IMP-8 FLUX PLOT PROGRAM DESCRIPTION AND USER'S GUIDE

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General Information

The IMP Flux Plot Program will generate flux plots of PHA data from IMP-6, IMP-7, and/or IMP-8. Either time history plots or spectral plots may be run. The program uses IMP-6, IMP-7, and/or IMP-8 Intermediate Flux tapes as input. The output consists of line printer flux listings along with plot tapes containing instructions for generating microfilm plots on the SD-4060 Plotter and/or datasets in the FT31F001, FT32F001 output format, for use with the XTAPE program(N.Lal) in making PDP 11/70 tapes.

Flux data is organized into energy boxes which are predefined in the Intermediate Flux Program. A flux box usually consists of events of a specific particle type for specific energy range. Appendix 1 lists the box identifications and definitions for the three satellites. In the Flux Plot Program, data is plotted in energy bins. A flux bin consists of one or more boxes representing particles of the same species with a given energy range. Note that the bins must consist of adjacent boxes (i.e. a continuous energy range). In addition to flux data, certain rates are available on the flux tapes. These rates are have been assigned to flux box numbers as listed in Appendix 1.

Time History Plots

Time History Plots consist of flux bins plotted against time. They may be generated for up to 100 bins. The user specifies the averaging interval, the plot frame size, and the overall start and stop times for plotting. In addition, the 100 plotted items may be grouped in any combination desired for up to six individual items per frame for up to 50 plot frame sets. For these frames, the x axis limits must all be identical, but the y axis limits may be specified on a frame by frame basis.

Spectral Plots

Spectral plots consist of flux bins plotted against energy for a given time period. They may be generated for up to 100 bins. The plotted items may be grouped in any combination on up to 50 seperate plot frame sets. Spectral plot frames may specify different x and y limits for each individual frame. The following options exist for specifying time with spectral plots:

- a spectral plot can be generated for each start-stop time.
- a periodic set of plots can be generated for each start-stop time.
- a spectral plot can be generated for a number of (summarized) start-stop times.

Parameter Cards

A set of input cards must consist of the following sequence of cards:

1. 1 title card
2. 1 tape unit card
3. 1 plot parameter card

4. bin definition cards (up to 100 with time history plots, up to 100 spectral plots).
5. 1 plot scaling card
6. optional axis scaling cards for individual frames
7. 1 or more time cards

Title card

NAME	COLUMN	FORMAT	DESCRIPTION
JTITLE	1-80	20A4	Alphanumeric title to be written on all printouts and plot frames.

Averaging Interval Card

NAME	COLUMN	FORMAT	DESCRIPTION
IAVMIN	1-5	I5	Length of data averaging interval, in minutes.* Must be a multiple of 5 minutes and equal to or less than the spectral plot interval or the time history plot interval. * A negative number or zero will average the flux data over the entire data point.
QSTAT	10	L1	Statistics flag: T = prints statistics for spectral plot F = no statistics (default)
QDEBUG	11	L1	T = prints out debug messages F = no messages (default)
QTIMCK	12	L1	IMP-6 only, scans the flux database years and corrects the bad ones
XMIN0	21-25	F5.1	4060 plot raster limits (default 205. , if blank)
XMAXX0	26-30	F5.1	(default 4049. , if blank)
YMIN0	31-35	F5.1	(default 300. , if blank)
YMAX0	36-40	F5.1	(default 2700. , if blank)

Plot parameter card

NAME	COLUMN	FORMAT	DESCRIPTION
NUMBIN	1-3	I3	Number of Bin Cards following this card (see Bin definition card).
JPLOT	4	A1	Plot type: T = time history plot

			S = spectral plot
QFILTR	5	L1	IMP-6 perigee data flag: T = IMP-6 subperigee data is filtered out F = not filtered out (QFILTR is ignored with IMP-7 or IMP-8 data).
QPRINT	6	L1	Line printer listing flag: T = line printer flux listing F = no listing
QLINES	7	L1	Spectral plot energy axis scaling: T = linear x-axis F = log x-axis (QLINES is ignored with time history plots).
QTC	8	L1	Trend check enable flag: T = apply trend check to rates. Factor to be used is TCFACT below. (See text) F = do not apply trend check algorithm to rates.
QOTAPE	9	L1	T = generate output listing flux datasets for use in preparing a PDP 11/70 (with the XTAPE program) tape
XPERIG	12-19	F8.2	IMP-6 override perigee altitude, in kilometers. Default is 70,000 km. (XPERIG does not apply to IMP-7 or IMP-8 data).
TCFACT	22-26	F5.0	Trend check factor (default = 100).

