ACMO(9,21)=0.095,ACMO(10,21)=0.085,ACMO(11,21)=0.086,ACMO(12,21)=0.075,
ACMO(1,27)=0.088,ACMO(2,27)=0.065,ACMO(3,27)=0.054,ACMO(4,27)=0.098,
ACMO(5,27)=0.120,ACMO(6,27)=0.043,ACMO(7,27)=0.089,ACMO(8,27)=0.089,
ACMO(9,27)=0.099,ACMO(10,27)=0.089,ACMO(11,27)=0.089,ACMO(12,27)=0.077,
ACMO(1,12)=0.079,ACMO(2,12)=0.066,ACMO(3,12)=0.079,ACMO(4,12)=0.081,
ACMO(5,12)=0.114,ACMO(6,12)=0.059,ACMO(7,12)=0.090,ACMO(8,12)=0.079,
ACMO(9,12)=0.097,ACMO(10,12)=0.082,ACMO(11,12)=0.086,ACMO(12,12)=0.072,
ACMO(1,32)=0.079,ACMO(2,32)=0.066,ACMO(3,32)=0.062,ACMO(4,32)=0.097,
ACMO(5,32)=0.112,ACMO(6,32)=0.078,ACMO(7,32)=0.088,ACMO(8,32)=0.081,
ACMO(9,32)=0.095,ACMO(10,32)=0.083,ACMO(11,32)=0.086,ACMO(12,32)=0.073,
ACMO(1,20)=0.086,ACMO(2,20)=0.064,ACMO(3,20)=0.054,ACMO(4,20)=0.097,
ACMO(5,20)=0.112,ACMO(6,20)=0.064,ACMO(7,20)=0.086,ACMO(8,20)=0.086,
ACMO(9,20)=0.097,ACMO(10,20)=0.086,ACMO(11,20)=0.086,ACMO(12,20)=0.076,
ACDY(1,22)=0.196,ACDY(2,22)=0.018,
ACDY(1,18)=0.146,ACDY(2,18)=0.135,
ACDY(1,35)=0.146,ACDY(2,35)=0.135,
ACDY(1,21)=0.146,ACDY(2,21)=0.135,
ACDY(1,27)=0.146,ACDY(2,27)=0.135,
ACDY(1,12)=0.146,ACDY(2,12)=0.135,
ACDY(1,32)=0.146,ACDY(2,32)=0.135,
ACDY(1,20)=0.146,ACDY(2,20)=0.135,
ACHR(1,22)=0.015,ACHR(2,22)=0.005,ACHR(3,22)=0.005,ACHR(4,22)=0.005,
ACHR(5,22)=0.005,ACHR(6,22)=0.005,ACHR(7,22)=0.04,ACHR(8,22)=0.07,
ACHR(9,22)=0.045,ACHR(10,22)=0.07,ACHR(11,22)=0.04,ACHR(12,22)=0.045,
ACHR(13,22)=0.09,ACHR(14,22)=0.04,ACHR(15,22)=0.075,ACHR(16,22)=0.06,
ACHR(17,22)=0.05,ACHR(18,22)=0.07,ACHR(19,22)=0.05,ACHR(20,22)=0.05,
ACHR(21,22)=0.06,ACHR(22,22)=0.045,ACHR(23,22)=0.04,ACHR(24,22)=0.02,
ACHR(1,18)=0.00,ACHR(2,18)=0.00,ACHR(3,18)=0.00,ACHR(4,18)=0.00,
ACHR(5,18)=0.00,ACHR(6,18)=0.00,ACHR(7,18)=0.00,ACHR(8,18)=0.00,
ACHR(9,18)=0.02,ACHR(10,18)=0.07,ACHR(11,18)=0.06,ACHR(12,18)=0.09,
ACHR(13,18)=0.11,ACHR(14,18)=0.17,ACHR(15,18)=0.20,ACHR(16,18)=0.09,
ACHR(17,18)=0.07,ACHR(18,18)=0.04,ACHR(19,18)=0.01,ACHR(20,18)=0.01,
ACHR(21,18)=0.03,ACHR(22,18)=0.01,ACHR(23,18)=0.00,ACHR(24,18)=0.00,
ACHR(1,35)=0.00,ACHR(2,35)=0.00,ACHR(3,35)=0.00,ACHR(4,35)=0.00,
ACHR(5,35)=0.00,ACHR(6,35)=0.00,ACHR(7,35)=0.02,ACHR(8,35)=0.04,
ACHR(9,35)=0.05,ACHR(10,35)=0.06,ACHR(11,35)=0.08,ACHR(12,35)=0.06,
ACHR(13,35)=0.05,ACHR(14,35)=0.07,ACHR(15,35)=0.07,ACHR(16,35)=0.06,
ACHR(17,35)=0.07,ACHR(18,35)=0.12,ACHR(19,35)=0.09,ACHR(20,35)=0.07,
ACHR(21,35)=0.03,ACHR(22,35)=0.02,ACHR(23,35)=0.01,ACHR(24,35)=0.00,
ACHR(1,21)=0.00,ACHR(2,21)=0.00,ACHR(3,21)=0.00,ACHR(4,21)=0.00,
ACHR(5,21)=0.00,ACHR(6,21)=0.00,ACHR(7,21)=0.02,ACHR(8,21)=0.05,
ACHR(9,21)=0.05,ACHR(10,21)=0.06,ACHR(11,21)=0.06,ACHR(12,21)=0.07,
ACHR(13,21)=0.06,ACHR(14,21)=0.07,ACHR(15,21)=0.06,ACHR(16,21)=0.06,
ACHR(17,21)=0.06,ACHR(18,21)=0.08,ACHR(19,21)=0.10,ACHR(20,21)=0.07,
ACHR(21,21)=0.05,ACHR(22,21)=0.04,ACHR(23,21)=0.03,ACHR(24,21)=0.00,

ACHR(1,27)=0.00,ACHR(2,27)=0.00,ACHR(3,27)=0.00,ACHR(4,27)=0.00,
 ACHR(5,27)=0.00,ACHR(6,27)=0.00,ACHR(7,27)=0.02,ACHR(8,27)=0.05,
 ACHR(9,27)=0.05,ACHR(10,27)=0.06,ACHR(11,27)=0.06,ACHR(12,27)=0.07,
 ACHR(13,27)=0.06,ACHR(14,27)=0.07,ACHR(15,27)=0.06,ACHR(16,27)=0.06,
 ACHR(17,27)=0.06,ACHR(18,27)=0.08,ACHR(19,27)=0.10,ACHR(20,27)=0.07,
 ACHR(21,27)=0.06,ACHR(22,27)=0.04,ACHR(23,27)=0.03,ACHR(24,27)=0.00,
 ACHR(1,12)=0.00,ACHR(2,12)=0.00,ACHR(3,12)=0.00,ACHR(4,12)=0.00,
 ACHR(5,12)=0.00,ACHR(6,12)=0.00,ACHR(7,12)=0.02,ACHR(8,12)=0.05,
 ACHR(9,12)=0.05,ACHR(10,12)=0.06,ACHR(11,12)=0.06,ACHR(12,12)=0.07,
 ACHR(13,12)=0.06,ACHR(14,12)=0.07,ACHR(15,12)=0.06,ACHR(16,12)=0.06,
 ACHR(17,12)=0.06,ACHR(18,12)=0.06,ACHR(19,12)=0.10,ACHR(20,12)=0.07,
 ACHR(21,12)=0.06,ACHR(22,12)=0.04,ACHR(23,12)=0.03,ACHR(24,12)=0.00,
 ACHR(1,32)=0.00,ACHR(2,32)=0.00,ACHR(3,32)=0.00,ACHR(4,32)=0.00,
 ACHR(5,32)=0.00,ACHR(6,32)=0.00,ACHR(7,32)=0.02,ACHR(8,32)=0.05,
 ACHR(9,32)=0.05,ACHR(10,32)=0.06,ACHR(11,32)=0.06,ACHR(12,32)=0.07,
 ACHR(13,32)=0.06,ACHR(14,32)=0.07,ACHR(15,32)=0.06,ACHR(16,32)=0.06,
 ACHR(17,32)=0.06,ACHR(18,32)=0.08,ACHR(19,32)=0.10,ACHR(20,32)=0.07,
 ACHR(21,32)=0.06,ACHR(22,32)=0.04,ACHR(23,32)=0.03,ACHR(24,32)=0.00,
 ACHR(1,20)=0.00,ACHR(2,20)=0.00,ACHR(3,20)=0.00,ACHR(4,20)=0.00,
 ACHR(5,20)=0.00,ACHR(6,20)=0.00,ACHR(7,20)=0.02,ACHR(8,20)=0.05,
 ACHR(9,20)=0.05,ACHR(10,20)=0.06,ACHR(11,20)=0.06,ACHR(12,20)=0.07,
 ACHR(13,20)=0.06,ACHR(14,20)=0.07,ACHR(15,20)=0.06,ACHR(16,20)=0.06,
 ACHR(17,20)=0.06,ACHR(18,20)=0.08,ACHR(19,20)=0.10,ACHR(20,20)=0.07,
 ACHR(21,20)=0.05,ACHR(22,20)=0.04,ACHR(23,20)=0.03,ACHR(24,20)=0.00,
 VHMLMO(1)=.08333,VHMLMO(2)=.08333,VHMLMO(3)=.08333,VHMLMO(4)=.08333,
 VHMLMO(5)=.08333,VHMLMO(6)=.08333,VHMLMO(7)=.08333,VHMLMO(8)=.08333,
 VHMLMO(9)=.08333,VHMLMO(10)=.08333,VHMLMO(11)=.08333,VHMLMO(12)=.08333,
 VHMLDY(1)=0.2,VHMLDY(2)=0.0,
 VHMLHR(1)=0.0,VHMLHR(2)=0.0,VHMLHR(3)=0.0,VHMLHR(4)=0.0,
 VHMLHR(5)=0.0,VHMLHR(6)=0.0,VHMLHR(7)=0.1,VHMLHR(8)=0.1,
 VHMLHR(9)=0.1,VHMLHR(10)=0.1,VHMLHR(11)=0.1,VHMLHR(12)=0.1,
 VHMLHR(13)=0.1,VHMLHR(14)=0.1,VHMLHR(15)=0.1,VHMLHR(16)=0.0333,
 VHMLHR(17)=0.0333,VHMLHR(18)=0.0333,VHMLHR(19)=0.0,VHMLHR(20)=0.0,
 VHMLHR(21)=0.0,VHMLHR(22)=0.0,VHMLHR(23)=0.0,VHMLHR(24)=0.0,
 CVABMO(1)=0.08333,CVABMO(2)=0.08333,CVABMO(3)=0.08333,CVABMO(4)=0.08333,
 CVABMO(5)=0.08333,CVABMO(6)=0.08333,CVABMO(7)=0.08333,CVABMO(8)=0.08333,
 CVABMO(9)=0.08333,CVABMO(10)=0.08333,CVABMO(11)=0.08333,CVABMO(12)=0.08333,
 CVABDY(1)=0.1486,CVABDY(2)=0.1285,
 CVABHR(1)=0.0160,CVABHR(2)=0.0160,CVABHR(3)=0.0160,CVABHR(4)=0.0333,
 CVABHR(5)=0.0333,CVABHR(6)=0.0333,CVABHR(7)=0.1090,CVABHR(8)=0.1090,
 CVABHR(9)=0.1090,CVABHR(10)=0.0333,CVABHR(11)=0.0333,CVABHR(12)=0.0334,
 CVABHR(13)=0.0333,CVABHR(14)=0.0333,CVABHR(15)=0.0333,CVABHR(16)=0.0963,
 CVABHR(17)=0.0963,CVABHR(18)=0.0963,CVABHR(19)=0.0133,CVABHR(20)=0.0133,
 CVABHR(21)=0.0133,CVABHR(22)=0.0286,CVABHR(23)=0.0286,CVABHR(24)=0.0286,
 FLMO(1,1)=.08333,FLMO(2,1)=.08333,FLMO(3,1)=.08333,FLMO(4,1)=.08333,
 FLMO(5,1)=.08333,FLMO(6,1)=.08333,FLMO(7,1)=.08333,FLMO(8,1)=.08333,
 FLMO(9,1)=.06333,FLMO(10,1)=.08333,FLMO(11,1)=.08333,FLMO(12,1)=.08333,
 FLMO(1,2)=0.0646,FLMO(2,2)=0.0969,FLMO(3,2)=0.0646,FLMO(4,2)=0.0674,
 FLMO(5,2)=0.0607,FLMO(6,2)=0.1036,FLMO(7,2)=0.0577,FLMO(8,2)=0.0756,
 FLMO(9,2)=0.1030,FLMO(10,2)=0.0920,FLMO(11,2)=0.1181,FLMO(12,2)=0.0755,
 FLMO(1,3)=0.0833,FLMO(2,3)=0.0833,FLMO(3,3)=0.0833,FLMO(4,3)=0.0833,
 FLMO(5,3)=0.0833,FLMO(6,3)=0.0833,FLMO(7,3)=0.0833,FLMO(8,3)=0.0833,
 FLMO(9,3)=0.0833,FLMO(10,3)=0.0834,FLMO(11,3)=0.0834,FLMO(12,3)=0.0835,
 FLMO(1,4)=.08333,FLMO(2,4)=.08333,FLMO(3,4)=.08333,FLMO(4,4)=.08333,
 FLMO(5,4)=.06333,FLMO(6,4)=.08333,FLMO(7,4)=.09333,FLMO(8,4)=.06333,
 FLMO(9,4)=.08333,FLMO(10,4)=.08333,FLMO(11,4)=.08333,FLMO(12,4)=.08333,
 FLDY(1,1)=0.20,FLDY(2,1)=0.00,
 FLDY(1,2)=0.16,FLDY(2,2)=0.10,
 FLDY(1,3)=0.16,FLDY(2,3)=0.10,
 FLDY(1,4)=0.20,FLDY(2,4)=0.00,
 FLHR(1,1)=0.0,FLHR(2,1)=0.0,FLHR(3,1)=0.0,FLHR(4,1)=0.0,
 FLHR(5,1)=0.0,FLHR(6,1)=0.0,FLHR(7,1)=0.0,FLHR(8,1)=0.0,
 FLHR(9,1)=0.125,FLHR(10,1)=0.125,FLHR(11,1)=0.125,FLHR(12,1)=0.125,
 FLHR(13,1)=0.0,FLHR(14,1)=0.125,FLHR(15,1)=0.125,FLHR(16,1)=0.125,

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FLHR(17,1)=0.125,FLHR(18,1)=0.0,FLHR(19,1)=0.0,FLHR(20,1)=0.0,
FLHR(21,1)=0.0,FLHR(22,1)=0.0,FLHR(23,1)=0.0,FLHR(24,1)=0.0,
FLHR(1,2)=0.0,FLHR(2,2)=0.0,FLHR(3,2)=0.0,FLHR(4,2)=0.0,
FLHR(5,2)=0.0,FLHR(6,2)=0.0,FLHR(7,2)=0.0,FLHR(8,2)=0.0,
FLHR(9,2)=0.125,FLHR(10,2)=0.125,FLHR(11,2)=0.125,FLHR(12,2)=0.125,
FLHR(13,2)=0.0,FLHR(14,2)=0.125,FLHR(15,2)=0.125,FLHR(16,2)=0.125,
FLHR(17,2)=0.125,FLHR(18,2)=0.0,FLHR(19,2)=0.0,FLHR(20,2)=0.0,
FLHR(21,2)=0.0,FLHR(22,2)=0.0,FLHR(23,2)=0.0,FLHR(24,2)=0.0,
FLHR(1,3)=0.0,FLHR(2,3)=0.0,FLHR(3,3)=0.0,FLHR(4,3)=0.0,
FLHR(5,3)=0.0,FLHR(6,3)=0.0,FLHR(7,3)=0.0,FLHR(8,3)=0.0,
FLHR(9,3)=0.125,FLHR(10,3)=0.125,FLHR(11,3)=0.125,FLHR(12,3)=0.125,
FLHR(13,3)=0.0,FLHR(14,3)=0.125,FLHR(15,3)=0.125,FLHR(16,3)=0.125,
FLHR(17,3)=0.125,FLHR(18,3)=0.0,FLHR(19,3)=0.0,FLHR(20,3)=0.0,
FLHR(21,3)=0.0,FLHR(22,3)=0.0,FLHR(23,3)=0.0,FLHR(24,3)=0.0,
FLHR(1,4)=0.0,FLHR(2,4)=0.0,FLHR(3,4)=0.0,FLHR(4,4)=0.0,
FLHR(5,4)=0.0,FLHR(6,4)=0.0,FLHR(7,4)=0.0,FLHR(8,4)=0.0,
FLHR(9,4)=0.125,FLHR(10,4)=0.125,FLHR(11,4)=0.125,FLHR(12,4)=0.125,
FLHR(13,4)=0.0,FLHR(14,4)=0.125,FLHR(15,4)=0.125,FLHR(16,4)=0.125,
FLHR(17,4)=0.125,FLHR(18,4)=0.0,FLHR(19,4)=0.0,FLHR(20,4)=0.0,
FLHR(21,4)=0.0,FLHR(22,4)=0.0,FLHR(23,4)=0.0,FLHR(24,4)=0.0,
FLMO(1,5)=0.,FLMO(2,5)=0.,FLMO(3,5)=0.,FLMO(4,5)=0.,FLMO(5,5)=0.,FLMO(6,5)=0.,
FLMO(7,5)=0.,FLMO(8,5)=0.,FLMO(9,5)=0.,FLMO(10,5)=0.,FLMO(11,5)=0.,
FLMO(1,6)=0.,FLMO(2,6)=0.,FLMO(3,6)=0.,FLMO(4,6)=0.,FLMO(5,6)=0.,FLMO(6,6)=0.,
FLMO(7,6)=0.,FLMO(8,6)=0.,FLMO(9,6)=0.,FLMO(10,6)=0.,FLMO(11,6)=0.,
FLMO(1,7)=0.,FLMO(2,7)=0.,FLMO(3,7)=0.,FLMO(4,7)=0.,FLMO(5,7)=0.,FLMO(6,7)=0.,
FLMO(7,7)=0.,FLMO(8,7)=0.,FLMO(9,7)=0.,FLMO(10,7)=0.,FLMO(11,7)=0.,
FLMO(12,5)=0.,FLMO(12,6)=0.,FLMO(12,7)=0.,
FLDY(2,6)=0.,FLDY(2,7)=0.,FLDY(2,5)=0.,
FLDY(1,6)=0.,FLDY(1,7)=0.,FLDY(1,5)=0.,
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*9	GROUND SERVICE EQUIPMENT	
15	106754. 112264.	
1	100.	11011101
4	100.	10010100
6	100.	11011111
7	100.	10000000
8	100.	10000100
10	100.	11011101
12	100.	11010110
14	100.	10010110
16	100.	11010100
17	100.	00000010
21	100.	01000100
23	100.	01000100
25	100.	11011101
27	100.	00000100
29	100.	10010000

OUTPUT LISTING FOR REVISED GSE ROUTINE
(WHERE DIFFERENT FROM ORIGINAL LISTING)

A.3 GSE POLLUTANT EMISSION DATA

NAME	ID	TYPE	FUEL	FUEL RATE GAL/HR	CO	POLLUTANT EMISSION DATA (KILOGRAMS PER GALLON)	HC	NOX	PM	SOX
HEATER	1	HEATER	AM G	3.300E+00	8.66E-01	5.44E-02	1.72E-02	1.56E-03	5.39E-04	5.39E-04
HEATER	2	HEATER	JP 4	2.500E+00	2.56E-02	1.12E-02	1.16E-01	8.40E-03	2.92E-03	2.92E-03
COOLER	4	COOLER	AM G	6.300E+00	3.25E+00	1.26E-01	8.42E-02	5.40E-03	5.27E-04	5.27E-04
GENERATOR	6	GENERATOR	AM G	6.700E+00	3.22E+00	1.25E-01	8.33E-02	5.33E-03	5.20E-04	5.20E-04
GENERATOR	7	GENERATOR	JP 4	2.600E+00	9.80E-02	4.30E-02	4.52E-01	3.23E-02	2.93E-03	2.93E-03
GENERATOR	8	GENERATOR	JP 4	2.460E+01	6.25E-02	5.18E-04	1.23E-02	1.67E-03	2.93E-03	2.93E-03
COMPRESSOR	10	COMPRESSOR	AM G	1.600E+00	2.47E+00	8.53E-02	6.42E-02	4.05E-03	6.24E-04	6.24E-04
COMPRESSOR	11	COMPRESSOR	AM G	1.800E+00	1.42E+00	4.91E-02	3.70E-02	2.33E-03	3.94E-04	3.94E-04
COMPRESSOR	12	COMPRESSOR	AM G	1.100E+00	1.64E+00	1.03E-01	3.27E-02	2.93E-03	5.27E-04	5.27E-04
COMPRESSOR	13	COMPRESSOR	JP 4	1.400E+00	6.42E-02	3.42E-02	6.74E-02	1.26E-02	2.95E-03	2.95E-03
COMPRESSOR	14	COMPRESSOR	JP 4	1.620E+01	6.25E-02	5.19E-04	1.23E-02	1.63E-03	2.95E-03	2.95E-03
TST STND	16	TST STND	AM G	6.300E+00	3.67E+00	1.43E-01	9.52E-02	6.03E-03	5.40E-04	5.40E-04
TST STND	17	TST STND	AM G	5.020E+00	3.14E+00	1.20E-01	8.13E-02	5.19E-03	6.15E-04	6.15E-04
TST STND	18	TST STND	AM G	7.800E+00	3.56E+00	1.39E-01	9.23E-02	5.05E-03	5.23E-04	5.23E-04
TST STND	19	TST STND	JP 4	4.700E+00	1.46E-01	6.42E-02	6.75E-01	4.02E-02	4.37E-03	4.37E-03
RCMB LFT	21	RCMB LFT	AM G	1.200E+00	2.60E+00	9.00E-02	6.78E-02	4.35E-02	4.39E-04	4.39E-04
BOMB LFT	22	BOMB LFT	AM G	1.200E+00	3.90E+00	1.35E-01	1.02E-01	6.50E-03	6.58E-04	6.58E-04
BOMB LFT	23	BOMB LFT	AM G	1.000E+00	3.35E+00	1.16E-01	8.71E-02	5.57E-03	5.64E-04	5.64E-04
LIGHT ST	25	LIGHT ST	AM G	1.100E+00	1.70E+00	1.11E-01	3.59E-02	3.14E-03	5.29E-04	5.29E-04
LEAK TST	27	LEAK TST	AM G	3.300E+00	4.60E+00	1.04E-01	1.21E-01	7.61E-03	5.22E-04	5.22E-04
JACK MAN	29	JACK MAN	AM G	2.600E+00	2.00E+00	7.24E-02	5.30E-02	3.30E-03	5.24E-04	5.24E-04

A.4 GSE POLLUTANT EMISSION RATES

NAME	ID	TYPE	FUEL	FUEL RATE GAL/HR	CO	HC	NOX	PM	SOX
HEATER	1	HEATER	AM G	3.388E+00	2.90E+00	1.79E-01	5.67E-02	5.16E-03	1.78E-03
HEATER	2	HEATER	JP 4	2.588E+00	6.40E-02	2.80E-02	2.91E-01	2.10E-02	7.34E-03
COOLER	4	COOLER	AM G	6.388E+00	2.85E+01	7.94E-01	5.39E-01	3.41E-02	3.32E-03
GENERATR	6	GENERATR	AM G	3.700E+00	2.16E+01	8.30E-01	5.50E-01	3.57E-02	3.48E-03
GENERATR	7	GENERATR	JP 4	2.630E+00	2.55E-01	1.12E-01	1.17E+00	8.41E-02	7.63E-03
GENERATR	8	GENERATR	JP 4	2.460E+01	1.54E+00	1.28E-02	3.83E-01	4.10E-02	7.28E-02
COMPRESOR	10	COMPRESOR	AM G	1.600E+00	3.95E+00	1.38E-01	1.03E-01	6.48E-03	1.09E-03
COMPRESOR	11	COMPRESOR	AM G	1.888E+00	2.56E+00	8.84E-02	6.65E-02	4.20E-03	7.09E-04
COMPRESOR	12	COMPRESOR	AM G	1.100E+00	1.81E+00	1.14E-01	3.59E-02	3.23E-03	5.80E-04
COMPRESOR	13	COMPRESOR	JP 4	1.408E+00	8.99E-02	4.79E-02	9.43E-02	1.76E-02	4.13E-03
COMPRESOR	14	COMPRESOR	JP 4	1.620E+01	1.81E+00	8.41E-03	2.30E-01	2.64E-02	4.77E-02
TST STND	16	TST STND	AM G	6.388E+00	2.31E+01	9.82E-01	6.08E-01	3.88E-02	5.48E-03
TST STND	17	TST STND	AM G	5.808E+00	1.57E+01	6.40E-01	4.07E-01	2.59E-02	3.88E-03
TST STND	18	TST STND	AM G	7.888E+00	2.78E+01	1.88E+00	7.28E-01	4.56E-02	1.08E-03
TST STND	19	TST STND	JP 4	4.788E+00	6.86E-01	3.85E-01	3.17E+00	2.27E-01	2.85E-02
SCRB LFT	21	SCRB LFT	AM G	1.288E+00	3.12E+00	1.88E-01	8.13E-02	5.28E-03	5.27E-04
LOHB LFT	22	LOHB LFT	AM G	1.288E+00	4.68E+00	1.62E-01	1.22E-01	7.88E-03	7.90E-04
BOMB LFT	24	BOMB LFT	AM G	1.888E+00	3.35E+00	1.16E-01	8.71E-02	5.57E-03	5.64E-04
LIGHT ST	25	LIGHT ST	AM G	1.100E+00	1.94E+00	1.22E-01	3.05E-02	3.46E-03	5.81E-04
LEAK TST	27	LEAK TST	AM G	3.388E+00	1.54E+01	6.87E-01	4.00E-01	2.51E-02	1.72E-03
JACK MAN	29	JACK MAN	AM G	2.688E+00	5.41E+00	1.88E-01	1.40E-01	9.79E-03	1.36E-03

8.2 INFORMATION FOR AIRCRAFT SERVICE VEHICLES

-- ANNUAL GSE FUEL CONSUMPTION (GALLONS) --

AM G	106754.
JP 4	112264.
DESL	0.
JP 8	0.

-- KC 135A SERVICING INFORMATION --

GSE NAME	GROUND SUPPORT EQUIPMENT			
	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)
H1	HEATER	AM G	100.	1.30
MA3	COOLER	AM G	100.	0.10
MD3	GENERATR	AM G	100.	3.20
90628P	GENERATR	JP 4	100.	2.25
AN32A62A	GENERATR	JP 4	100.	1.70
MC1A	COMPRESOR	AM G	100.	0.30
MC2A	COMPRESOR	AM G	100.	0.20
MA1A	COMPRESOR	JP 4	100.	0.12
TTU228E	TST STND	AM G	100.	0.07
NF2	LIGHT ST	AM G	100.	2.09
M27M1	JACK MAN	AM G	100.	0.12

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	45420.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	1.05
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	0.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.00

-- A 37 SERVICING INFORMATION --

GSE NAME	GROUND SUPPORT EQUIPMENT			
	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)
H1	HEATER	AM G	100.	0.10
MD3	GENERATR	AM G	100.	0.15
MC1A	COMPRESOR	AM G	100.	0.06
MC2A	COMPRESOR	AM G	100.	0.10
TTU228E	TST STND	AM G	100.	0.04
M31	BOMB LFT	AM G	100.	1.31
M10B3AE	BOMB LFT	AM G	100.	1.26
NF2	LIGHT ST	AM G	100.	0.14

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	1092.50
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	0.13
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	0.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.30

-- 01 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT			
GSE NAME	CATEGORY	FUEL	USAGE SERVICE TIME (HR)
REFUELING (JP 4)			
AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....			288.88
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....			8.88
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....			8.88
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....			8.24

-- C 138 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT			
GSE NAME	CATEGORY	FUEL	USAGE SERVICE TIME (HR)
H1	HEATER	AM G	188. 1.46
HA3	COOLER	AM G	188. 8.16
PD3	GENERATR	AM G	188. 1.93
MC1A	COMPRESOR	AM G	188. 8.46
MC2A	COMPRESOR	AM G	188. 8.57
HA1A	COMPRESOR	JP 4	188. 8.18
TTU223E	TST STND	AM G	188. 8.73
NF2	LIGHT ST	AM G	188. 1.97
M27M1	JACK MAN	AM G	188. 8.24

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	17832.58
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	8.13
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	8.88
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	8.88

-- C 97 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT			
GSE NAME	CATEGORY	FUEL	USAGE SERVICE TIME (HR)
REFUELING (JP 4)			
I1	HEATER	AM G	188. 1.46
MD3	GENERATR	AM G	188. 1.93
MC1A	COMPRESOR	AM G	188. 8.46
NF2	LIGHT ST	AM G	188. 1.97

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	12888.88
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AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 8.82
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 8.82
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 8.82

-- F 4-C/F SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT				
GSE NAME	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)
H1	HEATER	AM G	188.	8.32
MA3	COOLER	AM G	188.	8.87
MD3	GENERATR	AM G	188.	8.33
AM32A68A	GENERATR	JP 4	188.	8.42
MC1A	CHMPRESOR	AM G	188.	8.36
MC2A	CHMPRESOR	AM G	188.	8.28
MA1A	CHMPRESOR	AM G	188.	8.83
TTU228E	TST STND	JP 4	188.	8.19
MJ1	BONS LFT	AM G	188.	8.32
PHU3JAE	9040 LFT	AM G	188.	8.15
NF2	LIGHT ST	AM G	188.	8.77
M32T1	LEAK TST	AM G	188.	8.82

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 5458.88
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 8.85
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 8.88
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 8.88

-- T 38 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT				
GSE NAME	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)
MD3	GENERATR	AM G	188.	8.33
MC2A	CHMPRESOR	AM G	188.	8.28
MA1A	CHMPRESOR	JP 4	188.	8.83
MJ1	TST STND	AM G	188.	8.19

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 1862.28
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 8.13
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 8.88
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 8.88

-- C 9A SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT				
GSE NAME	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)

H1	HEATER	AM G	1.46
MD3	GENERATR	AM G	1.92
MC1A	CMPSOR	AM G	8.46
NF2	LIGHT ST	AM G	1.97

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	16888.88
AVERAGE AMOUNT OF FUEL SKILLED PER FILLUP (LITERS).....	8.82
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	8.82
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	8.82

C.2 GROUND SERVICE EQUIPMENT EMISSIONS

KC 135A SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	8.415E-01	3.490E+00	2.121E+00	1.498E-01	1.632E-02
JP 4	3.436E+00	2.755E-01	3.207E+00	2.655E-01	1.511E-01
DESL	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 8	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	8.415E+01	3.490E+00	2.121E+00	1.498E-01	1.632E-02
JP 4	3.436E+00	2.755E-01	3.207E+00	2.655E-01	1.511E-01
DESL	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 8	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01

A 37 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	1.266E+01	4.730E-01	3.245E-01	2.114E-02	2.336E-03
JP 4	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
DESL	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 8	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	1.266E+01	4.730E-01	3.245E-01	2.114E-02	2.336E-03
JP 4	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
DESL	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 8	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01

O 1 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 4	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
DESL	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 8	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 4	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
DESL	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01
JP 8	8.000E-01	8.000E-01	8.000E-01	8.000E-01	8.000E-01

FUEL	CO	HC	NOX	PM	SOX
AM G	1.037E+01	4.170E-01	2.664E-01	1.723E-02	1.836E-03
JP 4	3.471E-02	2.885E-04	6.849E-03	9.643E-04	1.636E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	1.037E+01	4.170E-01	2.664E-01	1.723E-02	1.836E-03
JP 4	3.471E-02	2.885E-04	6.849E-03	9.643E-04	1.636E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 9A SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	5.151E+01	2.182E+00	1.266E+00	0.647E-02	1.999E-02
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	5.151E+01	2.182E+00	1.266E+00	0.647E-02	1.999E-02
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C. AIRCRAFT EMISSION SUMMARY
C.1 SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE
ALL POLLUTANTS IN METRIC TONS

OPERATION	KC 135A				
	CO	HC	NOX	PM	SOX
STARTUP	5.8736E+01	4.1292E+01	1.8733E+00	1.8147E-01	7.8856E-01
TAXI OUT	2.5197E+01	2.8433E+01	9.2783E-01	5.8214E-02	3.8626E-01
ENGINE CHECK	5.8736E+01	4.1292E+01	1.8733E+00	1.8147E-01	7.8856E-01
RUNWAY ROLL	6.4129E-01	5.3434E-02	3.8198E+00	2.2442E-01	2.6717E-01
CLIMB 1	4.8153E-01	4.8128E-02	2.2672E+00	1.6854E-01	2.8864E-01
CLIMB 2	1.8661E+00	9.8433E-02	5.5846E+00	4.1914E-01	4.9421E-01
APPROACH 1	1.5538E+01	5.1778E+00	1.2833E+00	8.8219E-02	3.6463E-01
APPROACH 2	3.4948E+00	2.1587E+00	2.4777E-01	1.5754E-02	8.2831E-02
LANDING	6.3383E+00	5.1589E+00	2.3485E-01	1.2678E-02	9.7521E-02
TAXI IN	7.5998E+00	6.1859E+00	2.8051E-01	1.5288E-02	1.1692E-01
SHUTDOWN	5.7307E+00	4.6639E+00	2.1159E-01	1.1461E-02	8.8164E-02
ARR + DEP SV	3.6172E+02	1.5551E+01	2.2088E+01	1.6778E+00	6.9165E-01
FUEL VENTING	8.9888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.4845E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	1.2298E+02	5.4184E+01	6.8422E+01	5.8885E+00	8.3445E+00
TOTAL	6.4688E+02	2.1824E+02	1.8815E+02	7.8749E+00	1.2695E+01

OPERATION	A 37				
	CO	HC	NOX	PM	SOX
STARTUP	2.9397E+01	4.9545E+00	1.4669E-01	4.9545E-04	1.6515E-01
TAXI OUT	1.8831E+01	3.8398E+00	1.3169E-01	3.8398E-04	1.8138E-01
ENGINE CHECK	6.9514E+00	1.9176E-01	6.2323E-01	4.3147E-03	2.3978E-01
RUNWAY ROLL	1.9387E+00	2.8434E-02	9.2411E-02	6.3377E-04	3.5543E-02
CLIMB 1	1.7378E+00	4.7918E-02	1.5573E-01	1.8782E-03	5.9897E-02
CLIMB 2	3.4832E+00	9.6289E-02	3.1229E-01	2.1628E-03	1.2811E-01
APPROACH 1	6.2955E+00	5.1242E-01	3.3673E-01	1.6185E-03	1.4641E-01
APPROACH 2	1.9219E+00	2.2136E-01	5.8634E-02	2.6525E-04	2.7543E-02
LANDING	7.9347E+00	1.3323E+00	5.7731E-02	1.3323E-04	4.4888E-02
TAXI IN	5.1296E+00	8.6455E-01	3.7464E-02	8.6455E-05	2.8818E-02
SHUTDOWN	8.8178E-01	1.8623E-01	6.4394E-03	1.4860E-05	4.9534E-03
ARR + DEP SV	7.8299E+01	2.8515E+00	1.9568E+00	1.2743E-01	1.4884E-02
FUEL VENTING	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.1988E+00	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	2.8196E+01	1.8682E+00	1.8247E+00	1.8853E-02	7.8750E-01
TOTAL	1.8716E+02	1.7347E+01	5.8878E+00	1.4935E-01	1.7354E+00

OPERATION	0 1				
	CO	HC	NOX	PM	SOX
STARTUP	2.4645E+00	6.3353E-01	3.6436E-03	1.9981E-01	1.9981E-03
TAXI OUT	1.1583E+00	2.9782E-01	1.7152E-03	9.3555E-02	9.3555E-04
ENGINE CHECK	6.7203E+00	1.1819E-01	5.4459E-02	1.1507E-01	3.4761E-03
RUNWAY ROLL	5.8304E-01	1.8254E-02	4.7246E-03	1.8052E-02	3.0157E-04
CLIMB 1	1.9672E+00	3.4948E-02	1.6144E-02	3.4263E-02	1.8279E-03

OPERATION	CO	HC	NOX	PM	SOX
CLIMB 1	6.6371E+00	1.2824E-01	5.5484E-02	1.1798E-01	3.5364E-03
APPROACH 1	2.9497E+00	7.8243E-02	4.3876E-03	1.8690E-01	2.4647E-03
APPROACH 2	1.8127E+00	5.8712E-02	1.4315E-03	6.7110E-02	8.4695E-04
LANDING	7.2224E-01	1.8566E-01	1.8693E-03	5.8323E-04	5.8323E-04
TAXI IN	1.1128E+00	2.8585E-01	1.6462E-03	8.9795E-02	8.9795E-04
SHUTDOWN	2.9573E-01	7.6823E-02	4.3783E-04	2.3882E-02	2.3882E-04
APR + DEP SV	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	2.5623E+01	1.9687E+00	1.4475E-01	9.9665E-01	1.6299E-02

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OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.5847E+00	9.8746E-01	1.8335E-01	3.9828E-02	4.7822E-02
TAXI OUT	8.2184E+00	5.2620E+00	9.7724E-01	2.8798E-01	2.5857E-01
ENGINE CHECK	4.7841E-01	9.1125E-02	2.1187E+00	1.1391E-01	2.2781E-01
RUNWAY ROLL	7.8972E-02	1.3518E-02	3.1438E-01	1.6898E-02	3.3796E-02
CLIMB 1	7.2517E-02	1.3811E-02	3.2112E-01	1.7264E-02	3.4529E-02
CLIMB 2	6.7289E-02	1.2817E-02	2.9799E-01	1.6021E-02	3.2842E-02
APPROACH 1	1.3438E+00	7.5813E-01	2.6618E-01	5.8888E-02	6.0494E-02
APPROACH 2	7.6459E-01	4.6128E-01	1.2487E-01	2.7284E-02	2.5622E-02
LANDING	1.1322E+00	7.3788E-01	1.3689E-01	2.9132E-02	3.5699E-02
TAXI IN	8.8833E+00	5.6459E+00	1.8495E+00	2.2315E-01	2.6885E-01
SHUTDOWN	1.3433E+00	8.8166E-01	1.6374E-01	3.4847E-02	4.1984E-02
APR + DEP SV	1.1377E+02	4.7227E+00	2.9112E+00	1.9665E-01	3.5284E-02
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.0886E+00	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	1.3716E+02	2.1380E+01	8.8641E+00	9.8875E-01	1.8971E+00

