from Hans Hinteregger

C 4SC#21

1FILE '4SC#21.EUVS' EXPLANATION OF EUV-REFERENCE FILE 'SC#21REF'

AND NOTES ON EUV FLUX OBSERVATIONS, 1 JUL 77 — 26 SEP 80, FILE 'SC#21OBS.EUVS'

ISSUED 9 APRIL 1981

AE-TEAM ADAPTATION OF PAPER: "SOLAR EUV AE-E SATELLITE OBSERVATIONS
AND AERONOMICAL MODEL REPRESENTATIONS FOR CYCLE 21,"
BY HINTEREGGER, FUKUI, AND GILSON,
PREPARED FOR SUBMISSION TO G.R.L.

SUMMARY

BASED ON FINAL EVALUATION OF AN AFGL ROCKET EXPERIMENT OF 14 AUGUST,1979, BY HEROUX(TO BE PUBLISHED, 1981), AND EXTENSIVE STUDY OF RESULTS OBTAINED FROM THE EUVS EXPERIMENT ON THE AE-E SATELLITE OF 1976-1980, A NEW REFERENCE SPECTRUM FOR THE SOLAR QUIET PERIOD OF 13-28 JULY, 1976, IS NOW OFFERED TO REPLACE THE PRELIMINARY VERSION OF 'F76REF.EUVS'. LIKE F76REF, SC#21REF INCLUDES NOT ONLY THE RECOMMENDED VALUES OF SOLAR-MINIMUM FLUXES, BUT EACH WAVELENGTH RECORD CONTAINS A VARIABILITY-CLASS PARAMETER (K = 1 OR 2 ONLY) AND WAVELENGTH-PECULIAR ADJUSTMENT PARAMETER C, WHICH ALLOW CALCULATION OF ESTIMATED DATE-ADJUSTED VALUES OF FLUXES UPON INPUT OF TWO DAILY INDICES OF SOLAR EUV, R1(DATE) AND R2(DATE), DEFINED AS RATIOS RELATIVE TO THE JULY 76 FLUXES, FOR H LY-BETA 1026 A AND FE XVI 335 A, RESPECTIVELY. THE SPECIFIC VALUES OF C(LAMBDA) LISTED IN SC#21REF EXPRESS A 3-YEAR AVERAGE(77272-80269) AND THUS ESTABLISH ONLY A "TYPICAL MODEL" OF EUV VARIATIONS OF CYCLE 21, TO BE REPLACED WITH DATE-PECULIAR VALUES OF C(LAMBDA) FOR ANY STUDY REQUIRING THE BEST POSSIBLE ACCURACY FOR SOME SPECIFIC DATE(SUCH AS WERE USED FOR DAY 79226 TO ESTABLISH A LINK BETWEEN THE ROCKET RESULTS AND AE-E RESULTS FOR BOTH THE JULY 76 AND 14 AUGUST 79 CONDITIONS). THE ASSOCIATION WITH THE DAILY AND 81-DAY MEAN VALUES OF THE SOLAR 2800 MHZ FLUX, F10 AND F10AVG, SHOW GENERALLY A STRONGER CORRELATION WITH F10AVG.

THE PRESENT DATA OF 'SC#21REF.EUVS' COVER NEARLY ALL KNOWN SOLAR EUV EMISSIONS IN THE WAVELENGTH RANGE 18.5 - 1850 ANGSTROM(A) I.E. 1.85 - 185 NANOMETER. HOWEVER, ONLY THE FLUXES LISTED FOR THE RANGE 140 - 1850 A EXPRESS OUR AE-E SATELLITE DATA REFERENCE FOR THE AVERAGE OF ALL TURNONS FROM 13-28 JULY, 1976. THIS PERIOD WILL BE USED AS "SOLAR-MINIMUM REFERENCE FOR CYCLE 21"

NOTING THAT THE ZURICH SUNSPOT NUMBER(RZ) WAS EQUAL TO ZERO FOR ALL OF THE USED AE-E OBSERVING DATES IN THIS DATE RANGE(76195-76210) AND THE DAILY VALUES OF THE SOLAR 2800 MHZ FLUX OBSERVED AT OTTAWA(F10) WERE AROUND 68 PLUS MINUS ABOUT ONE PERCENT.

THE EUV IRRADIANCE OF ANY SOLAR EMISSION LISTED FOR A GIVEN WAVELENGTH WL(I) FOR THIS REFERENCE PERIOD WILL BE DENOTED AS EUVREF(I) AND THE VALUE FOR SOME SUBSEQUENT DATE WITHIN CYCLE 21 WILL BE DENOTED AS EUV(I) BELOW. THE VALUE OF THE 2800 MHZ FLUX AVERAGE FOR AN 81-DAY PERIOD CENTERED ON THE GIVEN DATE WILL BE DENOTED AS F10AVG FURTHER BELOW. THE VALUES OF EUVREF(I) ARE EXPRESSED IN THE SAME UNITS AS USED PREVIOUSLY IN THE 'AERONOMICAL REFERENCE SPECTRUM' (HEROUX AND HINTEREGGER,1978) NAMED 'F74113' AND THE PRELIMINARY AE-E REFERENCE SPECTRUM FOR JULY 1976 NAMED 'F76REF' (SEE COSPAR 1980 PAPER C.1.1.6 BY H.E.H., IN PRESS) BOTH OF WHICH ARE KEPT ON LINE AT THE DE-SIGMA 9(FORMERLY AE-E SIGMA 9) COMPUTER AT GSFC (IN THE EUVS ACCOUNT). THIS UNIT OF IRRADIANCE IS

10**10 PHOTONS / (SQUARE METER . SECOND)

'SC#21REF' IS STRUCTURED IN THE SAME MANNER AS 'F74113', BUT INCLUDES 2 ADDITIONAL COLUMNS, 'K' AND 'C' WHICH ALLOW APPROXIMATE CONVERSION OF THE ENTIRE SPECTRUM TO ANY DATE OF CYCLE 21 SIMPLY IN RESPONSE TO A DATE-APPROPRIATE SET OF TWO RATIO PARAMETERS, R1 AND R2, FOR THE TWO "VARIABILITY CLASSES" (K = 1,2) USING THE RELATION

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EUV(I) = EUVREF(I)  +  EUVREF(I) * (RK - 1.) * C(I)
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WHERE BOTH K AND C ARE LISTED FOR EACH WAVELENGTH IN SC#21REF AND

KEY-WAVELENGTH (C = 1.) FOR CLASS K = 1 IS H LY-BETA 1026 A
KEY-WAVELENGTH (C = 1.) FOR CLASS K = 2 IS FE XVI 335 A

NOTING THAT R(K=2,C=1) = R2 REACHED A VALUE OF 150 ON 10 NOV 1979, WHEREAS R(K=1,C=1) = R1 REACHED VALUES AROUND 3.6 ONLY.