Bin Definition Card(s)

Must have NUMBIN number of cards (See Plot Parameter Card).

NAME	COLUMN	FORMAT	DESCRIPTION
JIMP	1	I1	Satellite identification for bin: 6 = IMP-6 7 = IMP-7 8 = IMP-8
JFRAME	2-3	I2	Frame number in which this bin is to be plotted (=1 -50).
JCHAR	4	A1	Plot character for this bin. (Optional, since a default set of characters has been defined).
XNORM	5-11	F7.2	Normalization factor for this bin. (Optional, since a blank input will yield a normalization of 1.0).
JBOX(1-10)	12-41	10I3	From 1 to 10 boxes to be included in this bin. (See appendix A for box identification number and box descriptions).

Plot Scaling Card

NAME	COLUMN	FORMAT	DESCRIPTION
MNFLX	1-5	I5	Lower y-axis power of 10 for plot, in flux units.
MXFLX	6-10	I5	Upper y-axis power of 10 for plot, in flux units.
MNENG	11-15	I5	Lower x-axis power of 10 for spectral plot in MeV. (If QLINES = true on card c, MINEN is absolute magnitude, not power of 10. MNENG ignored with time history plots).
MXENG	16-20	I5	Upper x-axis power of 10 for spectral plot, in MeV. (See note above for MNENG).
JRANUN	21-25	I5	Plot frame range units. 1 = months 2 = days 3 = hours
NORANU	26-30	I5	Width of plot frame in JRANUN units (i.e. a frame will be NORANU number of JRANUN units wide).
IAVU	31-35	I5	Data point averaging unit: 2 = days 3 = hours 4 = minutes
NOAVU	36-40	I5	Widths of averaging period in IAVU units. (i.e. each data point on a time history plot will consist of NOAVU number of IAVU units worth of data. Note that IAVU and NOAVU are ignored with spectral plots).
NFRAME	41-45	I5	0,1- sets all frame parameters equal to those specified on plot scaling card. 2 or more - expects (NFRAME-1) additional scaling parameter cards which specify MNFLX, MXFLX, MNENG, MXENG, 4I5 format, one for each frame.
NFR80	46-50	I5	Defaults to 7 User specifiable so that microfiche data frames will allign the first data frame for microfiche on the top line position, after header pages are written.

Time Card

NAME	COLUMN	FORMAT	DESCRIPTION
JKEY	1	I1	Spectral plot mode key: 0 = plot data indicated time period. 1 = accumulate data for indicated time period, but do not plot. (i.e. a JKEY = 0 card will plot all accumulated data). 2 = generate periodic spectral plots over indicated time period. Size of periodic plots is specified by IPRDU and NOPRDU below.
Start time:			
IDAY1	3-4	I2	start day of month
IMON1	6-8	A3	start month(1st 3 letters of month)
IYR1	10-11	I2	start year (last 2 digits)
IHR1	13-14	I2	start hour
IMIN1	16-17	I2	start minute
Stop time:			
IDAY2	19-20	I2	stop day of month
MON2	22-24	A3	stop month (1st 3 letters of month)
IYR2	26-27	I2	stop year (last 2 digits)
IHR2	29-30	I2	stop hour
IMIN2	32-33	F2	stop minute
IPRDU	36-40	I5	Periodic plot extent units 1=months 2=days 3=hours 4=minutes
NOPRDU	41-45	I5	Extent of periodic spectral plot, in IPRDU units (e.g. to generate hourly spectral plots for the start- stop time above, set JKEY = 2, IPRDU = 3, and NOPRDU = 1. Note that these parameters are ignored with time history plots).

Notes on parameter cards

This program can plot flux bins from up to three different satellites at the same time. If data from only one or two satellites is desired, however, it obviously makes no sense to allocate all three input tape units in the JCL. The program makes use of only those unit numbers corresponding to satellites for which flux is actually being requested. Thus, if flux from only one satellite is being plotted, only that satellite's Tape Unit Number will be used (16 = IMP-6, 17 = IMP-7, 18 = IMP-8); and only one input tape drive need be allocated in the JCL.