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OPERATION	CO	HC	NOX	PM	SOX
STARTUP	4.3828E+00	1.8611E+00	5.7912E-03	3.4747E-01	3.4747E-03
TAXI OUT	1.1497E+00	3.4440E-01	1.8871E-03	1.8819E-01	1.8819E-03
ENGINE CHECK	1.6641E-01	2.8512E-01	1.1611E-01	2.8118E-01	6.8330E-03
RUNWAY ROLL	2.3833E+00	4.1913E-02	2.2806E-02	4.1892E-02	1.2327E-03
CLIMB 1	2.6827E+00	4.7178E-02	2.5678E-02	4.6253E-02	1.3876E-03
CLIMB 2	2.7537E+00	4.8427E-02	2.6358E-02	4.7477E-02	1.4243E-03
APPROACH 1	4.2378E+00	5.7961E-02	5.7418E-02	2.4508E-01	3.6762E-03
APPROACH 2	1.5311E+00	6.2884E-02	1.8643E-02	9.2486E-02	1.3178E-03
LANDING	6.0199E-01	1.5452E-01	8.0581E-04	4.8541E-02	4.8541E-04
TAXI IN	1.4526E+00	3.7342E-01	1.9551E-03	1.1731E-01	1.1731E-03
SHUTDOWN	5.7471E-01	1.4749E-01	7.7215E-04	4.6329E-02	4.6329E-04
APR + DEP SV	9.1449E+00	3.9721E-01	2.3418E-01	1.5720E-02	1.9393E-03
FUEL VENTING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.4520E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	4.2527E+01	3.1417E+00	5.9772E-01	1.3571E+00	2.3749E-02

F 4-C/F

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.8775E+00	3.8852E-01	7.9276E-02	1.5855E-02	3.1718E-02
TAXI OUT	9.6882E-01	2.8396E-01	4.2492E-02	8.4984E-03	1.6997E-02
ENGINE CHECK	6.9986E-02	6.2642E-03	2.7876E-01	6.8986E-02	3.1321E-02
RUNWAY ROLL	1.4212E-01	3.5388E-04	1.1950E-01	5.3294E-03	3.5538E-02
CLIMB 1	2.4361E-01	5.6888E-04	1.7444E-01	8.4135E-03	5.6890E-02
CLIMB 2	2.6878E-01	2.3788E-03	1.0547E-01	2.6878E-02	1.1858E-02
APPROACH 1	2.7917E-01	3.1616E-02	1.3796E-01	5.1735E-02	2.8742E-02
APPROACH 2	1.3841E-01	2.2952E-02	3.3688E-02	1.1889E-02	7.5736E-03
LANDING	3.5521E-01	7.4216E-02	1.5462E-02	3.8923E-03	6.1846E-03
TAXI IN	1.0388E+00	2.1853E-01	4.5527E-02	9.1854E-03	1.8211E-01
SHUTDOWN	1.1297E-01	2.3783E-02	4.9547E-03	9.9895E-04	1.9819E-03
AIR + FEP SV	1.1272E+01	4.6138E-01	3.5248E-01	2.8862E-02	2.8671E-02
FUEL VENTING	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01
FILL + SPILL	8.8008E-01	2.1989E-01	8.8008E-01	8.8008E-01	8.8008E-01
TOUCH + GO	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01
TOTAL	1.6519E+01	1.6464E+00	1.3886E+00	2.3875E-01	2.6686E-01

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OPERATION	CO	HC	NOX	PM	SOX
STARTUP	3.6778E+00	6.1972E-01	2.8855E-02	6.1972E-05	2.8657E-02
TAXI OUT	4.1178E+00	6.9388E-01	3.8888E-02	6.9388E-05	2.3129E-02
ENGINE CHECK	2.8655E-01	5.5353E-03	1.7998E-02	1.2454E-04	6.9191E-03
RUNWAY ROLL	4.8965E-01	1.3163E-03	3.7420E-02	1.5843E-04	1.8884E-02
CLIMB 1	5.5076E-01	1.5828E-03	4.2781E-02	1.7166E-04	2.1439E-02
CLIMB 2	3.3815E+00	9.2456E-03	3.8848E-02	2.8883E-04	1.1557E-02
APPROACH 1	1.1818E+00	9.6127E-02	3.1691E-02	3.8211E-04	2.7455E-02
APPROACH 2	1.6723E-01	2.8325E-02	5.3637E-03	2.4355E-05	2.5298E-03
LANDING	1.4923E+00	1.8418E-01	7.9788E-03	1.8418E-05	6.1368E-03
TAXI IN	4.4111E+00	7.4344E-02	3.2165E-02	7.4344E-05	2.4781E-02
SHUTDOWN	4.5498E-01	8.3424E-02	3.6158E-03	8.3424E-06	2.7888E-03
AIR + FEP SV	1.2872E+01	4.8418E-01	3.1859E-01	2.1833E-02	4.8277E-03
FUEL VENTING	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01
FILL + SPILL	8.8008E-01	1.8794E-01	8.8008E-01	8.8008E-01	8.8008E-01
TOUCH + GO	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01
TOTAL	2.8797E+01	3.1386E+00	6.1444E-01	2.2246E-02	1.7824E-01

C 9A

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	2.1576E-01	4.1426E-02	8.6383E-03	2.5891E-03	4.3152E-03
TAXI OUT	2.6481E-01	5.4396E-02	1.8439E-02	3.1498E-03	5.2486E-03
ENGINE CHECK	1.4733E-03	7.3864E-04	5.2936E-03	3.8777E-03	1.2311E-03
RUNWAY ROLL	1.1196E-02	5.5958E-03	4.5807E-02	2.3312E-02	9.3250E-03
CLIMB 1	1.8726E-02	5.3631E-03	3.1435E-02	2.2346E-02	8.5285E-03
CLIMB 2	1.1467E-02	5.7336E-03	4.1891E-02	2.3898E-02	9.5568E-03
APPROACH 1	2.9018E-01	5.5886E-02	1.3187E-02	4.8975E-03	6.2793E-03
APPROACH 2	1.3171E-01	2.5345E-02	5.7598E-03	2.8286E-03	2.7848E-03
LANDING	1.1153E-01	2.1413E-02	4.4618E-03	1.3883E-03	2.2305E-03
TAXI IN	2.8892E-01	5.4112E-02	1.1315E-02	3.3945E-03	5.6575E-03
SHUTDOWN	2.8227E-02	5.8836E-03	3.8939E-04	2.4773E-04	4.2455E-04
AIR + FEP SV	9.5918E+00	4.0594E-01	2.5925E-01	1.6884E-02	2.0432E-03
FUEL VENTING	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01	8.8008E-01

FILL + SPILL	0.2000E-01	1.9750E-01	0.2000E-01	0.2000E-01	0.2000E-01	0.2000E-01
TOUCH + CO	0.2000E-01	0.2000E-01	0.2000E-01	0.2000E-01	0.2000E-01	0.2000E-01
TOTAL	1.0931E+01	8.7353E-01	4.1083E-01	1.6634E-01	5.0013E-02	5.0013E-02

F. TOTAL SUMMARY

F.1 SUMMARY OF ALL ANNUAL EMISSIONS ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	4.1527E+03	1.3736E+03	1.3379E+02	9.8668E+00	5.0782E+01
GROUND MOBIL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FACILITIES	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENVIRONS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
GRAND TOTAL	4.1527E+03	1.3736E+03	1.3379E+02	9.8668E+00	5.0782E+01

F.2 EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	100.000	100.000	100.000	100.000	100.000
GROUND MOBIL	0.000	0.000	0.000	0.000	0.000
FACILITIES	0.000	0.000	0.000	0.000	0.000
ENVIRONS	0.000	0.000	0.000	0.000	0.000

C.2 SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	9.4185E+01	5.8815E+01	2.3956E+00	7.8599E-01	1.0549E+00
TAXI OUT	5.9003E+01	3.8325E+01	2.1225E+00	4.7195E-01	7.8553E-01
ENGINE CHECK	7.6821E+01	4.1918E+01	5.8833E+00	6.8877E-01	1.2971E+00
RUNWAY ROLL	5.3522E+00	1.5482E-01	3.6413E+00	3.2198E-01	4.8178E-01
CLIMB 1	7.7548E+00	1.9141E-01	3.0414E+00	2.9832E-01	3.8397E-01
CLIMB 2	1.4788E+01	3.9376E-01	6.4532E+00	6.4885E-01	6.8429E-01
APPROACH 1	2.8338E+01	6.7521E+00	2.8828E+00	6.2937E-01	6.4816E-01
APPROACH 2	9.8573E+00	3.8235E+00	4.5877E-01	2.1675E-01	1.5425E-01
LANDING	1.8245E+01	7.8481E+00	4.5845E-01	1.5326E-01	1.9265E-01
TAXI IN	2.9629E+01	1.4371E+01	1.4593E+00	4.5811E-01	4.6531E-01
SHUTDOWN	9.4535E+00	6.8287E+00	3.9236E-01	1.1778E-01	1.4897E-01
ARR - DEP SV	5.9418E+02	2.4874E+01	2.8818E+01	2.8836E+00	7.6976E-01
FUEL VENTING	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.7822E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	1.5116E+02	5.5964E+01	7.8247E+01	5.8114E+00	9.8921E+00
TOTAL	1.0979E+03	2.5972E+02	1.2589E+02	1.1726E+01	1.6863E+01

F. TOTAL SUMMARY

F.1 SUMMARY OF ALL ANNUAL EMISSIONS ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	1.8979E+03	2.5972E+02	1.2589E+02	1.1726E+01	1.6863E+01
GROUND MOBIL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FACILITIES	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV. TONS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
GRAND TOTAL	1.8979E+03	2.5972E+02	1.2589E+02	1.1726E+01	1.6863E+01

F.2 EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	100.000	100.000	100.000	100.000	100.000
GROUND MOBIL	0.000	0.000	0.000	0.000	0.000
FACILITIES	0.000	0.000	0.000	0.000	0.000
ENVIRONS	0.000	0.000	0.000	0.000	0.000

APPENDIX E
INPUT DATA SETS AND OUTPUT LISTINGS FOR HOMESTEAD AIR FORCE BASE

INPUT DATA: SETS 2 AND 9 FOR ORIGINAL GSE ROUTINE


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*2      NAMELIST DATA
SEGDATA ACNAME(27)=6HEC-121,ACNAME(46)=8HHH3E/UH1,
EGNAME(41)=7HT53/T58,
EGEMFC(1,1,41)=172.2,EGEMFC(1,2,41)=9.48,EGEMFC(1,3,41)=8.5,EGEMFC(1,4,41)=8.,
EGEMFC(2,1,41)=95.78,EGEMFC(2,2,41)=8.68,EGEMFC(2,3,41)=8.6,EGEMFC(2,4,41)=8.,
EGEMFC(3,1,41)=2.888,EGEMFC(3,2,41)=5.18,EGEMFC(3,3,41)=5.4,EGEMFC(3,4,41)=8.,
EGEMFC(4,1,41)=8.288,EGEMFC(4,2,41)=1.18,EGEMFC(4,3,41)=1.6,EGEMFC(4,4,41)=8.,
EGEMFC(5,1,41)=1.888,EGEMFC(5,2,41)=1.88,EGEMFC(5,3,41)=1.8,EGEMFC(5,4,41)=8.,
EGFF(1,41)=.1138,EGFF(2,41)=.7898,EGFF(3,41)=.744,EGFF(4,41)=8.8,
IACABF(46)=8,IDACEG(46)=41,IEGABF(46)=8,IDRR(46)=37,S
SACDATA
APPHT=8.9144,CLMBHT=8.9144,ENGNO(46,2)=1,ENGNO(46,1)=2,DSCNT1(46)=1.8,
DSCNT2(46)=68.8,APSPD1(46)=129.6,APSPD2(46)=55.6,APPHT2(46)=8.121,
ASCNT1(46)=5.8,ASCNT2(46)=15.8,COSPD1(46)=74.8,COSPD2(46)=166.7,
COHT1(46)=8.121,TXISPD(46)=8.1,LNDSPD(46)=8.8,TOSPD(46)=16.9,
EGCHKT(46)=8.8,SHTDNT(46)=5.8,TOWT(46)=5.8,SRTUPT(46)=5.8,S
SDSDATA
ACDY(1,12)=8.194,ACDY(2,12)=8.815,ACDY(1,46)=8.16,ACDY(2,46)=8.18,
ACDY(1,27)=8.194,ACDY(2,27)=8.815,ACDY(1,32)=8.1,ACDY(2,32)=8.25,
ACDY(1,35)=8.194,ACDY(2,35)=8.815,ACDY(1,21)=8.143,ACDY(2,21)=8.143,
ACDY(1,26)=8.143,ACDY(2,26)=8.143,ACDY(1,24)=8.143,ACDY(2,24)=8.143,
ACHR(7,12)=8.887,ACHR(8,12)=8.857,ACHR(9,12)=8.864,ACHR(18,12)=8.864,
ACHR(11,12)=8.854,ACHR(12,12)=8.864,ACHR(13,12)=8.8,ACHR(14,12)=8.864,
ACHR(15,12)=8.864,ACHR(16,12)=8.864,ACHR(17,12)=8.864,ACHR(18,12)=8.864,
ACHR(19,12)=8.864,ACHR(20,12)=8.859,ACHR(21,12)=8.859,ACHR(22,12)=8.859,
ACHR(23,12)=8.859,ACHR(24,12)=8.859,ACHR(7,27)=8.8,ACHR(8,27)=8.8,ACHR(9,27)=8.8,
ACHR(18,27)=8.11,ACHR(11,27)=8.11,ACHR(12,27)=8.11,ACHR(13,27)=8.11,
ACHR(14,27)=8.11,ACHR(15,27)=8.11,ACHR(16,27)=8.11,ACHR(17,27)=8.11,
ACHR(18,27)=8.11,
ACHR(7,46)=8.8,ACHR(8,46)=8.8,ACHR(9,46)=8.13,ACHR(18,46)=8.13,
ACHR(11,46)=8.13,ACHR(12,46)=8.13,ACHR(13,46)=8.13,ACHR(14,46)=8.13,
ACHR(15,46)=8.13,ACHR(16,46)=8.13,ACHR(19,46)=8.828,ACHR(28,46)=8.828,
ACHR(21,46)=8.828,ACHR(22,46)=8.828,
VHMLMO(1)=8.8833,VHMLMO(2)=8.8833,VHMLMO(3)=8.8833,VHMLMO(4)=8.8833,
VHMLMO(5)=8.8833,VHMLMO(6)=8.8833,VHMLMO(7)=8.8833,VHMLMO(8)=8.8833,
VHMLMO(9)=8.8833,VHMLMO(10)=8.8833,VHMLMO(11)=8.8833,VHMLMO(12)=8.8833,
VHMLDY(1)=8.2,VHMLDY(2)=8.8,
VHMLHR(1)=8.8,VHMLHR(2)=8.8,VHMLHR(3)=8.8,VHMLHR(4)=8.8,VHMLHR(5)=8.8,
VHMLHR(6)=8.8,VHMLHR(7)=8.1,VHMLHR(8)=8.1,VHMLHR(9)=8.1,VHMLHR(10)=8.1,
VHMLHR(11)=8.1,VHMLHR(12)=8.1,VHMLHR(13)=8.1,VHMLHR(14)=8.1,
VHMLHR(15)=8.1,VHMLHR(16)=8.8333,VHMLHR(17)=8.8333,VHMLHR(18)=8.8333,
VHMLHR(19)=8.8,VHMLHR(20)=8.8,VHMLHR(21)=8.8,VHMLHR(22)=8.8,
VHMLHR(23)=8.8,VHMLHR(24)=8.8,
CVABMO(1)=8.88333,CVABMO(2)=8.88333,CVABMO(3)=8.88333,CVABMO(4)=8.88333,
CVABMO(5)=8.88333,CVABMO(6)=8.88333,CVABMO(7)=8.88333,CVABMO(8)=8.88333,
CVABMO(9)=8.88333,CVABMO(10)=8.88333,CVABMO(11)=8.88333,
CVABMO(12)=8.88333,
CVABDY(1)=8.1486,CVABDY(2)=8.1285,
CVABHR(1)=8.88136,CVABHR(2)=8.88136,CVABHR(3)=8.88136,CVABHR(4)=8.88136,
CVABHR(5)=8.88136,CVABHR(6)=8.88136,CVABHR(7)=8.8567,CVABHR(8)=8.8567,
CVABHR(9)=8.8567,CVABHR(10)=8.8624,CVABHR(11)=8.8624,CVABHR(12)=8.8624,
CVABHR(13)=8.8795,CVABHR(14)=8.8795,CVABHR(15)=8.8795,CVABHR(16)=8.8711,
CVABHR(17)=8.8711,CVABHR(18)=8.8711,CVABHR(19)=8.8391,CVABHR(20)=8.8391,
CVABHR(21)=8.8391,CVABHR(22)=8.8218,CVABHR(23)=8.8218,CVABHR(24)=8.8218,S

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44.99	2.63	0.14	0.31	0.03
46.30	2.71	0.14	0.32	0.03
0.	0.	0.	0.	0.
36.93	2.16	0.11	0.26	0.02
42.15	2.47	0.13	0.29	0.03
33.72	1.97	0.10	0.24	0.02
2.28	0.23	0.45	2.28	0.05
0.	0.	0.	0.	0.
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1.75	0.18	0.35	1.75	0.04
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0.51	0.05	0.10	0.51	0.01
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OUTPUT LISTING FOR ORIGINAL GSE ROUTINE

SECTION I
AIRCRAFT SOURCES

A. DEFAULT INFORMATION

A.1 ENGINE POLLUTANT EMISSION DATA

NAME	ID	THRUST SETTING	FUEL RATE 1000 LBS/HR	CO	HC	NOX	PM	SOX
POLLUTANT EMISSION DATA (POUNDS PER 1000 LBS OF FUEL)								
J 79-G15	1	IDLE	1.311E+00	5.70E+01	1.20E+01	2.50E+00	5.00E-01	1.00E+00
		APPROACH	2.720E+00	1.42E+01	1.80E+00	4.10E+00	1.40E+00	1.00E+00
		MILITARY	8.920E+00	2.20E+00	2.00E-01	8.90E+00	2.20E+00	1.00E+00
		AFTER BR	3.224E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
J57-P21B	2	IDLE	1.633E+00	7.20E+01	6.00E+01	2.30E+00	1.60E-01	1.00E+00
		APPROACH	2.500E+00	1.57E+01	4.20E+00	4.30E+00	7.20E-01	1.00E+00
		MILITARY	7.693E+00	2.00E+00	1.00E-01	9.80E+00	2.00E+00	1.00E+00
		AFTER BR	3.610E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
J57-59W	3	IDLE	1.250E+00	6.50E+01	5.20E+01	2.40E+00	1.30E-01	1.00E+00
		APPROACH	1.850E+00	3.25E+01	1.42E+01	3.30E+00	2.20E-01	1.00E+00
		MILITARY	7.900E+00	2.40E+00	2.00E-01	1.13E+01	8.40E-01	1.00E+00
		AFTER BR	1.213E+01	2.11E+01	2.20E+00	2.70E+00	2.25E+01	1.00E+00
TF33-P3	4	IDLE	9.001E-01	8.40E+01	1.07E+02	1.00E+00	2.30E-01	1.00E+00
		APPROACH	3.797E+00	6.30E+00	2.60E+00	5.00E+00	9.90E-01	1.00E+00
		MILITARY	7.436E+00	1.70E+00	6.00E-01	1.00E+01	1.73E+00	1.00E+00
TF30-P7	5	IDLE	9.350E-01	5.30E+01	3.00E+01	3.00E+00	2.10E-02	1.00E+00
		APPROACH	2.100E+00	1.15E+01	3.20E+00	6.10E+00	1.20E-01	1.00E+00
		MILITARY	7.250E+00	8.00E-01	2.00E-01	2.00E+01	3.50E-01	1.00E+00
		AFTER BR	3.840E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
J 85-5	6	IDLE	4.600E-01	1.70E+02	3.00E+01	1.30E+00	3.00E-03	1.00E+00
		APPROACH	1.000E+00	7.36E+01	6.40E+00	1.80E+00	7.00E-03	1.00E+00
		MILITARY	2.527E+00	2.90E+01	7.00E-01	2.60E+00	1.80E-02	1.00E+00
		AFTER BR	8.323E+00	2.60E+01	7.00E-02	1.99E+00	8.00E-03	1.00E+00
J75-P17	7	IDLE	1.552E+00	8.60E+01	7.20E+01	2.30E+00	2.30E-01	1.00E+00
		APPROACH	3.500E+00	1.75E+01	5.20E+00	4.30E+00	4.40E-01	1.00E+00
		MILITARY	1.294E+01	1.30E+00	1.00E-01	1.20E+01	1.00E+00	1.00E+00
		AFTER BR	6.370E+01	4.00E+00	1.00E-02	3.11E+00	1.50E-01	1.00E+00
TF39	8	IDLE	1.133E+00	6.70E+01	2.30E+01	3.00E+00	1.50E-02	1.00E+00
		APPROACH	1.500E+00	3.92E+01	1.32E+01	3.90E+00	1.60E-02	1.00E+00
		MILITARY	1.269E+01	7.00E-01	2.00E-01	2.00E+01	2.50E-02	1.00E+00
T 56-A7	9	IDLE	7.250E-01	3.20E+01	2.10E+01	3.90E+00	8.30E-01	1.00E+00
		APPROACH	8.270E-01	2.22E+01	1.24E+01	4.40E+00	9.70E-01	1.00E+00
		MILITARY	1.967E+00	2.10E+00	4.00E-01	9.30E+00	5.00E-01	1.00E+00
T 76	10	IDLE	2.500E-01	2.30E+01	7.40E+00	7.40E+00	3.80E-01	1.00E+00
		APPROACH	4.500E-01	1.72E+01	8.50E+00	8.50E+00	5.00E-01	1.00E+00
		MILITARY	9.000E-01	2.30E+00	6.00E-02	1.03E+01	7.10E-01	1.00E+00
0470	11	IDLE	1.500E-02	7.43E+02	1.91E+02	1.10E+00	6.00E+01	5.00E-01
		APPROACH	6.100E-02	7.13E+02	1.71E+01	1.00E+00	4.55E+01	6.00E-01
		MILITARY	1.310E-01	1.16E+03	2.04E+01	9.40E+00	2.00E+01	5.00E-01
0360	12	IDLE	3.000E-02	8.40E+02	1.45E+02	1.10E+00	6.00E+01	6.00E-01
		APPROACH	4.000E-02	8.79E+02	2.50E+02	2.50E+00	5.00E+01	5.00E-01
		MILITARY	9.000E-02	1.03E+03	2.25E+01	5.30E+00	2.00E+01	5.00E-01
J57-P43W	13	IDLE	9.860E-01	7.80E+01	7.50E+01	2.20E+00	1.40E-01	1.00E+00
		APPROACH	1.845E+00	2.40E+01	9.20E+00	3.32E+01	2.93E-01	1.00E+00
		MILITARY	7.770E+00	1.50E+00	1.00E-01	1.10E+01	1.74E+00	1.00E+00

J69-T25	14	IDLE APPROACH MILITARY	2.310E-01 2.880E-01 1.095E+00	1.29E+02 1.11E+01 3.20E+01	1.90E+01 1.11E+01 5.00E-01	1.50E+00 1.70E+00 3.60E+00	5.50E-01 2.80E-01 2.00E-02	1.00E+00 1.00E+00 1.00E+00
J79-G17	15	IDLE APPROACH MILITARY AFTER BR	1.060E+00 3.340E+00 9.820E+00 3.935E+01	4.01E+01 2.85E+01 1.80E+00 4.00E+00	9.00E+00 6.30E+00 6.00E-02 1.00E-02	2.70E+00 5.30E+00 1.40E+01 3.11E+00	2.30E-01 8.20E-01 2.22E+00 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF30P100	16	IDLE APPROACH MILITARY AFTER BR	9.480E-01 2.180E+00 9.077E+00 5.400E+01	4.00E+01 9.90E+00 7.00E-01 4.00E+00	1.90E+01 2.70E+00 1.00E-01 1.00E-02	2.90E+00 6.30E+00 2.80E+01 3.11E+00	2.00E-02 8.00E-02 1.00E-01 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF34-100	17	IDLE APPROACH MILITARY	3.900E-01 1.250E+00 2.562E+00	1.06E+02 8.9E+00 2.30E+00	3.20E+01 6.00E-01 1.00E-01	2.00E+00 5.00E+00 1.00E+01	4.00E-02 2.00E-02 5.00E-02	1.00E+00 1.00E+00 1.00E+00
TF41	18	IDLE APPROACH MILITARY	1.005E+00 3.500E+00 8.419E+00	1.19E+02 1.02E+01 1.00E+00	9.20E+01 2.20E+00 2.00E-01	1.50E+00 6.00E+00 2.10E+01	1.50E-01 3.60E-01 6.70E-01	1.00E+00 1.00E+00 1.00E+00
F100	19	IDLE APPROACH MILITARY AFTER BR	1.417E+00 3.000E+00 1.032E+01 4.601E+01	2.40E+01 5.00E+00 9.00E-01 4.00E+00	3.20E+00 1.90E+00 1.00E-01 6.00E-01	3.30E+00 6.70E+00 2.70E+01 3.11E+00	1.20E-01 2.70E-01 3.40E-01 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
F101	20	IDLE APPROACH MILITARY AFTER BR	0.000E-01 0.000E-01 0.000E-01 0.000E-01	5.72E+01 8.00E+00 1.40E+00 4.00E+00	1.20E+01 2.00E-01 2.00E-01 1.00E-02	3.50E+00 8.40E+00 2.40E+01 3.11E+00	4.40E-02 4.50E-02 5.00E-02 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
T 56-A15	21	IDLE APPROACH MILITARY	4.930E-01 8.270E-01 2.392E+00	1.01E+01 0.50E+00 1.60E+00	1.51E+01 3.40E+00 2.00E-01	2.40E+00 3.70E+00 1.17E+01	3.80E-01 4.70E-01 7.10E-01	1.00E+00 1.00E+00 1.00E+00
TF39 LS	22	IDLE APPROACH MILITARY	1.134E+00 1.500E+00 1.269E+01	5.00E+01 4.84E+01 5.00E-01	1.50E+01 1.45E+01 1.00E-01	3.50E+00 4.60E+00 4.00E+01	4.00E-02 4.00E-02 4.00E-02	1.00E+00 1.00E+00 1.00E+00
J50-P58	23	IDLE APPROACH MILITARY	4.630E-01 5.200E-01 2.467E+00	7.00E+01 5.05E+01 4.00E+00	9.20E+00 5.60E+00 1.00E-01	1.50E+00 1.70E+00 4.60E+00	2.00E-02 3.00E-02 1.70E-01	1.00E+00 1.00E+00 1.00E+00
J-33	24	IDLE APPROACH MILITARY	1.200E+00 2.000E+00 5.525E+00	1.27E+02 0.46E+01 3.13E+01	1.95E+01 6.00E+00 5.00E-01	1.50E+00 1.90E+00 3.60E+00	7.30E-01 5.70E-01 2.00E-02	1.00E+00 1.00E+00 1.00E+00
JT-80	25	IDLE APPROACH MILITARY	9.590E-01 1.500E+00 0.755E+00	5.00E+01 4.62E+01 1.20E+00	9.60E+00 8.90E+00 6.00E-01	2.00E+00 2.10E+00 4.30E+00	6.00E-01 7.80E-01 2.50E+00	1.00E+00 1.00E+00 1.00E+00
R-4300	26	IDLE APPROACH MILITARY	1.403E-01 7.930E-01 1.210E+00	7.43E+02 6.92E+02 1.16E+03	9.1E+02 9.46E+00 2.04E+01	1.00E+00 9.37E+00 1.11E+01	6.00E-01 4.00E-01 2.00E+01	6.00E-01 6.00E-01 6.00E-01
R-3350	27	IDLE APPROACH MILITARY	1.070E+01 6.100E-01 9.360E-01	7.43E+02 6.92E+02 1.16E+03	1.91E+02 9.46E+00 2.04E+01	1.00E+00 9.37E+00 1.11E+01	6.00E-01 4.00E-01 2.00E+01	6.00E-01 6.00E-01 6.00E-01
J57-P19V	28	IDLE APPROACH MILITARY	9.500E-01 3.375E+00 7.469E+00	7.90E+01 7.90E+00 1.90E+00	7.70E+01 1.40E+00 1.00E-01	2.20E+00 5.00E+00 1.10E+01	1.60E-01 9.30E-01 1.72E+00	1.00E+00 1.00E+00 1.00E+00

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J75-19W	29	IDLE APPROACH MILITARY	1.552E+00 1.799E+00 1.368E+01	6.20E+01 5.04E+01 1.50E+00	3.00E+01 2.73E+01 3.00E-01	2.60E+00 2.00E+00 1.00E+01	2.30E-01 2.50E-01 1.04E+00	1.00E+00 1.00E+00 1.00E+00
TF30-P3	30	IDLE APPROACH MILITARY	6.500E-01 2.100E+00 6.140E+00	7.20E+01 9.20E+00 8.00E-01	6.20E+01 4.00E+00 3.00E-02	2.30E+00 4.00E+00 1.20E+01	6.00E-03 5.00E-02 4.00E-01	1.00E+00 1.00E+00 1.00E+00
TF33-P7	31	IDLE APPROACH MILITARY	1.007E+00 2.500E+00 0.711E+00	9.30E+01 1.37E+01 0.00E-01	7.70E+01 3.60E+00 3.00E-02	1.00E+00 3.00E+00 1.20E+01	1.10E-01 3.90E-01 9.10E-01	1.00E+00 1.00E+00 1.00E+00
J79-G15*	32	IDLE APPROACH MILITARY AFTER BR	1.130E+00 3.500E+00 0.929E+00 3.224E+01	5.70E+01 9.40E+00 2.20E+00 4.00E+00	1.20E+01 1.10E+00 2.00E-01 1.00E-02	2.50E+00 4.00E+00 8.90E+00 3.11E+00	5.00E-01 1.00E+00 2.20E+00 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF33-P3*	33	IDLE APPROACH MILITARY	9.000E-01 3.500E+00 7.436E+00	8.40E+01 7.10E+00 1.70E+00	1.07E+02 3.10E+00 6.00E-01	1.00E+00 5.40E+00 1.00E+01	2.30E-01 9.30E-01 1.73E+00	1.00E+00 1.00E+00 1.00E+00
TF33-P3*	34	IDLE APPROACH MILITARY	9.000E-01 3.000E+00 7.436E+00	8.40E+01 1.00E+01 1.70E+00	1.07E+02 4.60E+00 6.00E-01	1.00E+00 4.00E+00 1.00E+01	2.30E-01 7.00E-01 1.73E+00	1.00E+00 1.00E+00 1.00E+00
J 85-5*	35	IDLE APPROACH MILITARY AFTER BR	4.530E-01 1.402E+00 2.600E+00 0.323E+00	1.70E+02 4.30E+01 2.90E+01 2.60E+01	3.00E+01 3.50E+00 8.00E-01 7.00E-02	1.30E+00 2.30E+00 2.60E+00 1.99E+00	3.00E-03 1.00E-02 1.00E-02 8.00E-03	1.00E+00 1.00E+00 1.00E+00 1.00E+00
0360*	36	IDLE APPROACH MILITARY	3.000E-02 6.200E-02 9.000E-02	8.40E+02 9.46E+02 1.03E+03	1.45E+02 2.36E+01 2.25E+01	1.10E+00 5.50E+00 6.30E+00	6.00E+01 4.00E+01 2.00E+01	6.00E-01 6.00E-01 6.00E-01
J79-G17*	37	IDLE APPROACH MILITARY AFTER BR	1.000E+00 3.500E+00 9.000E+00 3.495E+01	4.01E+01 2.77E+01 1.00E+00 4.00E+00	9.00E+00 6.20E+00 6.00E-03 1.00E-02	2.70E+00 5.50E+00 1.40E+01 3.11E+00	2.30E-01 8.00E-01 2.22E+00 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
J5/-P43*	38	IDLE APPROACH MILITARY	9.000E-01 3.000E+00 7.779E+00	7.00E+01 9.70E+00 1.50E+00	7.50E+01 1.00E+01 1.00E-01	2.20E+00 2.11E+01 1.10E+01	1.40E-01 5.20E-01 1.74E+00	1.00E+00 1.00E+00 1.00E+00
TS3/TS0	41	IDLE APPROACH MILITARY AFTER BR	1.130E-01 7.000E-01 7.440E-01 0.000E-01	1.72E+02 9.40E+00 6.50E+00 0.00E-01	9.57E+01 6.00E-01 8.00E-01 0.00E-01	2.00E+00 5.10E+00 8.00E-01 0.00E-01	2.00E-01 1.00E+00 1.00E+00 0.00E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00

A.2 ENGINE POLLUTANT EMISSION RATES

NAME	ID	THRUST SETTING	FUEL RATE 1000 LBS/HR	CO	HC	POLLUTANT EMISSION RATE (KILOGRAMS PER HOUR)	SOX	PM
J 79-G15	1	IDLE	3.39E+01	7.14E+00	1.49E+00	2.97E+01	5.95E+01	
		APPROACH	1.75E+01	2.22E+00	5.86E+00	1.73E+00	1.23E+00	
		MILITARY	8.91E+00	8.18E+01	8.91E+00	8.91E+00	4.85E+00	
		AFTER BR	5.85E+01	1.46E+01	4.55E+01	2.19E+00	1.46E+01	
J57-P21B	2	IDLE	3.47E+01	2.89E+01	1.11E+00	7.71E+02	4.82E+01	
		APPROACH	1.78E+01	4.76E+00	4.88E+00	8.16E+01	1.13E+00	
		MILITARY	6.98E+00	3.42E+01	3.42E+01	6.98E+00	3.49E+00	
		AFTER BR	6.55E+01	1.64E+01	5.89E+01	2.46E+00	1.64E+01	
J57-S9W	3	IDLE	3.69E+01	3.88E+01	1.36E+00	7.37E+02	5.67E+01	
		APPROACH	2.73E+01	1.19E+01	2.77E+00	1.85E+01	8.39E+01	
		MILITARY	8.68E+00	7.17E+01	4.85E+01	3.81E+00	3.58E+00	
		AFTER BR	1.16E+02	1.21E+01	1.49E+01	1.24E+02	5.58E+00	
TF33-P3	4	IDLE	3.43E+01	4.37E+01	7.35E+01	9.39E+02	4.88E+01	
		APPROACH	1.89E+01	4.48E+00	9.99E+00	1.71E+00	1.72E+00	
		MILITARY	5.73E+00	2.82E+00	3.37E+01	5.84E+00	3.37E+00	
TF38-P7	5	IDLE	2.25E+01	1.27E+01	1.27E+00	8.91E+03	4.24E+01	
		APPROACH	1.18E+01	3.85E+00	6.81E+00	1.14E+01	9.53E+01	
		MILITARY	2.63E+00	3.29E+01	6.58E+01	1.15E+00	3.29E+00	
		AFTER BR	6.97E+01	1.74E+01	5.42E+01	2.61E+00	1.74E+01	
J 85-5	6	IDLE	3.79E+01	6.39E+00	2.77E+01	6.38E+04	2.13E+01	
		APPROACH	3.44E+01	2.98E+00	8.16E+01	3.18E+03	4.54E+01	
		MILITARY	3.32E+01	9.17E+01	2.98E+00	2.86E+02	1.15E+00	
		AFTER BR	9.83E+01	2.64E+01	7.51E+00	3.82E+02	3.78E+00	
J75-P17	7	IDLE	6.85E+01	5.87E+01	1.62E+00	1.62E+01	7.84E+01	
		APPROACH	2.78E+01	8.26E+00	6.83E+00	6.99E+01	1.59E+00	
		MILITARY	7.63E+00	5.87E+01	7.85E+01	6.34E+00	5.87E+00	
		AFTER BR	9.74E+01	2.44E+01	7.58E+01	3.65E+00	2.44E+01	
TF39	8	IDLE	3.44E+01	1.18E+01	1.54E+00	7.71E+03	5.14E+01	
		APPROACH	2.67E+01	8.98E+00	2.65E+00	1.89E+02	6.88E+01	
		MILITARY	4.83E+00	1.15E+00	1.61E+02	1.44E+01	5.75E+00	
T 56-A7	9	IDLE	1.85E+01	6.91E+00	1.28E+00	2.73E+01	3.29E+01	
		APPROACH	8.33E+00	4.65E+00	1.65E+00	3.64E+01	3.75E+01	
		MILITARY	1.87E+00	3.57E+01	8.38E+00	4.46E+01	8.92E+01	
T 76	10	IDLE	2.78E+00	8.39E+01	8.39E+01	4.31E+02	1.13E+01	
		APPROACH	3.51E+00	1.63E+01	1.73E+00	1.82E+01	2.44E+01	
		MILITARY	9.39E+01	2.48E+02	4.28E+00	2.98E+01	4.88E+01	
8478	11	IDLE	5.86E+00	1.38E+00	7.48E+03	4.88E+01	4.88E+03	
		APPROACH	1.97E+01	4.73E+01	2.77E+02	1.26E+00	1.66E+02	
		MILITARY	6.89E+01	1.21E+00	5.59E+01	1.19E+00	3.57E+02	
8368	12	IDLE	1.15E+01	1.97E+00	1.58E+02	8.16E+01	8.16E+03	
		APPROACH	1.59E+01	1.28E+00	4.54E+02	9.98E+01	1.89E+02	
		MILITARY	4.28E+01	9.19E+01	2.16E+01	8.16E+01	2.45E+02	
J57-P43W	13	IDLE	3.49E+01	3.35E+01	9.84E+01	6.26E+02	4.47E+01	
		APPROACH	2.81E+01	7.72E+00	2.78E+01	2.46E+01	8.39E+01	
		MILITARY	5.29E+00	3.63E+01	3.88E+01	6.14E+00	3.53E+00	
859-T25	14	IDLE	1.35E+01	1.99E+00	1.57E+01	5.76E+02	1.85E+01	