OBSERVATIONAL DATA ON APPROPRIATE DAILY VALUES OF R1 AND R2 ARE NOT PART OF THE FILE SC#21K2REF, BUT SHOULD BE OBTAINED FROM THE EUVS EXPERIMENTER (H.E.H.) WITH AN ACCOMPANYING STATEMENT OF THE TYPICAL ACCURACY REQUERIMENTS OF THE PROJECTED INVESTIGATION. DEPENDING ON THAT REQUIREMENT(STATING SPECIFIC DATES OR DATE RANGE AS WELL AS APPROX. RELATIVE ACCURACIES ETC.), WE MAY REACT QUITE PROMPTLY(BY PHONE OR MESSAGE IN EXPMSG ACCOUNT WHERE APPROPRIATE) EITHER PROVIDING THE NEEDED R1 & R2 VALUES FOR THAT PURPOSE RIGHT THEN OR GIVING ESTIMATED TIME TO DETERMINE.

'SC#21REF.EUVS' IS VERY SIMILAR TO 'F76REF.EUVS' RELEASED EARLIER. THE MAJOR DIFFERENCES ARE THE FOLLOWING:

(1)THE TOTAL NUMBER OF WAVELENGTH ENTRIES HAS BEEN REDUCED FROM 1972(F76REF) TO 1693(SC#21REF) BY ELIMINATING RECORDS FOR VERY LOW FLUXES(NEGLIGIBLE EFFECT ON ANY AERONOMICAL CALCULATIONS);

(2)THE CLASS K=0(F76REF) HAS BEEN ABSORBED IN CLASS K=1(SC#21REF) AND THE VALUES OF C(LAMBDA) FOR THE FLUX IDENTIFIED AS "QUASI(C)" ARE NOW GIVEN AS CONSTANT WITHIN CERTAIN SUB-SECTIONS OF THE WAVE-LENGTH RANGE FROM 1240 TO 2000 ANGSTROM(BASED ON EVALUATING THE CORRELATION OF ACTUAL MEASUREMENTS IN 12 CONTIGUOUS WAVELENGTH BANDS COVERING THE SPECTRUM FROM 1375 TO 1850 ANGSTROM, OBTAINED BY MONOCHROMATOR #12 ON AE-E; AS MN #12 HAS OPERATIONAL ONLY UP TO 30 MARCH 1979, USE OF THE PRESENTLY OFFERED CLASSIFICATION, BASED ON EVALUATION OF CORRELATION WITH PRESENTLY STILL OBSERVABLE FLUXES OF OTHER SOLAR EUV EMISSIONS OF CLASS K=1, THUS ALLOWS AT LEAST AN APPROXIMATE ESTIMATION OF THESE O2-DISSOCIATING FLUXES FOR THE PERIOD AFTER 30 MARCH 1979).

(3)NO SPECIAL TREATMENT OF THE H LYMAN CONTINUUM OF THE TYPE ANNOUNCED FOR F76REF(SLIGHT ADJUSTMENT OF LOG-SLOPE IN ACCORDANCE WITH A PARAMETER FLAGGED BY A NEGATIVE SIGN OF THE QUANTITY LISTED IN THE C(LAMBDA)-COLUMN) IS ATTEMPTED IN PRESENT SC#21REF(IMPLYING THE ASSUMPTION OF NEGLIGIBLE CHANGE IN EFFECTIVE SOURCE TEMPERATURE).

WARNING:
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THIS SIMPLE SCHEME OF ESTIMATING THE EUV FLUX SPECTRUM FOR ANY DATE WITHIN SOLAR CYCLE 21 ON THE BASIS OF MERELY TWO EUV INDICES DEFINED AS THE RATIOS OF R1 AND R2 EXPLAINED ABOVE IS CLEARLY NO ACCURATE SUBSTITUTE FOR THE USE OF ACTUAL OBSERVATION-AL DATA AT THOSE SPECIFIC WAVELENGTHS FOR WHICH THE LATTER ARE AVAILABLE. HOWEVER, THE SCHEME OFFERS THE ADVANTAGE OF GIVING A FULLY DETAILED FLUX SPECTRUM UPON ENTRY OF THE TWO PARAMETERS, R1 AND R2, IN THE SAME FORM AS THE BASIC REFERENCE SPECTRUM. THIS HAS OBVIOUS ADVANTAGES FOR VARIOUS THEORETICAL AERONOMICAL STUDIES.

IT SHOULD BE ALSO NOTED, THAT THE SPECIFIC VALUES OF C(I) LISTED IN SC#21REF REPRESENT AVERAGE VALUES DETERMINED FOR THE SPECIFIC 3-YEAR PERIOD OF 77276-80269 OF THE AE-E EUVS DATA BASE; THE ACTUAL DAILY VALUES OF C(I) ARE INDEED NOT TRULY CONSTANTS AND MAY DEPART FROM THE LISTED VALUE OF THE 3-YEAR MEAN BY A PERCENTAGE DEPENDING ON THE SPECIAL SOLAR ACTIVITY REGION CHARACTERISTICS OF A GIVEN SPECIFIC DATE. THE RMS DEPARTURE FROM THE LISTED C(I)-VALUE IS GENERALLY NO MORE THAN 10 - 30 PERCENT (RMS FOR ALL DAILY DEPARTURES WITHIN THIS SAME 3-YEAR INTERVAL); HOWEVER, A SPECIFIC DATE MAY BE ASSOCIATED WITH EITHER BETTER OR WORSE AGREEMENT. THEREFORE, WE DO NOT RECOMMEND APPLICATION OF THE PRESENT EUV-CLASS MODEL IF THE BEST POSSIBLE COMPARISON OF EUV FLUXES FOR TWO SPECIFIC DATES (E.G. FOR USE WITH CERTAIN ROCKET EXPERIMENT RESULTS) IS CONSIDERED ESSENTIAL FOR THE DESIRED STUDY.