The JFRAME parameter on the Bin Definition Card is used to determine whether any 4060 plots are to be produced and, if so, what the plot organization will be. If all the JFRAME values are zero or blank, no 4060 plots will be generated. If any JFRAME value is different from zero, plots will be generated. The values of JFRAME will then determine which rates or fluxes will be plotted together on the same frame, and which will be seperated. For example, suppose there are six items, and the JFRAME values are 0,0,0,1,1,1; then the first three items will not be plotted, and the next three will be plotted together on the same frame. For another example, if five items are desired, each on a different frame, the JFRAME

values would be set to 1,2,3,4,5. If plotting symbols on the Bin Definition Card are left blank and plots are requested, a default set of symbols will be employed by the programs (viz: the alphabet).

Each new set of input cards should be preceded with a blank card. If FT31F001, FT32F001 datasets are to be made for use in generating PDP 11/70 tape (see the JCL explanation for how this is done), only one set of input cards may be used.

There is an important distinction to be made between the plot interval and the data averaging interval. With a time history plot, the plot interval is specified by IAVU and NOAVU on the plot scaling card. With a simple spectral plot, the plot interval is determined by the start and stop data times on the Time card. With a periodic spectral plot, the plot interval is specified by IPRDU and NOPRDU on the Time card. In all three of the above cases, the user may additionally specify a data averaging interval, viz; the length of time over which the flux values are calculated. The data averaging interval (specified by IAVMIN on the Averaging Interval card) must be an integral number of 5 minute periods, with a minimum value of 5 minutes and a maximum value equal to the plot interval. Then, a plot interval will consist of the average over data averaging intervals. For example, you may request a "6 hour time history plot with a 1 hour data averages"; here, each plot point representing 6 hours of data will be an average of six 1 hour flux values.

The "trend check" flag and factor on the Plot parameter card refer to a very gross trend check that attempts to eliminate isolated spurious 15 minute rate readouts that have slipped through the standard "every readout" rates trend check. Its effect is to throw out any 5 minute record in which any of the event rates differ by more than a factor of 100 (or an inputted value) from the previous readout. Its use is recommended for plots involving data averages over long intervals of time. Input times should not be expressed as midnight of the previous day, but rather the following day, i.e., not 2400 hours but 0000 hours.

The use of the Plot Scaling Card parameters JRANUN and NORANU has the following limitations:

if JRANUN = 1, the plot frame range unit = month
if JRANUN = 2, the plot frame range unit = day
if JRANUN = 3, the plot frame range unit = hour

NORANU should not exceed 23 for JRANUN = 3, and 30 for JRANUN = 2, because the x-axis labelling routine converts the frame unit into the next larger unit if those limits are exceeded. The user should request multiples of the next higher frame range unit JRANUN when the above limits would be exceeded. For example, if the user wanted 60 days of data per frame, he should instead request JRANUN = 1 and NORANU = 2. The data point averaging parameters available are still only limited by the program dimensional restriction of 250 points per frame for each data bin (maximum of 6 bins). To determine how many points to expect, the (plot frame range in decisecs)/(averaging period in decisecs) must not be greater than 250.

JCL and Sample Input Decks

The FLUXPLOT program is run from a PROC. Two forms of the PROC are necessary, one for use when making a PDP 11/70 tape see Figure 1 on page 7, and one when no PDP 11/70 tape is to be made see Figure 3 on page 10.