079-G17	15	APPROACH MILITARY	2.88E+01 1.89E+00	1.48E+01 1.59E+01	1.45E+00 2.48E-01	2.22E-01 1.79E+00	3.66E-02 9.93E-03	1.31E-01 4.97E-01
		IDLE	1.86E+00 3.34E+00	1.93E+01 4.32E+01	4.33E+00 9.54E+00	1.38E+00 8.83E+00	1.11E-01 1.24E+00	4.81E-01 1.52E+00
		APPROACH	9.82E+00 3.45E+01	8.82E+00 6.34E+01	2.67E-01 1.59E-01	6.59E+01 4.93E+01	9.89E+00 2.38E+00	4.45E+00 1.59E+01
		MILITARY						
		AFTER BR						
TF30P180	16	IDLE	9.48E+01 2.18E+00	2.86E+01 9.43E+00	8.17E+00 2.57E+00	1.25E+00 6.88E+00	8.68E-03 7.62E-02	4.38E-01 9.63E-01
		APPROACH	9.87E+00 5.48E+01	9.87E+00 5.48E+01	4.12E-01 2.45E-01	1.15E+02 7.62E+01	9.88E-01 3.67E+00	4.12E+00 2.45E+01
		MILITARY						
		AFTER BR						
TF34-180	17	IDLE	3.98E+01 1.25E+00	1.88E+01 4.71E+00	5.66E+00 3.48E-01	3.54E-01 3.29E+00	7.88E-03 1.13E-02	1.77E-01 5.67E-01
		APPROACH	2.58E+00 2.58E+00	2.67E+00 2.67E+00	1.16E-01 1.16E-01	1.16E+01 1.16E+01	5.81E-02 5.81E-02	1.16E+00 1.16E+00
		MILITARY						
		AFTER BR						
TF41	18	IDLE	1.89E+00 3.58E+00	5.45E+01 1.62E+01	4.21E+01 3.49E+00	6.87E-01 1.88E+01	6.87E-02 5.72E-01	4.58E-01 1.59E+00
		APPROACH	8.41E+00 1.41E+00	6.87E+00 1.54E+01	7.64E-01 2.86E+00	8.82E+01 2.12E+00	2.56E+00 7.71E-02	3.82E+00 6.43E-01
		MILITARY						
		AFTER BR						
F180	19	IDLE	3.88E+00 1.83E+01	7.89E+00 4.22E+00	2.59E+00 4.68E-01	9.12E+00 1.26E+02	3.67E-01 1.59E+00	1.36E+00 4.68E+00
		APPROACH	4.68E+01 8.35E+01	8.35E+01 8.35E+01	1.28E+01 1.28E+01	6.49E+01 6.49E+01	3.13E+00 3.13E+00	2.89E+01 2.89E+01
		MILITARY						
		AFTER BR						
F181	20	IDLE	8.88E-01 4.93E-01	8.88E-01 4.93E-01	8.88E-01 4.93E-01	8.88E-01 4.93E-01	8.88E-01 4.93E-01	8.88E-01 4.93E-01
		APPROACH	8.27E-01 2.39E+00	3.19E+00 1.74E+00	3.38E+00 2.17E-01	5.37E-01 1.27E+01	8.58E-02 7.78E-01	2.24E-01 1.88E+00
		MILITARY						
		AFTER BR						
TF39 LS	22	IDLE	1.134E+00 1.58E+00	2.57E+01 3.29E+01	7.72E+00 9.87E-00	1.88E+00 3.13E+00	2.86E-02 2.72E-02	5.14E-01 6.88E-01
		APPROACH	1.58E+00 1.26E+01	3.29E+01 1.26E+01	9.87E-00 5.75E-01	3.13E+00 2.38E-01	2.72E-02 2.38E-01	6.88E-01 5.75E+00
		MILITARY						
		AFTER BR						
J68-P58	23	IDLE	4.63E-01 5.28E-01	1.47E+01 1.19E+01	1.93E+00 1.32E+00	3.15E-01 4.81E-01	4.28E-03 7.88E-03	2.18E-01 2.36E-01
		APPROACH	2.467E+00 1.28E+00	4.48E+00 6.91E+01	1.12E-01 1.86E+01	5.16E+00 8.16E-01	1.98E-01 3.97E-01	1.12E+00 5.44E-01
		MILITARY						
		AFTER BR						
J-33	24	IDLE	1.28E+00 2.88E+00	6.91E+01 7.67E+01	1.86E+01 5.98E+00	8.16E-01 1.72E+00	3.97E-01 5.17E-01	5.44E-01 9.87E-01
		APPROACH	2.88E+00 5.52E+00	7.67E+01 7.84E+01	5.98E+00 1.25E+00	1.72E+00 9.82E+00	5.17E-01 5.81E-02	9.87E-01 2.51E+00
		MILITARY						
		AFTER BR						
JT-80	25	IDLE	9.58E-01 1.58E+00	2.17E+01 3.14E+01	4.18E+00 6.88E+00	8.78E-01 1.43E+00	2.61E-01 5.31E-01	4.38E-01 6.88E-01
		APPROACH	8.75E+00 1.48E+01	4.77E+00 4.73E+01	2.38E+00 1.22E+01	1.71E+01 6.36E-02	9.93E+00 3.82E+00	3.97E+00 3.82E-02
		MILITARY						
		AFTER BR						
R-4350	26	IDLE	1.48E+01 7.93E-01	4.73E+01 2.49E+02	1.22E+01 3.41E+00	6.36E-02 3.37E+00	3.82E+00 1.44E+01	3.82E-02 1.44E+01
		APPROACH	7.93E-01 1.218E+00	2.49E+02 6.41E+02	3.41E+00 1.13E+01	3.37E+00 6.13E+00	1.44E+01 1.18E+01	1.44E+01 3.31E-01
		MILITARY						
		AFTER BR						
R-3350	27	IDLE	1.87E-01 6.18E-01	3.61E+01 1.91E+02	9.27E+00 4.92E+02	4.85E-02 8.66E+00	2.91E+00 1.11E+01	2.91E-02 1.11E+01
		APPROACH	6.18E-01 9.36E-01	1.91E+02 4.92E+02	4.92E+02 8.66E+00	8.66E+00 4.71E+00	1.11E+01 8.49E+00	1.11E+01 8.49E+00
		MILITARY						
		AFTER BR						
J57-P19W	28	IDLE	9.58E-01 3.37E+00	3.48E+01 1.21E+01	3.32E+01 2.14E+00	9.48E-01 8.88E+00	6.89E-02 1.42E+00	4.31E-01 1.42E+00
		APPROACH	3.37E+00 7.46E+00	1.21E+01 6.44E+00	2.14E+00 3.39E-01	8.88E+00 3.73E+01	1.42E+00 5.83E+00	1.42E+00 5.83E+00
		MILITARY						
		AFTER BR						
J75-19W	29	IDLE	1.55E+00 1.78E+00	4.36E+01 3.91E+01	2.68E+01 2.12E+01	1.83E+00 2.17E+01	1.62E-01 1.94E-01	7.84E-01 7.75E-01
		APPROACH	1.78E+00 1.36E+01	3.91E+01 9.26E+00	2.12E+01 1.86E+00	2.17E+01 6.17E+01	1.94E-01 6.42E+00	7.75E-01 6.42E+00
		MILITARY						
		AFTER BR						

TF38-P3	30	IDLE APPROACH MILITARY	8.500E-01 2.100E+00 6.140E+00	2.70E+01 8.76E+00 2.23E+00	2.39E+01 2.00E+00 8.37E-02	8.07E-01 4.57E+00 3.35E+01	2.31E-03 4.76E-02 1.12E+00	3.06E-01 9.53E-01 2.79E+00
TF33-P7	31	IDLE APPROACH MILITARY	1.067E+00 2.500E+00 8.711E+00	4.50E+01 1.55E+01 3.16E+00	3.73E+01 4.00E+00 1.19E-01	8.71E-01 4.31E+00 4.74E+01	5.32E-02 4.42E-01 3.60E+00	4.04E-01 1.13E+00 3.95E+00
J79-G15*	32	IDLE APPROACH MILITARY AFTER BR	1.130E+00 3.500E+00 8.929E+00 3.224E+01	2.92E+01 1.49E+01 8.91E+00 5.05E+01	6.15E+00 1.75E+00 8.10E-01 1.46E-01	1.20E+00 7.62E+00 3.60E+01 4.55E+01	2.56E-01 2.06E+00 8.91E+00 2.19E+00	5.13E-01 1.59E+00 4.05E+00 1.46E+01
TF33-P3*	33	IDLE APPROACH MILITARY	9.000E-01 3.500E+00 7.436E+00	3.43E+01 1.14E+01 5.73E+00	4.37E+01 4.90E+00 2.02E+00	7.35E-01 8.70E+00 3.37E+01	9.39E-02 1.50E+00 5.04E+00	4.00E-01 1.61E+00 3.37E+00
TF33-P3*	34	IDLE APPROACH MILITARY	9.000E-01 3.000E+00 7.436E+00	3.43E+01 1.36E+01 5.73E+00	4.37E+01 6.28E+00 2.02E+00	7.35E-01 6.53E+00 3.37E+01	9.39E-02 1.06E+00 5.04E+00	4.00E-01 1.36E+00 3.37E+00
J 85-S*	35	IDLE APPROACH MILITARY AFTER BR	4.530E-01 1.462E+00 2.630E+00 8.323E+00	3.66E+01 2.05E+01 3.16E+01 9.03E+01	6.16E+00 2.32E+00 9.54E-01 2.64E-01	2.67E-01 1.53E+00 3.10E+00 7.51E+00	6.16E-04 7.29E-03 2.15E-02 3.02E-02	2.05E-01 6.63E-01 1.19E+00 3.70E+00
J360*	36	IDLE APPROACH MILITARY	3.000E-02 6.200E-02 9.000E-02	1.15E+01 2.66E+01 4.20E+01	1.97E+00 6.64E-01 9.19E-01	1.50E-02 1.55E-01 2.16E-01	8.16E-01 1.15E+00 8.16E-01	8.16E-03 1.69E-02 2.45E-02
J79-G17*	37	IDLE APPROACH MILITARY AFTER BR	1.060E+00 3.500E+00 9.020E+00 3.495E+01	1.93E+01 4.40E+01 8.02E+00 6.34E+01	4.33E+00 9.04E+00 2.67E-02 1.59E-01	1.30E+00 8.73E+00 6.59E+01 4.93E+01	1.11E-01 1.37E+00 9.09E+00 2.30E+00	4.01E-01 1.59E+00 4.45E+00 1.59E+01
J57-P43*	38	IDLE APPROACH MILITARY	9.000E-01 3.000E+00 7.779E+00	3.49E+01 1.32E+01 5.29E+00	3.35E+01 2.45E+00 3.53E-01	9.04E-01 2.87E+00 3.88E+01	6.26E-02 7.00E-01 6.14E+00	4.47E-01 1.36E+00 3.53E+00
T53/T58	41	IDLE APPROACH MILITARY AFTER BR	1.130E-01 7.092E-01 7.440E-01 8.000E-01	8.03E+00 1.93E-01 2.07E+00 8.00E-01	4.91E+00 1.93E-01 2.07E-01 5.00E-01	1.03E-01 1.64E+00 1.82E+00 0.00E-01	1.03E-02 3.54E-01 5.40E-01 0.00E-01	5.13E-02 1.22E-01 3.37E-01 0.00E-01

8. INPUT INFORMATION

8.1 INFORMATION ON AIRCRAFT ACTIVITY, PARKING AREAS, TAXIWAYS, AND RUNWAYS

AIRCRAFT NAME	AIRCRAFT ACTIVITY		
	NUMBER OF AIRCRAFT TYPES - 8	(ANNUAL NUMBER OF) DEPARTURES	T/G CYCLES
F 4-C/F	12868	12868	9648
HH3E/UH1	1848	1848	9352
EC-121	668	668	2948
C 138	855	855	8
O 1	855	855	8
C 121	268	268	8
T 38	587	587	8
C 141A	587	587	8

PARKING AREAS

NUMBER OF PARKING AREAS - 6

PARKING AREA NUMBER - 1		THE NUMBER OF SQUARES MAKING UP THIS AREA - 2	
SQUARE NUMBER - 1	X = 561.778	Y = 2819.398	LENGTH OF SIDE = 8.488 KM
SQUARE NUMBER - 2	X = 561.958	Y = 2819.728	LENGTH OF SIDE = 8.268 KM
PARKING AREA NUMBER - 2		THE NUMBER OF SQUARES MAKING UP THIS AREA - 1	
SQUARE NUMBER - 1	X = 562.488	Y = 2828.888	LENGTH OF SIDE = 8.488 KM
PARKING AREA NUMBER - 3		THE NUMBER OF SQUARES MAKING UP THIS AREA - 2	
SQUARE NUMBER - 1	X = 568.998	Y = 2818.898	LENGTH OF SIDE = 8.348 KM
SQUARE NUMBER - 2	X = 561.378	Y = 2819.158	LENGTH OF SIDE = 8.428 KM
PARKING AREA NUMBER - 4		THE NUMBER OF SQUARES MAKING UP THIS AREA - 1	
SQUARE NUMBER - 1	X = 568.888	Y = 2819.588	LENGTH OF SIDE = 8.318 KM
PARKING AREA NUMBER - 5		THE NUMBER OF SQUARES MAKING UP THIS AREA - 1	
SQUARE NUMBER - 1	X = 568.188	Y = 2819.148	LENGTH OF SIDE = 8.388 KM
PARKING AREA NUMBER - 6		THE NUMBER OF SQUARES MAKING UP THIS AREA - 1	
SQUARE NUMBER - 1	X = 562.818	Y = 2828.388	LENGTH OF SIDE = 8.378 KM

TAXIWAYS

NUMBER OF CATALOGUED AIRCRAFT TAXIWAY LINE SEGMENTS = 21

LINE NO.	GROUND LEVEL COORDINATES OF ONE END OF LINE X(1) Y(1)	AVERAGE EMISSION HEIGHT (METERS) X(1) Y(1)	WIDTH OF LINE (MET)	DELTA Z (METERS)	GROUND LEVEL COORDINATES AT OPPOSITE END OF LINE X(2) Y(2)	AVERAGE EMISSION HEIGHT (METERS) X(2) Y(2)	SEGMENT LENGTH (KM)
1	560.800 2819.500	2.00	28.00	8.00	560.300 2819.050	2.00	0.589
2	560.850 2818.480	2.00	28.00	8.00	560.440 2818.120	2.00	0.546
3	560.440 2818.480	2.00	28.00	8.00	560.640 2817.870	2.00	0.520
4	560.850 2818.480	2.00	28.00	8.00	561.130 2818.720	2.00	0.369
5	561.130 2818.720	2.00	28.00	8.00	560.990 2818.890	2.00	0.220
6	561.130 2818.720	2.00	28.00	8.00	561.480 2819.030	2.00	0.468
7	561.480 2819.030	2.00	28.00	8.00	561.370 2819.150	2.00	0.163
8	561.480 2819.030	2.00	28.00	8.00	561.020 2819.330	2.00	0.453
9	561.020 2819.330	2.00	28.00	8.00	561.770 2819.380	2.00	0.871
10	561.020 2819.330	2.00	28.00	8.00	562.020 2819.500	2.00	0.262
11	562.020 2819.500	2.00	28.00	8.00	561.950 2819.720	2.00	0.231
12	562.020 2819.500	2.00	28.00	8.00	562.490 2819.500	2.00	0.617
13	562.490 2819.500	2.00	28.00	8.00	562.410 2820.000	2.00	0.128
14	562.490 2819.500	2.00	28.00	8.00	562.900 2820.260	2.00	0.546
15	562.900 2820.260	2.00	28.00	8.00	562.810 2820.370	2.00	0.142
16	562.900 2820.260	2.00	28.00	8.00	563.000 2820.350	2.00	0.135
17	563.000 2820.350	2.00	28.00	8.00	563.220 2820.090	2.00	0.341
18	560.300 2819.050	2.00	28.00	8.00	560.850 2818.480	2.00	0.739
19	560.300 2819.050	2.00	28.00	8.00	560.400 2819.150	2.00	0.141
20	562.450 2819.770	2.00	28.00	8.00	562.340 2819.650	2.00	0.163
21	562.340 2819.770	2.00	28.00	8.00	562.490 2819.500	2.00	0.198

RUNWAYS

NUMBER OF RUNWAYS = 4

RUNWAY ID NUMBER = 5

COORDINATES (KM) (X) (Y)	AVERAGE EMISSION HEIGHT (MET)	HORIZONTAL PLUME DISPERSION (MET)	VERTICAL PLUME DISPERSION (MET)	RUNWAY VECTOR ANGLE (DEG)	RUNWAY LENGTH (KM)
560.640 2817.860	2.00	20.00	0.00	49.33	3.41

RUNWAY USE BY WIND DIRECTION

(0- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)

CALM	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

RUNWAY USE BY SPECIAL CASE WIND CONDITIONS

(0- RUNWAY NOT USED DURING THIS SPECIAL CASE 1- RUNWAY USED DURING THIS SPECIAL CASE)

CASE 1	CASE 2	CASE 3
0	0	0

F 4-C/F
10854.HH3E/UNI
0.NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE
EC-121
594.C 130
769.C 121
241.T 38
528.C 141A
528.

F 4-C/F 1854.	HH3E/UH1 B.	NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE EC-121 C 13B 769. 594.	T 38 528.	C 141A 628.
INBOUND TAXIWAY ID NUMBER - 1 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 4				
F 4-C/F B.88	HH3E/UH1 B.88	FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 13B 0.1 B.88	T 38 B.88	C 141A B.88
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 18 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 17, 16, 14, 12, 10, 8, 6, 4, 18, 1				
INBOUND TAXIWAY ID NUMBER - 2 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 5				
F 4-C/F B.88	HH3E/UH1 B.88	FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 13B 0.1 B.88	T 38 B.88	C 141A B.88
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 18 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 17, 16, 14, 12, 10, 8, 6, 4, 18, 19				
INBOUND TAXIWAY ID NUMBER - 3 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3				
F 4-C/F B.88	HH3E/UH1 B.88	FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 13B 0.1 B.88	T 38 B.58	C 141A B.33
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 8 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 17, 16, 14, 12, 10, 8, 6, 5.				
INBOUND TAXIWAY ID NUMBER - 4 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3				
F 4-C/F B.88	HH3E/UH1 B.88	FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 13B 0.1 B.78	T 38 B.58	C 141A B.33
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 7 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 17, 16, 14, 12, 10, 9, 7.				
INBOUND TAXIWAY ID NUMBER - 5 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1				
F 4-C/F B.66	HH3E/UH1 B.88	FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 13B 0.1 B.88	T 38 B.88	C 141A B.88
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 6 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 17, 16, 14, 12, 10, 9.				
INBOUND TAXIWAY ID NUMBER - 6				

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 1	
F 4-C/F \$.33	MH3E/UH1 \$.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 130 O 1 C 121 \$.00 \$.00 \$.00 T 38 \$.00 C 141A \$.00 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 5 17, 16, 14, 12, 11.
INBOUND TAXIWAY ID NUMBER = 7	
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 2	
F 4-C/F \$.00	MH3E/UH1 \$.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 130 O 1 C 121 \$.00 \$.30 \$.00 T 38 \$.00 C 141A \$.33 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 4 17, 16, 14, 13.
INBOUND TAXIWAY ID NUMBER = 8	
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 6	
F 4-C/F \$.01	MH3E/UH1 \$.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 130 O 1 C 121 \$.00 \$.00 \$.00 T 38 \$.00 C 141A \$.00 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 5 17, 16, 14, 13, 12.
OUTBOUND TAXIWAY ID NUMBER = 1	
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 4	
F 4-C/F \$.00	MH3E/UH1 \$.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 130 O 1 C 121 \$.00 \$.00 \$.50 T 38 \$.00 C 141A \$.00 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 4 1, 18, 2, 3.
OUTBOUND TAXIWAY ID NUMBER = 2	
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 5	
F 4-C/F \$.00	MH3E/UH1 \$.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 130 O 1 C 121 \$.00 \$.00 \$.00 T 38 \$.00 C 141A \$.00 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 4 19, 18, 2, 3.
OUTBOUND TAXIWAY ID NUMBER = 3	
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 3	
F 4-C/F \$.00	MH3E/UH1 \$.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE EC-121 C 130 O 1 C 121 \$.00 \$.00 \$.50 T 38 \$.50 C 141A \$.33 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 4 5, 4, 2, 3.

OUTBOUND TAXIWAY ID NUMBER - 4									
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3									
F 4-C/F	HH3E/UH1	EC-121	C 138	O 1	C 121	T 38	C 141A		
8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88		
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 8									
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 7, 6, 4, 2, 3.									
OUTBOUND TAXIWAY ID NUMBER - 5									
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1									
F 4-C/F	HH3E/UH1	EC-121	C 138	O 1	C 121	T 38	C 141A		
8.66	8.88	8.88	8.88	8.88	8.88	8.88	8.88		
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 6									
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 9, 8, 6, 4, 2, 3.									
OUTBOUND TAXIWAY ID NUMBER - 6									
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1									
F 4-C/F	HH3E/UH1	EC-121	C 138	O 1	C 121	T 38	C 141A		
8.33	8.88	8.88	8.88	8.88	8.88	8.88	8.88		
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 7									
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 11, 18, 8, 6, 4, 2, 3.									
OUTBOUND TAXIWAY ID NUMBER - 7									
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 2									
F 4-C/F	HH3E/UH1	EC-121	C 138	O 1	C 121	T 38	C 141A		
8.88	8.88	8.88	8.88	8.88	8.88	8.88	8.88		
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 8									
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 13, 12, 18, 8, 6, 4, 2, 3.									
OUTBOUND TAXIWAY ID NUMBER - 8									
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 6									
F 4-C/F	HH3E/UH1	EC-121	C 138	O 1	C 121	T 38	C 141A		
8.91	8.88	8.88	8.88	8.88	8.88	8.88	8.88		
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 9									
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 15, 14, 12, 18, 8, 6, 4, 2, 4.									
RUNWAY ID NUMBER - 23									
COORDINATES (KM)	AVERAGE EMISSION	HORIZONTAL PLUME	VERTICAL PLUME	RUNWAY VECTOR	RUNWAY				
(X)	HEIGHT (MET)	DISPERSION (MET)	DISPERSION (MET)	ANGLE (DEG)	LENGTH (KM)				
563.235	2828.898	28.88	8.88	229.88	8.88				
(3- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)									

SEQUENCE OF CATALOGUED LINE SEGMENTS	MAKING UP THIS TAXIWAY = 3.	2.	4.	6.	7.	NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 5
1	1	1	1	1	1	1
2	1	1	1	1	1	1
3	1	1	1	1	1	1
4	1	1	1	1	1	1
5	1	1	1	1	1	1
6	1	1	1	1	1	1
7	1	1	1	1	1	1
8	1	1	1	1	1	1
9	1	1	1	1	1	1
10	1	1	1	1	1	1
11	1	1	1	1	1	1
12	1	1	1	1	1	1
13	1	1	1	1	1	1
14	1	1	1	1	1	1
15	1	1	1	1	1	1
16	1	1	1	1	1	1
17	1	1	1	1	1	1
18	1	1	1	1	1	1
19	1	1	1	1	1	1
20	1	1	1	1	1	1
21	1	1	1	1	1	1
22	1	1	1	1	1	1
23	1	1	1	1	1	1
24	1	1	1	1	1	1
25	1	1	1	1	1	1
26	1	1	1	1	1	1
27	1	1	1	1	1	1
28	1	1	1	1	1	1
29	1	1	1	1	1	1
30	1	1	1	1	1	1
31	1	1	1	1	1	1
32	1	1	1	1	1	1
33	1	1	1	1	1	1
34	1	1	1	1	1	1
35	1	1	1	1	1	1
36	1	1	1	1	1	1
37	1	1	1	1	1	1
38	1	1	1	1	1	1
39	1	1	1	1	1	1
40	1	1	1	1	1	1
41	1	1	1	1	1	1
42	1	1	1	1	1	1
43	1	1	1	1	1	1
44	1	1	1	1	1	1
45	1	1	1	1	1	1
46	1	1	1	1	1	1
47	1	1	1	1	1	1
48	1	1	1	1	1	1
49	1	1	1	1	1	1
50	1	1	1	1	1	1
51	1	1	1	1	1	1
52	1	1	1	1	1	1
53	1	1	1	1	1	1
54	1	1	1	1	1	1
55	1	1	1	1	1	1
56	1	1	1	1	1	1
57	1	1	1	1	1	1
58	1	1	1	1	1	1
59	1	1	1	1	1	1
60	1	1	1	1	1	1
61	1	1	1	1	1	1
62	1	1	1	1	1	1
63	1	1	1	1	1	1
64	1	1	1	1	1	1
65	1	1	1	1	1	1
66	1	1	1	1	1	1
67	1	1	1	1	1	1
68	1	1	1	1	1	1
69	1	1	1	1	1	1
70	1	1	1	1	1	1
71						

INBOUND TAXIWAY ID NUMBER - 5
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1
 F 4-C/F HH3E/UH1
 EC-121 C 130 O 1 C 121
 T 38 C 141A
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 3, 2, 4, 6, 8, 9.

INBOUND TAXIWAY ID NUMBER - 6
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1
 F 4-C/F HH3E/UH1
 EC-121 C 130 O 1 C 121
 T 38 C 141A
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 3, 2, 4, 6, 8, 10, 11.

INBOUND TAXIWAY ID NUMBER - 7
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 2
 F 4-C/F HH3E/UH1
 EC-121 C 130 O 1 C 121
 T 38 C 141A
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 3, 2, 4, 6, 8, 10, 12, 13.

INBOUND TAXIWAY ID NUMBER - 8
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 6
 F 4-C/F HH3E/UH1
 EC-121 C 130 O 1 C 121
 T 38 C 141A
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 3, 2, 4, 6, 8, 10, 12, 14, 15.

OUTBOUND TAXIWAY ID NUMBER - 1
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 4
 F 4-C/F HH3E/UH1
 EC-121 C 130 O 1 C 121
 T 38 C 141A
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 1, 10, 12, 14, 16, 17.

OUTBOUND TAXIWAY ID NUMBER - 2
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 5
 F 4-C/F HH3E/UH1
 EC-121 C 130 O 1 C 121
 T 38 C 141A

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 18
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 19, 18, 4, 6, 8, 18, 12, 14, 15, 17

OUTBOUND TAXIWAY ID NUMBER - 3
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3
 F 4-C/F 8.88 HM3E/UH1 8.88
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 EC-121 C 138 0 1 C 121 T 38 C 141A
 8.88 8.88 8.88 8.58 8.58 8.33

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 8
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 5, 6, 8, 18, 12, 14, 16, 17,

OUTBOUND TAXIWAY ID NUMBER - 4
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3
 F 4-C/F 8.88 HM3E/UH1 8.88
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 EC-121 C 138 0 1 C 121 T 38 C 141A
 8.88 8.78 8.18 8.58 8.58 8.33

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 7
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 7, 8, 18, 12, 14, 16, 17,

OUTBOUND TAXIWAY ID NUMBER - 5
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1
 F 4-C/F 8.66 HM3E/UH1 8.88
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 EC-121 C 138 0 1 C 121 T 38 C 141A
 8.88 8.88 8.88 8.88 8.88 8.88

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 6
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 9, 18, 12, 14, 16, 17,

OUTBOUND TAXIWAY ID NUMBER - 6
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1
 F 4-C/F 8.33 HM3E/UH1 8.88
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 EC-121 C 138 0 1 C 121 T 38 C 141A
 8.88 8.88 8.88 8.88 8.88 8.88

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 5
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 11, 12, 14, 16, 17,

OUTBOUND TAXIWAY ID NUMBER - 7
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 2
 F 4-C/F 8.88 HM3E/UH1 8.88
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 EC-121 C 138 0 1 C 121 T 38 C 141A
 8.88 8.38 8.88 8.88 8.88 8.33

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 4
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 13, 14, 16, 17,

OUTBOUND TAXIWAY ID NUMBER - 8
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 6
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE

F 4-C/F 8.01 MH3E/UH1 8.00 EC-121 8.00 C 138 8.00 O 1 8.00 C 121 8.00 T 38 8.00 C 141A 8.00

COORDINATES (KM) (X) 560.850 (Y) 2810.400

AVERAGE EMISSION HEIGHT (MET) 4.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3

NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 15, 16, 17.

RUNWAY ID NUMBER = 51

VERTICAL PLUME DISPERSION (MET) 8.00

RUNWAY VECTOR ANGLE (DEG) 49.30

RUNWAY LENGTH (KM) 100.00

(8- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION) 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION

CALM N NE E SE S SSW SW W WNW NW NNW

(8- RUNWAY NOT USED DURING THIS SPECIAL CASE) 1- RUNWAY USED DURING THIS SPECIAL CASE

CASE 1 CASE 2 CASE 3

F 4-C/F 8.01 MH3E/UH1 8.00 EC-121 8.00 C 138 8.00 O 1 8.00 C 121 8.00 T 38 8.00 C 141A 8.00

COORDINATES (KM) (X) 562.460 (Y) 2819.770

AVERAGE EMISSION HEIGHT (MET) 4.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3, 2, 18, 19.

RUNWAY ID NUMBER = 52

VERTICAL PLUME DISPERSION (MET) 8.00

RUNWAY VECTOR ANGLE (DEG) 49.30

RUNWAY LENGTH (KM) 100.00

(8- RUNWAY NOT USED DURING THIS SPECIAL CASE) 1- RUNWAY USED DURING THIS SPECIAL CASE

CALM N NE E SE S SSW SW W WNW NW NNW

(8- RUNWAY NOT USED DURING THIS SPECIAL CASE) 1- RUNWAY USED DURING THIS SPECIAL CASE

CASE 1 CASE 2 CASE 3

F 4-C/F 8.01 MH3E/UH1 8.00 EC-121 8.00 C 138 8.00 O 1 8.00 C 121 8.00 T 38 8.00 C 141A 8.00

COORDINATES (KM) (X) 562.460 (Y) 2819.770

AVERAGE EMISSION HEIGHT (MET) 4.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3, 2, 18, 19.

RUNWAY ID NUMBER = 52

VERTICAL PLUME DISPERSION (MET) 8.00

RUNWAY VECTOR ANGLE (DEG) 49.30

RUNWAY LENGTH (KM) 100.00

(8- RUNWAY NOT USED DURING THIS SPECIAL CASE) 1- RUNWAY USED DURING THIS SPECIAL CASE

CALM N NE E SE S SSW SW W WNW NW NNW

CASE 1 CASE 2 CASE 3

F 4-C/F 8.01 MH3E/UH1 8.00 EC-121 8.00 C 138 8.00 O 1 8.00 C 121 8.00 T 38 8.00 C 141A 8.00

COORDINATES (KM) (X) 562.460 (Y) 2819.770

AVERAGE EMISSION HEIGHT (MET) 4.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3, 2, 18, 19.

RUNWAY ID NUMBER = 52

VERTICAL PLUME DISPERSION (MET) 8.00

RUNWAY VECTOR ANGLE (DEG) 49.30

RUNWAY LENGTH (KM) 100.00

(8- RUNWAY NOT USED DURING THIS SPECIAL CASE) 1- RUNWAY USED DURING THIS SPECIAL CASE

CALM N NE E SE S SSW SW W WNW NW NNW

CASE 1 CASE 2 CASE 3

(8- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION
 RUNWAY USE BY WIND DIRECTION
 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)

CALM	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

(8- RUNWAY NOT USED DURING THIS SPECIAL CASE
 RUNWAY USE BY SPECIAL CASE WIND CONDITIONS
 1- RUNWAY USED DURING THIS SPECIAL CASE)

CASE 1	CASE 2	CASE 3
1	2	3

F 4-C/F	HH3E/UH1	NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE	T 38	C 141A
5.00	540.	EC-121 C 130 0 1 0.00	0.00	0.00

F 4-C/F	HH3E/UH1	NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE	T 38	C 141A
0.00	540.	EC-121 C 130 0 1 0.00	0.00	0.00

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 6

F 4-C/F	HH3E/UH1	FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE	T 38	C 141A
0.00	1.00	EC-121 C 130 0 1 0.00	0.00	0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 4

INBOUND TAXIWAY ID NUMBER - 1

F 4-C/F	HH3E/UH1	OUTBOUND TAXIWAY ID NUMBER - 1	T 38	C 141A
0.00	1.00	EC-121 C 130 0 1 0.00	0.00	0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 4

B.2 INFORMATION FOR AIRCRAFT SERVICE VEHICLES

F 4-C/F SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	1.000E+00	1.110E+00	6.000E-02	1.300E-01	1.000E-02
JP 4	2.200E+00	2.300E-01	4.500E-01	2.200E+00	5.000E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

F 4-C/F REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	8400.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	2.38
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	2.38
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	5.68

HH3E/UH1 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	4.000E+00	2.520E+00	1.300E-01	3.000E-01	3.000E-02
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

HH3E/UH1 REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	111.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	0.10
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	0.10
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	5.68

EC-121 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

GSE FUEL
AM G
JP 4
DESL
JP 8

KILOGRAMS PER DEPARTURE

GSE FUEL
AM G
JP 4
DESL
JP 8

EC-121 REFUELING INFORMATION (AC G)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....

8827.88
8.18
8.18
5.68

C 138 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL
AM G
JP 4
DESL
JP 8

KILOGRAMS PER DEPARTURE

GSE FUEL
AM G
JP 4
DESL
JP 8

C 138 REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....

14265.88
8.52
8.52
5.68

O 1 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL
AM G
JP 4
DESL
JP 8

KILOGRAMS PER DEPARTURE

GSE FUEL
AM G
JP 4
DESL
JP 8

GSE FUEL
AM G
JP 4
DESL
JP 8

CO	HC	NOX	PM	SOX
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

O 1 REFUELING INFORMATION (AC G)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....

424.00
0.00
0.00
5.68

C 121 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL
AM G
JP 4
DESL
JP 8

CO	HC	NOX	PM	SOX
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL
AM G
JP 4
DESL
JP 8

CO	HC	NOX	PM	SOX
3.693E+01	2.168E+00	1.188E-01	2.500E-01	2.000E-02
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 121 REFUELING INFORMATION (AC G)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....