ON THE OTHER HAND, CERTAIN THEORETICAL CALCULATIONS FOR VARIOUS ASSUMED "TYPICAL CONDITIONS", MAY PROFIT FROM EVEN FURTHER SIMPLIFICATIONS, E.G. IGNORING EUVS-PRODUCED LISTS OF DAILY VALUES OF R1 AND R2, BY CREATING APPROXIMATE VALUES OF R1 AND R2 FROM THE THE 2800 MHZ DATA USING THE 3-YEAR FITS OF OBSERVED EUV(I) FOR APPROPRIATE WAVELENGTHS(I), SO THAT ANY GIVEN PAIR OF VALUES OF F10 AND F10AVG LEADS TO A SPECIFIC SET OF R1,R2 FROM WHICH ALL EUV(I) VALUES CAN THEN BE ESTIMATED(SEE DISCUSSION OF EUV/F10.7-ASSOCIATIONS FURTHER BELOW).

THE MAJOR SHORT-COMING OF THIS TWO-VARIABLE REPRESENTATION OF SOLAR EUV FLUX VARIATIONS IN TERMS OF TWO EUV INDICES IS OF A PHYSICAL NATURE THAT IS SIMILAR TO THAT REFLECTED IN REPRESENTATIONS OF EUV VARIABILITY IN TERMS OF THE READILY AVAILBLE F10.7 DATA. THE ASSOCIATION OF THE DAILY VALUES OF EUV FLUX AT SOME GIVEN WAVELENGTH(I), EUV(I), WITH ANOTHER EUV FLUX, EUV(J), OR THE ASSOTIATION OF EITHER EUV(I) OR EUV(J) WITH F10.7 (USING ONE VARIABLE(F10 = DAILY F10.7) OR THE TWO VARIABLES, F10 AND F10AVG(= 81-DAY MEAN OF F10.7), HAS BEEN STUDIED IN CONSIDERABLE DETAIL BY NOW. THE MOST OUTSTANDING FEATURE APPEARS TO BE THE EMERGENCE OF EXTREMELY HIGH CORRELATION COEFFICIENTS IN THE ASSOCIATIONS FOR THE FULL 3-YEAR PERIOD OF DATA IN THE DATE RANGE 77276-80269, COMPARED WITH THE INCOMPARABLY WORSE CORRELATIONS FOUND FOR VARIOUS SECTIONS WITHIN THE SAME PERIOD STUDIED, E.G. SPECIFIC HALF-YEAR INTERVALS.

THIS APPARENTLY DRASTIC DIFFERENCE BETWEEN LONG-TERM CORRELATIONS, SAY FOR A 3-YEAR DATA BASE AND CORRELATIONS FOR A DATA BASE COVER-A SHORTER PERIOD, SAY OF THE ORDER OF HALF A YEAR, CAN BE EXPLAINED RATHER SIMPLY AS FOLLOWS: THE SPECTRAL DISTRIBUTION OF THE FULL-DISK FLUX AT ANY GIVEN TIME IS THE INTEGRAL OF THE SPECTRA FROM MANY PARTS ACROSS THE SOLAR DISK, SOME OF WHICH ARE CONSIDERED "QUIET" AND OTHERS ARE CONSIDERED MORE OR LESS "ACTIVE", WHERE AT LEAST THE LATTER EXHIBIT VARIATIONS NOT ONLY IN ABSOLUTE BRGIGHTNESS BUT ALSO IN THE RELATIVE SPECTRAL INTENSITY DISTRIBUTIONS(E.G. "NEW" ACTIVE REGIONS JUST FORMED AND OTHERS FORMED AS LONG AS SEVERAL SOLAR ROTATIONS EARLIER). EVEN REGIONS OF NEARLY IDENTICAL SPECTRAL OUTPUT(RADIANCE) WILL CONTRIBUTE TO THE FULL-DISK FLUX AT EARTH (IRRADIANCE) IN A DIFFERENT MANNER, DEPENDING ON THE ACTUAL LOCATION NEAR THE CENTER OF THE DISK OR NEAR THE LIMB. THE EXCELLENT CORRELATIONS FOUND FOR THE FULL 3-YEAR ASSOCIATIONS THUS INDICATES THAT ALL OF THESE HIGHLY DIFFERENTIATED DAILY SITUATIONS CAN BE FIT INTO A "LONG-TERM PATTERN" WHICH INDEED IS HIGHLY CONSISTENT REGARDING BOTH EUV(I) VERSUS EUV(J) FOR MANY DIFFERENT EUV EMISSIONS(I,J) FOR BOTH CHROMOSPHERIC AND CORONAL SOLAR EUV SOURCES. THE SAME IS

TRUE FOR ASSOCIATIONS WITH F10 AND F10AVG, WHERE IT IS NOTEWORTHY THAT THAT EUV FITS TO TWO-VARIABLE EXPESSIONS OF THE FORM

Y = A * F10AVG + B * (F10 - F10AVG) + C

SHOW GENERALLY SUPERIOR CORRELATIONS COMPARED WITH THOSE FOR

Y = A1 * F10 + B1 (A,B,C,A1,B1 ARE FITTING CONSTANTS)

THE APPARENT BEAUTY OF THESE LONG-TERM ASSOCIATION PATTERNS SHOULD NOT DISTRACT FROM THE OCCASIONALLY VERY STRONG SHORT-TERM AND EVEN MEDIUM-LONG-TERM DEPARTURES OF ACTUAL EUV FLUXES FROM THE VALUES CALCULATED EITHER FROM THE EUV-CLASS VARIABILITY MODEL OR EUV/F10.7-MODELS.

THEREFORE, USERS OF EUV IRRADIANCE DATA APPEAR TO FALL INTO TWO BROAD CATEGORIES, (1)PERFECTLY SATISFIED BY MODELS OF THE LONG-TERM PATTERN AND (2)WISHING TO ACCOMPLISH A COMPARISON OF TWO OR MORE SPECIFIC DATES WITH MORE THAN VAGUELY ESTIMATED ACCURACIES. ONLY THE FORMER IS SERVED BY THE MODELS.