Spectral plot example

Figure 1 on page 7 shows the required PROC JCL for the IMP FLUXPLOT program when a PDP 11/70 tape is requested. The JCL and data cards shown in Figure 2 on page 8 would follow the above PROC JCL in order to execute the program.

```
//FLUXPLOT PROC  REG=1024K,        CORE REQUIREMENT
//            OUT=A,              OUTPUT OF LISTINGS
//            IMFT31=NULLFILE,        FT31 DISK DATASET
//            IMFT32=NULLFILE,        FT32 DISK DATASET
//            D3132=MVSSC1,    FT31 FT32 DISK VOLUME
//            PLTAPE=ISCTCH,
//            PLABEL=NL,
//            PLFILE=1,
//            PLOTS=NULL,
//            LTAPE=JSCTCH,LLABEL=NL,LDEN=3,LFILE=1,LIST=NULL,
//            LSIZE=19000  DISK AND SIZE (LISTED DATA)
//FLUXPLOT EXEC PGM=FLUXPLOT,REGION=&REG
//STEPLIB DD DSN=SB#IM.FLUXPLOT.LOAD,DISP=SHR
//FT06F001 DD SYSOUT=&OUT,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=7265)
//FT18F001 DD UNIT=(2400-9,,DEFER),DISP=SHR,
//   VOL=SER=IMP8TP,DSN=ZZZZ
//FT28F001 DD DSN=SB#IM.DEX52CAT.DATA,DISP=SHR
//SC4060ZZ DD DSN=&PLOTS.FILE,UNIT=(1600,,DEFER),DISP=(NEW,KEEP),
//  DCB=(DEN=3,RECFM=F,BLKSIZE=1024),VOL=SER=&PLTAPE,
//  LABEL=(&PLFILE,&PLABEL,,OUT)
//*FT31F001 DD UNIT=SYSDA,DISP=(NEW,PASS),SPACE=(TRK,1)
//*FT32F001 DD UNIT=SYSDA,DISP=(NEW,PASS),SPACE=(CYL,(5,5)),
//*            DCB=BLKSIZE=&LSIZE
//*
//*  THESE DATASETS ARE NEW FORMAT FOR 11/70 USE
//*  BUT ARE HERE INTENDED FOR USE WITH PARTAV AVERAGING
//*  PROGRAM, WHEN OUTPUT IS REQUESTED IN FLUX SUBSUMMARIES
//FT31F001 DD DSN=&IMFT31.,DISP=(NEW,CATLG,DELETE),
//         DCB=(RECFM=F,BLKSIZE=132),
//         SPACE=(TRK,(1,2)),VOL=SER=&D3132,UNIT=SYSDA
//FT32F001 DD DSN=&IMFT32.,DISP=(NEW,CATLG,DELETE),
//            DCB=BLKSIZE=&LSIZE,
//         SPACE=(TRK,(2,5)),VOL=SER=&D3132,UNIT=SYSDA
//*
//FT05F001 DD DDNAME=DATA5
//* CREATE OUTPUT DATASET ON TAPE FOR 11/70 USE
//PDPTAPE  EXEC  PGM=XTAPE,REGION=200K,COND=(4,LT),PARM='&LIST.'
//STEPLIB  DD    DSN=ZW2NL.XTAPE.LOAD,DISP=SHR
//FT06F001 DD    SYSOUT=&OUT
//FT31F001 DD    DSN=*.FLUXPLOT.FT31F001,DISP=(OLD,PASS)
//FT32F001 DD    DSN=*.FLUXPLOT.FT32F001,DISP=(OLD,PASS),
//            DCB=(RECFM=U,BLKSIZE=&LSIZE,LRECL=&LSIZE)
//FT33F001 DD DSN=&LIST.FILE,UNIT=(6250,,DEFER),DISP=(SHR,KEEP),
//            VOL=SER=&LTAPE,LABEL=(&LFILE,&LLABEL,,OUT),
//            DCB=(RECFM=U,BLKSIZE=&LSIZE,DEN=&LDEN,BUFNO=1)
//         PEND
```

Figure 1. Example of PROC: To produce an PDP 11/70 tape.

```
//*****************************************************************************************
// EXEC FLUXPLOT,REG=1024K,
//          IMFT31='XRPAS.IMS7',
//          IMFT32='XRPAS.IMS7A',
//          D3132=SACC04,
//          PLTAPE=PAMI01,
//          PLOTS=PLOT,
//          PLFILE=5,
//          LTAPE=PAMI02,
//          LFILE=2
//*  NEW PGM VSN 12/86; TESTING
//*  SPECTRAL,NON PERIODIC, TOTAL TIME, 360 MIN DATA SUBSUM, 4060 PLOT
//*  USE 0,1 JKEY ON TIME CARDS
//*  SPECIFY DIFFERING X AND Y LIMITS USING NFRAME PARAMETER
//*  GENERATE FT31 AND FT32, and write result to tape PAMI02, file 2
//*  DATA FOR FILE 5 OF 4060 TAPE
//*
//FLUXPLOT.DATA5 DD *,DCB=BLKSIZE=800
TOTAL TIME AVERAGE SURVEY -- IMP 8 -- BOXES,GAINS AS OF 9/25/79
  360    FF
 54S TFFT
801         02 03 04
801         05 06
801         12 13
801         14 15
801         77 30
801         31 32
801         33 34 35
801         69 72
801         73 74 75
801         69 72 73 74 75 76
801         07 08 09
801         10 11
801         16 17
801         18 19
801         78 36
801         37 38
801         39 40 41
801         49 50 51
801         52 53 54
801         49 50 51 52 53 54 55 56
801        113114115
801        115116
801        120
801        121124
801        126129
802         02 03 04
802         05 06
802         12 13
802         14 15
802         77 30
802         31 32
802         33 34 35
802         69 72
802         73 74 75
802         69 72 73 74 75 76
802         07 08 09
802         10 11
803         16 17
803         18 19
```

```
   803          78 36
803           37 38
803           39 40 41
803           49 50 51
803           52 53 54
803           49 50 51 52 53 54 55 56
803          113114115
803          115116
803          120
803          121124
803          126129
804          401
804          402
804          403
804          404
   -5    4     0    3     1     3     2    01     4    00
   -6    2     1    2     FRAME# 2
   -6    2     2    3     FRAME# 3
   -3    2     0    1     FRAME# 4
1 01 JAN 78 00 00 01 FEB 78 00 00       2    01
0 01 FEB 78 00 00 01 APR 78 00 00       2    01

/*
```