848.00
0.00
0.00
5.68

T 30 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL
AM G
JP 4
DESL
JP 8

CO	HC	NOX	PM	SOX
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL
AM G
JP 4
DESL
JP 8

CO	HC	NOX	PM	SOX
4.215E+01	2.478E+00	1.388E-01	2.900E-01	3.000E-02
5.100E-01	5.000E-02	1.000E-01	5.100E-01	1.000E-02
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

T 30 REFUELING INFORMATION (JP 4)

7132.88
 AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....
 0.26
 0.26
 5.68

C 141A SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	3.372E+01	1.978E+00	1.000E-01	2.400E-01	2.000E-02
JP 4	1.020E+00	1.000E-01	2.000E-01	1.020E+00	2.000E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 141A REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....
 21395.88
 0.78
 0.78
 5.68

8.3 AIRCRAFT LANDING AND TAKEOFF PARAMETERS

AIRCRAFT NAME	TAXI SPEED (KM/HR)	LANDING SPEED (KM/HR)	TAKEOFF SPEED (KM/HR)	IDLE START UP TIME (MIN/ENGINE)	ENGINE CHECK TIME (MIN/ENGINE)	IDLE SHUT DOWN TIME (MIN/ENGINE)
F 4-C/F	3.700E+01	2.870E+02	3.140E+02	6.400E+00	8.000E-01	4.000E-01
MH3E/UH1	8.100E+00	8.000E+00	1.600E+01	5.000E+00	8.000E-01	5.000E+00
EC-121	2.700E+01	1.660E+02	1.830E+02	1.500E+01	3.000E+00	2.000E+00
C 130	8.500E+00	1.850E+02	2.150E+02	2.800E+00	6.000E+00	2.500E+00
O 1	2.700E+01	1.110E+02	1.290E+02	1.000E+01	2.000E+00	2.000E+00
C 121	2.700E+01	1.660E+02	1.830E+02	1.500E+01	3.000E+00	2.000E+00
T 38	2.180E+01	2.400E+02	2.870E+02	5.200E+00	3.000E+00	7.000E+00
C 141A	2.480E+01	2.400E+02	2.500E+02	1.000E+01	1.000E-01	1.500E+00

AIRCRAFT NAME	APPROACH ANGLE 1 (DEGREES)	APPROACH ANGLE 2 (DEGREES)	APPROACH SPEED 1 (KM/HR)	APPROACH SPEED 2 (KM/HR)	APPROACH HEIGHT 2 (KM)	TAKEOFF HEIGHT (1000 LBS)
F 4-C/F	3.500E+00	3.400E+00	4.300E+02	3.100E+02	2.000E-01	5.000E+01
MH3E/UH1	1.000E+00	6.000E+01	1.290E+02	5.500E+01	1.210E-01	5.000E+00
EC-121	3.500E+00	2.500E+00	2.740E+02	2.190E+02	2.100E-01	5.000E+01
C 130	3.500E+00	2.500E+00	2.220E+02	2.040E+02	2.300E-01	1.500E+00
O 1	4.000E+00	2.500E+00	2.190E+02	2.0110E+02	1.700E-01	4.500E+00
C 121	3.500E+00	2.500E+00	2.740E+02	2.190E+02	2.100E-01	5.000E+01
T 38	3.000E+00	2.500E+00	5.40E+02	3.650E+02	6.000E-02	1.200E+01
C 141A	3.500E+00	2.500E+00	3.340E+02	3.150E+02	2.900E-01	3.2310E+02

AIRCRAFT NAME	CLIMB ANGLE 1 (DEGREES)	CLIMB ANGLE 2 (DEGREES)	CLIMB SPEED 1 (KM/HR)	CLIMB SPEED 2 (KM/HR)	CLIMB HEIGHT 1 (KM)
F 4-C/F	6.000E+00	1.270E+01	5.540E+02	5.540E+02	3.000E-01
MH3E/UH1	5.000E+00	1.500E+01	7.400E+01	1.6670E+01	1.210E-01
EC-121	5.000E+00	1.030E+01	2.560E+02	4.020E+02	2.200E-01
C 130	4.000E+00	1.000E+01	2.390E+02	4.630E+02	2.000E-01
O 1	6.000E+00	6.000E+00	2.010E+02	2.190E+02	1.700E-01
C 121	5.000E+00	8.600E+00	2.560E+02	4.020E+02	2.500E-01
T 38	5.000E+00	9.100E+00	5.500E+02	5.500E+02	1.000E-01
C 141A	6.000E+00	1.130E+01	2.970E+02	4.630E+02	2.500E-01

AIRCRAFT NAME	AIRCRAFT ID	ENGINE ID	NUMBER OF ENGINES	AFTER-BURNER	RUN ROLL EQUATION
F 4-C/F	12	32	2	1	12
MH3E/UH1	46	41	2	0	37
EC-121	27	26	4	0	27
C 130	21	9	4	0	21
O 1	35	11	1	0	35
C 121	26	27	4	0	26
T 38	32	35	2	1	32
C 141A	24	31	4	0	24

ALTITUDE AT START OF APPROACH = 9.1440E-01 KILOMETERS

ALTITUDE AT END OF CLIMBOUT = 9.1440E-01 KILOMETERS

C. INTERIM CALCULATIONS
C.1 AIRCRAFT EMISSION FACTORS BY AIRCRAFT TYPE (KG PER ENGINE PER HOUR)

F 4-C/F		ID = 12	ENGINE = J79-G15*	ENGINE ID = 32	NUMBER OF ENGINES = 2
(MODE)		CO	HC	NOX	PM
IDLE		2.922E+01	6.151E+00	1.281E+00	2.563E-01
TAXI		2.922E+01	6.151E+00	1.281E+00	2.563E-01
ENGINE CHECK		8.918E+00	8.188E-01	3.685E+01	8.918E+00
RUNWAY ROLL		5.858E+01	1.462E-01	4.548E+01	2.194E+00
CLIMB 1		8.918E+00	1.462E-01	4.548E+01	2.194E+00
CLIMB 2		8.918E+00	1.462E-01	4.548E+01	2.194E+00
APPROACH 1		1.492E+01	1.746E+00	7.628E+00	2.888E+00
APPROACH 2		2.864E+01	3.588E+00	5.885E+00	1.158E+00
LANDING		2.922E+01	6.151E+00	1.281E+00	2.563E-01
					SOX
					5.126E-01
					5.126E-01
					4.858E+00
					1.452E+01
					4.858E+00
					1.588E+00
					1.158E+00
					5.126E-01
HX3E/UNI		ID = 46	ENGINE = T53/T59	ENGINE ID = 41	NUMBER OF ENGINES = 2
(MODE)		CO	HC	NOX	PM
IDLE		8.826E+00	4.985E+00	1.825E-01	1.825E-02
TAXI		8.826E+00	4.985E+00	1.825E-01	1.825E-02
ENGINE CHECK		2.869E+00	2.825E-01	1.822E+00	5.488E-01
RUNWAY ROLL		2.869E+00	2.825E-01	1.822E+00	5.488E-01
CLIMB 1		2.869E+00	2.825E-01	1.822E+00	5.488E-01
CLIMB 2		2.869E+00	2.825E-01	1.822E+00	5.488E-01
APPROACH 1		3.823E+00	1.938E-01	1.822E+00	5.488E-01
APPROACH 2		5.344E+00	2.878E+00	1.822E+00	3.216E-01
LANDING		8.826E+00	4.985E+00	1.825E-01	2.135E-01
					5.126E-02
EC-121		ID = 27	ENGINE = R-4360	ENGINE ID = 26	NUMBER OF ENGINES = 4
(MODE)		CO	HC	NOX	PM
IDLE		4.728E+01	1.216E+01	6.364E-02	3.818E+00
TAXI		4.728E+01	1.216E+01	6.364E-02	3.818E+00
ENGINE CHECK		6.489E+02	1.127E+01	6.132E+00	1.885E+01
RUNWAY ROLL		6.489E+02	1.127E+01	6.132E+00	1.885E+01
CLIMB 1		6.489E+02	1.127E+01	6.132E+00	1.885E+01
CLIMB 2		6.489E+02	1.127E+01	6.132E+00	1.885E+01
APPROACH 1		2.491E+02	3.487E+00	3.74E+00	1.448E+01
APPROACH 2		1.684E+02	6.986E+00	2.858E+00	1.817E+01
LANDING		4.728E+01	1.216E+01	6.364E-02	3.818E+00
					SOX
					3.818E-02
					3.818E-02
					3.315E-01
					3.315E-01
					3.315E-01
					2.161E-01
					1.449E-01
					3.818E-02
C 130		ID = 21	ENGINE = T 56-A7	ENGINE ID = 9	NUMBER OF ENGINES = 4
(MODE)		CO	HC	NOX	PM
IDLE		1.852E+01	6.986E+00	1.283E+00	2.729E-01
TAXI		1.852E+01	6.986E+00	1.283E+00	2.729E-01
ENGINE CHECK		1.874E+00	3.569E-01	8.298E+00	4.461E-01
RUNWAY ROLL		1.874E+00	3.569E-01	8.298E+00	4.461E-01
CLIMB 1		1.874E+00	3.569E-01	8.298E+00	4.461E-01
CLIMB 2		1.874E+00	3.569E-01	8.298E+00	4.461E-01
APPROACH 1		8.328E+00	4.552E+00	1.561E+00	3.639E-01
APPROACH 2		9.286E+00	5.553E+00	1.563E+00	3.275E-01
LANDING		1.852E+01	6.986E+00	1.283E+00	2.729E-01
					SOX
					3.289E-01
					3.289E-01
					8.922E-01
					8.922E-01
					8.922E-01
					8.922E-01
					3.751E-01
					3.566E-01
					3.239E-01

O 1 ID = 35 ENGINE = 8478 NUMBER OF ENGINES = 1

(MODE)	CO	HC	NOX	PM	SOX
IDLE	5.855E+00	1.388E+00	7.484E-03	4.882E-01	4.882E-03
TAXI	5.855E+00	1.388E+00	7.484E-03	4.882E-01	4.882E-03
ENGINE CHECK	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
RUNWAY ROLL	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
CLIMB 1	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
CLIMB 2	6.893E+01	1.212E+00	5.586E-01	1.188E+00	3.565E-02
APPROACH 1	1.973E+01	4.731E-01	2.767E-02	1.259E+00	1.686E-02
APPROACH 2	1.386E+01	8.837E-01	1.968E-02	9.187E-01	1.189E-02
LANDING	5.855E+00	1.388E+00	7.484E-03	4.882E-01	4.882E-03

C 121 ID = 26 ENGINE = R-3350 NUMBER OF ENGINES = 4

(MODE)	CO	HC	NOX	PM	SOX
IDLE	3.686E+01	9.278E+00	4.853E-02	2.912E+00	2.912E-02
TAXI	3.686E+01	9.278E+00	4.853E-02	2.912E+00	2.912E-02
ENGINE CHECK	4.925E+02	8.661E+00	4.713E+00	8.491E+00	2.547E-01
RUNWAY ROLL	4.925E+02	8.661E+00	4.713E+00	8.491E+00	2.547E-01
CLIMB 1	4.925E+02	8.661E+00	4.713E+00	8.491E+00	2.547E-01
CLIMB 2	4.925E+02	8.661E+00	4.713E+00	8.491E+00	2.547E-01
APPROACH 1	1.914E+02	2.618E+00	2.592E+00	1.187E+01	1.668E-01
APPROACH 2	1.293E+02	5.279E+00	1.575E+00	7.895E+00	1.113E-01
LANDING	3.686E+01	9.278E+00	4.853E-02	2.912E+00	2.912E-02

T 38 ID = 32 ENGINE = J 85-5* NUMBER OF ENGINES = 2

(MODE)	CO	HC	NOX	PM	SOX
IDLE	3.658E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01
TAXI	3.658E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01
ENGINE CHECK	3.468E+01	9.544E-01	3.182E+00	2.147E-02	1.193E+00
RUNWAY ROLL	9.831E+01	2.643E-01	7.512E+00	3.828E-02	3.775E+00
CLIMB 1	9.831E+01	2.643E-01	7.512E+00	3.828E-02	3.775E+00
CLIMB 2	3.468E+01	9.544E-01	3.182E+00	2.147E-02	1.193E+00
APPROACH 1	2.852E+01	2.321E+00	1.555E+00	7.295E-03	6.632E-01
APPROACH 2	3.174E+01	3.858E+00	1.822E+00	4.623E-03	4.881E-01
LANDING	3.658E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01

C 141A ID = 24 ENGINE = TF33-P7 NUMBER OF ENGINES = 4

(MODE)	CO	HC	NOX	PM	SOX
IDLE	4.581E+01	3.727E+01	8.712E-01	5.324E-02	4.848E-01
TAXI	4.581E+01	3.727E+01	8.712E-01	5.324E-02	4.848E-01
ENGINE CHECK	3.161E+00	1.185E-01	4.741E+01	3.596E+00	3.951E+00
RUNWAY ROLL	3.161E+00	1.185E-01	4.741E+01	3.596E+00	3.951E+00
CLIMB 1	3.161E+00	1.185E-01	4.741E+01	3.596E+00	3.951E+00
CLIMB 2	3.161E+00	1.185E-01	4.741E+01	3.596E+00	3.951E+00
APPROACH 1	1.554E+01	4.882E+00	4.389E+00	4.423E-01	1.174E+00
APPROACH 2	2.733E+01	1.736E+01	2.934E+00	2.866E-01	8.740E-01
LANDING	4.581E+01	3.727E+01	8.712E-01	5.324E-02	4.848E-01

SECTION IV
SUMMARY

A. METEOROLOGICAL DATA SUMMARY

AVERAGE ANNUAL TEMPERATURE (DEGREES F).....	75.88
ANNUAL DEGREE DAYS.....	218.88
PRESSURE ALTITUDE (HUNDREDS OF FEET).....	1.88
AVERAGE ANNUAL WIND SPEED (METERS PER SECOND).....	3.38
DAILY AVERAGE TEMPERATURE VARIATION (DEGREES F).....	13.40

B. TEMPORAL DISTRIBUTION FRACTION SUMMARY

C. AIRCRAFT EMISSION SUMMARY
C.1 SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	7.5167E+01	1.5825E+01	3.2968E+00	6.5936E-01	1.3187E+00
TAXI OUT	4.4477E+01	9.3637E+00	1.9598E+00	3.9815E-01	7.9425E-01
ENGINE CHECK	2.8655E+00	2.6858E-01	1.1592E+01	2.8655E+00	1.3825E+00
RUNWAY ROLL	6.4678E+00	1.6167E-02	5.8281E+00	2.4551E-01	1.6167E+00
CLIMB 1	9.3383E+00	2.3326E-02	7.2543E+00	3.4389E-01	2.3326E+00
CLIMB 2	1.8842E+00	9.8568E-02	4.7859E+00	1.8842E+00	4.8288E-01
APPROACH 1	1.1235E+01	1.3148E+00	5.7372E+00	2.1515E+00	1.1953E+00
APPROACH 2	5.6159E+00	9.5459E-01	1.3835E+00	4.9441E-01	3.1496E-01
LANDING	1.2448E+01	2.5347E+00	1.2886E-01	1.8561E-01	2.1125E-01
TAXI IN	4.4388E+00	9.3958E-01	1.9575E-01	3.9149E-02	7.8298E-02
SHUTDOWN	4.8883E-01	9.7915E-02	2.8399E-02	4.8798E-03	8.1595E-03
ARR + DEP SV	2.5519E+02	1.6168E+01	6.1586E+00	2.9865E+01	7.2368E-01
FUEL VENTING	8.8888E-01	5.7333E+01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	4.4624E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	2.2799E+01	1.9516E+00	1.5648E+01	3.2959E+00	3.6746E+00
TOTAL	4.5128E+02	1.5159E+02	6.3172E+01	4.8747E+01	1.4858E+01

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.5299E+00	8.5823E-01	1.7769E-02	1.7769E-03	8.8844E-03
TAXI OUT	3.1371E+00	1.134E+00	3.6435E-02	3.6435E-03	1.8218E-02
ENGINE CHECK	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
RUNWAY ROLL	3.5968E-02	2.5389E-03	2.2859E-02	5.7704E-03	4.2315E-03
CLIMB 1	1.8866E-01	1.2753E-02	1.1477E-01	3.4807E-02	2.1255E-02
CLIMB 2	1.5147E-01	1.6692E-02	9.6229E-02	2.8512E-02	1.7828E-02
APPROACH 1	3.8869E+00	1.9781E-01	1.8748E+00	3.6124E-01	3.2848E-01
APPROACH 2	4.8841E-02	1.8889E-02	2.6487E+00	1.9772E-03	1.9588E-03
LANDING	2.2736E+02	1.2636E+02	3.6435E-02	2.6487E-01	1.3283E+00
TAXI IN	3.1371E+00	1.7434E+00	3.6435E-02	3.6435E-03	1.8218E-02
SHUTDOWN	1.5299E+00	8.5823E-01	1.7769E-02	1.7769E-03	8.8844E-03
ARR + DEP SV	4.4751E+01	2.6288E+00	1.3528E-01	3.1288E-02	3.1288E-02
FUEL VENTING	8.8888E-01	4.5663E+00	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.8594E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	3.3573E+01	2.9889E+00	1.7712E+01	4.8238E+00	3.4518E+00
TOTAL	3.1853E+02	1.4286E+02	2.2515E+01	5.8432E+00	5.2384E+00

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	3.1287E+01	8.8223E+00	4.2882E-02	2.5201E+00	2.5201E-02
TAXI OUT	9.1468E+00	2.3511E+00	1.2318E-02	7.3853E-01	7.3853E-03
ENGINE CHECK	8.4595E+01	1.4877E+00	8.8949E-01	1.4885E+00	4.3758E-02
RUNWAY ROLL	1.7493E+01	3.8763E-01	1.6759E-01	3.8763E-01	9.8888E-03
CLIMB 1	1.5457E+01	3.4217E-01	1.8618E-01	3.3546E-01	1.8618E-02

CLIMB 2	1.9972E+01	3.5123E+01	1.9111E+01	3.4434E+01	1.8338E+02
APPROACH 1	3.0735E+01	4.2838E+01	4.1638E+01	1.7775E+00	2.6662E+02
APPROACH 2	1.1184E+01	4.5550E+01	1.3521E+01	6.7878E+01	9.5880E+03
LANDING	3.5833E+00	9.2038E+01	4.8188E+03	2.8913E+01	2.8913E+03
TAXI IN	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
SHUTDOWN	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
ARR + DEP SV	2.9693E+01	1.7358E+00	9.2400E+02	2.8460E+01	1.5880E+02
FUEL VENTING	0.0000E+01	2.6825E+00	0.0000E+01	0.0000E+01	0.0000E+01
FILL + SPILL	0.0000E+01	2.4339E+00	0.0000E+01	0.0000E+01	0.0000E+01
TOUCH + GO	3.7166E+02	7.2389E+00	4.2276E+00	1.4119E+01	2.5727E+01
TOTAL	6.2864E+02	2.8662E+01	6.2849E+00	2.2768E+01	4.2196E+01

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.6795E+00	1.1822E+00	2.8469E+01	4.3563E+02	5.2485E+02
TAXI OUT	9.4818E+00	6.2221E+00	1.1555E+00	2.4593E+01	2.9631E+01
ENGINE CHECK	5.3399E+01	1.9171E+01	2.3648E+00	1.2714E+01	2.5428E+01
RUNWAY ROLL	9.1443E+02	1.7418E+02	4.8498E+01	1.2772E+02	4.3544E+02
CLIMB 1	8.8935E+02	1.5418E+02	3.5843E+01	1.9278E+02	3.8548E+02
CLIMB 2	7.5107E+02	1.4386E+02	3.3262E+01	1.7883E+02	3.5765E+02
APPROACH 1	1.4990E+00	8.3729E+01	2.9718E+01	6.5497E+02	6.7523E+02
APPROACH 2	8.5354E+01	5.1488E+01	1.3938E+01	3.8365E+02	3.3864E+02
LANDING	1.8288E+00	6.7518E+01	1.2539E+01	2.6686E+02	3.2151E+02
TAXI IN	7.6686E+00	5.0325E+00	9.3461E+01	1.9898E+01	2.3864E+01
SHUTDOWN	1.8958E+00	7.1856E+01	1.3343E+01	2.8498E+02	3.4217E+02
ARR + DEP SV	4.1883E+01	2.4718E+00	4.1895E+01	1.7699E+00	5.9880E+02
FUEL VENTING	0.0000E+01	3.7686E+00	0.0000E+01	0.0000E+01	0.0000E+01
FILL + SPILL	0.0000E+01	3.8424E+00	0.0000E+01	0.0000E+01	0.0000E+01
TOUCH + GO	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
TOTAL	6.5171E+01	2.4526E+01	6.8789E+00	2.5963E+00	1.1874E+00

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	7.2838E+01	1.8519E+01	1.8665E+03	5.8173E+02	5.8173E+04
TAXI OUT	4.4638E+01	1.1475E+01	1.5896E+04	3.6847E+02	3.6847E+04
ENGINE CHECK	1.9644E+00	3.4547E+02	1.5919E+02	3.3878E+02	1.8161E+03
RUNWAY ROLL	1.8353E+01	3.2277E+03	1.4873E+03	3.1644E+03	9.4932E+05
CLIMB 1	5.8889E+01	1.8216E+02	4.7872E+03	1.8815E+02	3.8846E+04
CLIMB 2	1.9889E+00	3.5147E+02	1.6195E+02	3.4458E+02	1.8337E+03
APPROACH 1	8.5637E+01	2.8533E+02	1.2887E+03	5.4634E+02	7.2844E+04
APPROACH 2	2.9881E+01	1.7162E+02	4.1843E+04	1.9617E+02	2.4757E+04
LANDING	1.7325E+01	4.4538E+02	2.5658E+04	1.3991E+02	1.3991E+04
TAXI IN	3.4592E+01	8.8924E+02	5.1213E+04	2.7934E+02	2.7934E+04
SHUTDOWN	7.3487E+02	1.8891E+02	1.8888E+04	5.9344E+03	5.9344E+05
ARR + DEP SV	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
FUEL VENTING	0.0000E+01	3.3655E+00	0.0000E+01	0.0000E+01	0.0000E+01
FILL + SPILL	0.0000E+01	1.6342E+01	0.0000E+01	0.0000E+01	0.0000E+01
TOUCH + GO	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
TOTAL	7.6392E+00	4.1828E+00	4.2532E+02	2.9784E+01	4.8346E+03

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	9.6644E+00	2.4844E+00	1.3877E-02	7.8843E-01	7.8843E-03
TAXI OUT	2.5377E+00	6.5237E-01	3.4155E-03	2.8493E-01	2.8493E-03
ENGINE CHECK	2.6398E+01	4.6423E-01	2.5288E-01	4.5513E-01	1.3654E-02
RUNWAY ROLL	5.4586E+00	9.5956E-02	5.2233E-02	9.4113E-02	2.8234E-03
CLIMB 1	6.8933E+00	1.2133E-01	6.6819E-02	1.1895E-01	3.5666E-03
CLIMB 2	7.1239E+00	1.2539E-01	6.8226E-02	1.2293E-01	3.6879E-03
APPROACH 1	9.5895E+00	1.3116E-01	1.2991E-01	5.5488E-01	8.3187E-03
APPROACH 2	3.4617E+00	1.4137E-01	4.2192E-02	2.8945E-01	2.9798E-03
LANDING	1.1877E+00	2.8476E-01	1.4989E-03	8.9455E-04	8.9455E-04
TAXI IN	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
SHUTDOWN	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
ARR + DEP SV	9.8972E+00	5.7888E-01	2.5488E-02	8.8888E-02	5.3688E-03
FUEL VENTING	8.8888E-01	1.8549E+00	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.8245E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOTAL	8.2144E+01	6.2372E+00	6.5856E-01	2.6993E+00	5.1148E-02

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OPERATION	CO	HC	NOX	PM	SOX
STARTUP	3.7214E+00	5.2728E-01	2.7179E-02	6.2728E-05	2.8887E-02
TAXI OUT	3.4987E+00	5.8811E-01	2.5494E-02	5.8811E-05	1.9618E-02
ENGINE CHECK	2.8388E-01	5.6821E-03	1.8287E-02	1.2685E-04	7.8826E-03
RUNWAY ROLL	5.2388E-01	1.4244E-03	4.8495E-02	1.6279E-04	2.849E-02
CLIMB 1	5.6550E-01	1.5282E-03	4.3216E-02	1.7373E-04	2.1172E-02
CLIMB 2	3.3928E-01	9.3572E-03	3.8411E-02	1.854E-04	1.1677E-02
APPROACH 1	1.1952E+00	9.7287E-02	6.3932E-02	2.8576E-04	2.7796E-02
APPROACH 2	1.6921E-01	2.8579E-02	5.4487E-03	2.8576E-04	2.5595E-03
LANDING	9.8735E-01	1.5292E-01	8.267E-03	1.5292E-05	5.8975E-03
TAXI IN	4.9237E+00	8.2985E-01	3.3958E-02	8.2985E-05	2.7662E-02
SHUTDOWN	4.5868E-01	7.5945E-02	3.5309E-03	7.5945E-06	2.5315E-03
ARR + DEP SV	2.5841E+01	1.4794E-02	1.3581E-01	4.6968E-01	2.3488E-02
FUEL VENTING	8.8888E-01	2.6227E+00	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.8443E+00	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOTAL	4.1537E+01	7.5562E+00	4.3527E-01	4.7883E-01	1.9841E-01

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OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.7614E+01	1.4584E+01	3.4892E-01	2.8834E-02	1.8948E-01
TAXI OUT	9.1481E+00	7.5742E+00	1.7786E-01	1.8828E-02	9.8367E-02
ENGINE CHECK	1.2378E-02	4.6388E-04	1.8555E-01	1.4871E-02	1.5463E-02
RUNWAY ROLL	8.3498E-02	3.1312E-03	1.2525E+00	9.4979E-02	1.8437E-01
CLIMB 1	6.4984E-02	2.4339E-03	9.7356E-01	7.3828E-02	8.1138E-02
CLIMB 2	6.6226E-02	2.4835E-03	9.9248E-01	7.5333E-02	8.2783E-02
APPROACH 1	1.1497E+00	3.8212E-01	3.1888E-01	3.2730E-02	8.3922E-02
APPROACH 2	1.5372E+00	9.7635E-01	1.6585E-01	1.6125E-02	4.9165E-02
LANDING	2.2879E+00	1.8281E+00	4.2734E-02	2.6115E-03	2.3741E-02
TAXI IN	9.4895E+00	7.7832E+00	1.8195E-01	1.1119E-02	1.8188E-01
SHUTDOWN	2.6157E+00	2.1657E+00	5.8626E-02	3.8938E-03	2.8126E-02
ARR + DEP SV	2.8332E+01	1.2151E+00	1.7618E-01	7.3962E-01	2.3488E-02
FUEL VENTING	8.8888E-01	2.6598E+00	8.8888E-01	8.8888E-01	8.8888E-01

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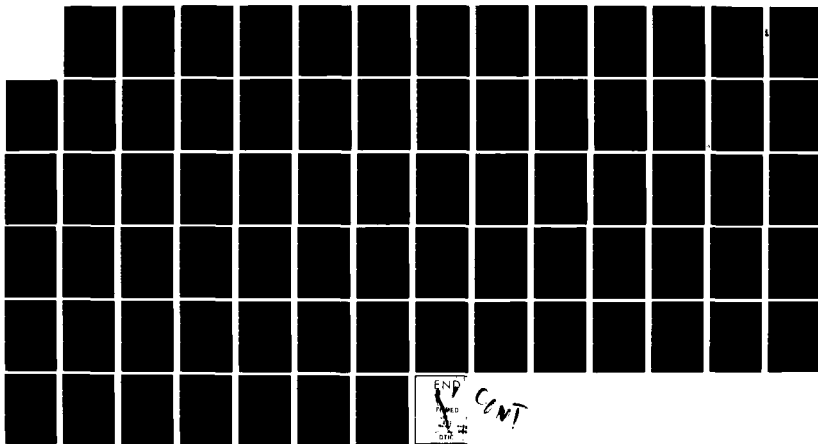
DEVELOPMENT OF A COMPUTER EMISSION INVENTORY ROUTINE
FOR AIRCRAFT GROUND. (U) RESEARCH TRIANGLE INST
RESEARCH TRIANGLE PARK NC SYSTEMS AND M.
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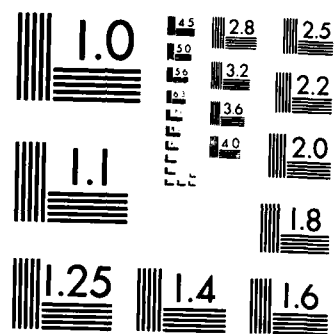
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A

FILL + SPILL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
	-----	-----	-----	-----
TOTAL	6.4293E+01	4.8583E+00	1.0952E+00	8.0103E-01

	3.1328E+00
	0.0000E-01

	4.2229E+01

	0.0000E-01
	0.0000E-01

	4.8583E+00

	0.0000E-01
	0.0000E-01

	1.0952E+00

	0.0000E-01
	0.0000E-01

	8.0103E-01

C-2 SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.413E+02	4.368E+01	3.943E+00	4.884E+00	1.624E+00
TAXI OUT	8.186E+01	2.861E+01	3.361E+00	1.630E+00	1.222E+00
ENGINE CHECK	1.165E+02	2.354E+00	1.523E+01	4.954E+00	1.637E+00
RUNWAY ROLL	3.824E+01	4.475E+01	6.978E+00	7.650E+01	1.801E+00
CLIMB 1	3.715E+01	5.291E+01	9.881E+00	9.416E+01	2.509E+00
CLIMB 2	3.881E+01	6.471E+01	6.114E+00	1.787E+00	6.559E+01
APPROACH 1	5.934E+01	3.328E+00	8.639E+00	4.997E+00	1.738E+00
APPROACH 2	2.388E+01	3.899E+00	1.888E+00	1.442E+00	4.148E+01
LANDING	2.484E+02	1.328E+02	3.354E+00	7.916E+01	1.596E+00
TAXI IN	2.993E+01	1.641E+01	1.385E+00	2.883E+01	4.651E+01
SHUTDOWN	6.229E+00	3.922E+00	2.254E+01	4.323E+02	8.197E+02
ARR + DEP SV	4.268E+02	2.621E+01	7.137E+00	3.263E+01	8.867E+01
FUEL VENTING	8.888E-01	7.796E+01	8.888E-01	8.888E-01	8.888E-01
FILL + SPILL	8.888E-01	5.463E+01	8.888E-01	8.888E-01	8.888E-01
TOUCH + GO	4.283E+02	1.216E+01	3.758E+01	2.143E+01	7.382E+00
TOTAL	1.6591E+03	4.8687E+02	1.8484E+02	7.5788E+01	2.2817E+01

D.1 SUMMARY OF ANNUAL EMISSIONS FROM GROUND MOBILE SOURCES ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
OFF ROAD VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
MILITARY VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
CIVILIAN VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
MIL VEH LINE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
CIV VEH LINE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
OTHER AB LWS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

D.2 SUMMARY OF ANNUAL EMISSIONS FROM AIRBASE FACILITIES ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
TRAIN FIRES	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TEST CELLS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
RUN-UP STDS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
POWER PLANTS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
INCINERATORS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
OTHER AB PPTS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
SPACE HEATING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

D.3 SUMMARY OF ANNUAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ALL LOSSES IN METRIC TONS

OPERATION	WORKING LOSS	FIXED ROOF BREATHING LOSS	FLOATING ROOF BREATHING LOSS	SPILLAGE	OTHER
STORAGE TANKS	\$.0000E-01	\$.0000E-01	\$.0000E-01		
FILLING	\$.0000E-01			\$.0000E-01	
PET STOR TKS		\$.0000E-01	\$.0000E-01		
TRUCK PK	\$.0000E-01	\$.0000E-01			
VEH PARKING	\$.0000E-01	\$.0000E-01			
OTHERS					\$.0000E-01
TOTAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ARE		\$.0000E-01			
TOTAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ARE		\$.0000E-01			

E. ENVIRON EMISSION SUMMARY
 E.1 SUMMARY OF ANNUAL EMISSIONS FROM ENVIRONS
 ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
ENVIRON PTS.	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV STA AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV MOB AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV LAND USE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV COM AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV ROAD WAY	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV NON-ROAD	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

F. TOTAL SUMMARY

F.1 SUMMARY OF ALL ANNUAL EMISSIONS ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	1.6591E+03	4.8687E+02	1.8484E+02	7.5788E+01	2.2817E+01
GROUND MOBIL	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
FACILITIES	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
ENVIRONS	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
GRAND TOTAL	1.6591E+03	4.8687E+02	1.8484E+02	7.5788E+01	2.2817E+01

F.2 EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	100.000	100.000	100.000	100.000	100.000
GROUND MOBIL	0.000	0.000	0.000	0.000	0.000
FACILITIES	0.000	0.000	0.000	0.000	0.000
ENVIRONS	0.000	0.000	0.000	0.000	0.000

INPUT DATA: SETS 2 AND 9 FOR REVISED GSE ROUTINE

A.3 GSE POLLUTANT EMISSION DATA

NAME	ID	TYPE	FUEL	FUEL RATE GAL/HR	CO	POLLUTANT EMISSION DATA (KILOGRAMS PER GALLON)			SOX
						HC	NOX	PM	
M1	1	HEATER	AM G	3.388E+00	8.66E-01	5.44E-02	1.72E-02	1.56E-03	5.39E-04
M1	2	HEATER	JP 4	2.588E+00	2.56E-02	1.12E-02	1.16E-01	8.48E-03	2.92E-03
M3	4	COOLER	AM G	5.388E+00	3.25E+00	1.26E-01	8.42E-02	5.48E-03	5.27E-04
M03	6	GENERATR	AM G	6.788E+00	3.22E+00	1.25E-01	8.33E-02	5.33E-03	5.28E-04
90G20P	7	GENERATR	JP 4	2.688E+00	9.88E-02	4.38E-02	4.52E-01	3.23E-02	2.93E-03
AM32A6DA	8	GENERATR	JP 4	2.468E+01	6.28E-02	5.18E-04	1.23E-02	1.67E-03	2.93E-03
M01A	10	COMPRESOR	AM G	1.688E+00	2.47E+00	8.53E-02	6.42E-02	4.85E-03	5.84E-04
M011	11	COMPRESOR	AM G	1.888E+00	1.42E+00	4.91E-02	3.78E-02	2.33E-03	2.94E-04
M02A	12	COMPRESOR	AM G	1.188E+00	1.64E+00	1.83E-01	3.27E-02	2.93E-03	5.27E-04
IM01A	13	COMPRESOR	JP 4	1.488E+00	6.42E-02	3.42E-02	6.74E-02	1.26E-02	2.95E-03
M01A	14	COMPRESOR	JP 4	1.628E+01	6.25E-02	5.19E-04	1.23E-02	1.63E-03	2.95E-03
TTU228E	16	TST STND	AM G	6.388E+00	3.67E+00	1.43E-01	9.52E-02	6.83E-03	5.48E-04
M01	17	TST STND	AM G	5.888E+00	3.14E+00	1.28E-01	8.13E-02	5.19E-03	5.15E-04
M02A	18	TST STND	AM G	7.888E+00	3.58E+00	1.39E-01	9.23E-02	5.85E-03	5.23E-04
TTU228E	19	TST STND	JP 4	4.788E+00	1.46E-01	6.42E-02	6.75E-01	4.82E-02	1.37E-03
M01	21	BOMB LFT	AM G	1.288E+00	2.68E+00	9.88E-02	6.78E-02	4.33E-03	4.39E-04
M01A	22	BOMB LFT	AM G	1.288E+00	3.98E+00	1.35E-01	1.82E-01	6.58E-03	6.58E-04
MYU83AE	23	BOMB LFT	AM G	1.888E+00	3.35E+00	1.16E-01	8.71E-02	5.57E-03	5.64E-04
HF2	25	LIGHT ST	AM G	1.188E+00	1.76E+00	1.11E-01	3.58E-02	3.14E-03	5.29E-04
M021	27	LEAK TST	AM G	3.388E+00	4.68E+00	1.84E-01	1.21E-01	7.61E-03	5.22E-04
M02M1	29	JACK MAN	AM G	2.688E+00	2.88E+00	7.24E-02	5.38E-02	3.38E-03	5.24E-04

A.4 GSE POLLUTANT EMISSION RATES

NAME	ID	TYPE	FUEL	FUEL RATE GAL/HR	CO	HC	NOX	PM	SOX
H1	1	HEATER	AM G	3.388E+00	2.86E+00	1.79E-01	5.67E-02	5.16E-03	1.78E-03
H11	2	HEATER	JP 4	2.588E+00	6.48E-02	2.88E-02	2.91E-01	2.18E-02	7.38E-03
M13	4	COOLER	AM G	6.388E+00	2.85E+01	7.94E-01	5.38E-01	3.41E-02	3.32E-03
M13	6	GENERATR	AM G	6.788E+00	2.16E+01	8.36E-01	5.58E-01	3.57E-02	3.48E-03
92G20P	7	GENERATR	JP 4	2.688E+00	2.55E-01	1.12E-01	1.17E+00	8.41E-02	7.63E-03
AND2A68A	8	GENERATR	JP 4	2.468E+01	1.54E+00	1.28E-02	3.83E-01	4.18E-02	7.28E-02
M14A	10	COMPRESOR	AM G	1.688E+00	3.95E+00	1.36E-01	1.83E-01	6.48E-03	1.89E-03
M111	11	COMPRESOR	AM G	1.888E+00	2.56E+00	8.84E-02	6.65E-02	4.28E-03	7.89E-04
M12A	12	COMPRESOR	AM G	1.188E+00	1.81E+00	1.14E-01	3.59E-02	3.23E-03	5.88E-04
1M12A	13	COMPRESOR	JP 4	1.488E+00	8.99E-02	4.79E-02	9.43E-02	1.76E-02	4.13E-03
M12A	14	COMPRESOR	JP 4	1.628E+01	1.61E+00	8.41E-03	2.88E-01	2.64E-02	4.77E-02
T10228E	16	TST STND	AM G	6.388E+00	2.31E+01	9.82E-01	6.88E-01	3.88E-02	7.48E-03
M11	17	TST STND	AM G	5.888E+00	1.57E+01	6.48E-01	4.87E-01	2.59E-02	3.88E-03
M12A	18	TST STND	AM G	7.888E+00	2.78E+01	1.88E+00	7.28E-01	4.56E-02	4.88E-03
T10228E	19	TST STND	JP 4	4.788E+00	6.86E-01	3.82E-01	3.17E+00	2.27E-01	2.85E-02
M11	21	BOMB LFT	AM G	1.288E+00	3.12E+00	1.88E-01	8.13E-02	5.28E-03	5.27E-04
M12A	22	BOMB LFT	AM G	1.288E+00	4.68E+00	1.62E-01	1.22E-01	7.88E-03	7.98E-04
M1003AE	23	BOMB LFT	AM G	1.888E+00	3.35E+00	1.16E-01	8.71E-02	5.37E-03	5.54E-04
NF2	25	LIGHT ST	AM G	1.188E+00	1.94E+00	1.22E-01	3.85E-02	3.46E-03	5.81E-04
M1211	27	LEAK TST	AM G	3.388E+00	1.54E+01	6.87E-01	4.88E-01	2.51E-02	1.72E-03
M27M1	29	JACK MAN	AM G	2.688E+00	5.41E+00	1.88E-01	1.48E-01	8.79E-03	1.36E-03

B.2 INFORMATION FOR AIRCRAFT SERVICE VEHICLES

-- ANNUAL GSE FUEL CONSUMPTION (GALLONS) --

AM G 164782.
JP 4 589219.
DESL 8.
JP 8 8.