AS AN EXAMPLE OF CALCULATING F10.7-DERIVED ESTIMATES OF R1 AND R2,

WE NOTE THE COEFFICIENTS FOR THE TWO-VARIABLE FITS OF H LY-BETA AND AND FE XVI 335 A, FOR THE EUVS DATA PERIOD 76359-80269, ALONG WITH THE COMMONLY USED QUANTITIES CHARACTERIZING THE QUALITY OF THESE LONG-TERM FITS BELOW:

FOR R1 DETERMINED AS Y/YREF FOR H LY-BETA, WE OBTAINED

R1 = .0113 * F10AVG + .0049 * (F10 - F10AVG) + .496

FOR R2 DETERMINED AS Y/YREF FOR FE XVI 335 A, WE OBTAINED

R2 = .625 * F10AVG + .365 * (F10 - F10AVG) -48.9

THE COEFFICIENT OF DETERMINATION(SQUARE OF CORRELATION COEFFICIENT) WAS .94 FOR BOTH THE LY-BETA AND FE XVI FITS ABOVE, COMPARED WITH THE SIGNIFICANTLY POORER VALUES OF .88 AND .91 FOR THE CORRESPONDING ONE-VARIABLE FITS TO F10.

THIS SHOWS THAT DAYS OF IDENTICAL DAILY F10.7 GENERALLY CORRESPOND TO SIGNIFICANTLY DIFFERENT EUV FOR SIGNIFFICANTLY DIFFERENT F10AVG.

THIS FILE 'SC#21REF.EUVS' WILL BE MAINTAINED ONLINE ON THE AE-DE-SIGMA9 COMPUTER AT GSFC; IT IS EXPECTED TO BE UPDATED (WITHOUT WARNING; TO VERIFY ISSUE DATE, COPY SECOND RECORD AFTER LAST WAVELENGTH RECORD WHICH IS THE ONE FOR 2000.00 ANGSTROM). OTHER FILES FOR SIMILAR SCHEMES WILL APPEAR ONLINE WITH NAMES 'SC#21KXY' WHERE X IS THE NUMBER OF EUV-VARIABLITY CLASSES AND Y = A,B,.. MAY BE USED TO DESIGNATE SOME VERSION. DEPENDING ON ACTUAL USE OF PRESENT 'SC#21REF' BY OTHER INVESTIGATORS, EDITING OF THIS FILE WILL BE POSTPONED UNTIL EXPECTED MINOR ADJUSTMENTS (MADE ONLY IN WORKING VERSION 'SC#21REFW') ACCUMULATE TO SOME SIGNIFICANCE.

NOTICE REGARDING CONCURRENTLY RELEASED DATA OF 'SC#21OBS.EUVS' :
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COVERING THE AE-E EUVS OBSERVATION PERIOD FROM 1 JUL '77 THROUGH 26 SEP '80

REPLACES ALL PREVIOUSLY RELEASED PRELIMINARY OBSERVATIONAL DATA LISTINGS

SUCH AS THOSE OF '$EUVFLX'(77154-END OF 1979) AND '$EUVFLXA'(1980 PREL.) WHICH HAD BEEN LIMITED TO SHOW SEVEN INDIVIDUAL LINES ONLY. THE PRESENT LISTING NOT ONLY PROVIDES 15 WAVELENGTH GROUPS(INCL. THE INTEGRATED FLUXES FOR SOME RANGES OF WAVELENGTHS) BUT ALSO HAS INCORPORATED A CORRECTION FOR A QUANTITATIVELY DIAGNOSED SLIGHT DEGRADATION OF MONOCHROMATOR # 5 (516-653 A NOM.) MADE POSSIBLE RECENTLY (ABOUT 1-15% DEPENDING ON DATE).

WLG 9(H LY-BETA) AND WLG10(FE XVI 335 A) OF THE PRESENT LIST(SC#21OBS) ARE PARTICULARLY NOTEWORTHY IN CONNECTION WITH THE USE OF OUR TWO-CLASS VARIABILTY MODEL, SINCE THE QUANTITIES IN THESE TWO COLUMNS REPRESENT THE "KEY RATIOS", R1 AND R2, DISCUSSED ABOVE. SINCE THE "C(LAMBDA)" VALUES LISTED IN SC#21REF REPRESENT 3-YEAR AVERAGE VALUES, THE "CALCULATED" DETAILED SPECTRUM FOR SOME GIVEN SPECIFIC DATE REPRESENTS ONLY A FIRST APPROXIMATION THAT MAY HAVE MORE OR LESS SIGNIFICANT ERRORS FOR THE GIVEN DATE, DEPENDING ON THE DEPARTURE OF THE ACTUAL SOLAR CONDITIONS OF THAT DAY RELATIVE TO SOME "TYPICAL" CYCLE 21 SITUATION FOR THE GIVEN VALUES OF R1 AND R2. IF THE BEST POSSIBLE "TRUE DATE-ADJUSTMENT" IS ESSENTIAL FOR SOME STUDY, THE INVESTIGATOR SHOULD CONTACT THE EUVS EXPERIMENTER(H.E.H.) FOR HELP (MENTIONNING PURPOSE, WAVELENGTH RANGES, DESIRED ACCURACIES, ETC.)

GOOD LUCK TO ANY USERS OF THESE DATA !

H.E.H. (617) 861-4281 OR -4816
K.F. (617) 861-4281 OR -4283
B.R.G. (301) 589-1545 X-793

9 APRIL, 1981

ATTACHMENTS:
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TABLES REF1-REF5 : COMPARISON OF VARIOUS DETAILED IRRADIANCE LISTINGS OF SAME FORM AS PRESENT SC#21REF, FOR CONTIGUOUS WAVELENGTH INTERVALS OF 50 ANGSTROM, UP TO 2000 ANGSTROM.

COPY OF 'SC#21REF' (ID=81099)

COPY OF 'SC#21OBS' (15 WL GROUPS, 77182-80269)

C REF1

1FILE "A" (DENOMINATOR OF RATIOS) = F74113 (ID=79107) FOR 23 APR 74(HEROUX & HEH,1978)

FILE "B" (NUMERATOR OF RATIOS) = F76REF (ID=79135) PRELIM. FOR JUL 76 (HEH,COSPAR 1980,IN PRESS)