Figure 2. Example of JCL for Spectral Plot: To produce a PDP 11/70 tape

****

Time history plot example

Figure 3 on page 10 shows the required PROC JCL for the IMP FLUXPLOT program when no PDP 11/70 tape is requested. The JCL and data cards shown in Figure 4 on page 11 would follow this PROC JCL in order to execute the program.

```
//FLUXPLOT PROC  REG=1024K,        CORE REQUIREMENT
//            OUT=A,              OUTPUT OF LISTINGS
//            IMFT31=NULLFILE,        FT31 DISK DATASET
//            IMFT32=NULLFILE,        FT32 DISK DATASET
//            D3132=MVSSC1,    FT31 FT32 DISK VOLUME
//            PLTAPE=ISCTCH,
//            PLABEL=NL,
//            PLFILE=1,
//            PLOTS=NULL,
//*  THIS PROC MUST BE USED WITH JOBS NOT MAKING AN 11/70 TAPE
//*            LTAPE=JSCTCH,LLABEL=NL,LDEN=3,LFILE=1,LIST=NULL,
//            LSIZE=19000  DISK AND SIZE (LISTED DATA)
//FLUXPLOT EXEC PGM=FLUXPLOT,REGION=&REG
//STEPLIB DD DSN=SB#IM.FLUXPLOT.LOAD,DISP=SHR
//FT06F001 DD SYSOUT=&OUT,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=7265)
//FT18F001 DD UNIT=(2400-9,,DEFER),DISP=SHR,
//   VOL=SER=IMP8TP,DSN=ZZZZ
//FT28F001 DD DSN=SB#IM.DEX52CAT.DATA,DISP=SHR
//SC4060ZZ DD DSN=&PLOTS.FILE,UNIT=(1600,,DEFER),DISP=(NEW,KEEP),
//  DCB=(RECFM=F,BLKSIZE=1024),VOL=SER=&PLTAPE,
//  LABEL=(&PLFILE,&PLABEL,,OUT)
//*FT31F001 DD UNIT=SYSDA,DISP=(NEW,PASS),SPACE=(TRK,1)
//*FT32F001 DD UNIT=SYSDA,DISP=(NEW,PASS),SPACE=(CYL,(5,5)),
//*            DCB=BLKSIZE=&LSIZE
//*
//*  THESE DATASETS ARE NEW FORMAT FOR 11/70 USE
//*  BUT ARE HERE INTENDED FOR USE WITH PARTAV AVERAGING
//*  PROGRAM, WHEN OUTPUT IS REQUESTED IN FLUX SUBSUMMARIES
//FT31F001 DD DSN=&IMFT31.,DISP=(NEW,CATLG,DELETE),
//         SPACE=(TRK,(1,2)),VOL=SER=&D3132,UNIT=SYSDA
//FT32F001 DD DSN=&IMFT32.,DISP=(NEW,CATLG,DELETE),
//            DCB=BLKSIZE=&LSIZE,
//         SPACE=(TRK,(2,5)),VOL=SER=&D3132,UNIT=SYSDA
//*
//FT05F001 DD DDNAME=DATA5
//* CREATE OUTPUT DATASET ON TAPE FOR 11/70 USE
//*PDPTAPE  EXEC  PGM=XTAPE,REGION=200K,COND=(4,LT),PARM='&LIST.'
//*STEPLIB  DD    DSN=ZW2NL.XTAPE.LOAD,DISP=SHR
//*FT06F001 DD    SYSOUT=&OUT
//*FT31F001 DD    DSN=*.FLUXPLOT.FT31F001,DISP=(OLD,PASS)
//*FT32F001 DD    DSN=*.FLUXPLOT.FT32F001,DISP=(OLD,PASS),
//*            DCB=(RECFM=U,BLKSIZE=&LSIZE,LRECL=&LSIZE)
//*FT33F001 DD DSN=&LIST.FILE,UNIT=(6250,,DEFER),DISP=(SHR,KEEP),
//*            VOL=SER=&LTAPE,LABEL=(&LFILE,&LLABEL,,OUT),
//*            DCB=(RECFM=U,BLKSIZE=&LSIZE,DEN=&LDEN,BUFNO=1)
//         PEND
```