-- F 4-C/F SERVICING INFORMATION --

GSE NAME	GROUND SUPPORT EQUIPMENT			SERVICE TIME (HR)
	CATEGORY	FUEL	USAGE	
H1	HEATER	AM G	50.	0.00
IH1	HEATER	JP 4	50.	0.00
MA3	COOLER	AM G	100.	0.32
MD3	GENERATR	AM G	100.	0.36
AM32A68A	GENERATR	JP 4	100.	1.33
MC1A	COMPRESOR	AM G	100.	0.40
MC2A	COMPRESOR	AM G	100.	0.23
MA1A	COMPRESOR	JP 4	100.	0.11
TTU228E	TST. STND	AM G	100.	0.21
MJ1	BOMB LFT	AM G	50.	0.18
MJ1A	BOMB LFT	AM G	50.	0.18
MH083AE	BOMB LFT	AM G	100.	0.16
NF2	LIGHT ST	AM G	100.	0.06
M32T1	LEAK TST	AM G	100.	0.03

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 8408.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 2.38
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 0.47
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 5.68

-- HH3E/UNI SERVICING INFORMATION --

GSE NAME	GROUND SUPPORT EQUIPMENT			SERVICE TIME (HR)
	CATEGORY	FUEL	USAGE	
H1	HEATER	AM G	50.	0.00
IH1	HEATER	JP 4	50.	0.00
MD3	GENERATR	AM G	100.	0.44
MC1A	COMPRESOR	AM G	100.	0.34
MC2A	COMPRESOR	AM G	100.	0.34
NF2	LIGHT ST	AM G	100.	0.57

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 111.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 0.10
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 0.00

AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 5.68

-- EC-121 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT				
GSE NAME	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)
H1	HEATER	AM G	50.	0.00
1H1	HEATER	JP 4	50.	0.00
MD3	GENERATR	AM G	100.	2.14
MC1A	CHMPRESOR	AM G	100.	0.52
MC2A	CHMPRESOR	AM G	100.	0.00
NF2	LIGHT ST	AM G	100.	2.18

REFUELING (AC G)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 8027.00
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 0.10
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 0.01
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 5.68

-- C 130 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT				
GSE NAME	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)
H1	HEATER	AM G	50.	0.00
1H1	HEATER	JP 4	50.	0.00
MA3	COOLER	AM G	100.	0.74
MD3	GENERATR	AM G	100.	2.14
MC1A	CHMPRESOR	AM G	100.	0.52
MC2A	CHMPRESOR	AM G	100.	0.63
MA1A	CHMPRESOR	JP 4	100.	0.55
TTU22BE	TST STND	AM G	100.	0.01
NF2	LIGHT ST	AM G	100.	2.18
M27M1	JACK MAN	AM G	100.	0.26

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 14265.00
 AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 0.52
 AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 0.01
 AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 5.68

-- O 1 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT				
GSE NAME	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)

REFUELING (AC G)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	424.88
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	8.88
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	8.88
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	5.68

-- C 121 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT			
GSE NAME	CATEGORY	FUEL	SERVICE TIME (HR)
H1	HEATER	AM G	8.88
1H1	HEATER	JP 4	8.88
MD3	GENERATR	AM G	2.14
MC1A	CHMPRESOR	AM G	8.52
MC2A	CHMPRESOR	AM G	8.88
NF2	LIGHT ST	AM G	2.18

REFUELING (AC G)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	848.88
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	8.88
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	8.88
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	5.68

-- T 38 SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT			
GSE NAME	CATEGORY	FUEL	SERVICE TIME (HR)
MD3	GENERATR	AM G	8.36
MC2A	CHMPRESOR	AM G	8.23
MA1A	CHMPRESOR	JP 4	8.11
MJ1	TST STND	AM G	8.21

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	7132.88
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	8.26
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	8.18
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	5.68

-- C 141A SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT			
GSE NAME	CATEGORY	FUEL	SERVICE TIME (HR)
H1	HEATER	AM G	8.88

1H1	HEATER	JP 4	59.	8.88
MA3	COOLER	AM G	100.	8.74
MD3	GENERATR	AM G	100.	2.14
98G28P	GENERATR	JP 4	100.	9.16
AK32A58A	GENERATR	JP 4	100.	4.64
MC1A	CHMPRESOR	AM G	100.	8.52
MC2A	CHMPRESOR	AM G	100.	8.63
MA1A	CHMPRESOR	JP 4	100.	8.55
TTU228E	TST STND	AM G	100.	8.81
NF2	LIGHT ST	AM G	100.	2.18
M27M1	JACK MAN	AM G	100.	8.26

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	21395.88
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	8.78
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	8.18
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	5.68

C.2 GROUND SERVICE EQUIPMENT EMISSIONS

F 4-C/F SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	2.527E+01	1.017E+00	6.427E-01	4.210E-02	4.488E-03
JP 4	2.148E+00	1.781E-02	4.256E-01	5.720E-02	1.006E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	2.527E+01	1.017E+00	6.427E-01	4.210E-02	4.488E-03
JP 4	2.148E+00	1.781E-02	4.256E-01	5.720E-02	1.006E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

HH3E/UN1 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	1.255E+01	5.230E-01	3.151E-01	2.102E-02	2.439E-03
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	1.255E+01	5.230E-01	3.151E-01	2.102E-02	2.439E-03
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

EC-121 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	5.247E+01	2.129E+00	1.334E+00	8.749E-02	9.302E-03
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	5.247E+01	2.129E+00	1.334E+00	8.749E-02	9.302E-03
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 130 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	8.899E-01	3.572E+00	2.274E+00	1.479E-01	1.525E-02
JP 4	5.609E-01	4.663E-03	1.107E-01	1.461E-02	2.645E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	8.899E-01	3.572E+00	2.274E+00	1.479E-01	1.525E-02
JP 4	5.609E-01	4.663E-03	1.107E-01	1.461E-02	2.645E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

O 1 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 121 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	5.247E+01	2.129E+00	1.334E+00	8.749E-02	9.302E-03
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	5.247E+01	2.129E+00	1.334E+00	8.749E-02	9.302E-03
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

T 30 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	5.247E+01	2.129E+00	1.334E+00	8.749E-02	9.302E-03
JP 4	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

FUEL	CO	HC	NOX	PM	SOX
AM G	1.149E+01	4.621E-01	2.952E-01	1.999E-02	2.834E-03
JP 4	1.097E-01	9.122E-04	2.166E-02	2.059E-03	5.174E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	1.149E+01	4.621E-01	2.952E-01	1.999E-02	2.834E-03
JP 4	1.097E-01	9.122E-04	2.166E-02	2.059E-03	5.174E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C 141A SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	8.899E+01	3.572E+00	2.274E+00	1.479E-01	1.525E-02
JP 4	1.003E+01	1.007E+00	1.227E+01	9.744E-01	4.301E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	8.899E+01	3.572E+00	2.274E+00	1.479E-01	1.525E-02
JP 4	1.003E+01	1.007E+00	1.227E+01	9.744E-01	4.301E-01
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C. AIRCRAFT EMISSION SUMMARY

C.1 SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE ALL POLLUTANTS IN METRIC TONS

OPERATION	F 4-C/F				
	CO	HC	NOX	PM	SOX
STARTUP	7.5167E+01	1.5825E+01	3.2968E+00	5.5935E-01	1.3187E+00
TAXI OUT	4.4777E+01	9.3637E+00	1.9588E+00	3.3015E-01	7.8035E-01
ENGINE CHECK	2.8655E+00	2.8655E-01	1.1592E+01	2.8655E+00	1.3025E+00
RUNWAY ROLL	6.4678E+00	1.6167E-02	5.8281E+00	2.4251E-01	1.6167E+00
CLIMB 1	9.3383E+00	2.3326E-02	7.2543E+00	3.4989E-01	2.3326E+00
CLIMB 2	1.8843E+00	9.8568E-02	4.3859E+00	1.8843E+00	4.9288E-01
APPROACH 1	1.1235E+01	1.3148E+00	5.7372E+00	2.1515E+00	1.1953E+00
APPROACH 2	5.6159E+00	9.5458E-01	1.3835E+00	4.9441E-01	3.1496E-01
LANDING	1.2048E+01	2.5347E+00	5.2805E-01	1.8561E-01	2.1122E-01
TAXI IN	4.6538E+00	9.3958E-01	1.9575E-01	3.9149E-02	7.8298E-02
SHUTDOWN	4.6529E-01	9.7915E-02	2.2395E-02	4.8795E-03	3.1595E-03
ARR + DEP SV	6.6125E+02	2.4958E+01	2.5698E+01	2.3958E+00	2.5335E+00
FUEL VENTING	8.8888E-01	5.7333E-01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	4.4624E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	2.2799E+01	1.9516E+00	1.5648E+01	3.2959E+00	3.6746E+00
TOTAL	8.5726E+02	1.6829E+02	8.2717E+01	1.4877E+01	1.5868E+01

OPERATION	MH3E/UH1				
	CO	HC	NOX	PM	SOX
STARTUP	1.5299E+00	8.5823E-01	1.7769E-02	1.7769E-03	8.8844E-03
TAXI OUT	3.1371E+00	1.7434E+00	3.6435E-02	3.6435E-03	1.8218E-02
ENGINE CHECK	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
RUNWAY ROLL	3.5968E-02	2.5389E-03	2.2859E-02	6.7704E-03	4.2315E-03
CLIMB 1	1.8665E-01	1.2753E-02	1.1471E-01	2.4007E-02	2.1255E-02
CLIMB 2	1.5142E-01	1.8692E-02	9.8229E-02	2.8512E-02	1.7820E-02
APPROACH 1	3.8869E+00	1.9784E-01	1.6748E+00	3.6124E-01	3.2848E-01
APPROACH 2	4.8841E-02	1.8989E-02	9.3682E-03	1.9772E-03	1.9588E-03
LANDING	2.2736E+02	1.2636E+02	2.6487E+00	2.6487E-01	1.3283E+00
TAXI IN	3.1371E+00	1.7434E+00	3.6435E-02	3.6435E-03	1.8218E-02
SHUTDOWN	1.5299E+00	8.5823E-01	1.7769E-02	1.7769E-03	8.8844E-03
ARR + DEP SV	2.6122E+01	1.8878E+00	1.7759E-02	4.3719E-02	5.8723E-03
FUEL VENTING	8.8888E-01	4.5663E+00	6.5537E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.8591E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	3.3573E+01	2.9889E+00	1.7712E+01	4.8238E+00	3.4518E+00
TOTAL	2.9998E+02	1.4853E+02	2.3835E+01	4.7749E+00	5.2843E+00

OPERATION	EC-121				
	CO	HC	NOX	PM	SOX
STARTUP	3.1287E+01	8.8223E+00	4.2882E-02	2.5281E+00	2.5281E-02
TAXI OUT	9.1488E+00	2.3511E+00	1.2318E-02	7.3858E-01	7.3858E-03
ENGINE CHECK	8.4595E+01	1.4877E+00	8.8949E-01	1.4585E+00	4.3756E-02
RUNWAY ROLL	1.7493E+01	3.8763E-01	1.6739E-01	3.8168E-01	9.8488E-03
CLIMB 1	1.9457E+01	3.4217E-01	1.8618E-01	3.3546E-01	1.8664E-02

OPERATION	CO	HC	NOX	PM	SOX
CLIMB 2	1.9972E+01	3.5123E-01	1.9111E-01	3.4434E-01	1.0330E-02
APPROACH 1	3.0735E+01	4.2038E-01	4.1639E-01	1.7775E+00	2.6662E-02
APPROACH 2	1.1104E+01	4.5558E-01	1.3521E-01	6.7878E-01	9.5880E-03
LANDING	3.5803E+00	9.2038E-01	4.8188E-03	2.8913E-01	2.8913E-03
TAXI IN	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
SHUTDOWN	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ARR - DEP SV	6.5257E+01	2.0099E+00	1.1548E-01	1.2279E-02	0.0000E-01
FUEL VENTING	0.0000E-01	2.6025E+00	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	2.4339E+00	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	3.7166E+02	7.2309E+00	4.2276E+00	1.4119E+01	2.5727E-01
TOTAL	6.6821E+02	2.9736E+01	7.9531E+00	2.2671E+01	4.1444E-01

C 130

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.6795E+00	1.1022E+00	2.0469E-01	4.3563E-02	5.2485E-02
TAXI OUT	9.4819E+00	6.2224E+00	1.1556E+00	2.4593E-01	2.9631E-01
ENGINE CHECK	5.3399E-01	1.0171E-01	2.3648E+00	1.2714E-01	2.5428E-01
RUNWAY ROLL	9.1443E-02	1.7418E-02	4.0496E-01	2.1772E-02	4.3544E-02
CLIMB 1	0.0035E-02	1.5415E-02	3.5813E-01	1.9278E-02	3.8540E-02
CLIMB 2	7.3107E-02	1.4308E-02	3.2626E-01	1.7083E-02	3.5765E-02
APPROACH 1	1.4590E+00	0.3729E-01	2.9710E-01	6.5497E-02	6.7523E-02
APPROACH 2	0.5354E-01	5.1408E-01	1.3938E-01	3.0365E-02	3.0664E-02
LANDING	1.0268E+00	6.7510E-01	1.2539E-01	2.6686E-02	3.2151E-02
TAXI IN	7.6686E+00	5.0325E+00	9.3461E-01	1.9890E-01	2.3964E-01
SHUTDOWN	1.0955E+00	7.1056E-01	1.3345E-01	2.8400E-02	3.4217E-02
ARR + DEP SV	1.5314E+02	6.1153E+00	4.0773E+00	2.7797E-01	7.1300E-02
FUEL VENTING	0.0000E-01	3.7606E+00	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	3.0421E+00	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	1.7722E+02	2.0170E+01	1.0520E+01	1.0344E+00	1.1988E+00

O 1

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	7.2038E-01	1.0519E-01	1.0665E-03	5.0173E-02	5.0173E-04
TAXI OUT	4.4638E-01	1.1475E-01	6.0006E-04	3.0047E-02	3.0047E-04
ENGINE CHECK	1.9644E+00	3.4547E-02	1.5919E-02	3.3870E-02	1.0151E-03
RUNWAY ROLL	1.0253E-01	3.2277E-03	1.4873E-03	3.1644E-03	9.4932E-05
CLIMB 1	0.0000E-01	1.0216E-02	4.7072E-03	1.0015E-02	3.9046E-04
CLIMB 2	1.9985E+00	3.5147E-02	1.6195E-02	3.4458E-02	1.0337E-03
APPROACH 1	0.5637E-01	2.0533E-02	1.2007E-03	5.1634E-02	7.2044E-04
APPROACH 2	2.9601E-01	1.7163E-02	4.1843E-04	1.9617E-02	2.4757E-04
LANDING	1.7325E-01	4.4538E-02	2.5655E-04	1.3991E-02	1.3991E-04
TAXI IN	3.4592E-01	0.0924E-02	5.1213E-04	2.7934E-02	2.7934E-04
SHUTDOWN	7.3407E-02	1.0091E-02	1.0000E-04	5.9344E-03	5.9344E-05
ARR - DEP SV	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
FUEL VENTING	0.0000E-01	3.3655E+00	0.0000E-01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	1.6342E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOUCH + GO	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	7.6392E+00	4.1020E+00	4.2532E-02	2.9784E-01	4.0340E-03

C 121

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	9.6644E+00	2.4844E+00	1.3807E-02	7.8843E-01	7.8843E-03
TAXI OUT	2.5377E+00	6.5237E-01	3.4155E-03	2.8493E-01	2.8493E-03
ENGINE CHECK	2.6398E+01	4.6423E-01	2.5268E-01	4.5513E-01	1.3654E-02
RUNWAY ROLL	5.4586E+00	9.5996E-02	5.2233E-02	9.4113E-02	2.8234E-03
CLIMB 1	6.8993E+00	1.2133E-01	6.6019E-02	1.1895E-01	3.5686E-03
CLIMB 2	7.1299E+00	1.2539E-01	6.8226E-02	1.2232E-01	3.6879E-03
APPROACH 1	9.5895E+00	1.3116E-01	1.2991E-01	5.5486E-01	8.3187E-03
APPROACH 2	3.4617E+00	1.4137E-01	4.2182E-02	2.8985E-01	2.9798E-03
LANDING	1.1877E+00	2.8476E-01	1.4989E-03	8.9455E-02	8.9455E-04
TAXI IN	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
SHUTDOWN	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
ARR + DEP SV	2.8122E+01	1.1418E+03	7.1493E-01	4.6893E-02	4.9861E-03
FUEL VENTING	8.8888E-01	1.8549E+00	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.8245E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOTAL	1.8837E+02	6.7993E+00	1.3448E+00	2.6765E+00	5.8767E-02

T 38

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	3.7214E+00	6.2728E-01	2.7179E-02	6.2728E-05	2.8897E-02
TAXI OUT	2.4887E+00	5.8831E-01	2.5494E-02	5.8831E-05	1.5618E-02
ENGINE CHECK	3.4887E+01	5.8831E-01	1.8287E-02	1.2685E-04	7.8843E-03
RUNWAY ROLL	5.2989E-01	1.4244E-03	4.4955E-02	1.6279E-04	2.8349E-02
CLIMB 1	5.6558E-01	1.5282E-03	4.3216E-02	1.7373E-04	2.1717E-02
CLIMB 2	3.3920E-01	9.3572E-03	3.8411E-02	2.1054E-04	1.1697E-02
APPROACH 1	1.1952E+00	9.7287E-02	6.3932E-02	3.8576E-04	2.7796E-02
APPROACH 2	1.6921E-01	2.8578E-02	5.4475E-03	2.4649E-05	2.5595E-03
LANDING	9.8735E-01	1.5292E-01	6.6267E-03	1.5292E-05	5.8975E-03
TAXI IN	4.9237E+00	8.2985E-01	3.5948E-02	8.2985E-05	2.7662E-02
SHUTDOWN	4.5868E-01	7.5945E-02	3.2909E-03	7.5945E-06	2.5315E-03
ARR - DEP SV	1.3823E+01	5.4363E-01	3.7284E-01	2.5765E-02	8.4627E-03
FUEL VENTING	8.8888E-01	2.6277E+00	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	1.8443E+00	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOTAL	3.8119E+01	6.6286E+00	6.7229E-01	2.7888E-02	1.7639E-01

C 141A

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.7514E+01	1.4584E+01	3.4892E-01	2.8834E-02	1.8948E-01
TAXI OUT	9.1481E+00	7.5742E+00	1.7786E-01	1.8828E-02	9.8367E-02
ENGINE CHECK	1.2378E-02	4.6388E-04	1.8555E-01	1.4871E-02	1.5463E-02
RUNWAY ROLL	8.3498E-02	3.1312E-03	1.2525E+00	9.4979E-02	1.8437E-01
CLIMB 1	6.4984E-02	2.4339E-03	9.7356E-01	7.3828E-02	8.1130E-02
CLIMB 2	6.6226E-02	2.4835E-03	9.9348E-01	7.5333E-02	8.2783E-02
APPROACH 1	1.1497E+00	3.8212E-01	3.1899E-01	3.2734E-02	8.3922E-02
APPROACH 2	1.5372E+00	9.7635E-01	1.6585E-01	1.6125E-02	4.9165E-02
LANDING	2.2879E+00	1.8281E+00	4.2734E-02	2.6115E-03	2.3741E-02
TAXI IN	9.4885E+00	7.7832E+00	1.8195E-01	1.1119E-02	1.8188E-01
SHUTDOWN	2.1657E+00	2.1657E+00	5.8626E-02	3.8898E-03	2.8126E-02
ARR + DEP SV	1.1625E+02	5.4695E+04	1.7878E+01	1.3176E+00	5.2282E-01
FUEL VENTING	8.8888E-01	2.6598E+00	8.8888E-01	8.8888E-01	8.8888E-01

FILL + SPILL	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
TOUCH + GO	0.0000E+01	0.0000E+01	0.0000E+01	0.0000E+01
TOTAL	1.6815E+02	2.1752E+01	1.6731E+00	1.3884E+00

C.2 SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	1.4138E+02	4.3688E+01	3.9434E+00	4.8843E+00	1.6248E+00
TAXI OUT	8.1865E+01	2.8618E+01	3.3617E+00	1.6382E+00	1.2226E+00
ENGINE CHECK	1.1657E+02	2.3548E+00	1.5239E+01	4.9544E+00	1.6377E+00
RUNWAY ROLL	3.8343E+01	4.4754E-01	6.9788E+00	7.6507E-01	1.8812E+00
CLIMB 1	3.7159E+01	5.2916E-01	9.8812E+00	9.4159E-01	2.5891E+00
CLIMB 2	3.8816E+01	6.4716E-01	6.1111E+00	1.7878E+00	6.5591E-01
APPROACH 1	5.9348E+01	3.3285E+00	8.6395E+00	4.9979E+00	1.7386E+00
APPROACH 2	2.3087E+01	3.8993E+00	1.8886E+00	1.4421E+00	4.143E-01
LANDING	2.4941E+02	1.3288E+02	3.5501E+00	7.9156E-01	1.5965E+00
TAXI IN	2.9933E+01	1.8418E+01	1.3852E+00	2.8883E-01	4.6518E-01
SHUTDOWN	6.2297E+00	3.9272E+00	2.2504E-01	4.3293E-02	8.1978E-02
ARR + DEP SV	1.0678E+03	4.2117E+01	5.0346E+01	4.2224E+00	3.1585E+00
FUEL VENTING	8.8888E-01	7.7964E+01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	5.4649E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	4.2883E+02	1.2163E+01	3.7588E+01	2.1439E+01	7.3829E+00
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TOTAL	2.3889E+03	4.2272E+02	1.4884E+02	4.7381E+01	2.4289E+01

F. TOTAL SUMMARY

F.1 SUMMARY OF ALL ANNUAL EMISSIONS ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	2.3889E+03	4.2272E+02	1.4884E+02	4.7381E+01	2.4289E+01
GROUND MOBIL	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
FACILITIES	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
ENVIRONS	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
GRAND TOTAL	2.3889E+03	4.2272E+02	1.4884E+02	4.7381E+01	2.4289E+01

F.2 EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	188.888	188.888	188.888	188.888	188.888
GROUND MOBIL	8.888	8.888	8.888	8.888	8.888
FACILITIES	8.888	8.888	8.888	8.888	8.888
ENVIRONS	8.888	8.888	8.888	8.888	8.888

OUTPUT LISTING FOR REVISED GSE ROUTINE
(WHERE DIFFERENT FROM ORIGINAL LISTING)

*2 NAMELIST DATA

SEGDATA ACNAME(27)=6HEC-121,ACNAME(46)=8HHH3E/UH1,
 EGNAM(41)=7HT53/T58,
 EGEMFC(1,1,41)=172.2,EGEMFC(1,2,41)=9.48,EGEMFC(1,3,41)=8.5,EGEMFC(1,4,41)=8.,
 EGEMFC(2,1,41)=95.78,EGEMFC(2,2,41)=8.68,EGEMFC(2,3,41)=8.6,EGEMFC(2,4,41)=8.,
 EGEMFC(3,1,41)=2.888,EGEMFC(3,2,41)=5.18,EGEMFC(3,3,41)=5.4,EGEMFC(3,4,41)=8.,
 EGEMFC(4,1,41)=8.288,EGEMFC(4,2,41)=1.18,EGEMFC(4,3,41)=1.6,EGEMFC(4,4,41)=8.,
 EGEMFC(5,1,41)=1.888,EGEMFC(5,2,41)=1.88,EGEMFC(5,3,41)=1.8,EGEMFC(5,4,41)=8.,
 EGFF(1,41)=.1138,EGFF(2,41)=.7898,EGFF(3,41)=.744,EGFF(4,41)=8.8,
 IACABF(46)=8, IDACEG(46)=41, IEGABF(46)=8, IDRR(46)=37,S
 SACDATA
 APPHT=8.9144,CLMBHT=8.9144,ENGNO(46,2)=1,ENGNO(46,1)=2,DSCNT1(46)=1.8,
 DSCNT2(46)=68.8,APSPD1(46)=129.6,APSPD2(46)=55.6,APPHT2(46)=8.121,
 ASCNT1(46)=5.8,ASCNT2(46)=15.8,COSPD1(46)=74.8,COSPD2(46)=166.7,
 COHT1(46)=8.121,TXISPD(46)=8.1,LNDSPD(46)=8.8,TOSPD(46)=16.9,
 EGCHKT(46)=8.8,SHTDNT(46)=5.8,TOWT(46)=5.8,SRTUPT(46)=5.8,S
 SSSDATA
 ACDY(1,12)=8.194,ACDY(2,12)=8.815,ACDY(1,46)=8.16,ACDY(2,46)=8.18,
 ACDY(1,27)=8.194,ACDY(2,27)=8.815,ACDY(1,32)=8.1,ACDY(2,32)=8.25,
 ACDY(1,35)=8.194,ACDY(2,35)=8.815,ACDY(1,21)=8.143,ACDY(2,21)=8.143,
 ACDY(1,26)=8.143,ACDY(2,26)=8.143,ACDY(1,24)=8.143,ACDY(2,24)=8.143,
 ACHR(7,12)=8.887,ACHR(8,12)=8.857,ACHR(9,12)=8.864,ACHR(10,12)=8.864,
 ACHR(11,12)=8.864,ACHR(12,12)=8.864,ACHR(13,12)=8.8,ACHR(14,12)=8.864,
 ACHR(15,12)=8.864,ACHR(16,12)=8.864,ACHR(17,12)=8.864,ACHR(18,12)=8.864,
 ACHR(19,12)=8.864,ACHR(20,12)=8.859,ACHR(21,12)=8.859,ACHR(22,12)=8.859,
 ACHR(23,12)=8.859,ACHR(24,12)=8.859,ACHR(7,27)=8.8,ACHR(8,27)=8.8,ACHR(9,27)=8.,
 ACHR(10,27)=8.11,ACHR(11,27)=8.11,ACHR(12,27)=8.11,ACHR(13,27)=8.11,
 ACHR(14,27)=8.11,ACHR(15,27)=8.11,ACHR(16,27)=8.11,ACHR(17,27)=8.11,
 ACHR(18,27)=8.11,
 ACHR(7,46)=8.8,ACHR(8,46)=8.8,ACHR(9,46)=8.13,ACHR(10,46)=8.13,
 ACHR(11,46)=8.13,ACHR(12,46)=8.13,ACHR(13,46)=8.13,ACHR(14,46)=8.13,
 ACHR(15,46)=8.13,ACHR(16,46)=8.13,ACHR(19,46)=8.828,ACHR(20,46)=8.828,
 ACHR(21,46)=8.828,ACHR(22,46)=8.828,
 VHMLMO(1)=8.8833,VHMLMO(2)=8.8833,VHMLMO(3)=8.8833,VHMLMO(4)=8.8833,
 VHMLMO(5)=8.8833,VHMLMO(6)=8.8833,VHMLMO(7)=8.8833,VHMLMO(8)=8.8833,
 VHMLMO(9)=8.8833,VHMLMO(10)=8.8833,VHMLMO(11)=8.8833,VHMLMO(12)=8.8833,
 VHMLDY(1)=8.2,VHMLDY(2)=8.8,
 VHMLHR(1)=8.8,VHMLHR(2)=8.8,VHMLHR(3)=8.8,VHMLHR(4)=8.8,VHMLHR(5)=8.8,
 VHMLHR(6)=8.8,VHMLHR(7)=8.1,VHMLHR(8)=8.1,VHMLHR(9)=8.1,VHMLHR(10)=8.1,
 VHMLHR(11)=8.1,VHMLHR(12)=8.1,VHMLHR(13)=8.1,VHMLHR(14)=8.1,
 VHMLHR(15)=8.1,VHMLHR(16)=8.8333,VHMLHR(17)=8.8333,VHMLHR(18)=8.8333,
 VHMLHR(19)=8.8,VHMLHR(20)=8.8,VHMLHR(21)=8.8,VHMLHR(22)=8.8,
 VHMLHR(23)=8.8,VHMLHR(24)=8.8,
 CVABMO(1)=8.8833,CVABMO(2)=8.8833,CVABMO(3)=8.8833,CVABMO(4)=8.8833,
 CVABMO(5)=8.8833,CVABMO(6)=8.8833,CVABMO(7)=8.8833,CVABMO(8)=8.8833,
 CVABMO(9)=8.8833,CVABMO(10)=8.8833,CVABMO(11)=8.8833,
 CVABMO(12)=8.8833,
 CVABDY(1)=8.1485,CVABDY(2)=8.1285,
 CVABHR(1)=8.88136,CVABHR(2)=8.88136,CVABHR(3)=8.88136,CVABHR(4)=8.88136,
 CVABHR(5)=8.88136,CVABHR(6)=8.88136,CVABHR(7)=8.8567,CVABHR(8)=8.8567,
 CVABHR(9)=8.8567,CVABHR(10)=8.8624,CVABHR(11)=8.8624,CVABHR(12)=8.8624,
 CVABHR(13)=8.8795,CVABHR(14)=8.8795,CVABHR(15)=8.8795,CVABHR(16)=8.8711,
 CVABHR(17)=8.8711,CVABHR(18)=8.8711,CVABHR(19)=8.8391,CVABHR(20)=8.8391,
 CVABHR(21)=8.8391,CVABHR(22)=8.8218,CVABHR(23)=8.8218,CVABHR(24)=8.8218,S
 SSSDATA
 SRVCTM(41,1)=8.78,SRVCTM(41,2)=8.78,SRVCTM(41,6)=8.53,SRVCTM(41,8)=1.18
 SRVCTM(41,18)=8.58,SRVCTM(41,12)=8.33,SRVCTM(41,13)=8.58,
 SRVCTM(41,187)=8.38,SRVCTM(41,21)=8.52,SRVCTM(41,22)=8.52,
 SRVCTM(41,231)=8.24,SRVCTM(41,25)=1.25,SRVCTM(41,27)=8.84,S

*9 GROUND SERVICE EQUIPMENT
164702. 509219.

17	50.	11110101
1	50.	11110101
2	50.	11110101
4	100.	10010001
6	100.	11110111
7	100.	00000001
8	100.	10000001
10	100.	11110101
12	100.	11110111
14	100.	10010011
16	100.	10010001
17	100.	00000010
21	50.	10000000
22	50.	10000000
23	100.	10000000
25	100.	11110101
27	100.	10000000
29	100.	00010001

APPENDIX F

INPUT DATA SETS AND OUTPUT LISTINGS FOR WILLIAMS AIR FORCE BASE

INPUT DATA: SETS 2 AND 9 FOR ORIGINAL GSE ROUTINE

*2

NAMLIST(EGDATA,ACDATA,DSDATA)

EGDATA

EGFF(1,1)=1.131, EGFF(2,1)=2.720, EGFF(3,1)=8.921, EGFF(4,1)=32.238,
 EGFF(1,6)=.453, EGFF(2,6)=1.462, EGFF(3,6)=2.630, EGFF(4,6)=8.323,
 EGFF(1,8)=1.134, EGFF(2,8)=1.500, EGFF(3,8)=11.909,
 EGFF(1,9)=.693, EGFF(2,9)=.827, EGFF(3,9)=1.967,
 EGFF(1,14)=.231, EGFF(2,14)=.698, EGFF(3,14)=1.095,
 EGFF(1,22)=1.134, EGFF(2,22)=1.500, EGFF(3,22)=11.909,
 EGFF(1,23)=.459, EGFF(2,23)=1.423, EGFF(3,23)=2.456,
 EGFF(1,25)=.959, EGFF(2,25)=7.37, EGFF(3,25)=8.755, EGFF(4,25)=8.755,
 EGEMFC(1,1,1)=56.74, EGEMFC(2,1,1)=10.73, EGEMFC(3,1,1)=2.47, EGEMFC(4,1,1)=.500,
 EGEMFC(1,2,1)=11.40, EGEMFC(2,2,1)=1.33, EGEMFC(3,2,1)=4.25, EGEMFC(4,2,1)=2.222,
 EGEMFC(1,3,1)=2.28, EGEMFC(2,3,1)=0.22, EGEMFC(3,3,1)=8.94, EGEMFC(4,3,1)=2.361,
 EGEMFC(1,4,1)=4.00, EGEMFC(2,4,1)=0.01, EGEMFC(3,4,1)=3.11, EGEMFC(4,4,1)=0.154,
 EGEMFC(1,1,6)=179.57, EGEMFC(2,1,6)=29.90, EGEMFC(3,1,6)=1.26,
 EGEMFC(4,1,6)=0.013,
 EGEMFC(1,2,6)=43.34, EGEMFC(2,2,6)=3.37, EGEMFC(3,2,6)=2.32, EGEMFC(4,2,6)=0.017,
 EGEMFC(1,3,6)=29.33, EGEMFC(2,3,6)=0.84, EGEMFC(3,3,6)=2.68, EGEMFC(4,3,6)=0.018,
 EGEMFC(1,4,6)=26.04, EGEMFC(2,4,6)=0.07, EGEMFC(3,4,6)=1.99, EGEMFC(4,4,6)=0.008,
 EGEMFC(1,1,8)=66.73, EGEMFC(2,1,8)=22.98, EGEMFC(3,1,8)=2.95, EGEMFC(4,1,8)=0.3,
 EGEMFC(1,2,8)=38.50, EGEMFC(2,2,8)=12.90, EGEMFC(3,2,8)=3.75, EGEMFC(4,2,8)=1.4,
 EGEMFC(1,3,8)=0.59, EGEMFC(2,3,8)=0.18, EGEMFC(3,3,8)=28.52,
 EGEMFC(4,3,8)=1.5,
 EGEMFC(1,1,9)=14.01, EGEMFC(2,1,9)=10.39, EGEMFC(3,1,9)=6.17, EGEMFC(4,1,9)=0.611,
 EGEMFC(1,2,9)=6.08, EGEMFC(2,2,9)=4.80, EGEMFC(3,2,9)=6.46, EGEMFC(4,2,9)=1.042,
 EGEMFC(1,3,9)=2.00, EGEMFC(2,3,9)=2.25, EGEMFC(3,3,9)=9.26, EGEMFC(4,3,9)=0.565,
 EGEMFC(1,1,14)=127.17, EGEMFC(2,1,14)=19.50, EGEMFC(3,1,14)=1.53,
 EGEMFC(4,1,14)=.729,
 EGEMFC(1,2,14)=49.08, EGEMFC(2,2,14)=1.29, EGEMFC(3,2,14)=2.67,
 EGEMFC(4,2,14)=.017,
 EGEMFC(1,3,14)=31.32, EGEMFC(2,3,14)=0.50, EGEMFC(3,3,14)=3.60,
 EGEMFC(4,3,14)=.020,
 EGEMFC(1,1,22)=66.73, EGEMFC(2,1,22)=22.98, EGEMFC(3,1,22)=2.95,
 EGEMFC(4,1,22)=.021,
 EGEMFC(1,2,22)=38.50, EGEMFC(2,2,22)=12.90, EGEMFC(3,2,22)=3.75,
 EGEMFC(4,2,22)=.016,
 EGEMFC(1,3,22)=0.59, EGEMFC(2,3,22)=0.18, EGEMFC(3,3,22)=28.52,
 EGEMFC(4,3,22)=.009,
 EGEMFC(1,1,23)=70.91, EGEMFC(2,1,23)=9.85, EGEMFC(3,1,23)=1.49,
 EGEMFC(4,1,23)=.026,
 EGEMFC(1,2,23)=14.80, EGEMFC(2,2,23)=0.32, EGEMFC(3,2,23)=3.09,
 EGEMFC(4,2,23)=.158,
 EGEMFC(1,3,23)=3.88, EGEMFC(2,3,23)=0.09, EGEMFC(3,3,23)=4.71,
 EGEMFC(4,3,23)=.167,
 EGEMFC(5,1,23)=1.0, EGEMFC(5,2,23)=1.0, EGEMFC(5,3,23)=1.0,
 EGEMFC(1,1,25)=50.0, EGEMFC(1,2,25)=6.6, EGEMFC(1,3,25)=1.2, EGEMFC(1,4,25)=1.2,
 EGEMFC(2,1,25)=9.6, EGEMFC(2,2,25)=1.4, EGEMFC(2,3,25)=.6, EGEMFC(2,4,25)=.60,
 EGEMFC(3,1,25)=2.0, EGEMFC(3,2,25)=2.7, EGEMFC(3,3,25)=4.3, EGEMFC(3,4,25)=4.3,
 EGEMFC(4,1,25)=.6, EGEMFC(4,2,25)=2.7, EGEMFC(4,3,25)=2.5, EGEMFC(4,4,25)=2.5,
 EGEMFC(5,1,25)=1.0, EGEMFC(5,2,25)=1.0, EGEMFC(5,3,25)=1.0, EGEMFC(5,4,25)=1.0,
 EGNAME(23)=3HJ60,
 IDACEG(23)=23, IEGABF(23)=0, IACABF(33)=0,
 EGNAME(25)=5HJT-80,
 IDACEG(25)=25, IEGABF(25)=0, IACABF(25)=0,
 EGEMFC(1,1,25)=50.0, EGEMFC(1,2,25)=6.6, EGEMFC(1,3,25)=1.2, EGEMFC(1,4,25)=1.2,

SACDATA

SDSDATA

VHMLMO(1)=0.0833, VHMLMO(2)=0.0833, VHMLMO(3)=0.0833, VHMLMO(4)=0.0833,
 VHMLMO(5)=0.0833, VHMLMO(6)=0.0833, VHMLMO(7)=0.0833, VHMLMO(8)=0.0833,
 VHMLMO(9)=0.0833, VHMLMO(10)=0.0833, VHMLMO(11)=0.0833, VHMLMO(12)=0.0833,
 VHMLDY(1)=0.20, VHMLDY(2)=0.0,