FROM ANGS. (INCL.)	UP TO ANGS. (EXCL.)	PHOTON FLUX/ 1.E9 PHOTONS/ CM SQ.-SEC. "A"	"B"	B/A	ENERGY FLUX/ ERGS/ CM SQ.-SEC. "A"	"B"	B/A	# OF ENTRIES "A"	"B"
				====			====		
.00	50.00	.033	.029	.88	.018	.015	.83	28	28
50.00	100.00	.398	.438	1.10	.105	.115	1.09	135	135
100.00	150.00	.150	.169	1.13	.024	.027	1.14	50	50
150.00	200.00	2.368	1.869	.79	.260	.208	.80	45	45
200.00	250.00	1.563	1.395	.89	.137	.121	.88	48	48
250.00	300.00	2.349	1.939	.83	.175	.145	.83	35	35
300.00	350.00	8.665	9.230	1.07	.561	.599	1.07	12	12
350.00	400.00	.964	.951	.99	.052	.052	.99	5	5
400.00	450.00	.382	.406	1.06	.018	.019	1.06	51	51
450.00	500.00	.566	.627	1.11	.024	.026	1.11	53	53
500.00	550.00	.440	.497	1.13	.017	.019	1.13	11	11
550.00	600.00	2.368	2.894	1.22	.082	.100	1.22	10	10
600.00	650.00	2.462	2.882	1.17	.078	.092	1.17	51	51
650.00	700.00	.230	.262	1.14	.007	.008	1.14	58	58
700.00	750.00	.499	.556	1.11	.014	.016	1.11	53	53
750.00	800.00	1.883	2.089	1.11	.048	.053	1.11	63	63
800.00	850.00	1.600	1.900	1.19	.038	.045	1.19	51	51
850.00	900.00	3.449	4.323	1.25	.078	.098	1.25	50	50
900.00	950.00	3.119	3.848	1.23	.068	.083	1.23	59	59
950.00	1000.00	5.868	6.548	1.12	.119	.133	1.12	54	54
1000.00	1050.00	8.050	8.778	1.09	.155	.169	1.09	56	56
1050.00	1100.00	2.845	3.033	1.07	.052	.056	1.07	53	53
1100.00	1150.00	.906	.959	1.06	.016	.017	1.06	52	52
1150.00	1200.00	4.389	4.642	1.06	.074	.078	1.06	51	51
1200.00	1250.00	259.380	303.535	1.17	4.238	4.960	1.17	54	54
1250.00	1300.00	4.120	4.140	1.01	.064	.065	1.01	52	52
1300.00	1350.00	12.365	12.850	1.04	.186	.193	1.04	57	57
1350.00	1400.00	7.391	7.509	1.02	.107	.108	1.02	53	53
1400.00	1450.00	10.391	10.459	1.01	.145	.146	1.01	51	51
1450.00	1500.00	16.201	16.224	1.00	.218	.218	1.00	51	51
1500.00	1550.00	29.297	29.844	1.02	.381	.388	1.02	53	53
1550.00	1600.00	39.801	40.215	1.01	.503	.508	1.01	56	56
1600.00	1650.00	55.695	55.925	1.00	.680	.683	1.00	52	52
1650.00	1700.00	130.409	130.785	1.00	1.545	1.549	1.00	54	54
1700.00	1750.00	224.975	225.105	1.00	2.591	2.592	1.00	51	51
1750.00	1800.00	356.929	356.929	1.00	3.991	3.991	1.00	50	50
1800.00	1850.00	603.929	605.374	1.00	6.573	6.589	1.00	53	53
1850.00	1900.00	777.120	777.120	1.00	8.225	8.225	1.00	50	50
1900.00	1950.00	1084.447	1084.447	1.00	11.186	11.186	1.00	50	50
1950.00	2000.00	1649.286	1649.286	1.00	16.579	16.579	1.00	50	50
18.00	1027.00	43.310	47.709	1.10	2.000	2.067	1.03	943	943

C REF2

1FILE "A" (DENOMINATOR OF RATIOS) = F76REF (ID=79135) PRELIM. FOR JUL 76 (HEH,COSPAR 1980,IMPRESS)

FILE "B" (NUMERATOR OF RATIOS) = SC#21REF (ID=81099) PRESENT REF. FOR 13-28 JULY 1976 "MINIMUM"

FROM ANGS. (INCL.)	UP TO ANGS. (EXCL.)	PHOTON FLUX/ 1.E9 PHOTONS/ CM SQ.-SEC. "A"	"B"	B/A	ENERGY FLUX/ ERGS/ CM SQ.-SEC. "A"	"B"	B/A	# OF ENTRIES "A"	"B"
				====			====		
.00	50.00	.029	.029	1.00	.015	.015	1.00	28	20
50.00	100.00	.438	.383	.87	.115	.104	.90	135	116
100.00	150.00	.169	.135	.80	.027	.021	.78	50	40
150.00	200.00	1.869	1.842	.99	.208	.205	.99	45	46
200.00	250.00	1.395	.895	.64	.121	.078	.65	48	49
250.00	300.00	1.939	1.212	.62	.145	.090	.62	35	36
300.00	350.00	9.230	7.101	.77	.599	.460	.77	12	12
350.00	400.00	.951	.951	1.00	.052	.052	1.00	5	5
400.00	450.00	.406	.393	.97	.019	.019	.97	51	6
450.00	500.00	.627	.624	1.00	.026	.026	1.00	53	50
500.00	550.00	.497	.540	1.09	.019	.021	1.08	11	11
550.00	600.00	2.894	2.887	1.00	.100	.100	1.00	10	10
600.00	650.00	2.882	2.125	.74	.092	.067	.74	51	9
650.00	700.00	.262	.221	.85	.008	.006	.84	58	8
700.00	750.00	.556	.556	1.00	.016	.016	1.00	53	53
750.00	800.00	2.089	2.089	1.00	.053	.053	1.00	63	63
800.00	850.00	1.900	1.900	1.00	.045	.045	1.00	51	51
850.00	900.00	4.323	4.323	1.00	.098	.098	1.00	50	50
900.00	950.00	3.848	3.848	1.00	.083	.083	1.00	59	59
950.00	1000.00	6.548	6.548	1.00	.133	.133	1.00	54	54
1000.00	1050.00	8.778	8.778	1.00	.169	.169	1.00	56	56
1050.00	1100.00	3.033	3.033	1.00	.056	.056	1.00	53	53
1100.00	1150.00	.959	.769	.80	.017	.014	.80	52	3
1150.00	1200.00	4.642	2.783	.60	.078	.047	.60	51	1
1200.00	1250.00	303.535	305.073	1.01	4.960	4.985	1.01	54	14
1250.00	1300.00	4.140	4.140	1.00	.065	.065	1.00	52	52
1300.00	1350.00	12.850	12.850	1.00	.193	.193	1.00	57	57
1350.00	1400.00	7.509	7.509	1.00	.108	.108	1.00	53	53
1400.00	1450.00	10.459	10.459	1.00	.146	.146	1.00	51	51
1450.00	1500.00	16.224	16.224	1.00	.218	.218	1.00	51	51
1500.00	1550.00	29.844	29.844	1.00	.388	.388	1.00	53	53
1550.00	1600.00	40.215	40.215	1.00	.508	.508	1.00	56	56
1600.00	1650.00	55.925	55.925	1.00	.683	.683	1.00	52	52
1650.00	1700.00	130.785	130.785	1.00	1.549	1.549	1.00	54	54
1700.00	1750.00	225.105	225.105	1.00	2.592	2.592	1.00	51	51
1750.00	1800.00	356.929	356.929	1.00	3.991	3.991	1.00	50	50
1800.00	1850.00	605.374	605.374	1.00	6.589	6.589	1.00	53	53
1850.00	1900.00	777.120	777.120	1.00	8.225	8.225	1.00	50	50
1900.00	1950.00	1084.447	1084.447	1.00	11.186	11.186	1.00	50	50
1950.00	2000.00	1649.286	1649.286	1.00	16.579	16.579	1.00	50	50
18.00	1027.00	47.709	43.460	.91	2.067	1.785	.86	943	777

C REF3

1FILE "A" (DENOMINATOR OF RATIOS) = SC#21REF (ID=81099) PRESENT REF. FOR 13-28 JULY 1976 "MINIMUM"

FILE "B" (NUMERATOR OF RATIOS) = F79314 (ID=81099) FOR 10 NOVEMBER 1979 PEAK IN CYCLE 21 (SEE NOTE BELOW)

FROM ANGS. (INCL.)	UP TO ANGS. (EXCL.)	PHOTON FLUX/ 1.E9 PHOTONS/ CM SQ.-SEC. "A"	"B"	B/A	ENERGY FLUX/ ERGS/ CM SQ.-SEC. "A"	"B"	B/A	# OF ENTRIES "A"	"B"
				====			====		
.00	50.00	.029	.434	14.91	.015	.237	16.10	20	20
50.00	100.00	.383	1.566	4.08	.104	.444	4.27	116	116
100.00	150.00	.135	.452	3.36	.021	.070	3.29	40	40
150.00	200.00	1.842	6.295	3.42	.205	.696	3.40	46	46
200.00	250.00	.895	5.525	6.17	.078	.491	6.28	49	49
250.00	300.00	1.212	12.798	10.56	.090	.930	10.36	36	36
300.00	350.00	7.101	28.186	3.97	.460	1.788	3.89	12	12
350.00	400.00	.951	5.648	5.94	.052	.309	6.00	5	5
400.00	450.00	.393	1.359	3.46	.019	.065	3.46	6	6
450.00	500.00	.624	3.389	5.43	.026	.138	5.31	50	50
500.00	550.00	.540	2.125	3.93	.021	.081	3.94	11	11
550.00	600.00	2.887	8.642	2.99	.100	.298	2.98	10	10
600.00	650.00	2.125	6.451	3.04	.067	.206	3.05	9	9
650.00	700.00	.221	.548	2.48	.006	.016	2.48	8	8
700.00	750.00	.556	1.319	2.37	.016	.037	2.37	53	53
750.00	800.00	2.089	6.040	2.89	.053	.154	2.89	63	63
800.00	850.00	1.900	5.886	3.10	.045	.141	3.10	51	51
850.00	900.00	4.323	15.735	3.64	.098	.355	3.64	50	50
900.00	950.00	3.848	13.430	3.49	.083	.291	3.49	59	59
950.00	1000.00	6.548	17.857	2.73	.133	.363	2.73	54	54
1000.00	1050.00	8.778	29.813	3.40	.169	.575	3.40	56	56
1050.00	1100.00	3.033	6.981	2.30	.056	.129	2.30	53	53
1100.00	1150.00	.769	1.933	2.51	.014	.034	2.51	3	3
1150.00	1200.00	2.783	7.397	2.66	.047	.125	2.66	1	1
1200.00	1250.00	305.073	946.362	3.10	4.985	15.463	3.10	14	14
1250.00	1300.00	4.140	12.632	3.05	.065	.197	3.05	52	52
1300.00	1350.00	12.850	32.661	2.54	.193	.490	2.54	57	57
1350.00	1400.00	7.509	22.263	2.96	.108	.321	2.97	53	53
1400.00	1450.00	10.459	27.627	2.64	.146	.385	2.64	51	51
1450.00	1500.00	16.224	34.913	2.15	.218	.470	2.15	51	51
1500.00	1550.00	29.844	61.545	2.06	.388	.799	2.06	53	53
1550.00	1600.00	40.215	75.959	1.89	.508	.960	1.89	56	56
1600.00	1650.00	55.925	102.950	1.84	.683	1.256	1.84	52	52
1650.00	1700.00	130.785	216.644	1.66	1.549	2.567	1.66	54	54
1700.00	1750.00	225.105	318.507	1.41	2.592	3.668	1.41	51	51
1750.00	1800.00	356.929	457.762	1.28	3.991	5.118	1.28	50	50
1800.00	1850.00	605.374	773.743	1.28	6.589	8.423	1.28	53	53
1850.00	1900.00	777.120	947.421	1.22	8.225	10.027	1.22	50	50
1900.00	1950.00	1084.447	1322.095	1.22	11.186	13.638	1.22	50	50
1950.00	2000.00	1649.286	2010.715	1.22	16.579	20.212	1.22	50	50
18.00	1027.00	43.460	160.732	3.70	1.785	7.440	4.17	777	777

NOTE:

F79314 CREATED FROM SC#21REF WITH R1 = 3.64, R2 = 147.0, AND C(I)-VALUES ADJUST TO ACTUAL AE-E OBSERVATIONS OF DAY 79314

C REF4

IFILE "A" (DENOMINATOR OF RATIOS) = SC#21REF (ID=81099) PRESENT REF. FOR 13-28 JULY 1976 "MINIMUM"

FILE "B" (NUMERATOR OF RATIOS) = F79050N (ID=81099) FOR 19 FEB 1979 "PRE-MAX" (REPLACES F79050)
(SEE NOTE BELOW)