VHMLHR(1)=0.000,VHMLHR(2)=0.000,VHMLHR(3)=0.000,VHMLHR(4)=0.000,
 VHMLHR(5)=0.000,VHMLHR(6)=0.050,VHMLHR(7)=0.050,VHMLHR(8)=0.100,
 VHMLHR(9)=0.100,VHMLHR(10)=0.100,VHMLHR(11)=0.100,VHMLHR(12)=0.100,
 VHMLHR(13)=0.100,VHMLHR(14)=0.100,VHMLHR(15)=0.100,VHMLHR(16)=0.034,
 VHMLHR(17)=0.033,VHMLHR(18)=0.033,VHMLHR(19)=0.000,VHMLHR(20)=0.000,
 VHMLHR(21)=0.000,VHMLHR(22)=0.000,VHMLHR(23)=0.000,VHMLHR(24)=0.000,
 CVABMO(1)=0.0833,CVABMO(2)=0.0833,CVABMO(3)=0.0833,CVABMO(4)=0.0833,
 CVABMO(5)=0.0833,CVABMO(6)=0.0833,CVABMO(7)=0.0833,CVABMO(8)=0.0833,
 CVABMO(9)=0.0833,CVABMO(10)=0.0833,CVABMO(11)=0.0833,CVABMO(12)=0.0833,
 CVABDY(1)=0.182,CVABDY(2)=0.045,
 CVABHR(1)=0.0030,CVABHR(2)=0.0029,CVABHR(3)=0.0029,CVABHR(4)=0.0101,
 CVABHR(5)=0.0101,CVABHR(6)=0.0101,CVABHR(7)=0.0682,CVABHR(8)=0.0682,
 CVABHR(9)=0.0682,CVABHR(10)=0.0498,CVABHR(11)=0.0498,CVABHR(12)=0.0498,
 CVABHR(13)=0.0574,CVABHR(14)=0.0574,CVABHR(15)=0.0574,CVABHR(16)=0.0821,
 CVABHR(17)=0.0821,CVABHR(18)=0.0821,CVABHR(19)=0.0356,CVABHR(20)=0.0356,
 CVABHR(21)=0.0356,CVABHR(22)=0.0272,CVABHR(23)=0.0272,CVABHR(24)=0.0272,
 FLMO(1,1)=0.0833,FLMO(2,1)=0.0833,FLMO(3,1)=0.0833,FLMO(4,1)=0.0833,
 FLMO(5,1)=0.0833,FLMO(6,1)=0.0833,FLMO(7,1)=0.0833,FLMO(8,1)=0.0833,
 FLMO(9,1)=0.0833,FLMO(10,1)=0.0833,FLMO(11,1)=0.0833,FLMO(12,1)=0.0833,
 FLMO(1,2)=0.0600,FLMO(2,2)=0.0874,FLMO(3,2)=0.0780,FLMO(4,2)=0.0694,
 FLMO(5,2)=0.0900,FLMO(6,2)=0.1203,FLMO(7,2)=0.0736,FLMO(8,2)=0.0914,
 FLMO(9,2)=0.0984,FLMO(10,2)=0.0702,FLMO(11,2)=0.0994,FLMO(12,2)=0.0616,
 FLMO(1,4)=0.0833,FLMO(2,4)=0.0833,FLMO(3,4)=0.0833,FLMO(4,4)=0.0833,
 FLMO(5,4)=0.0833,FLMO(6,4)=0.0833,FLMO(7,4)=0.0833,FLMO(8,4)=0.0833,
 FLMO(9,4)=0.0833,FLMO(10,4)=0.0833,FLMO(11,4)=0.0833,FLMO(12,4)=0.0833,
 FLDY(1,1)=0.193,FLDY(2,1)=0.035,
 FLDY(1,2)=0.182,FLDY(2,2)=0.045,
 FLDY(1,4)=0.200,FLDY(2,4)=0.000,
 FLHR(1,1)=0.0,FLHR(2,1)=0.0,FLHR(3,1)=0.0,FLHR(4,1)=0.0,
 FLHR(5,1)=0.0,FLHR(6,1)=0.033,FLHR(7,1)=0.033,FLHR(8,1)=0.033,
 FLHR(9,1)=0.100,FLHR(10,1)=0.100,FLHR(11,1)=0.133,FLHR(12,1)=0.136,
 FLHR(13,1)=0.133,FLHR(14,1)=0.100,FLHR(15,1)=0.100,FLHR(16,1)=0.033,
 FLHR(17,1)=0.033,FLHR(18,1)=0.033,FLHR(19,1)=0.000,FLHR(20,1)=0.000,
 FLHR(21,1)=0.000,FLHR(22,1)=0.000,FLHR(23,1)=0.000,FLHR(24,1)=0.000,
 FLHR(1,2)=0.0,FLHR(2,2)=0.0,FLHR(3,2)=0.0,FLHR(4,2)=0.0,
 FLHR(5,2)=0.0,FLHR(6,2)=0.000,FLHR(7,2)=0.0580,FLHR(8,2)=0.0580,
 FLHR(9,2)=0.0580,FLHR(10,2)=0.0580,FLHR(11,2)=0.0580,FLHR(12,2)=0.0580,
 FLHR(13,2)=0.0580,FLHR(14,2)=0.0580,FLHR(15,2)=0.0580,FLHR(16,2)=0.0580,
 FLHR(17,2)=0.0580,FLHR(18,2)=0.0580,FLHR(19,2)=0.0580,FLHR(20,2)=0.0580,
 FLHR(21,2)=0.0580,FLHR(22,2)=0.0580,FLHR(23,2)=0.0580,FLHR(24,2)=0.0580,
 FLHR(1,4)=0.0,FLHR(2,4)=0.0,FLHR(3,4)=0.0,FLHR(4,4)=0.0,
 FLHR(5,4)=0.0,FLHR(6,4)=0.000,FLHR(7,4)=0.100,FLHR(8,4)=0.100,
 FLHR(9,4)=0.1,FLHR(10,4)=0.1,FLHR(11,4)=0.1,FLHR(12,4)=0.1,
 FLHR(13,4)=0.1,FLHR(14,4)=0.1,FLHR(15,4)=0.1,FLHR(16,4)=0.1,
 FLHR(17,4)=0.0,FLHR(18,4)=0.0,FLHR(19,4)=0.0,FLHR(20,4)=0.0,
 FLHR(21,4)=0.0,FLHR(22,4)=0.0,FLHR(23,4)=0.0,FLHR(24,4)=0.0,
 CVENMO(1)=0.0600,CVENMO(2)=0.0783,CVENMO(3)=0.0822,CVENMO(4)=0.0827,
 CVENMO(5)=0.0854,CVENMO(6)=0.0846,CVENMO(7)=0.0861,CVENMO(8)=0.0870,
 CVENMO(9)=0.0836,CVENMO(10)=0.0857,CVENMO(11)=0.0828,CVENMO(12)=0.0816,
 CVENDY(1)=0.1428,CVENDY(2)=0.1428,
 CVENHR(1)=0.005,CVENHR(2)=0.003,CVENHR(3)=0.001,CVENHR(4)=0.002,
 CVENHR(5)=0.006,CVENHR(6)=0.040,CVENHR(7)=0.090,CVENHR(8)=0.067,
 CVENHR(9)=0.042,CVENHR(10)=0.044,CVENHR(11)=0.044,CVENHR(12)=0.045,
 CVENHR(13)=0.046,CVENHR(14)=0.053,CVENHR(15)=0.064,CVENHR(16)=0.093,
 CVENHR(17)=0.100,CVENHR(18)=0.064,CVENHR(19)=0.054,CVENHR(20)=0.041,
 CVENHR(21)=0.034,CVENHR(22)=0.026,CVENHR(23)=0.022,CVENHR(24)=0.011,
 FLDY(2,6)=0.,FLDY(2,7)=0.,FLDY(2,5)=0.,
 FLDY(1,6)=0.,FLDY(1,7)=0.,FLDY(1,5)=0.,
 FLMO(1,5)=0.,FLMO(2,5)=0.,FLMO(3,5)=0.,FLMO(4,5)=0.,FLMO(5,5)=0.,FLMO(6,5)=0.,
 FLMO(7,5)=0.,FLMO(8,5)=0.,FLMO(9,5)=0.,FLMO(10,5)=0.,FLMO(11,5)=0.,
 FLMO(1,6)=0.,FLMO(2,6)=0.,FLMO(3,6)=0.,FLMO(4,6)=0.,FLMO(5,6)=0.,FLMO(6,6)=0.,
 FLMO(7,6)=0.,FLMO(8,6)=0.,FLMO(9,6)=0.,FLMO(10,6)=0.,FLMO(11,6)=0.,
 FLMO(1,7)=0.,FLMO(2,7)=0.,FLMO(3,7)=0.,FLMO(4,7)=0.,FLMO(5,7)=0.,FLMO(6,7)=0.,
 FLMO(7,7)=0.,FLMO(8,7)=0.,FLMO(9,7)=0.,FLMO(10,7)=0.,FLMO(11,7)=0.,

FLMO(12.5)=0.,FLMO(12,6)=0.,FLMO(12,7)=0.,
S

AEROSPACE GROUND EQUIPMENT

[illegible]

OUTPUT LISTING FOR ORIGINAL GSE ROUTINE

SECTION I
AIRCRAFT SOURCES

A. DEFAULT INFORMATION

A.1 ENGINE POLLUTANT EMISSION DATA

NAME	ID	THRUST SETTING	FUEL RATE 1000 LBS/HR	POLLUTANT EMISSION DATA (POUNDS PER 1000 LBS OF FUEL)				
				CO	HC	NOX	PM	SOX
J 79-G15	1	IDLE	1.131E+00	5.67E+01	1.07E+01	2.47E+00	5.00E-01	1.00E+00
		APPROACH	2.720E+00	1.14E+01	1.33E+00	4.25E+00	2.22E+00	1.00E+00
		MILITARY	8.921E+00	2.28E+00	2.20E+01	8.94E+00	2.36E+00	1.00E+00
J57-P218	2	AFTER BR	3.224E+01	4.00E+00	1.00E+02	3.11E+00	1.54E-01	1.00E+00
		IDLE	1.063E+00	7.20E+01	6.00E+01	2.30E+00	1.60E-01	1.00E+00
		APPROACH	2.500E+00	1.57E+01	4.20E+00	4.30E+00	7.20E-01	1.00E+00
J57-P218	2	MILITARY	7.693E+00	2.00E+00	1.00E+01	9.00E+00	2.00E+00	1.00E+00
		AFTER BR	3.610E+01	4.00E+00	1.00E+02	3.11E+00	1.50E-01	1.00E+00
J57-P218	2	IDLE	1.250E+00	6.50E+01	5.29E+01	2.40E+00	1.30E-01	1.00E+00
		APPROACH	1.950E+00	3.25E+01	1.42E+01	3.30E+00	2.20E-01	1.00E+00
		MILITARY	7.900E+00	2.40E+00	2.00E+01	1.13E+01	8.40E-01	1.00E+00
TF33-P3	4	AFTER BR	1.213E+01	2.11E+01	2.00E+00	2.70E+00	2.25E+01	1.00E+00
		IDLE	9.001E-01	8.40E+01	1.07E+02	1.80E+00	2.30E-01	1.00E+00
		APPROACH	3.797E+00	6.30E+00	2.00E+00	5.80E+00	9.90E-01	1.00E+00
TF30-P7	5	MILITARY	7.436E+00	1.70E+00	6.00E-01	1.00E+01	1.73E+00	1.00E+00
		IDLE	9.350E-01	5.30E+01	3.00E+01	3.00E+00	2.10E-02	1.00E+00
		APPROACH	2.100E+00	1.15E+01	3.20E+00	6.10E+00	1.20E-01	1.00E+00
J 85-5	6	MILITARY	7.250E+00	8.00E-01	1.00E+01	2.00E+01	3.50E-01	1.00E+00
		AFTER BR	3.000E+01	4.00E+00	1.00E+02	3.11E+00	1.50E-01	1.00E+00
		IDLE	4.530E-01	1.80E+02	2.99E+01	1.26E+00	1.30E-02	1.00E+00
J75-P17	7	APPROACH	1.462E+00	4.33E+01	3.37E+00	2.32E+00	1.70E-02	1.00E+00
		MILITARY	2.630E+00	2.93E+01	7.40E-01	2.68E+00	1.80E-02	1.00E+00
		AFTER BR	8.323E+00	2.60E+01	7.00E-02	1.99E+00	8.00E-03	1.00E+00
T 39	8	IDLE	1.552E+00	8.60E+01	7.20E+01	2.30E+00	2.30E-01	1.00E+00
		APPROACH	3.500E+00	1.75E+01	5.20E+00	4.30E+00	4.40E-01	1.00E+00
		MILITARY	1.204E+01	1.30E+00	1.00E+01	1.20E+01	1.00E+00	1.00E+00
T 56-A7	9	AFTER BR	5.570E+01	4.00E+00	1.00E+02	3.11E+00	1.50E-01	1.00E+00
		IDLE	1.134E+00	6.67E+01	2.30E+01	2.95E+00	3.00E-01	1.00E+00
		APPROACH	1.500E+00	3.85E+01	1.29E+01	3.75E+00	1.40E+00	1.00E+00
T 76	10	MILITARY	1.191E+01	5.90E-01	1.00E-01	2.05E+01	1.50E+00	1.00E+00
		IDLE	6.930E-01	1.40E+01	1.04E+01	6.17E+00	6.11E-01	1.00E+00
		APPROACH	8.270E-01	6.00E+00	4.00E+00	6.40E+00	1.04E+00	1.00E+00
9478	11	MILITARY	1.967E+00	2.00E+00	2.25E+00	9.20E+00	5.65E-01	1.00E+00
		IDLE	2.500E-01	2.30E+01	7.40E+00	7.40E+00	3.80E-01	1.00E+00
		APPROACH	4.500E-01	1.72E+01	8.00E-01	8.50E+00	5.00E-01	1.00E+00
8360	12	MILITARY	9.000E-01	2.30E+00	6.00E-02	1.03E+01	7.10E-01	1.00E+00
		IDLE	1.500E-02	7.43E+02	1.91E+02	1.10E+00	6.00E+01	1.00E+00
		APPROACH	6.100E-02	7.13E+02	1.71E+01	1.00E+00	4.55E+01	1.00E+00
J57-P43W	13	MILITARY	1.310E-01	1.16E+03	2.04E+01	9.40E+00	2.00E+01	1.00E+00
		IDLE	3.000E-02	8.40E+02	1.45E+02	1.10E+00	6.00E+01	1.00E+00
		APPROACH	4.000E-02	8.79E+02	2.06E+01	2.50E+00	5.00E+01	1.00E+00
J57-P43W	13	MILITARY	9.000E-02	1.03E+03	1.00E+01	5.30E+00	2.00E+01	1.00E+00
		IDLE	9.860E-01	7.00E+01	7.50E+01	2.20E+00	1.40E-01	1.00E+00
		APPROACH	1.049E+00	2.40E+00	3.32E+01	3.32E+01	2.93E-01	1.00E+00
J57-P43W	13	MILITARY	7.779E+00	1.50E+00	1.00E-01	1.10E+01	1.74E+00	1.00E+00
		IDLE	9.860E-01	7.00E+01	7.50E+01	2.20E+00	1.40E-01	1.00E+00
		APPROACH	1.049E+00	2.40E+00	3.32E+01	3.32E+01	2.93E-01	1.00E+00

J59-T25	14	IDLE APPROACH MILITARY	2.310E+01 6.980E+01 1.095E+00	1.27E+02 4.91E+01 3.13E+01	1.95E+01 1.29E+00 5.00E-01	1.63E+00 2.67E+00 3.60E+00	7.29E-01 1.70E-02 2.00E-02	1.00E+00 1.00E+00 1.00E+00
J79-G17	15	IDLE APPROACH MILITARY AFTER BR	1.060E+00 3.340E+00 9.020E+00 3.495E+01	4.01E+01 2.85E+01 1.00E+00 4.00E+00	9.00E+00 6.30E+00 1.40E+01 1.00E-02	2.70E+00 5.30E+00 1.40E+01 3.11E+00	2.30E-01 0.20E-01 2.22E+00 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF30P100	16	IDLE APPROACH MILITARY AFTER BR	9.480E-01 2.100E+00 9.077E+00 5.400E+01	4.00E+01 9.90E+00 7.00E-01 4.00E+00	1.90E+01 6.30E+00 1.00E-01 1.00E-02	2.90E+00 6.30E+00 2.40E+01 3.11E+00	2.00E-02 8.00E-02 2.40E-01 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF34-100	17	IDLE APPROACH MILITARY	3.000E-01 1.250E+00 2.562E+00	1.06E+02 0.30E+00 2.30E+00	3.20E+01 6.00E-01 1.00E-01	2.00E+00 6.00E+00 1.00E+01	4.00E-02 2.00E-02 5.00E-02	1.00E+00 1.00E+00 1.00E+00
TF41	18	IDLE APPROACH MILITARY	1.009E+00 3.500E+00 0.419E+00	1.19E+02 1.02E+01 1.00E+00	9.20E+01 2.20E+00 2.00E-01	1.50E+00 6.00E+00 2.10E+01	1.50E-01 3.60E-01 6.70E-01	1.00E+00 1.00E+00 1.00E+00
F100	19	IDLE APPROACH MILITARY AFTER BR	1.417E+00 3.000E+00 1.032E+00 4.001E+01	2.40E+01 5.00E+00 9.00E-01 4.00E+00	3.20E+00 1.00E+00 1.00E-01 6.00E-01	3.30E+00 6.70E+00 2.70E+01 3.11E+00	1.20E-01 2.70E-01 3.40E-01 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
F101	20	IDLE APPROACH MILITARY AFTER BR	0.000E-01 0.000E-01 0.000E-01 0.000E-01	5.72E+01 0.00E+00 1.40E+00 4.00E+00	1.20E+01 2.00E-01 2.00E-01 1.00E-02	3.50E+00 0.40E+00 2.40E+01 3.11E+00	4.40E-02 4.50E-02 5.00E-02 1.50E-01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
T 56-A15	21	IDLE APPROACH MILITARY	4.930E-01 0.270E-01 2.39E+00	1.01E+01 0.50E+00 1.00E+00	1.51E+01 3.40E+00 2.00E-01	2.40E+00 3.70E+00 1.17E+01	3.00E-01 4.70E-01 7.10E-01	1.00E+00 1.00E+00 1.00E+00
TF39 LS	22	IDLE APPROACH MILITARY	1.134E+00 1.500E+00 1.191E+01	6.67E+01 3.85E+01 5.90E-01	2.30E+01 1.29E+01 1.00E-01	2.95E+00 3.75E+00 2.05E+01	2.10E-02 1.60E-02 9.00E-03	1.00E+00 1.00E+00 1.00E+00
J50	23	IDLE APPROACH MILITARY	4.590E-01 1.423E+00 2.456E+00	7.09E+01 1.40E+01 3.00E+00	9.05E+00 3.20E-01 9.00E-02	1.40E+00 3.00E+00 4.71E+00	2.60E-02 1.50E-01 1.67E-01	1.00E+00 1.00E+00 1.00E+00
J-33	24	IDLE APPROACH MILITARY	1.200E+00 2.000E+00 5.525E+00	1.27E+02 8.46E+01 3.13E+01	1.95E+01 6.50E+00 5.00E-01	1.50E+00 1.90E+00 3.60E+00	7.30E-01 5.70E-01 2.00E-02	1.00E+00 1.00E+00 1.00E+00
JT-80	25	IDLE APPROACH MILITARY	9.590E-01 7.370E+00 0.755E+00	5.00E+01 6.60E+00 1.20E+00	9.60E+00 1.40E+00 6.00E-01	2.00E+00 2.70E+00 4.30E+00	6.00E-01 2.70E+00 2.50E+00	1.00E+00 1.00E+00 1.00E+00
R-4300	26	IDLE APPROACH MILITARY	1.403E-01 7.939E-01 1.210E+00	7.43E+02 6.92E+02 1.10E+03	1.91E+02 9.46E+00 2.04E+01	1.00E+00 9.37E+00 1.11E+01	6.00E-01 4.00E+01 2.00E+01	6.00E-01 6.00E-01 6.00E-01
R-3300	27	IDLE APPROACH MILITARY	1.070E-01 6.100E-01 9.360E-01	7.43E+02 6.92E+02 1.10E+03	1.91E+02 9.46E+00 2.04E+01	1.00E+00 9.37E+00 1.11E+01	6.00E-01 4.00E+01 2.00E+01	6.00E-01 6.00E-01 6.00E-01
J57-P19W	28	IDLE APPROACH MILITARY	9.500E-01 3.375E+00 7.469E+00	7.90E+01 7.90E+00 1.90E+00	7.00E+01 1.40E-00 1.00E-01	2.00E+00 5.00E+00 1.10E+01	1.60E-01 9.30E-01 1.72E+00	1.00E+00 1.00E+00 1.00E+00

J75-19V	29	IDLE APPROACH MILITARY	1.55E+00 1.70E+00 1.30E+01	6.20E+01 5.04E+01 1.50E+00	3.00E+01 2.70E+01 3.00E+01	2.60E+00 2.80E+00 1.00E+01	2.30E+01 2.50E+01 1.04E+00	1.00E+00 1.00E+00 1.00E+00
TF30-P3	30	IDLE APPROACH MILITARY	0.50E+01 2.10E+00 6.14E+00	7.20E+01 9.20E+00 8.00E+01	6.20E+01 2.10E+00 3.00E+02	2.30E+00 4.00E+00 1.20E+01	6.00E+03 5.00E+02 4.00E+01	1.00E+00 1.00E+00 1.00E+00
TF33-P7	31	IDLE APPROACH MILITARY	1.07E+00 2.50E+00 8.71E+00	9.30E+01 1.37E+01 8.00E+01	7.70E+01 3.60E+00 3.00E+02	1.80E+00 3.80E+00 1.20E+01	1.10E+01 3.90E+01 9.10E+01	1.00E+00 1.00E+00 1.00E+00
J79-G15*	32	IDLE APPROACH MILITARY AFTER BR	1.13E+00 3.00E+00 8.95E+00 3.22E+01	5.70E+01 9.40E+00 2.20E+00 4.00E+00	1.20E+01 1.10E+00 2.00E+01 1.00E+02	2.50E+00 4.00E+00 8.90E+00 3.11E+00	5.00E+01 1.20E+00 2.20E+00 1.50E+01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
TF33-P3*	33	IDLE APPROACH MILITARY	9.00E+01 3.55E+00 7.43E+00	8.40E+01 7.10E+00 1.70E+00	1.07E+02 3.10E+00 6.00E+01	1.80E+00 6.40E+00 1.00E+01	2.30E+01 9.30E+01 1.73E+00	1.00E+00 1.00E+00 1.00E+00
TF33-P3*	34	IDLE APPROACH MILITARY	9.00E+01 3.00E+00 7.43E+00	8.40E+01 1.00E+01 1.70E+00	1.07E+02 4.60E+00 6.00E+01	1.80E+00 4.00E+00 1.00E+01	2.30E+01 7.00E+01 1.73E+00	1.00E+00 1.00E+00 1.00E+00
J 85-5-	35	IDLE APPROACH MILITARY AFTER BR	4.53E+01 1.46E+00 2.63E+00 8.32E+00	1.70E+02 4.30E+01 2.30E+01 2.60E+01	3.00E+01 3.50E+00 8.00E+01 7.00E+02	1.30E+00 2.30E+00 2.60E+00 1.99E+00	3.00E+03 1.10E+02 1.00E+02 8.00E+03	1.00E+00 1.00E+00 1.00E+00 1.00E+00
2368*	36	IDLE APPROACH MILITARY	3.00E+02 6.20E+02 9.00E+02	8.40E+02 9.40E+02 1.03E+03	1.45E+02 2.30E+01 2.25E+01	1.10E+00 5.50E+00 5.30E+00	6.00E+01 4.00E+01 2.00E+01	6.00E+01 6.00E+01 5.00E+01
J79-G17*	37	IDLE APPROACH MILITARY AFTER BR	1.00E+00 3.50E+00 9.02E+00 3.49E+01	4.01E+01 2.77E+01 1.00E+00 4.00E+00	9.00E+00 6.20E+00 6.00E+03 1.00E+02	2.70E+00 5.50E+00 1.40E+01 3.11E+00	2.30E+01 8.60E+01 2.22E+00 1.50E+01	1.00E+00 1.00E+00 1.00E+00 1.00E+00
J57-P42*	38	IDLE APPROACH MILITARY	9.00E+01 3.00E+00 7.77E+00	7.00E+01 9.70E+00 1.50E+00	7.50E+01 1.00E+00 1.00E+01	2.20E+00 2.11E+01 1.10E+01	1.40E+01 5.20E+01 1.74E+00	1.00E+00 1.00E+00 1.00E+00

A.2 ENGINE POLLUTANT EMISSION RATES

NAME	ID	THRUST SETTING	FUEL RATE LBS/HR	CO	HC	NOX	POLLUTANT EMISSION RATE (KILOGRAMS PER HOUR)	SOX
J 79-G1S	1	IDLE	1.131E+00	2.91E+01	5.50E+00	1.27E+00	2.57E-01	5.13E-01
		APPROACH	2.720E+00	1.41E+01	1.64E+00	5.24E+00	2.74E+00	1.23E+00
		MILITARY	9.23E+00	8.92E+00	8.92E+00	3.62E+01	9.55E+00	4.05E+00
		AFTER BR	3.224E+01	5.05E+01	1.46E-01	4.55E+01	2.25E+00	1.46E-01
J57-2218	2	IDLE	1.863E+00	3.47E+01	2.89E+01	1.11E+00	7.71E-02	4.82E-01
		APPROACH	2.580E+00	1.78E+01	4.76E+00	4.08E+00	8.16E-01	1.13E+00
		MILITARY	7.693E+00	6.98E+00	3.43E+01	6.98E+00	3.98E+00	3.49E+00
		AFTER BR	3.610E+01	6.55E+01	1.64E-01	5.89E+01	2.46E+00	1.64E-01
J57-59W	3	IDLE	1.250E+00	3.69E+01	3.88E+01	1.36E+00	7.37E-02	5.67E-01
		APPROACH	1.950E+00	2.73E+01	1.19E+01	2.77E+00	1.85E-01	8.39E-01
		MILITARY	7.980E+00	8.60E+00	7.17E-01	4.85E+01	3.01E+00	3.58E+00
		AFTER BR	1.213E+01	1.16E+02	1.21E+01	1.49E-01	1.24E-02	5.50E+00
TF33-P3	4	IDLE	9.801E-01	3.43E+01	4.37E+01	7.35E-01	9.39E-02	4.88E-01
		APPROACH	3.797E+00	1.89E+01	4.48E+00	9.99E+00	1.71E+00	1.72E+00
		MILITARY	7.436E+00	5.73E+00	2.82E+00	3.37E+01	5.84E+00	3.37E+00
TF38-P7	5	IDLE	9.350E-01	2.25E+01	1.27E+01	1.27E+00	8.91E-03	4.24E-01
		APPROACH	2.180E+00	1.10E+01	3.25E+00	5.81E+00	1.14E-01	9.53E-01
		MILITARY	7.250E+00	2.63E+00	3.29E-01	6.58E+01	1.15E+00	3.29E+00
		AFTER BR	3.840E+01	6.97E+01	1.74E-01	5.42E+01	2.61E+00	1.74E-01
J 85-5	6	IDLE	4.530E-01	3.69E+01	6.14E+00	2.59E-01	2.67E-03	2.05E-01
		APPROACH	1.462E+00	2.87E+01	2.23E+00	1.54E+00	1.13E-02	6.63E-01
		MILITARY	2.630E+00	3.58E+01	1.80E+00	3.20E+00	2.15E-02	1.19E+00
		AFTER BR	8.323E+00	9.83E+01	2.64E-01	7.51E+00	3.82E-02	3.78E+00
J75-P17	7	IDLE	1.552E+00	6.05E+01	5.87E+01	1.62E+00	1.62E-01	7.84E-01
		APPROACH	3.580E+00	2.78E+01	8.26E+00	6.83E+00	6.99E-01	1.59E+00
		MILITARY	1.294E+01	7.63E+00	5.97E-01	7.85E+01	6.34E+00	5.87E+00
		AFTER BR	5.370E+01	9.74E+01	2.44E-01	7.58E+01	3.65E+00	2.44E-01
TF39	8	IDLE	1.134E+00	3.43E+01	1.18E+01	1.52E+00	1.54E-01	5.14E-01
		APPROACH	1.580E+00	2.62E+01	8.78E+00	2.58E+00	9.53E-01	6.80E-01
		MILITARY	1.191E+01	3.19E+00	9.72E-01	1.54E+02	8.10E+00	5.48E+00
T 56-A7	9	IDLE	6.930E-01	4.40E+00	3.27E+00	1.94E+00	1.92E-01	3.14E-01
		APPROACH	8.270E-01	2.28E+00	1.88E+00	2.42E+00	3.91E-01	3.75E-01
		MILITARY	1.967E+00	1.78E+00	2.81E+00	8.26E+00	5.04E-01	8.92E-01
T 76	10	IDLE	2.580E-01	2.70E+00	8.39E-01	8.39E-01	4.31E-02	1.13E-01
		APPROACH	4.580E-01	3.51E+00	1.53E-01	1.73E+00	1.82E-01	2.84E-01
		MILITARY	9.880E-01	9.39E-01	2.45E-02	4.28E+00	2.90E-01	4.88E-01
0478	11	IDLE	1.580E-02	5.86E+00	1.38E+00	7.48E+00	4.88E-01	4.88E-03
		APPROACH	6.180E-02	1.97E+01	4.73E-01	2.77E-02	1.26E+00	1.66E+00
		MILITARY	1.310E-01	6.89E+01	1.21E+00	5.59E-01	1.19E+00	3.57E-02
0360	12	IDLE	3.880E-02	1.15E+01	1.97E+00	1.58E-02	8.16E-01	3.16E-03
		APPROACH	4.880E-02	1.59E+01	1.28E+00	4.54E-02	9.98E-01	1.89E-02
		MILITARY	9.880E-02	4.28E+01	9.19E-01	2.16E-01	8.16E-01	2.45E-02
J57-P43V	13	IDLE	9.860E-01	3.45E+01	3.35E+01	9.84E-01	6.26E-02	4.47E-01
		APPROACH	1.849E+00	2.81E+01	7.72E+00	2.78E+01	2.46E-01	8.39E-01
		MILITARY	7.779E+00	5.29E+00	3.53E-01	3.88E+01	6.14E+00	3.53E+00
J69-T25	14	IDLE	2.310E-01	1.33E+01	2.84E+00	1.68E-01	7.64E-02	1.05E-01

15	J79-G17	APPROACH MILITARY	6.98E-01 1.89E+00	1.56E+01 1.56E+01	4.40E-01 2.40E-01	8.45E-01 1.79E+00	5.38E-03 9.93E-03	3.17E-01 4.97E-01
		IDLE	1.66E+00 3.34E+00	1.93E+01 4.32E+01	4.33E+00 9.54E+00	1.38E+00 8.03E+00	1.11E-01 1.24E+00	4.81E-01 1.52E+00
		APPROACH MILITARY AFTER BR	9.82E+00 3.49E+01	8.82E+00 6.34E+01	2.67E-01 1.59E-01	6.59E+01 4.93E+01	9.89E+00 2.38E+00	4.45E+00 1.59E+01
16	TF30P100	IDLE	9.48E-01 2.10E+00	2.86E+01 9.43E+00	8.17E+00 2.57E+00	1.25E+00 6.88E+00	8.68E-03 7.62E-02	4.38E-01 9.53E-01
		APPROACH MILITARY AFTER BR	9.87E+00 5.40E+01	2.88E+00 9.80E+01	4.12E-01 2.45E-01	1.15E+02 7.62E+01	9.88E-01 3.67E+00	4.12E+00 2.45E+01
17	TF34-100	IDLE	3.90E-01 1.55E+00	1.88E+01 2.67E+00	5.66E+00 3.48E-01	3.54E-01 3.29E+00	7.08E-03 1.13E-02	1.77E-01 5.67E-01
		APPROACH MILITARY	2.56E+00 4.71E+00	2.71E+00 4.71E+00	1.16E-01 3.48E-01	1.16E+01 1.16E+01	5.81E-02 1.16E-02	1.16E+00 1.16E+00
18	TF41	IDLE	1.89E+00 3.58E+00	5.45E+01 1.62E+01	4.21E+01 3.49E+00	6.87E-01 1.88E+01	6.87E-02 5.72E-01	4.58E-01 1.59E+00
		APPROACH MILITARY AFTER BR	8.41E+00 1.41E+00	6.87E+00 1.54E+01	7.64E-01 2.85E+00	8.82E+01 2.12E+00	2.56E+00 7.71E-02	3.82E+00 6.43E-01
19	F100	IDLE	3.80E+00 1.83E+01	7.89E+00 4.22E+00	2.59E+00 1.86E-01	9.12E+00 1.26E+02	3.67E-01 1.59E+00	1.36E+00 2.89E+01
		APPROACH MILITARY AFTER BR	4.86E+00 8.41E+00	8.35E+01 1.54E+01	1.25E+01 8.08E-01	6.49E+01 8.82E+01	3.13E+00 2.56E+00	2.89E+01 3.82E+00
20	F101	IDLE	8.88E-01 4.93E-01	8.88E-01 4.85E+00	8.08E-01 3.38E+00	8.88E-01 5.37E-01	8.88E-01 8.58E-02	8.88E-01 2.24E-01
		APPROACH MILITARY	8.27E-01 2.39E+00	3.19E+00 1.74E+00	1.24E+00 2.17E-01	1.39E+00 1.27E+01	1.75E-01 7.78E-01	1.75E-01 1.88E+00
22	T739 LS	IDLE	1.134E+00 1.89E+00	3.43E+01 2.62E+01	1.18E+01 8.78E+00	1.52E+00 2.55E+00	1.88E-02 1.89E-02	5.14E-01 6.88E-01
		APPROACH MILITARY	1.191E+01 4.59E-01	3.19E+00 1.48E+01	9.72E-01 2.85E+00	1.54E+02 3.18E-01	4.86E-02 5.41E-03	5.40E+00 2.88E-01
23	J60	IDLE	1.423E+00 1.91E+00	9.55E+00 4.32E+00	2.87E-01 1.88E-01	1.99E+00 5.25E+00	1.82E-01 1.86E-01	6.45E-01 1.11E+00
		APPROACH MILITARY	1.288E+00 2.80E+00	6.81E+01 7.67E+01	1.86E+01 5.80E+00	8.16E-01 1.72E+00	3.97E-01 5.81E-02	5.44E-01 2.51E+00
24	J-33	IDLE	9.59E-01 7.37E+00	2.17E+01 2.21E+01	4.18E+00 4.68E+00	8.78E-01 9.83E+00	2.61E-01 9.93E+00	4.35E-01 3.34E+00
		APPROACH MILITARY	8.75E+00 1.40E+00	4.77E+00 4.73E+01	2.38E+00 1.22E+01	1.71E+01 6.36E-02	3.97E+00 3.82E+00	3.97E+00 3.82E+00
25	JT-80	IDLE	1.40E+00 7.93E-01	4.73E+01 2.49E+02	1.22E+01 3.41E+00	6.36E-02 3.37E+00	3.82E+00 1.44E+01	3.82E+00 3.16E-01
		APPROACH MILITARY	1.218E+00 1.07E-01	6.41E+02 3.61E+01	1.13E+01 9.27E+00	6.13E+00 4.85E-02	1.10E+01 2.91E+00	3.31E-01 2.91E-02
26	R-4360	IDLE	6.18E-01 9.36E-01	1.91E+02 4.92E+02	2.62E+00 8.66E+00	2.59E+00 4.71E+00	1.11E+01 8.79E+00	1.66E-01 2.55E-01
		APPROACH MILITARY	9.36E-01 9.58E-01	4.92E+02 3.48E+01	8.66E+00 3.32E+01	4.71E+00 9.48E-01	2.55E-01 6.85E-02	2.55E-01 4.31E-01
27	R-3350	IDLE	9.58E-01 7.46E+00	3.48E+01 6.44E+00	3.32E+01 3.39E-01	9.48E-01 3.73E+01	6.85E-02 5.83E+00	4.31E-01 3.39E+00
		APPROACH MILITARY	1.552E+00 1.89E+00	4.36E+01 9.26E+00	2.68E+01 1.85E+00	1.83E+00 6.17E+01	1.62E-01 6.42E+00	7.84E-01 6.17E+01
28	J57-P19W	IDLE	1.89E+00 1.360E+01	3.91E+01 9.26E+00	1.89E+00 1.85E+00	2.17E+01 6.17E+01	1.62E-01 6.42E+00	7.84E-01 6.17E+01
		APPROACH MILITARY	1.89E+00 1.360E+01	3.91E+01 9.26E+00	1.89E+00 1.85E+00	2.17E+01 6.17E+01	1.62E-01 6.42E+00	7.84E-01 6.17E+01
29	J75-19W	IDLE	1.552E+00 1.89E+00	4.36E+01 9.26E+00	2.68E+01 1.85E+00	1.83E+00 6.17E+01	1.62E-01 6.42E+00	7.84E-01 6.17E+01
		APPROACH MILITARY	1.552E+00 1.89E+00	4.36E+01 9.26E+00	2.68E+01 1.85E+00	1.83E+00 6.17E+01	1.62E-01 6.42E+00	7.84E-01 6.17E+01

TF30-P3	30	IDLE APPROACH MILITARY	8.580E+01 2.100E+00 6.148E+00	2.70E+01 8.76E+00 2.23E+00	2.39E+01 2.80E+00 8.37E+02	8.87E+01 4.57E+00 3.35E+01	2.31E+03 4.57E+02 1.12E+00	3.86E+01 9.53E+01 2.79E+00
TF33-P7	31	IDLE APPROACH MILITARY	1.867E+00 2.500E+00 8.711E+00	4.50E+01 1.55E+01 3.16E+00	3.73E+01 4.31E+00 1.19E+01	8.71E+01 4.31E+00 4.74E+01	5.32E+02 4.42E+01 3.60E+00	4.84E+01 1.13E+00 3.95E+00
J79-G15*	32	IDLE APPROACH MILITARY AFTER BR	1.130E+00 3.500E+00 8.929E+00 3.224E+01	2.92E+01 1.49E+01 8.91E+00 5.85E+01	6.15E+00 1.75E+00 8.10E+01 1.46E+01	1.28E+00 7.62E+00 3.60E+01 4.55E+01	2.56E+01 2.86E+00 8.91E+00 2.19E+00	5.13E+01 1.59E+00 4.05E+00 1.46E+01
TF33-P3*	33	IDLE APPROACH MILITARY	9.880E+01 3.550E+00 7.436E+00	3.43E+01 1.14E+01 5.73E+00	4.37E+01 4.99E+00 2.82E+00	7.35E+01 8.70E+00 3.37E+01	9.39E+02 1.50E+00 5.84E+00	4.88E+01 1.61E+00 3.37E+00
TF33-P3*	34	IDLE APPROACH MILITARY	9.880E+01 3.550E+00 7.436E+00	3.43E+01 1.14E+01 5.73E+00	4.37E+01 4.99E+00 2.82E+00	7.35E+01 8.70E+00 3.37E+01	9.39E+02 1.50E+00 5.84E+00	4.88E+01 1.61E+00 3.37E+00
J 85-5*	35	IDLE APPROACH MILITARY AFTER BR	4.530E+01 1.462E+00 2.630E+00 8.323E+00	3.66E+01 2.85E+01 3.46E+01 9.83E+01	6.16E+00 2.32E+00 9.54E+01 2.64E+01	2.67E+01 1.53E+00 3.18E+00 7.51E+00	6.16E+04 7.29E+03 2.15E+02 3.82E+02	2.85E+01 5.63E+01 1.19E+00 3.78E+00
0350*	36	IDLE APPROACH MILITARY	3.800E+02 6.200E+00 9.880E+02	1.15E+01 2.66E+01 4.20E+01	1.97E+00 6.84E+01 9.19E+01	1.58E+02 1.55E+01 2.16E+01	8.16E+01 1.15E+00 8.16E+01	8.16E+03 1.69E+02 2.45E+02
J79-G17*	37	IDLE APPROACH MILITARY AFTER BR	1.860E+00 3.580E+00 9.820E+00 3.495E+01	1.93E+01 4.40E+01 8.82E+00 6.34E+01	4.33E+00 9.84E+00 2.57E+02 1.59E+01	1.38E+00 8.73E+00 6.59E+01 4.93E+01	1.11E+01 1.37E+00 9.89E+00 2.38E+00	4.81E+01 1.59E+00 4.45E+00 1.59E+01
J57-P43*	38	IDLE APPROACH MILITARY	9.860E+01 3.580E+00 7.779E+00	3.49E+01 1.32E+01 5.29E+00	2.35E+01 2.45E+00 3.53E+01	9.84E+01 2.87E+01 3.88E+01	5.26E+02 7.88E+01 6.14E+00	4.47E+01 1.36E+00 3.53E+00

B. INPUT INFORMATION

B.1 INFORMATION ON AIRCRAFT ACTIVITY, PARKING AREAS, TAXIWAYS, AND RUNWAYS

AIRCRAFT NAME	AIRCRAFT ACTIVITY		
	NUMBER OF AIRCRAFT TYPES = 4	(ANNUAL NUMBER OF) DEPARTURES	T/G CYCLES
F 5	ARRIVALS	8391.	1682.
T 37		39662.	63357.
T 38		77281.	55963.
TRANSENT		8112.	8.