FROM ANGS. (INCL.)	UP TO ANGS. (EXCL.)	PHOTON FLUX/ 1.E9 PHOTONS/ CM SQ.-SEC. "A"	"B"	B/A	ENERGY FLUX/ ERGS/ CM SQ.-SEC. "A"	"B"	B/A	# OF ENTRIES "A"	"B"
				====			====		
.00	50.00	.029	.256	8.79	.015	.139	9.42	20	20
50.00	100.00	.383	1.157	3.02	.104	.324	3.11	116	116
100.00	150.00	.135	.343	2.55	.021	.054	2.53	40	40
150.00	200.00	1.842	4.850	2.63	.205	.536	2.62	46	46
200.00	250.00	.895	3.820	4.27	.078	.339	4.34	49	49
250.00	300.00	1.212	8.055	6.65	.090	.586	6.53	36	36
300.00	350.00	7.101	19.551	2.75	.460	1.246	2.71	12	12
350.00	400.00	.951	3.591	3.77	.052	.196	3.81	5	5
400.00	450.00	.393	.993	2.53	.019	.047	2.54	6	6
450.00	500.00	.624	2.241	3.59	.026	.092	3.52	50	50
500.00	550.00	.540	1.579	2.92	.021	.060	2.92	11	11
550.00	600.00	2.887	7.528	2.61	.100	.259	2.60	10	10
600.00	650.00	2.125	4.962	2.34	.067	.158	2.34	9	9
650.00	700.00	.221	.452	2.04	.006	.013	2.05	8	8
700.00	750.00	.556	1.135	2.04	.016	.032	2.04	53	53
750.00	800.00	2.089	4.844	2.32	.053	.124	2.32	63	63
800.00	850.00	1.900	4.919	2.59	.045	.118	2.59	51	51
850.00	900.00	4.323	12.968	3.00	.098	.293	3.00	50	50
900.00	950.00	3.848	11.107	2.89	.083	.241	2.89	59	59
950.00	1000.00	6.548	14.904	2.28	.133	.303	2.28	54	54
1000.00	1050.00	8.778	24.364	2.78	.169	.470	2.78	56	56
1050.00	1100.00	3.033	6.024	1.99	.056	.111	1.99	53	53
1100.00	1150.00	.769	1.650	2.15	.014	.029	2.15	3	3
1150.00	1200.00	2.783	6.156	2.21	.047	.104	2.21	1	1
1200.00	1250.00	305.073	874.898	2.87	4.985	14.295	2.87	14	14
1250.00	1300.00	4.140	10.574	2.55	.065	.165	2.55	52	52
1300.00	1350.00	12.850	27.859	2.17	.193	.418	2.17	57	57
1350.00	1400.00	7.509	18.686	2.49	.108	.269	2.49	53	53
1400.00	1450.00	10.459	23.465	2.24	.146	.327	2.24	51	51
1450.00	1500.00	16.224	30.383	1.87	.218	.409	1.87	51	51
1500.00	1550.00	29.844	53.860	1.80	.388	.699	1.80	53	53
1550.00	1600.00	40.215	67.294	1.67	.508	.850	1.67	56	56
1600.00	1650.00	55.925	91.550	1.64	.683	1.117	1.64	52	52
1650.00	1700.00	130.785	195.829	1.50	1.549	2.320	1.50	54	54
1700.00	1750.00	225.105	295.864	1.31	2.592	3.407	1.31	51	51
1750.00	1800.00	356.929	433.318	1.21	3.991	4.845	1.21	50	50
1800.00	1850.00	605.374	732.926	1.21	6.589	7.979	1.21	53	53
1850.00	1900.00	777.120	906.136	1.17	8.225	9.590	1.17	50	50
1900.00	1950.00	1084.447	1264.483	1.17	11.186	13.044	1.17	50	50
1950.00	2000.00	1649.286	1923.096	1.17	16.579	19.331	1.17	50	50
18.00	1027.00	43.460	123.349	2.84	1.785	5.432	3.04	777	777

NOTE:

F79050N CREATED FROM SC#21REF WITH R1 = 3.00, R2 = 81.3, AND
C(I)-VALUES ADJUST TO ACTUAL AE-E OBSERVATIONS OF DAY 79050

C REF4A

IFILE "A" (DENOMINATOR OF RATIOS) = F79050 (ID=79135) PRELIM. FOR 19 FEB 79(REPLACED BY F79050M)
(SEE NOTE BELOW)

FILE "B" (NUMERATOR OF RATIOS) = F79050M (ID=81099) FOR 19 FEB 1979 "PRE-MAX"(REPLACES F79050)
(SEE NOTE BELOW)

FROM ANGS. (INCL.)	UP TO ANGS. (EXCL.)	PHOTON FLUX/ 1.E9 PHOTONS/ CM SQ.-SEC. "A"	"B"	B/A	ENERGY FLUX/ ERGS/ CM SQ.-SEC. "A"	"B"	B/A	# OF ENTRIES "A"	"B"
				====			====		
.00	50.00	.257	.256	1.00	.145	.139	.96	28	20
50.00	100.00	1.371	1.157	.84	.373	.324	.87	135	116
100.00	150.00	.467	.343	.73	.075	.054	.72	50	40
150.00	200.00	5.702	4.850	.85	.630	.536	.85	45	46
200.00	250.00	7.145	3.820	.53	.632	.339	.54	48	49
250.00	300.00	18.966	8.055	.42	1.397	.586	.42	35	36
300.00	350.00	25.918	19.551	.75	1.656	1.246	.75	12	12
350.00	400.00	4.078	3.591	.88	.223	.196	.88	5	5
400.00	450.00	1.529	.993	.65	.073	.047	.65	51	6
450.00	500.00	2.528	2.241	.89	.103	.092	.89	53	50
500.00	550.00	1.630	1.579	.97	.062	.060	.97	11	11
550.00	600.00	6.915	7.528	1.09	.238	.259	1.09	10	10
600.00	650.00	7.720	4.962	.64	.246	.158	.64	51	9
650.00	700.00	.537	.452	.84	.016	.013	.84	58	8
700.00	750.00	1.167	1.135	.97	.033	.032	.97	53	53
750.00	800.00	5.569	4.844	.87	.142	.124	.87	63	63
800.00	850.00	4.767	4.919	1.03	.114	.118	1.03	51	51
850.00	900.00	11.923	12.968	1.09	.269	.293	1.09	50	50
900.00	950.00	10.260	11.107	1.08	.222	.241	1.08	59	59
950.00	1000.00	14.280	14.904	1.04	.290	.303	1.04	54	54
1000.00	1050.00	24.015	24.364	1.01	.463	.470	1.01	56	56
1050.00	1100.00	6.112	6.024	.99	.113	.111	.99	53	53
1100.00	1150.00	2.394	1.650	.69	.042	.029	.69	52	3
1150.00	1200.00	12.311	6.156	.50	.207	.104	.50	51	1
1200.00	1250.00	670.590	874.898	1.30	10.956	14.295	1.30	54	14
1250.00	1300.00	11.750	10.574	.90	.184	.165	.90	52	52
1300.00	1350.00	28.529	27.859	.98	.428	.418	.98	57	57
1350.00	1400.00	17.917	18.686	1.04	.258	.269	1.04	53	53
1400.00	1450.00	23.609	23.465	.99	.330	.327	.99	51	51
1450.00	1500.00	33.511	30.383	.91	.451	.409	.91	51	51
1500.00	1550.00	57.863	53.860	.93	.751	.699	.93	53	53
1550.00	1600.00	71.791	67.294	.94	.907	.850	.94	56	56
1600.00	1650.00	90.155	91.550	1.02	1.100	1.117	1.02	52	52
1650.00	1700.00	194.257	195.829	1.01	2.302	2.320	1.01	54	54
1700.00	1750.00	303.079	295.864	.98	3.491	3.407	.98	51	51
1750.00	1800.00	443.203	433.318	.98	4.956	4.845	.98	50	50
1800.00	1850.00	763.560	732.926	.96	8.312	7.979	.96	53	53
1850.00	1900.00	955.858	906.136	.95	10.116	9.590	.95	50	50
1900.00	1950.00	1333.869	1264.483	.95	13.759	13.044	.95	50	50
1950.00	2000.00	2028.621	1923.096	.95	20.392	19.331	.95	50	50
18.00	1027.00	145.562	123.349	.85	7.188	5.432	.76	943	777

NOTE:

F79050M CREATED FROM SC#21REF WITH R1 = 3.00, R2 = 81.3, AND
C(I)-VALUES ADJUST TO ACTUAL AE-E OBSERVATIONS OF DAY 79050

F79050 WAS CREATED FROM 'F76REF' (NOW SUPERSEDED)

10

C REF5

1FILE "A" (DENOMINATOR OF RATIOS) = SC#21REF (ID=81099) PRESENT REF. FOR 13-28 JULY 1976 "MINIMUM"

FILE "B" (NUMERATOR OF RATIOS) = F79226 (ID=81099) FOR 14 AUG 1979 (DAY OF AFGL ROCKET EXP.)
(SEE NOTE BELOW)

FROM ANGS. (INCL.)	UP TO ANGS. (EXCL.)	PHOTON FLUX/ 1.E9 PHOTONS/ CM SQ.-SEC. "A"	"B"	B/A	ENERGY FLUX/ ERGS/ CM SQ.-SEC. "A"	"B"	B/A	# OF ENTRIES "A"	"B"
				====			====		
.00	50.00	.029	.185	6.36	.015	.100	6.79	20	20
50.00	100.00	.383	.957	2.50	.104	.266	2.56	116	116
100.00	150.00	.135	.284	2.11	.021	.045	2.10	40	40
150.00	200.00	1.842	4.241	2.30	.205	.468	2.28	46	46
200.00	250.00	.895	3.189	3.56	.078	.284	3.63	49	49
250.00	300.00	1.212	6.455	5.33	.090	.470	5.24	36	36
300.00	350.00	7.101	14.722	2.07	.460	.939	2.04	12	12
350.00	400.00	.951	2.790	2.93	.052	.152	2.95	5	5
400.00	450.00	.393	.820	2.09	.019	.039	2.09	6	6
450.00	500.00	.624	1.745	2.80	.026	.072	2.75	50	50
500.00	550.00	.540	1.288	2.38	.021	.049	2.38	11	11
550.00	600.00	2.887	6.290	2.18	.100	.217	2.17	10	10
600.00	650.00	2.125	4.208	1.98	.067	.134	1.98	9	9
650.00	700.00	.221	.387	1.75	.006	.011	1.75	8	8
700.00	750.00	.556	.976	1.76	.016	.027	1.75	53	53
750.00	800.00	2.089	4.129	1.98	.053	.105	1.98	63	63
800.00	850.00	1.900	4.089	2.15	.045	.098	2.15	51	51
850.00	900.00	4.323	10.591	2.45	.098	.239	2.45	50	50
900.00	950.00	3.848	9.110	2.37	.083	.197	2.37	59	59
950.00	1000.00	6.548	12.752	1.95	.133	.259	1.95	54	54
1000.00	1050.00	8.778	20.710	2.36	.169	.400	2.36	56	56
1050.00	1100.00	3.033	5.201	1.71	.056	.096	1.71	53	53
1100.00	1150.00	.769	1.408	1.83	.014	.025	1.83	3	3
1150.00	1200.00	2.783	5.313	1.91	.047	.090	1.91	1	1
1200.00	1250.00	305.073	774.746	2.54	4.985	12.659	2.54	14	14
1250.00	1300.00	4.140	8.805	2.13	.065	.137	2.13	52	52
1300.00	1350.00	12.850	23.731	1.85	.193	.356	1.85	57	57
1350.00	1400.00	7.509	15.612	2.08	.108	.225	2.08	53	53
1400.00	1450.00	10.459	19.888	1.90	.146	.278	1.90	51	51
1450.00	1500.00	16.224	26.490	1.63	.218	.356	1.63	51	51
1500.00	1550.00	29.844	47.256	1.58	.388	.613	1.58	53	53
1550.00	1600.00	40.215	59.847	1.49	.508	.756	1.49	56	56
1600.00	1650.00	55.925	81.753	1.46	.683	.998	1.46	52	52
1650.00	1700.00	130.785	177.942	1.36	1.549	2.108	1.36	54	54
1700.00	1750.00	225.105	276.405	1.23	2.592	3.183	1.23	51	51
1750.00	1800.00	356.929	412.311	1.16	3.991	4.610	1.16	50	50
1800.00	1850.00	605.374	697.849	1.15	6.589	7.597	1.15	53	53
1850.00	1900.00	777.120	870.656	1.12	8.225	9.215	1.12	50	50
1900.00	1950.00	1084.447	1214.972	1.12	11.186	12.533	1.12	50	50
1950.00	2000.00	1649.286	1847.798	1.12	16.579	18.574	1.12	50	50
18.00	1027.00	43.460	100.761	2.32	1.785	4.396	2.46	777	777

NOTE:

F79226 CREATED FROM SC#21REF WITH R1 = 2.45, R2 = 56.0, AND
C(I)-VALUES ADJUST TO ACTUAL AE-E OBSERVATIONS OF DAY 79226