PARKING AREAS

NUMBER OF PARKING AREAS = 4

PARKING AREA NUMBER = 1 THE NUMBER OF SQUARES MAKING UP THIS AREA = 1
 SQUARE NUMBER = 1 X = 438.188 V = 3685.578 LENGTH OF SIDE = 8.188 KM

PARKING AREA NUMBER = 2 THE NUMBER OF SQUARES MAKING UP THIS AREA = 3
 SQUARE NUMBER = 1 X = 437.788 V = 3685.188 LENGTH OF SIDE = 8.288 KM
 SQUARE NUMBER = 2 X = 437.988 V = 3685.988 LENGTH OF SIDE = 8.288 KM
 SQUARE NUMBER = 3 X = 438.188 V = 3685.788 LENGTH OF SIDE = 8.288 KM

PARKING AREA NUMBER = 3 THE NUMBER OF SQUARES MAKING UP THIS AREA = 3
 SQUARE NUMBER = 1 X = 437.958 V = 3684.788 LENGTH OF SIDE = 8.288 KM
 SQUARE NUMBER = 2 X = 438.188 V = 3684.988 LENGTH OF SIDE = 8.288 KM
 SQUARE NUMBER = 3 X = 438.118 V = 3685.858 LENGTH OF SIDE = 8.148 KM

PARKING AREA NUMBER = 4 THE NUMBER OF SQUARES MAKING UP THIS AREA = 2
 SQUARE NUMBER = 1 X = 438.158 V = 3685.258 LENGTH OF SIDE = 8.188 KM
 SQUARE NUMBER = 2 X = 438.158 V = 3685.358 LENGTH OF SIDE = 8.188 KM

TAXIWAYS

NUMBER OF CATALOGUED AIRCRAFT TAXIWAY LINE SEGMENTS = 16

LINE NO.	GROUND LEVEL COORDINATES OF LINE X(1) Y(1)	AVERAGE EMISSION HEIGHT (METERS) X(1) Y(1)	WIDTH OF LINE (METERS) X(1) Y(1)	DELTA Z AT OPPOSITE END OF LINE (METERS) X(2) Y(2)	GROUND LEVEL COORDINATES AT OPPOSITE END OF LINE X(2) Y(2)	AVERAGE EMISSION HEIGHT (METERS) X(2) Y(2)	SEGMENT LENGTH (KM)
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	COORDINATES (X)	COORDINATES (Y)	AVERAGE EMISSION HEIGHT (MET)	HORIZONTAL PLUME DISPERSION (MET)	VERTICAL PLUME DISPERSION (MET)	RUNWAY VECTOR ANGLE (DEG)	RUNWAY LENGTH (KM)
1	448.088	3684.438	4.88	28.88	448.568	3684.188	4.88
2	448.568	3684.188	4.88	28.88	448.568	3683.758	4.88
3	439.768	3683.988	4.88	28.88	448.568	3683.758	4.88
4	439.768	3683.988	4.88	28.88	439.948	3684.148	4.88
5	438.768	3683.988	4.88	28.88	438.538	3686.238	4.88
6	438.538	3685.238	4.88	28.88	438.238	3686.588	4.88
7	438.538	3685.238	4.88	28.88	438.138	3686.258	4.88
8	438.138	3685.258	4.88	28.88	438.088	3684.828	4.88
9	438.138	3685.258	4.88	28.88	438.138	3685.588	4.88
10	438.238	3685.588	4.88	28.88	438.238	3685.588	4.88
11	438.238	3685.588	4.88	28.88	437.878	3685.988	4.88
12	438.238	3685.588	4.88	28.88	437.528	3686.388	4.88
13	437.878	3685.988	4.88	28.88	437.528	3686.388	4.88
14	437.528	3686.388	4.88	28.88	437.738	3686.388	4.88
15	437.738	3686.388	4.88	28.88	438.488	3686.388	4.88
16	438.488	3686.388	4.88	28.88	438.838	3686.388	4.88

RUNWAYS

NUMBER OF RUNWAYS = 6

RUNWAY ID NUMBER = 1

COORDINATES (X)	COORDINATES (Y)	AVERAGE EMISSION HEIGHT (MET)	HORIZONTAL PLUME DISPERSION (MET)	VERTICAL PLUME DISPERSION (MET)	RUNWAY VECTOR ANGLE (DEG)	RUNWAY LENGTH (KM)
439.948	3684.148	4.88	28.88	8.88	315.88	3.17

(B- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION) 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)

CALM	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

(B- RUNWAY NOT USED DURING THIS SPECIAL CASE) 1- RUNWAY USED DURING THIS SPECIAL CASE)

CASE 1	CASE 2	CASE 3
8	8	8

NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE

F 5	T 37
8	34515

NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE

F 5	T 37
8	34515

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 2

FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE

F 5	T 37
8	1.88

NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 2

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 14, 13.

OUTBOUND TAXIWAY ID NUMBER - 2
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 2

FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 37 1.00
T 38 0.00
TRANSECT 0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 4
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 11, 6, 5, 4.

RUNWAY ID NUMBER - 2

COORDINATES (KM) AVERAGE EMISSION HORIZONTAL PLUME VERTICAL PLUME RUNWAY VECTOR RUNWAY LENGTH (KM)
(X) HEIGHT (MET) DISPERSION (MET) DISPERSION (MET) ANGLE (DEG)
440.560 3684.180 4.00 20.00 8.00 315.00 3.12

(0- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)

CALM	N	NNE	NE	E	ESE	SE	SSE	S	SSW	WSW	W	WNW	NW	NNW
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

RUNWAY USE BY SPECIAL CASE WIND CONDITIONS
(0- RUNWAY NOT USED DURING THIS SPECIAL CASE 1- RUNWAY USED DURING THIS SPECIAL CASE)

CASE 1 CASE 2 CASE 3
0 0 0

NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE
T 37 4353.
T 38 24917.
TRANSECT 7950.

NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE
T 37 4353.
T 38 24917.
TRANSECT 7950.

INBOUND TAXIWAY ID NUMBER - 3
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 1

FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 37 0.00
T 38 0.00
TRANSECT 0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 4
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 15, 14, 12, 10.

INBOUND TAXIWAY ID NUMBER - 26
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 2

FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 37 1.00
T 38 0.00
TRANSECT 0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 3
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 15, 14, 13.

INBOUND TAXIWAY ID NUMBER - 4

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 3
 F 5
 0.00
 T 37
 0.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38
 1.00
 0.00
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 6
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 15, 14, 12, 10, 9, 8.

INBOUND TAXIWAY ID NUMBER = 5
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 4
 F 5
 0.00
 T 37
 0.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38
 0.00
 1.00
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 5
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 15, 14, 12, 10, 9, 8.

OUTBOUND TAXIWAY ID NUMBER = 6
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 1
 F 5
 1.00
 T 37
 0.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38
 0.00
 0.00
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 5
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 9, 7, 5, 3, 2.

OUTBOUND TAXIWAY ID NUMBER = 27
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 2
 F 5
 0.00
 T 37
 1.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38
 0.00
 0.00
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 5
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 11, 6, 5, 3, 2.

OUTBOUND TAXIWAY ID NUMBER = 7
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 3
 F 5
 0.00
 T 37
 0.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38
 1.00
 0.00
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 5
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 8, 7, 5, 3, 2.

OUTBOUND TAXIWAY ID NUMBER = 8
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED = 4
 F 5
 0.00
 T 37
 0.00
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38
 0.00
 1.00
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 4
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 7, 5, 3, 2.

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 3

F 5 0.00 T 37 0.00
FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38 1.00
TRANSIENT 0.00

NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 6
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 8, 7, 5, 3, 2, 1.

RUNWAY ID NUMBER - 4

COORDINATES (KM) (X) 437.730 (Y) 3686.380
AVERAGE EMISSION HEIGHT (MET) 4.00
HORIZONTAL PLUME DISPERSION (MET) 20.00
VERTICAL PLUME DISPERSION (MET) 8.00
RUNWAY VECTOR ANGLE (DEG) 135.00
RUNWAY LENGTH (KM) 3.17

(0- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)
CALM N NNE NE E ESE SE SSE S SSW SW W VNW NW NNW

RUNWAY USE BY SPECIAL CASE WIND CONDITIONS
(0- RUNWAY NOT USED DURING THIS SPECIAL CASE 1- RUNWAY USED DURING THIS SPECIAL CASE)

CASE 1 CASE 2 CASE 3
1 0 0

F 5 0.00 T 37 704.
NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE
T 38 0.
TRANSIENT 0.

F 5 0.00 T 37 704.
NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE
T 38 0.
TRANSIENT 0.

INBOUND TAXIWAY ID NUMBER - 13
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 2

F 5 0.00 T 37 1.00
FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38 0.00
TRANSIENT 0.00

NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 4
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 4, 5, 6, 11.

OUTBOUND TAXIWAY ID NUMBER - 14
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS - 2

F 5 0.00 T 37 1.00
FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38 0.00
TRANSIENT 0.00

NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 2
SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 13, 14.

RUNWAY ID NUMBER - 5

COORDINATES (KM) (X) (Y) AVERAGE EMISSION HORIZONTAL PLUME DISPERSION (MET) VERTICAL PLUME DISPERSION (MET) RUNWAY VECTOR ANGLE (DEG) RUNWAY LENGTH (KM)

(X) 438.420 (V) 3686.388 HEIGHT (MET) 4.00 DISPERSION (MET) 20.00 DISPERSION (MET) 8.00 ANGLE (DEG) 135.00 LENGTH (KM) 3.12

(B- RUNWAY NOT USED WHEN WIND IS FROM THIS DIRECTION 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION)

CALM N NNE NE ENE E ESE SE SSE S SSW SW W VNW NW NNW

(B- RUNWAY NOT USED DURING THIS SPECIAL CASE 1- RUNWAY USED DURING THIS SPECIAL CASE)

CASE 1 CASE 2 CASE 3

F 5 T 37 784. NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE
T 38 508. TRANSIENT 324.

F 5 T 37 784. NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE
T 38 508. TRANSIENT 324.

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1

F 5 T 37 8.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38 8.00 TRANSIENT

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 5
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 2, 3, 5, 7, 9.

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 2

F 5 T 37 1.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38 8.00 TRANSIENT

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 5
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 2, 3, 5, 6, 11.

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3

F 5 T 37 8.00 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38 1.00 TRANSIENT

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 5
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 2, 3, 5, 7, 8.

ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 4

F 5 T 37 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38 TRANSIENT

0.00 0.00 1.00
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 4
 SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 2, 3, 5, 7,

F 5 T 37 0.00
 1.00 0.00
 OUTBOUND TAXIWAY ID NUMBER = 19
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS = 1
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38 0.00
 TRANSIENT 0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 4
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 10, 12, 14, 15,

F 5 T 37 0.00
 0.00 1.00
 OUTBOUND TAXIWAY ID NUMBER = 20
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS = 2
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38 0.00
 TRANSIENT 0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 3
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 13, 14, 15,

F 5 T 37 0.00
 0.00 1.00
 OUTBOUND TAXIWAY ID NUMBER = 21
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS = 3
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38 0.00
 TRANSIENT 0.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 6
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 8, 9, 10, 12, 14, 15,

F 5 T 37 0.00
 0.00 1.00
 OUTBOUND TAXIWAY ID NUMBER = 22
 ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEYS = 4
 FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
 T 38 0.00
 TRANSIENT 1.00

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY = 5
 NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY = 9, 10, 12, 14, 15,

COORDINATES (KM) AVERAGE EMISSION HORIZONTAL PLUME VERTICAL PLUME RUNWAY VECTOR RUNWAY
 (X) (Y) HEIGHT (MET) DISPERSION (MET) DISPERSION (MET) ANGLE (DEG) LENGTH (KM)
 438.630 3686.380 4.00 20.00 8.00 135.00 2.00

RUNWAY ID NUMBER = 6
 RUNWAY USE BY WIND DIRECTION 1- RUNWAY USED WHEN WIND IS FROM THIS DIRECTION
 (0- RUNWAY NOT USED DURING THIS SPECIAL CASE 1- RUNWAY USED DURING THIS SPECIAL CASE)

CALM	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CASE 1 CASE 2 CASE 3
1 2 3

F 5
1.07.
T 37
0.
NUMBER OF ARRIVALS ON THIS RUNWAY BY AIRCRAFT TYPE
T 38
TRANSIENT
1.037.

F 5
1.07.
T 37
0.
NUMBER OF DEPARTURES ON THIS RUNWAY BY AIRCRAFT TYPE
T 38
TRANSIENT
1.037.

F 5
1.08
T 37
0.08
INBOUND TAXIWAY ID NUMBER - 25
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1
FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38
TRANSIENT
0.08

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 6
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 1, 2, 3, 5, 7, 9.

F 5
0.08
T 37
0.08
INBOUND TAXIWAY ID NUMBER - 26
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3
FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38
TRANSIENT
1.08

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 6
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 1, 2, 3, 5, 7, 8.

F 5
1.08
T 37
0.08
OUTBOUND TAXIWAY ID NUMBER - 23
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 1
FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38
TRANSIENT
0.08

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 5
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 10, 12, 14, 15, 16.

F 5
0.08
T 37
0.08
OUTBOUND TAXIWAY ID NUMBER - 24
ID OF PARKING AREA TO WHICH THIS TAXIWAY IS KEVED - 3
FRACTIONAL USAGE OF THIS TAXIWAY BY AIRCRAFT TYPE
T 38
TRANSIENT
1.08

SEQUENCE OF CATALOGUED LINE SEGMENTS MAKING UP THIS TAXIWAY - 7
NUMBER OF LINE SEGMENTS MAKING UP THIS TAXIWAY - 8, 9, 10, 12, 14, 15, 16.

F 5		SERVICE VEHICLE EMISSIONS			
		KILOGRAMS PER ARRIVAL			
	CO	HC	NOX	PM	SOX
GSE FUEL	6.749E-01	4.889E-02	2.889E-03	5.889E-03	1.889E-03
AM G	7.289E-02	7.889E-03	1.489E-02	7.889E-03	2.889E-03
JP 4	8.889E-01	8.889E-01	8.889E-01	8.889E-01	8.889E-01
DESL	8.889E-01	8.889E-01	8.889E-01	8.889E-01	8.889E-01
JP 8	8.889E-01	8.889E-01	8.889E-01	8.889E-01	8.889E-01

F 5		KILOGRAMS PER DEPARTURE			
		KILOGRAMS PER DEPARTURE			
	CO	HC	NOX	PM	SOX
GSE FUEL	6.749E-01	4.889E-02	2.889E-03	5.889E-03	1.889E-03
AM G	7.289E-02	7.889E-03	1.489E-02	7.889E-03	2.889E-03
JP 4	8.889E-01	8.889E-01	8.889E-01	8.889E-01	8.889E-01
DESL	8.889E-01	8.889E-01	8.889E-01	8.889E-01	8.889E-01
JP 8	8.889E-01	8.889E-01	8.889E-01	8.889E-01	8.889E-01

F 5		REFUELING INFORMATION (JP 4)			
		REFUELING INFORMATION (JP 4)			
	CO	HC	NOX	PM	SOX
AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	2146.88				
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	4.88				
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	4.88				
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	8.88				

T 37		SERVICE VEHICLE EMISSIONS			
		KILOGRAMS PER ARRIVAL			
GSE FUEL	CO	HC	NOX	PM	SOX
	1.330E-01	0.000E-03	1.000E-03	1.000E-03	1.000E-03
	3.000E-03	1.000E-03	1.000E-03	1.000E-04	1.000E-03
	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
		KILOGRAMS PER DEPARTURE			
GSE FUEL	CO	HC	NOX	PM	SOX
	1.330E-01	0.000E-03	1.000E-03	1.000E-03	1.000E-03
	3.000E-03	1.000E-03	1.000E-03	1.000E-04	1.000E-03
	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
T 37		REFUELING INFORMATION (JP 4)			
AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....					
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....					
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....		507.00			
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....		10.00			
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....		10.00			
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....		2.00			

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	6.740E-01	4.000E-02	2.000E-03	5.000E-03	1.000E-03
JP 4	7.200E-02	7.000E-03	1.400E-02	7.000E-03	2.000E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	6.740E-01	4.000E-02	2.000E-03	5.000E-03	1.000E-03
JP 4	7.200E-02	7.000E-03	1.400E-02	7.000E-03	2.000E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

T 30 REFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	1105.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	4.00
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	4.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.00

TRANSEMENT SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	6.740E-01	4.000E-02	2.000E-03	5.000E-03	1.000E-03
JP 4	7.200E-02	7.000E-03	1.400E-02	7.000E-03	2.000E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

GSE FUEL	CO	HC	NOX	PM	SOX
AM G	6.740E-01	4.000E-02	2.000E-03	5.000E-03	1.000E-03
JP 4	7.200E-02	7.000E-03	1.400E-02	7.000E-03	2.000E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 9	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

TRANSEMENTREFUELING INFORMATION (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	1093.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	4.00
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	4.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	2.00

8.3 AIRCRAFT LANDING AND TAKEOFF PARAMETERS

AIRCRAFT NAME	TAXI SPEED (KM/HR)	LANDING SPEED (KM/HR)	TAKEOFF SPEED (KM/HR)	IDLE START UP TIME (MIN/ENGINE)	ENGINE CHECK TIME (MIN/ENGINE)	IDLE SHUT DOWN TIME (MIN/ENGINE)
F 5	2.5000E+01	2.3900E+02	2.8700E+02	5.8000E+00	7.5000E-01	6.6000E-01
T 37	2.2300E+01	1.4800E+02	1.6800E+02	3.8000E+00	6.0000E-01	6.0000E-01
T 33	2.1800E+01	2.4000E+02	2.8700E+02	5.2000E+00	3.0000E-01	7.0000E-01
TRANSIENT	3.7800E+01	2.8700E+02	3.1400E+02	6.4000E+00	8.0000E-01	4.0000E-01
AIRCRAFT NAME	APPROACH ANGLE 1 (DEGREES)	APPROACH ANGLE 2 (DEGREES)	APPROACH SPEED 1 (KM/HR)	APPROACH SPEED 2 (KM/HR)	APPROACH HEIGHT 2 (KM)	TAKEOFF WEIGHT (1000 LBS)
F 5	3.6000E+00	2.5000E+00	5.4870E+02	3.6500E+02	7.0000E-02	1.0000E+01
T 37	5.6000E+00	2.5000E+00	2.5600E+02	2.1940E+02	6.0000E-02	6.0000E+00
T 34	3.6000E+00	2.5000E+00	5.4870E+02	3.6500E+02	6.0000E-02	1.2000E+01
TRANSIENT	3.5600E+00	3.4000E+00	4.3800E+02	3.1800E+02	2.0000E-01	5.0000E+01
AIRCRAFT NAME	CLIMB ANGLE 1 (DEGREES)	CLIMB ANGLE 2 (DEGREES)	CLIMB SPEED 1 (KM/HR)	CLIMB SPEED 2 (KM/HR)	CLIMB HEIGHT 1 (KM)	CLIMB HEIGHT 2 (KM)
F 5	5.0000E+00	9.1000E+00	5.5600E+02	5.5600E+02	1.0000E-01	1.0000E-01
T 37	5.2000E+00	6.0000E+00	3.6600E+02	4.5700E+02	2.0000E-01	2.0000E-01
T 38	5.0000E+00	9.1000E+00	5.5600E+02	5.5600E+02	1.0000E-01	1.0000E-01
TRANSIENT	6.0000E+00	1.2700E+01	5.5400E+02	5.5400E+02	3.0000E-01	3.0000E-01
AIRCRAFT NAME	AIRCRAFT ID	ENGINE ID	NUMBER OF ENGINES	AFTER-BURNER	RUN ROLL EQUATION	
F 5	13	6	2	1	13	
T 37	31	14	2	0	31	
T 38	32	35	2	1	32	
TRANSIENT	50	1	2	1	12	

ALTITUDE AT START OF APPROACH = 9.1440E-01 KILOMETERS

ALTITUDE AT END OF CLIMBOUT = 9.1440E-01 KILOMETERS

C. I N T E R I M C A L C U L A T I O N S
C.1 AIRCRAFT EMISSION FACTORS BY AIRCRAFT TYPE (KG PER ENGINE PER HOUR)

	F 5	ID = 13	ENGINE = J 85-5	ENGINE ID = 6	NUMBER OF ENGINES = 2
(MODE)	CO	HC	NOX	PM	SOX
IDLE	3.698E+01	6.144E+00	2.589E-01	2.671E-03	2.855E-01
TAXI	3.698E+01	6.144E+00	2.589E-01	2.671E-03	2.855E-01
ENGINE CHECK	3.499E+01	1.882E+00	3.197E+00	2.147E-02	1.933E+00
RUNWAY ROLL	9.831E+01	2.643E-01	7.513E+00	3.820E-02	3.775E+00
CLIMB 1	9.831E+01	2.643E-01	7.513E+00	3.820E-02	3.775E+00
CLIMB 2	3.499E+01	1.882E+00	3.197E+00	2.147E-02	1.933E+00
APPROACH 1	2.874E+01	2.335E+00	1.539E+00	1.127E-02	6.832E-01
APPROACH 2	3.288E+01	3.798E+00	1.827E+00	7.933E-03	4.891E-01
LANDING	3.698E+01	6.144E+00	2.589E-01	2.671E-03	2.855E-01

	T 37	ID = 31	ENGINE = J69-T25	ENGINE ID = 14	NUMBER OF ENGINES = 2
(MODE)	CO	HC	NOX	PM	SOX
IDLE	1.332E+01	2.843E+00	1.683E-01	7.638E-02	1.848E-01
TAXI	1.332E+01	2.843E+00	1.683E-01	7.638E-02	1.848E-01
ENGINE CHECK	1.556E+01	2.483E-01	1.788E+00	9.934E-03	4.967E-01
RUNWAY ROLL	1.556E+01	2.483E-01	1.788E+00	9.934E-03	4.967E-01
CLIMB 1	1.556E+01	2.483E-01	1.788E+00	9.934E-03	4.967E-01
CLIMB 2	1.556E+01	2.483E-01	1.788E+00	9.934E-03	4.967E-01
APPROACH 1	1.554E+01	4.884E-01	8.453E-01	5.382E-03	3.166E-01
APPROACH 2	1.465E+01	1.862E+00	5.713E-01	3.378E-02	2.319E-01
LANDING	1.332E+01	2.843E+00	1.683E-01	7.638E-02	1.848E-01

	T 38	ID = 32	ENGINE = J 85-5*	ENGINE ID = 35	NUMBER OF ENGINES = 2	
(MODE)		CO	HC	NOX	PM	SOX
IDLE		3.588E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01
TAXI		3.588E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01
ENGINE CHECK		3.468E+01	9.544E-01	3.182E+00	2.147E-02	1.933E+00
RUNWAY ROLL		9.831E+01	2.643E-01	7.513E+00	3.820E-02	3.775E+00
CLIMB 1		9.831E+01	2.643E-01	7.513E+00	3.820E-02	3.775E+00
CLIMB 2		3.468E+01	9.544E-01	3.182E+00	2.147E-02	1.933E+00
APPROACH 1		2.852E+01	2.321E+00	1.525E+00	7.295E-03	6.832E-01
APPROACH 2		3.174E+01	3.858E+00	1.822E+00	4.623E-03	4.891E-01
LANDING		3.588E+01	6.164E+00	2.671E-01	6.164E-04	2.855E-01

	TRANSIENT	ID = 58	ENGINE = J 79-G15			ENGINE ID = 1	NUMBER OF ENGINES = 2		
			CO	HC	NOX		PM	SOX	
(MODE)									
IDLE			2.911E+01	5.585E+00	1.267E+00	2.565E-01		5.130E-01	
TAXI			2.911E+01	5.585E+00	1.267E+00	2.565E-01		5.130E-01	
ENGINE CHECK			9.226E+00	8.982E-01	3.618E+01	9.544E+00		4.847E+00	
RUNWAY ROLL			5.849E+01	1.462E-01	4.548E+01	2.252E+00		1.462E+00	
CLIMB 1			5.849E+01	1.462E-01	4.548E+01	2.252E+00		1.462E+00	
CLIMB 2			9.226E+00	8.982E-01	3.618E+01	9.544E+00		4.847E+00	
APPROACH 1			1.487E+01	1.641E+00	5.244E+00	2.741E+00		1.234E+00	
APPROACH 2			2.888E+01	3.186E+00	3.653E+00	1.747E+00		9.455E-01	
LANDING			2.911E+01	5.585E+00	1.267E+00	2.565E-01		5.130E-01	

SECTION IV
SUMMARY

A. METEOROLOGICAL DATA SUMMARY

AVERAGE ANNUAL TEMPERATURE (DEGREES F).....	71.88
ANNUAL DEGREE DAYS.....	1535.88
PRESSURE ALTITUDE (HUNDREDS OF FEET).....	13.88
AVERAGE ANNUAL WIND SPEED (METERS PER SECOND).....	2.16
DAILY AVERAGE TEMPERATURE VARIATION (DEGREES F).....	27.58

B. TEMPORAL DISTRIBUTION FRACTION SUMMARY

C. AIRCRAFT EMISSION SUMMARY
C.1 SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE
ALL POLLUTANTS IN METRIC TONS

OPERATION	F 5			
	CO	HC	NOX	PM
STARTUP	5.1595E+01	8.5911E+00	3.6203E-01	3.7352E-03
TAXI OUT	9.0074E+01	1.4998E+01	6.3203E-01	6.5209E-03
ENGINE CHECK	7.3390E+00	2.1019E-01	6.7059E-01	2.5022E-01
RUNWAY ROLL	1.7300E+01	4.6505E-02	1.3221E+00	6.6435E-01
CLIMB 1	8.0027E+00	2.1720E-02	6.1769E-01	2.4032E-03
CLIMB 2	4.5033E+00	1.4043E-01	4.4004E-01	3.1040E-01
APPROACH 1	1.7017E+01	1.3232E+00	9.1094E-01	3.0092E-03
APPROACH 2	2.0499E+00	3.3824E-01	9.1424E-02	6.6759E-03
LANDING	1.2394E+01	2.0637E+00	8.6966E-02	6.9749E-04
TAXI IN	5.0915E+01	9.0099E+00	4.1339E-01	8.9727E-04
SHUTDOWN	6.0106E+00	1.1340E+00	4.7708E-02	4.2652E-03
ARR + DEP SV	1.2519E+01	7.0075E-01	2.6051E-01	4.9305E-04
FUEL VENTING	0.0000E-01	1.2972E+01	0.0000E-01	0.0130E-01
FILL + SPILL	0.0000E-01	2.9625E+01	0.0000E-01	0.0000E-01
TOUCH + GO	6.9065E+00	3.7372E-01	4.3595E-01	0.0000E-01
TOTAL	2.9671E+02	8.2437E+01	6.3075E+00	2.4265E-01
				3.2957E+00

OPERATION	T 37			
	CO	HC	NOX	PM
STARTUP	6.7979E+01	1.0424E+01	8.1706E-01	3.0969E-01
TAXI OUT	1.4248E+02	2.1040E+01	1.7142E+00	0.1679E-01
ENGINE CHECK	1.0442E+01	1.6670E-01	1.2003E+00	6.6602E-03
RUNWAY ROLL	6.5107E+00	1.0407E-01	7.9202E-01	4.1627E-03
CLIMB 1	1.0770E+01	1.7193E-01	1.2373E+00	6.0772E-03
CLIMB 2	2.0012E+01	3.3225E-01	2.3922E+00	1.3290E-02
APPROACH 1	4.6106E+01	1.2118E+00	2.5002E+00	1.5970E-02
APPROACH 2	8.0385E+00	6.0077E-01	3.4461E-01	2.0377E-02
LANDING	3.6038E+01	5.5259E+00	4.3357E-01	2.0659E-01
TAXI IN	4.6446E+01	7.1219E+00	6.5079E-01	3.6522E-01
SHUTDOWN	1.0733E+01	1.6450E+00	1.2914E-01	6.1529E-02
ARR + DEP SV	1.0780E+01	7.1392E-01	1.5065E-01	8.7256E-02
FUEL VENTING	0.0000E-01	6.1317E+01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	3.1135E+02	0.0000E-01	0.0000E-01
TOUCH + GO	1.3902E+02	3.0034E+00	1.0522E+01	9.6343E-02
TOTAL	5.5770E+02	4.2647E+02	2.2767E+01	1.9910E+00
				0.5543E+00

OPERATION	T 38			
	CO	HC	NOX	PM
STARTUP	4.0993E+02	6.2572E+01	3.5701E+00	0.2572E-03
TAXI OUT	9.9591E+02	1.6705E+02	7.2733E+00	1.6705E-02
ENGINE CHECK	2.6735E+01	7.3753E-01	2.5970E+00	1.6594E-02
RUNWAY ROLL	7.5233E+01	2.0224E-01	5.7493E+00	2.3113E-02
CLIMB 1	7.4450E+01	2.0013E-01	5.6895E+00	2.2072E-02
				2.0591E+00

CLIMB 2	4.4555E+01	1.2319E+00	4.0037E+00	2.7718E-02	1.5399E+00
APPROACH 1	1.5736E+02	1.2008E+01	8.4168E+00	4.8254E-02	3.6595E+00
APPROACH 2	2.2278E+01	2.7881E+00	7.1733E-01	3.2451E-03	3.3697E-01
LANDING	1.1375E+02	1.9172E+01	8.3878E-01	1.9172E-03	6.3986E-01
TAXI IN	5.5785E+02	9.4820E+01	4.8742E+00	9.4820E-03	3.1240E+00
SHUTDOWN	4.4254E+01	7.4585E+00	3.2328E-01	7.4585E-04	2.4862E-01
ARR + DEP SV	1.1538E+02	7.2644E+00	2.4738E+00	1.8547E+00	4.6369E-01
FUEL VENTING	8.8888E-01	1.1948E+02	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	2.5641E+02	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	2.2695E+02	1.2544E+01	1.4344E+01	7.8973E-02	6.4393E+00
TOTAL	2.9447E+03	7.8465E+02	5.9871E+01	2.8966E+00	3.1478E+01

OPERATION	TRANSENT			PM	SOX
	CO	HC	NOX		
STARTUP	5.1388E+01	9.7163E+00	2.5367E+00	4.5277E-01	9.8553E-01
TAXI OUT	4.1186E+01	7.7735E+00	1.7894E+00	3.6223E-01	7.2447E-01
ENGINE CHECK	2.8356E+00	1.9642E-01	7.9818E+00	2.1879E+00	8.9262E-01
RUNWAY ROLL	4.9421E+00	1.2355E-02	3.8425E+00	1.9827E-01	1.2355E+00
CLIMB 1	6.4888E+00	1.6888E-02	4.9766E+00	2.4643E-01	1.6888E+00
CLIMB 2	7.7816E-01	7.4314E-02	3.8198E+00	7.9752E-01	3.3779E-01
APPROACH 1	7.2658E+00	8.4759E-01	2.7884E+00	1.4168E+00	6.3728E-01
APPROACH 2	3.7488E+00	5.9481E-01	6.8198E-01	3.2624E-01	1.7649E-01
LANDING	8.3785E+00	1.5830E+00	3.8439E-01	7.3763E-02	1.4753E-01
TAXI IN	1.6269E+00	3.8768E-01	7.8623E-02	1.4337E-02	2.8673E-02
SHUTDOWN	1.2575E-01	2.3788E-02	5.4741E-03	1.1881E-03	2.2162E-03
ARR + DEP SV	1.2183E+01	7.6253E-01	2.5958E-01	1.9469E-01	4.8672E-02
FUEL VENTING	8.8888E-01	2.5883E+01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	2.8221E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOTAL	1.3987E+02	7.5211E+01	2.7938E+01	6.1833E+00	6.7372E+00

C.2 SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	6.688E+02	1.113E+02	6.994E+00	8.544E-01	4.479E+00
TAXI OUT	1.269E+03	2.124E+02	1.140E+01	1.282E+00	7.941E+00
ENGINE CHECK	4.652E+01	1.318E+00	1.225E+01	2.135E+00	2.398E+00
RUNWAY ROLL	1.839E+02	3.651E-01	1.166E+01	2.286E-01	4.997E+00
CLIMB 1	9.978E+01	4.897E-01	1.252E+01	2.786E-01	5.113E+00
CLIMB 2	7.114E+01	1.778E+00	9.863E+00	8.415E-01	2.789E+00
APPROACH 1	2.277E+02	1.619E+01	1.454E+01	1.478E+00	5.628E+00
APPROACH 2	3.771E+01	4.282E+00	1.835E+00	3.585E-01	6.967E-01
LANDING	1.785E+02	2.834E+01	1.715E+00	2.842E-01	1.139E+00
TAXI IN	6.648E+02	1.112E+02	6.117E+00	2.942E-01	3.856E+00
SHUTDOWN	6.192E+01	1.826E+01	5.856E-01	6.387E-02	3.731E-01
ARR + DEP SV	1.587E+02	9.529E+00	3.159E+00	2.338E+00	7.213E-01
FUEL VENTING	8.888E-01	2.188E+02	8.888E-01	8.888E-01	8.888E-01
FILL + SPILL	8.888E-01	6.256E+02	8.888E-01	8.888E-01	8.888E-01
TOUCH + GO	3.736E+02	1.682E+01	2.532E+01	1.659E-01	1.881E+01
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TOTAL	3.939E+03	1.368E+03	1.168E+02	1.851E+01	5.886E+01

D. AIRBASE EMISSION SUMMARY

D.1 SUMMARY OF ANNUAL EMISSIONS FROM GROUND MOBILE SOURCES ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
OFF ROAD VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
MILITARY VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
CIVILIAN VEH	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
MIL VEH LINE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
CIV VEH LINE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
OTHER AB LNS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

D.2 SUMMARY OF ANNUAL EMISSIONS FROM AIRBASE FACILITIES ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
TRAIN FIRES	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TEST CELLS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
RUN-UP STDS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
POWER PLANTS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
INCINERATORS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
OTHER AB PTS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
SPACE HEATING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

D.3 SUMMARY OF ANNUAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ALL LOSSES IN METRIC TONS

OPERATION	WORKING LOSS	FIXED ROOF BREATHING LOSS	FLOATING ROOF BREATHING LOSS	SPILLAGE	OTHER
STORAGE TANKS	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	
FILLING	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	
PET STOR TKS		0.0000E-01	0.0000E-01		
TNK TRUCK PK		0.0000E-01	0.0000E-01		
VEH PARKING		0.0000E-01			
OTHERS					0.0000E-01
TOTAL EMISSIONS FROM EVAPORATIVE HYDROCARBONS ARE	0.0000E-01				METRIC TONS

E. ENVIRON EMISSION SUMMARY
E.1 SUMMARY OF ANNUAL EMISSIONS FROM ENVIRONS
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
ENVIRON PTS.	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV STA AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV MOS AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV LAND USE	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV CON AREA	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV ROAD WAY	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
ENV NON-ROAD	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01
TOTAL	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01	0.0000E-01

F. TOTAL SUMMARY

F.1 SUMMARY OF ALL ANNUAL EMISSIONS ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	3.939E+03	1.368E+03	1.168E+02	1.051E+01	5.066E+01
GROUND MOBIL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
FACILITIES	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
ENVIRONS	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
GRAND TOTAL	3.939E+03	1.368E+03	1.168E+02	1.051E+01	5.066E+01

F.2 EMISSION PERCENTAGE BREAKDOWN OF ALL SOURCES

OPERATION	CO	HC	NOX	PM	SOX
AIRCRAFT	100.000	100.000	100.000	100.000	100.000
GROUND MOBIL	0.000	0.000	0.000	0.000	0.000
FACILITIES	0.000	0.000	0.000	0.000	0.000
ENVIRONS	0.000	0.000	0.000	0.000	0.000

INPUT DATA: SETS 2 AND 9 FOR REVISED GSE ROUTINE

*2

NAMLIST(EGDATA,ACDATA,DSDATA)

EGDATA

EGFF(1,1)=1.131, EGFF(2,1)=2.720, EGFF(3,1)=8.921, EGFF(4,1)=32.238,
 EGFF(1,6)=.453, EGFF(2,6)=1.462, EGFF(3,6)=2.630, EGFF(4,6)=8.323,
 EGFF(1,8)=1.134, EGFF(2,8)=1.500, EGFF(3,8)=11.909,
 EGFF(1,9)=.693, EGFF(2,9)=.827, EGFF(3,9)=1.967,
 EGFF(1,14)=.231, EGFF(2,14)=.698, EGFF(3,14)=1.095,
 EGFF(1,22)=1.134, EGFF(2,22)=1.500, EGFF(3,22)=11.909,
 EGFF(1,23)=.459, EGFF(2,23)=1.423, EGFF(3,23)=2.456,
 EGFF(1,25)=.959, EGFF(2,25)=7.37, EGFF(3,25)=8.755, EGFF(4,25)=8.755,
 EGEMFC(1,1,1)=56.71, EGEMFC(2,1,1)=10.73, EGEMFC(3,1,1)=2.47, EGEMFC(4,1,1)=.500,
 EGEMFC(1,2,1)=11.40, EGEMFC(2,2,1)=1.33, EGEMFC(3,2,1)=4.25, EGEMFC(4,2,1)=2.222,
 EGEMFC(1,3,1)=2.28, EGEMFC(2,3,1)=0.22, EGEMFC(3,3,1)=8.94, EGEMFC(4,3,1)=2.361,
 EGEMFC(1,4,1)=4.00, EGEMFC(2,4,1)=0.31, EGEMFC(3,4,1)=3.11, EGEMFC(4,4,1)=0.154,
 EGEMFC(1,1,6)=179.57, EGEMFC(2,1,6)=29.90, EGEMFC(3,1,6)=1.26,
 EGEMFC(4,1,6)=0.313,
 EGEMFC(1,2,6)=43.34, EGEMFC(2,2,6)=3.37, EGEMFC(3,2,6)=2.32, EGEMFC(4,2,6)=0.017,
 EGEMFC(1,3,6)=29.33, EGEMFC(2,3,6)=0.84, EGEMFC(3,3,6)=2.68, EGEMFC(4,3,6)=0.018,
 EGEMFC(1,4,6)=26.04, EGEMFC(2,4,6)=0.07, EGEMFC(3,4,6)=1.99, EGEMFC(4,4,6)=0.008,
 EGEMFC(1,1,8)=56.73, EGEMFC(2,1,8)=22.98, EGEMFC(3,1,8)=2.95, EGEMFC(4,1,8)=0.3,
 EGEMFC(1,2,8)=38.50, EGEMFC(2,2,8)=12.90, EGEMFC(3,2,8)=3.75, EGEMFC(4,2,8)=1.4,
 EGEMFC(1,3,8)=0.59, EGEMFC(2,3,8)=0.18, EGEMFC(3,3,8)=28.52,
 EGEMFC(4,3,8)=1.5,
 EGEMFC(1,1,9)=14.01, EGEMFC(2,1,9)=10.39, EGEMFC(3,1,9)=6.17, EGEMFC(4,1,9)=0.611,
 EGEMFC(1,2,9)=6.08, EGEMFC(2,2,9)=4.80, EGEMFC(3,2,9)=6.46, EGEMFC(4,2,9)=1.042,
 EGEMFC(1,3,9)=2.00, EGEMFC(2,3,9)=2.25, EGEMFC(3,3,9)=9.26, EGEMFC(4,3,9)=0.565,
 EGEMFC(1,1,14)=127.17, EGEMFC(2,1,14)=19.50, EGEMFC(3,1,14)=1.53,
 EGEMFC(4,1,14)=.729,
 EGEMFC(1,2,14)=49.08, EGEMFC(2,2,14)=1.29, EGEMFC(3,2,14)=2.67,
 EGEMFC(4,2,14)=.017,
 EGEMFC(1,3,14)=31.02, EGEMFC(2,3,14)=0.50, EGEMFC(3,3,14)=3.60,
 EGEMFC(4,3,14)=.020,
 EGEMFC(1,1,22)=56.73, EGEMFC(2,1,22)=22.98, EGEMFC(3,1,22)=2.95,
 EGEMFC(4,1,22)=.021,
 EGEMFC(1,2,22)=38.50, EGEMFC(2,2,22)=12.90, EGEMFC(3,2,22)=3.75,
 EGEMFC(4,2,22)=.016,
 EGEMFC(1,3,22)=0.59, EGEMFC(2,3,22)=0.18, EGEMFC(3,3,22)=28.52,
 EGEMFC(4,3,22)=.009,
 EGEMFC(1,1,23)=70.91, EGEMFC(2,1,23)=9.85, EGEMFC(3,1,23)=1.49,
 EGEMFC(4,1,23)=.026,
 EGEMFC(1,2,23)=14.80, EGEMFC(2,2,23)=0.32, EGEMFC(3,2,23)=3.09,
 EGEMFC(4,2,23)=.158,
 EGEMFC(1,3,23)=0.88, EGEMFC(2,3,23)=0.09, EGEMFC(3,3,23)=4.71,
 EGEMFC(4,3,23)=.167,
 EGEMFC(5,1,23)=1.0, EGEMFC(5,2,23)=1.0, EGEMFC(5,3,23)=1.0,
 EGEMFC(1,1,25)=50.0, EGEMFC(1,2,25)=6.6, EGEMFC(1,3,25)=1.2, EGEMFC(1,4,25)=1.2,
 EGEMFC(2,1,25)=9.6, EGEMFC(2,2,25)=1.4, EGEMFC(2,3,25)=.6, EGEMFC(2,4,25)=.60,
 EGEMFC(3,1,25)=2.0, EGEMFC(3,2,25)=2.7, EGEMFC(3,3,25)=4.3, EGEMFC(3,4,25)=4.3,
 EGEMFC(4,1,25)=.6, EGEMFC(4,2,25)=2.7, EGEMFC(4,3,25)=2.5, EGEMFC(4,4,25)=2.5,
 EGEMFC(5,1,25)=1.0, EGEMFC(5,2,25)=1.0, EGEMFC(5,3,25)=1.0, EGEMFC(5,4,25)=1.0,
 EGNAMC(23)=3H060,
 IDACEG(23)=23, IEGABF(23)=0, IACABF(33)=0,
 EGNAMC(25)=5H0T-00,
 IDACEG(25)=25, IEGABF(25)=0, IACABF(20)=0,
 EGEMFC(1,1,25)=50.0, EGEMFC(1,2,25)=6.6, EGEMFC(1,3,25)=1.2, EGEMFC(1,4,25)=1.2,
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ACDATA

\$

SDSDATA

VHMLMO(1)=0.0833, VHMLMO(2)=0.0833, VHMLMO(3)=0.0833, VHMLMO(4)=0.0833,
 VHMLMO(5)=0.0833, VHMLMO(6)=0.0833, VHMLMO(7)=0.0833, VHMLMO(8)=0.0833,
 VHMLMO(9)=0.0833, VHMLMO(10)=0.0833, VHMLMO(11)=0.0833, VHMLMO(12)=0.0833,
 VHMLDY(1)=0.20, VHMLDY(2)=0.0,

VHMLHR(1)=0.000,VHMLHR(2)=0.000,VHMLHR(3)=0.000,VHMLHR(4)=0.000,
 VHMLHR(5)=0.000,VHMLHR(6)=0.050,VHMLHR(7)=0.050,VHMLHR(8)=0.100,
 VHMLHR(9)=0.100,VHMLHR(10)=0.100,VHMLHR(11)=0.100,VHMLHR(12)=0.100,
 VHMLHR(13)=0.100,VHMLHR(14)=0.100,VHMLHR(15)=0.100,VHMLHR(16)=0.034,
 VHMLHR(17)=0.033,VHMLHR(18)=0.033,VHMLHR(19)=0.000,VHMLHR(20)=0.000,
 VHMLHR(21)=0.000,VHMLHR(22)=0.000,VHMLHR(23)=0.000,VHMLHR(24)=0.000,
 CVABMO(1)=0.0833,CVABMO(2)=0.0833,CVABMO(3)=0.0833,CVABMO(4)=0.0833,
 CVABMO(5)=0.0833,CVABMO(6)=0.0833,CVABMO(7)=0.0833,CVABMO(8)=0.0833,
 CVABMO(9)=0.0833,CVABMO(10)=0.0833,CVABMO(11)=0.0833,CVABMO(12)=0.0833,
 CVABDY(1)=0.182,CVABDY(2)=0.045,
 CVABHR(1)=0.0029,CVABHR(2)=0.0029,CVABHR(3)=0.0029,CVABHR(4)=0.0101,
 CVABHR(5)=0.0101,CVABHR(6)=0.0101,CVABHR(7)=0.0682,CVABHR(8)=0.0682,
 CVABHR(9)=0.0682,CVABHR(10)=0.0498,CVABHR(11)=0.0498,CVABHR(12)=0.0498,
 CVABHR(13)=0.0574,CVABHR(14)=0.0574,CVABHR(15)=0.0574,CVABHR(16)=0.0821,
 CVABHR(17)=0.0821,CVABHR(18)=0.0821,CVABHR(19)=0.0356,CVABHR(20)=0.0356,
 CVABHR(21)=0.0356,CVABHR(22)=0.0272,CVABHR(23)=0.0272,CVABHR(24)=0.0272,
 FLMO(1,1)=0.0833,FLMO(2,1)=0.0833,FLMO(3,1)=0.0833,FLMO(4,1)=0.0833,
 FLMO(5,1)=0.0833,FLMO(6,1)=0.0833,FLMO(7,1)=0.0833,FLMO(8,1)=0.0833,
 FLMO(9,1)=0.0833,FLMO(10,1)=0.0833,FLMO(11,1)=0.0833,FLMO(12,1)=0.0833,
 FLMO(1,2)=0.0600,FLMO(2,2)=0.0874,FLMO(3,2)=0.0788,FLMO(4,2)=0.0694,
 FLMO(5,2)=0.0900,FLMO(6,2)=0.1203,FLMO(7,2)=0.0736,FLMO(8,2)=0.0914,
 FLMO(9,2)=0.0984,FLMO(10,2)=0.0702,FLMO(11,2)=0.0994,FLMO(12,2)=0.0616,
 FLMO(1,4)=0.0833,FLMO(2,4)=0.0833,FLMO(3,4)=0.0833,FLMO(4,4)=0.0833,
 FLMO(5,4)=0.0833,FLMO(6,4)=0.0833,FLMO(7,4)=0.0833,FLMO(8,4)=0.0833,
 FLMO(9,4)=0.0833,FLMO(10,4)=0.0833,FLMO(11,4)=0.0833,FLMO(12,4)=0.0833,
 FLDY(1,1)=0.193,FLDY(2,1)=0.035,
 FLDY(1,2)=0.162,FLDY(2,2)=0.045,
 FLDY(1,4)=0.200,FLDY(2,4)=0.000,
 FLHR(1,1)=0.0,FLHR(2,1)=0.0,FLHR(3,1)=0.0,FLHR(4,1)=0.0,
 FLHR(5,1)=0.0,FLHR(6,1)=0.033,FLHR(7,1)=0.033,FLHR(8,1)=0.033,
 FLHR(9,1)=0.100,FLHR(10,1)=0.100,FLHR(11,1)=0.133,FLHR(12,1)=0.136,
 FLHR(13,1)=0.133,FLHR(14,1)=0.100,FLHR(15,1)=0.100,FLHR(16,1)=0.033,
 FLHR(17,1)=0.033,FLHR(18,1)=0.033,FLHR(19,1)=0.000,FLHR(20,1)=0.000,
 FLHR(21,1)=0.000,FLHR(22,1)=0.000,FLHR(23,1)=0.000,FLHR(24,1)=0.000,
 FLHR(1,2)=0.0,FLHR(2,2)=0.0,FLHR(3,2)=0.0,FLHR(4,2)=0.0,
 FLHR(5,2)=0.0,FLHR(6,2)=0.000,FLHR(7,2)=0.0588,FLHR(8,2)=0.0588,
 FLHR(9,2)=0.0568,FLHR(10,2)=0.0588,FLHR(11,2)=0.0588,FLHR(12,2)=0.0588,
 FLHR(13,2)=0.0568,FLHR(14,2)=0.0568,FLHR(15,2)=0.0588,FLHR(16,2)=0.0588,
 FLHR(17,2)=0.0568,FLHR(18,2)=0.0588,FLHR(19,2)=0.0588,FLHR(20,2)=0.0588,
 FLHR(21,2)=0.0588,FLHR(22,2)=0.0588,FLHR(23,2)=0.0588,FLHR(24,2)=0.0,
 FLHR(1,4)=0.0,FLHR(2,4)=0.0,FLHR(3,4)=0.0,FLHR(4,4)=0.0,
 FLHR(5,4)=0.0,FLHR(6,4)=0.000,FLHR(7,4)=0.100,FLHR(8,4)=0.100,
 FLHR(9,4)=0.1,FLHR(10,4)=0.1,FLHR(11,4)=0.1,FLHR(12,4)=0.1,
 FLHR(13,4)=0.1,FLHR(14,4)=0.1,FLHR(15,4)=0.1,FLHR(16,4)=0.1,
 FLHR(17,4)=0.0,FLHR(18,4)=0.0,FLHR(19,4)=0.0,FLHR(20,4)=0.0,
 FLHR(21,4)=0.0,FLHR(22,4)=0.0,FLHR(23,4)=0.0,FLHR(24,4)=0.0,
 CVENMO(1)=0.0800,CVENMO(2)=0.0783,CVENMO(3)=0.0822,CVENMO(4)=0.0827,
 CVENMO(5)=0.0854,CVENMO(6)=0.0846,CVENMO(7)=0.0861,CVENMO(8)=0.0870,
 CVENMO(9)=0.0836,CVENMO(10)=0.0857,CVENMO(11)=0.0828,CVENMO(12)=0.0816,
 CVENDY(1)=0.1428,CVENDY(2)=0.1428,
 CVENHR(1)=0.005,CVENHR(2)=0.003,CVENHR(3)=0.001,CVENHR(4)=0.002,
 CVENHR(5)=0.006,CVENHR(6)=0.040,CVENHR(7)=0.090,CVENHR(8)=0.067,
 CVENHR(9)=0.042,CVENHR(10)=0.044,CVENHR(11)=0.044,CVENHR(12)=0.045,
 CVENHR(13)=0.046,CVENHR(14)=0.053,CVENHR(15)=0.064,CVENHR(16)=0.093,
 CVENHR(17)=0.102,CVENHR(18)=0.064,CVENHR(19)=0.054,CVENHR(20)=0.041,
 CVENHR(21)=0.034,CVENHR(22)=0.026,CVENHR(23)=0.022,CVENHR(24)=0.011,
 FLDY(2,6)=0.,FLDY(2,7)=0.,FLDY(2,5)=0.,
 FLDY(1,6)=0.,FLDY(1,7)=0.,FLDY(1,5)=0.,
 FLMO(1,5)=0.,FLMO(2,5)=0.,FLMO(3,5)=0.,FLMO(4,5)=0.,FLMO(5,5)=0.,FLMO(6,5)=0.,
 FLMO(7,5)=0.,FLMO(8,5)=0.,FLMO(9,5)=0.,FLMO(10,5)=0.,FLMO(11,5)=0.,
 FLMO(1,6)=0.,FLMO(2,6)=0.,FLMO(3,6)=0.,FLMO(4,6)=0.,FLMO(5,6)=0.,FLMO(6,6)=0.,
 FLMO(7,6)=0.,FLMO(8,6)=0.,FLMO(9,6)=0.,FLMO(10,6)=0.,FLMO(11,6)=0.,
 FLMO(1,7)=0.,FLMO(2,7)=0.,FLMO(3,7)=0.,FLMO(4,7)=0.,FLMO(5,7)=0.,FLMO(6,7)=0.,
 FLMO(7,7)=0.,FLMO(8,7)=0.,FLMO(9,7)=0.,FLMO(10,7)=0.,FLMO(11,7)=0.,

FLMO(12,5)=0.,FLMO(12,6)=0.,FLMO(12,7)=0.,
S

9*	GROUND SERVICE EQUIPMENT	
8	54755.	234128.
2	100.	1100
4	100.	1000
6	100.	1110
10	100.	1000
12	100.	1010
14	100.	1010
17	100.	0110
25	100.	1000

OUTPUT LISTING FOR REVISED GSE ROUTINE
(WHERE DIFFERENT FROM ORIGINAL LISTING)

A.3 GSE POLLUTANT EMISSION DATA

NAME	ID	TYPE	FUEL	FUEL RATE GAL/HR	CO	HC	NOX	POLLUTANT EMISSION DATA (KILOGRAMS PER GALLON)	SOX
H1	1	HEATER	AM G	3.388E+00	0.66E-01	5.44E-02	1.72E-02	1.56E-03	5.39E-04
H41	2	HEATER	JP 4	2.588E+00	2.56E-02	1.12E-02	1.16E-01	8.48E-03	2.92E-03
H43	4	COOLER	AM G	6.388E+00	3.25E+00	1.26E-01	8.42E-02	5.48E-03	5.27E-04
H45	6	GENERATR	AM G	6.788E+00	3.22E+00	1.25E-01	8.33E-02	5.33E-03	5.20E-04
H46ZBP	7	GENERATR	JP 4	2.688E+00	9.80E-02	4.30E-02	4.52E-01	3.23E-02	2.93E-03
H47A68A	8	GENERATR	JP 4	4.68E+01	6.25E-02	5.18E-04	1.23E-02	1.67E-03	2.93E-03
H48A	10	CHPRESOR	AM G	1.688E+00	2.47E+00	8.53E-02	6.42E-02	4.85E-03	5.84E-04
H411	11	CHPRESOR	AM G	1.888E+00	1.42E+00	4.91E-02	3.78E-02	2.33E-03	3.94E-04
H42A	12	CHPRESOR	AM G	1.188E+00	1.64E+00	1.83E-01	3.27E-02	2.93E-03	5.27E-04
H43A	13	CHPRESOR	JP 4	1.488E+00	6.42E-02	3.42E-02	6.74E-02	1.26E-02	2.95E-03
H44A	14	CHPRESOR	JP 4	1.628E+01	6.25E-02	5.19E-04	1.23E-02	1.63E-03	2.95E-03
H45A28E	16	TST STND	AM G	6.388E+00	3.67E+00	1.43E-01	9.52E-02	6.83E-03	5.40E-04
H41	17	TST STND	AM G	5.888E+00	3.14E+00	1.28E-01	8.13E-02	5.19E-03	6.15E-04
H42A	18	TST STND	AM G	7.888E+00	3.56E+00	1.39E-01	9.23E-02	5.85E-03	5.23E-04
H43A28E	19	TST STND	JP 4	4.788E+00	1.46E-01	6.42E-02	6.75E-01	4.82E-02	4.37E-03
H41	21	BOMB LFT	AM G	1.288E+00	2.60E+00	9.80E-02	1.82E-01	4.33E-03	4.39E-04
H42A	22	BOMB LFT	AM G	1.288E+00	3.90E+00	1.35E-01	1.82E-01	6.58E-03	5.58E-04
H43A	23	BOMB LFT	AM G	1.888E+00	3.35E+00	1.16E-01	8.71E-02	5.57E-03	5.64E-04
H47	25	LIGHT ST	AM G	1.188E+00	1.76E+00	1.11E-01	3.58E-02	3.14E-03	5.29E-04
H48A	27	LEAK TST	AM G	3.388E+00	4.68E+00	1.84E-01	1.21E-01	7.61E-03	5.22E-04
H47H1	29	JACK MAN	AM G	2.688E+00	2.86E+00	7.24E-02	5.38E-02	3.38E-03	5.24E-04

A.4 GSE POLLUTANT EMISSION RATES

NAME	ID	TYPE	FUEL	FUEL RATE GAL/HR	CO	HC	POLLUTANT EMISSION RATES (KILOGRAM PER HOUR)		
							NOX	PM	SOX
HEATER	1	HEATER	AM G	3.388E+00	2.86E+00	1.79E-01	5.67E-02	5.16E-03	1.78E-03
HEATER	2	HEATER	JP 4	2.588E+00	6.40E-02	2.80E-02	2.91E-01	2.10E-02	7.30E-03
COOLER	4	COOLER	AM G	6.388E+00	2.85E+01	7.94E-01	5.38E-01	3.41E-02	3.32E-03
GENERATOR	6	GENERATOR	AM G	6.708E+00	2.16E+01	8.36E-01	5.50E-01	3.57E-02	3.48E-03
GENERATOR	7	GENERATOR	JP 4	2.688E+00	2.55E-01	1.12E-01	1.17E+00	8.41E-02	7.63E-03
GENERATOR	8	GENERATOR	JP 4	2.468E+01	1.54E+00	1.28E-02	3.83E-01	4.18E-02	7.28E-02
COMPRESSOR	10	COMPRESSOR	AM G	1.658E+00	3.95E+00	1.36E-01	1.83E-01	6.48E-03	1.89E-03
COMPRESSOR	11	COMPRESSOR	AM G	1.888E+00	2.56E+00	8.84E-02	6.65E-02	4.28E-03	7.89E-04
COMPRESSOR	12	COMPRESSOR	AM G	1.188E+00	1.81E+00	1.14E-01	3.59E-02	3.23E-03	5.88E-04
COMPRESSOR	13	COMPRESSOR	JP 4	1.488E+00	8.99E-02	4.79E-02	9.43E-02	1.76E-02	4.13E-03
COMPRESSOR	14	COMPRESSOR	JP 4	1.628E+01	1.81E+00	8.41E-03	2.88E-01	2.64E-02	4.77E-02
TEST STAND	16	TST STND	AM G	6.388E+00	2.31E+01	9.82E-01	6.88E-01	3.88E-02	3.48E-03
TEST STAND	17	TST STND	AM G	5.888E+00	1.57E+01	6.48E-01	4.87E-01	2.59E-02	2.88E-03
TEST STAND	18	TST STND	AM G	7.888E+00	2.78E+01	1.88E+00	7.28E-01	4.56E-02	4.88E-03
TEST STAND	19	TST STND	JP 4	4.788E+00	6.86E-01	3.82E-01	3.17E+00	2.27E-01	2.85E-02
BOMB	21	BOMB LFT	AM G	1.288E+00	3.12E+00	1.88E-01	8.13E-02	5.28E-03	5.27E-04
BOMB	22	BOMB LFT	AM G	1.288E+00	4.68E+00	1.62E-01	1.22E-01	7.88E-03	7.98E-04
BOMB	23	BOMB LFT	AM G	1.888E+00	3.35E+00	1.16E-01	8.71E-02	5.57E-03	5.54E-04
LIGHT	25	LIGHT ST	AM G	1.188E+00	1.94E+00	1.22E-01	3.85E-02	3.46E-03	5.81E-04
LEAK	27	LEAK TST	AM G	3.388E+00	1.54E+01	6.87E-01	4.88E-01	2.51E-02	7.72E-03
JACK	29	JACK MAN	AM G	2.688E+00	5.41E+00	1.88E-01	1.48E-01	8.79E-03	1.36E-03

B.2 INFORMATION FOR AIRCRAFT SERVICE VEHICLES

-- ANNUAL GSE FUEL CONSUMPTION (GALLONS) --

AM G 54755.
JP 4 234128.
DESL 2.
JP B 8.

-- F 5 SERVICING INFORMATION --

GSE NAME	GROUND SUPPORT EQUIPMENT			SERVICE TIME (HR)
	CATEGORY	FUEL	USAGE	
1H1	HEATER	JP 4	100.	0.48
MA3	COOLER	AM G	100.	0.04
MD3	GENERATR	AM G	100.	0.05
MC1A	CMPRESOR	AM G	100.	0.05
MC2A	CMPRESOR	AM G	100.	0.03
NA1A	CMPRESOR	JP 4	100.	0.14
NF2	LIGHT ST	AM G	100.	0.11

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 2146.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 4.00
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 2.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 0.00

-- T 37 SERVICING INFORMATION --

GSE NAME	GROUND SUPPORT EQUIPMENT			SERVICE TIME (HR)
	CATEGORY	FUEL	USAGE	
1H1	HEATER	JP 4	100.	0.16
MD3	GENERATR	AM G	100.	0.02
MD3	TST STND	AM G	100.	0.01

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS)..... 507.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS)..... 10.00
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS)..... 0.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS)..... 2.00

-- T 38 SERVICING INFORMATION --

GSE NAME	GROUND SUPPORT EQUIPMENT			SERVICE TIME (HR)
	CATEGORY	FUEL	USAGE	

MD3	GENERATR	AM G	100.	0.05
MC2A	CHMPRESOR	AM G	100.	0.03
MA1A	CHMPRESOR	JP 4	100.	0.14
MJ1	TST STND	AM G	100.	0.03

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	1105.00
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	4.00
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	2.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	0.00

-- TRANSIENT SERVICING INFORMATION --

GROUND SUPPORT EQUIPMENT				
GSE NAME	CATEGORY	FUEL	USAGE	SERVICE TIME (HR)
IH1	HEATER	JP 4	100.	0.00
MA3	COOLER	AM G	100.	0.00
MD3	GENERATR	AM G	100.	0.04
MC1A	CHMPRESOR	AM G	100.	0.00
MC2A	CHMPRESOR	AM G	100.	0.02
MA1A	CHMPRESOR	JP 4	100.	0.10
MJ1	TST STND	AM G	100.	0.02
NF2	LIGHT ST	AM G	100.	0.01

REFUELING (JP 4)

AVERAGE AMOUNT OF FUEL USED PER FILLUP (LITERS).....	1093.20
AVERAGE AMOUNT OF FUEL SPILLED PER FILLUP (LITERS).....	4.00
AVERAGE AMOUNT OF FUEL VENTED PER ARRIVAL (LITERS).....	2.00
AVERAGE AMOUNT OF FUEL VENTED PER DEPARTURE (LITERS).....	2.00

C.2 GROUND SERVICE EQUIPMENT EMISSIONS

F 5 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	2.322E+00	9.558E-02	5.868E-02	3.885E-03	4.364E-04
JP 4	1.722E-01	1.449E-02	1.663E-01	1.368E-02	1.016E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	2.322E+00	9.558E-02	5.868E-02	3.885E-03	4.364E-04
JP 4	1.722E-01	1.449E-02	1.663E-01	1.368E-02	1.016E-02
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

T 37 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	6.608E-01	2.601E-02	1.712E-02	1.095E-03	1.134E-04
JP 4	9.998E-03	4.374E-03	4.546E-02	3.281E-03	1.148E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	6.608E-01	2.601E-02	1.712E-02	1.095E-03	1.134E-04
JP 4	9.998E-03	4.374E-03	4.546E-02	3.281E-03	1.148E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

T 38 SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	1.457E+00	5.859E-02	3.743E-02	2.428E-03	2.579E-04
JP 4	1.418E-01	1.179E-03	2.798E-02	3.695E-03	6.686E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 9	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	1.457E+00	5.859E-02	3.743E-02	2.428E-03	2.579E-04
JP 4	1.418E-01	1.179E-03	2.798E-02	3.695E-03	6.686E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

TRANSIENT SERVICE VEHICLE EMISSIONS

KILOGRAMS PER ARRIVAL

FUEL	CO	HC	NOX	PM	SOX
AM G	1.263E+00	5.076E-02	3.242E-02	2.099E-03	2.241E-04
JP 4	1.021E-01	3.001E-03	4.278E-02	4.232E-03	5.163E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

KILOGRAMS PER DEPARTURE

FUEL	CO	HC	NOX	PM	SOX
AM G	1.263E+00	5.076E-02	3.242E-02	2.099E-03	2.241E-04
JP 4	1.021E-01	3.001E-03	4.278E-02	4.232E-03	5.163E-03
DESL	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01
JP 8	0.000E-01	0.000E-01	0.000E-01	0.000E-01	0.000E-01

C. AIRCRAFT EMISSION SUMMARY
C.1 SUMMARY OF ANNUAL EMISSIONS BY AIRCRAFT TYPE
ALL POLLUTANTS IN METRIC TONS

OPERATION	F 5			
	CO	HC	NOX	PM SOX
STARTUP	5.1595E+01	8.5911E+00	3.6203E-01	3.7352E-03
TAXI OUT	9.0074E+01	1.4998E+01	6.3203E-01	6.5209E-03
ENGINE CHECK	7.3390E+00	2.1819E-01	6.7859E-01	4.5048E-03
RUNWAY ROLL	1.7300E+01	4.6505E-02	1.3221E+00	5.3148E-03
CLIMB 1	8.0027E+00	2.1728E-02	6.1769E-01	2.4832E-03
CLIMB 2	4.9033E+00	1.4043E-01	4.4884E-01	3.0092E-03
APPROACH 1	1.7817E+01	1.3232E+00	9.1894E-01	6.6750E-03
APPROACH 2	2.8499E+00	3.3824E-01	9.1424E-02	6.9749E-04
LANDING	1.2394E+01	2.0637E+00	8.6966E-02	8.9727E-04
TAXI IN	5.8915E+01	9.8099E+00	4.1339E-01	4.2652E-03
SHUTDOWN	6.8166E+00	1.1348E+00	4.7708E-02	4.9385E-04
ARR + DEP SV	4.1856E+01	1.8473E+00	3.7749E+00	2.9476E-01
FUEL VENTING	0.0000E-01	1.2972E+01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	2.9625E+01	0.0000E-01	0.0000E-01
TOUCH + GO	6.9065E+00	3.7372E-01	4.3599E-01	2.6671E-03
TOTAL	3.2604E+02	8.3496E+01	9.8138E+00	3.3682E-01

OPERATION	T 37			
	CO	HC	NOX	PM SOX
STARTUP	6.7979E+01	1.0424E+01	8.1786E-01	3.0969E-01
TAXI OUT	1.4248E+02	2.1048E+01	1.7142E+00	8.1679E-01
ENGINE CHECK	1.0442E+01	1.6670E-01	1.2003E+00	6.6092E-03
RUNWAY ROLL	6.5187E+00	1.0487E-01	7.4928E-01	4.1627E-03
CLIMB 1	1.0770E+01	1.7193E-01	1.2379E+00	6.8772E-03
CLIMB 2	2.0012E+01	3.3225E-01	2.3922E+00	1.3259E-02
APPROACH 1	4.6106E+01	1.2118E+00	2.5002E+00	1.5970E-02
APPROACH 2	8.8385E+00	6.4077E-01	3.4461E-01	2.0377E-02
LANDING	3.6038E+01	5.5259E+00	4.3357E-01	2.0659E-01
TAXI IN	4.6446E+01	7.1219E+00	5.5879E-01	3.6522E-01
SHUTDOWN	1.0732E+01	1.6458E+00	1.2914E-01	6.1529E-02
ARR + DEP SV	5.3211E+01	2.4104E+00	4.9637E+00	3.4705E-01
FUEL VENTING	0.0000E-01	6.1317E+01	0.0000E-01	0.0000E-01
FILL + SPILL	0.0000E-01	3.1135E+02	0.0000E-01	0.0000E-01
TOUCH + GO	1.3992E+02	3.9034E+00	1.0522E+01	9.6343E-02
TOTAL	6.3520E+02	4.2817E+02	2.7572E+01	2.2516E+00

OPERATION	T 38			
	CO	HC	NOX	PM SOX
STARTUP	4.8993E+02	0.2572E+01	3.5701E+00	8.2572E-03
TAXI OUT	9.9591E+02	1.6785E+02	7.2735E+00	1.6785E-02
ENGINE CHECK	2.6735E+01	7.3753E-01	2.5970E+00	1.6594E-02
RUNWAY ROLL	7.5332E+01	2.8224E-01	5.7493E+00	2.3113E-02
CLIMB 1	7.4458E+01	2.0013E-01	5.6895E+00	2.2872E-02

CLIMB 2	4.4656E+01	1.2319E+00	4.8937E+00	2.7718E-02	1.5390E+00
APPROACH 1	1.5736E+02	1.2880E+01	8.4186E+00	4.8254E-02	3.6595E+00
APPROACH 2	2.2278E+01	2.7801E+00	7.1733E-01	3.2451E-03	3.3697E-01
LANDING	1.1375E+02	1.9172E+01	8.3878E-01	1.9172E-03	6.3986E-01
TAXI IN	5.5795E+01	9.4828E+01	4.8742E+00	9.4828E-03	3.1348E+00
SHUTDOWN	4.4254E+01	7.4585E+00	3.2328E-01	7.4585E-04	2.4862E-01
ARR + DEP SV	2.4715E+02	9.2382E+00	1.8118E+01	9.4514E-01	1.4732E+00
FUEL VENTING	8.8888E-01	1.1948E+02	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	2.5641E+02	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	2.2695E+02	1.2544E+01	1.4344E+01	7.8973E-02	6.4333E+00
TOTAL	3.8765E+03	7.8662E+02	6.7588E+01	1.1878E+00	3.2888E+01

OPERATION	CO	HC	TRANSIENT NOX	PM	SOX
STARTUP	5.1388E+01	9.7183E+00	2.2367E+00	4.5277E-01	9.8553E-01
TAXI OUT	4.1186E+01	7.7735E+00	1.7894E+00	3.6223E-01	7.2447E-01
ENGINE CHECK	2.8356E+00	1.9642E-01	7.9818E+00	2.1879E+00	8.9282E-01
RUNWAY ROLL	4.9421E+00	1.2355E-02	3.8425E+00	1.9827E-01	1.2355E+00
CLIMB 1	6.4888E+00	1.6882E-02	4.9766E+00	2.4643E-01	1.6882E+00
CLIMB 2	7.7816E-01	7.4314E-02	3.8198E+00	7.9752E-01	3.3779E-01
APPROACH 1	7.2658E+00	8.4758E-01	2.7884E+00	1.4168E+00	6.3728E-01
APPROACH 2	3.7488E+00	5.9481E-01	6.8198E-01	3.2628E-01	1.7649E-01
LANDING	8.3786E+00	1.5838E+00	3.6439E-01	7.3763E-02	1.4753E-01
TAXI IN	1.6259E+00	3.8766E-01	7.1823E-02	1.4337E-02	2.8623E-02
SHUTDOWN	1.2575E-01	2.3788E-02	5.4741E-05	1.1881E-03	2.2162E-03
ARR + DEP SV	2.2156E+01	8.7349E-01	1.2288E+00	1.8271E-01	8.7484E-02
FUEL VENTING	8.8888E-01	2.5662E+01	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	2.8221E+01	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01	8.8888E-01
TOTAL	1.4992E+02	7.5322E+01	2.8898E+01	6.8913E+00	6.7759E+00

C.2 SUMMARY OF ANNUAL EMISSIONS FOR ALL AIRCRAFT LTO MODES
ALL POLLUTANTS IN METRIC TONS

OPERATION	CO	HC	NOX	PM	SOX
STARTUP	6.688E+02	1.1138E+02	6.9947E+00	8.5444E-01	4.4798E+00
TAXI OUT	1.2696E+03	2.1247E+02	1.1489E+01	1.2823E+00	7.9415E+00
ENGINE CHECK	4.6552E+01	1.3188E+00	1.2258E+01	2.1357E+00	2.3984E+00
RUNWAY ROLL	1.0399E+02	3.6516E-01	1.1663E+01	2.2866E-01	4.9971E+00
CLIMB 1	9.9783E+01	4.8979E-01	1.2522E+01	2.7866E-01	5.1135E+00
CLIMB 2	7.1142E+01	1.7789E+00	9.8638E+00	8.4154E-01	2.7893E+00
APPROACH 1	2.2775E+02	1.6191E+01	1.4544E+01	1.4789E+00	5.6288E+00
APPROACH 2	3.7715E+01	4.2828E+00	1.8353E+03	3.5852E-01	6.9607E-01
LANDING	1.7850E+02	2.8344E+01	1.7157E+00	2.8316E-01	1.1394E+00
TAXI IN	6.6484E+02	1.1126E+02	5.1172E+00	2.9425E-01	3.8568E+00
SHUTDOWN	6.1924E+01	1.8262E+01	5.8668E-01	6.3876E-02	3.7316E-01
ARR + DEP SV	3.6437E+02	1.4369E+01	2.8869E+01	1.5897E+00	1.5378E+00
FUEL VENTING	8.8888E-01	2.1885E+02	8.8888E-01	8.8888E-01	8.8888E-01
FILL + SPILL	8.8888E-01	6.2568E+02	8.8888E-01	8.8888E-01	8.8888E-01
TOUCH + GO	3.7369E+02	1.6821E+01	2.5382E+01	1.6998E-01	1.4812E+01
TOTAL	4.1527E+03	1.3736E+03	1.3379E+02	9.8668E+00	5.0782E+01



AD-A125 471

DEVELOPMENT OF A COMPUTER EMISSION INVENTORY ROUTINE
FOR AIRCRAFT GROUND. (U) RESEARCH TRIANGLE INST
RESEARCH TRIANGLE PARK NC SYSTEMS AND M..
J E SICKLES ET AL. 30 SEP 81

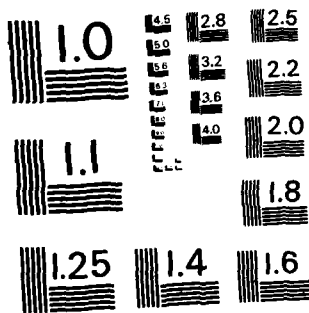
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

SUPPLEMENTARY

INFORMATION

AD-A125471

ERRATA - AUGUST 1983

The following corrections are applicable to ESL-TR-81-60, Development of a Computer Emission Inventory Routine for Aircraft Ground Support Equipment," Volume II, September 1981.

Page 84

Computer code listings should be changed as follows between lines 200 and 210:

```
200  CONTINUE
      N1=THEAT-TBAR+DTBAR/2.0
      TMPFCT(1)=N1**2/(2.0*(DTBAR/2.0)**2)
      IF(N1.LE.O.) GOTO 201
      IF(TMPFCT(1).LE.O.) GOTO 201
      IF(TMPFCT(1).GE.1.) TMPFCT(1)=1.
      GOTO 202
201  TMPFCT(1)=0.
202  N2=TBAR+DTBAR/2.0-TCOOL
      TMPFCT(2)=N2**2/(2.0*(DTBAR/2.0)**2)
      IF(N2.LE.O.) GOTO 203
      IF(TMPFCT(2).LE.O.) GOTO 203
      IF(TMPFCT(2).GE.1.) TMPFCT(2)=1.
      GOTO 204
203  TMPFCT(2)=0.
204  DO 210 IC=3,15
      TMPFCT(IC)=1.
210  CONTINUE
```

Engineering and Services Laboratory
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