Figure 3. Example of PROC: No PDP 11/70 tape produced

```
//* EXEC FLUXPLOT,REG=1024K,
//*          IMFT31='XRPAS.IMT6',
//*          IMFT32='XRPAS.IMT6A',
//*          D3132=SACC04,
//*          PLTAPE=PAMI01,
//*          PLOTS=PLOT,
//*          PLFILE=6
//*  NEW PGM VSN 12/86; TESTING
//* TIME-HISTORY, 1 DAY SUMS, 6 HR AVERAGING SUBSUMS; WITH PLOTTING
//* GENERATE FT31 AND FT32,  WRITE TAPE(FILE 6)
//FLUXPLOT.DATA5 DD *,DCB=BLKSIZE=800
DAILY AVERAGE SURVEY -- IMP 8 -- BOXES,GAINS AS OF 9/25/79
  360    FF
 29T TFFT
801         02 03 04
801         05 06
801         12 13
801         14 15
801         77 30
801         31 32
802         33 34 35
802         69 72
802         73 74 75
802         69 72 73 74 75 76
803         07 08 09
803         10 11
803         16 17
804         18 19
805         78 36
805         37 38
806         39 40 41
806         49 50 51
806         52 53 54
806         49 50 51 52 53 54 55 56
807        113114115
807        115116
807        120
807        121124
807        126129
808        401
808        402
808        403
808        404
   -2    2    0    2    1    1    2   01    8   00
   -4   -2    1    3    FRAME#   2
   -1    1    0    1    FRAME#   3
   -2   -1    1    2    FRAME#   4
   -4   -2    1    2    FRAME#   5
   -5   -4    1    3    FRAME#   6
   -6   -2    0    2    FRAME#   7
   -2    3    0    1    FRAME#   8
0 01 JAN 78 00 00 01 APR 78 00 00       2    01

/*
```

Figure 4. Example of JCL for Time History Plot: No PDP 11/70 tape is produced

If plots are not to be generated, and the PLTAPE, PLFILE and PLOTS keywords are not used on the PROC EXEC statement, the JCL should be modified to disable the SC4060ZZ tape unit. If IMP-6 or IMP-7 data is desired, the JCL above would have to be modified to include unit 16 (IMP-6 input flux tape), unit 17 (IMP-7 tape unit) and DD cards 26 (IMP-6 tape catalog) and 27 (IMP-7 tape catalog).

If only a flux listing is desired, no keyword parameters are needed on the PROC EXEC statement.

Appendix A. Fluxplot Flux Box Event assignments

1 BOX IMP-6

NO.	PARTICLE	ELOW	EUP	GEOM	EVENT TYPE
1	PROTON	0.93	1.25	0.390	A.-B.-C
2	PROTON	1.25	1.57	0.390	A.-B.-C
3	PROTON	1.57	2.00	0.390	A.-B.-C
4	PROTON	2.00	2.55	0.390	A.-B.-C
5	PROTON	2.55	3.32	0.390	A.-B.-C
6	PROTON	3.32	3.97	0.390	A.-B.-C
7	ALPHA	1.20	1.54	0.390	A.-B.-C
8	ALPHA	1.54	2.00	0.390	A.-B.-C
9	ALPHA	2.00	2.55	0.390	A.-B.-C
10	ALPHA	2.55	3.30	0.390	A.-B.-C
11	ALPHA	3.30	3.99	0.390	A.-B.-C
12	PROTON	4.00	6.02	0.390	A.B.-C
13	PROTON	6.02	8.30	0.390	A.B.-C
14	PROTON	8.30	13.40	0.390	A.B.-C
15	PROTON	13.40	22.70	0.390	A.B.-C
16	ALPHA	4.00	6.02	0.390	A.B.-C
17	ALPHA	6.02	8.29	0.390	A.B.-C
18	ALPHA	8.29	13.40	0.390	A.B.-C
19	ALPHA	13.40	22.70	0.390	A.B.-C
20	CNO	1.56	2.00	0.390	(A+B)1.-B.-C
21	CNO	2.00	2.58	0.390	(A+B)1.-B.-C
22	CNO	2.58	3.28	0.390	(A+B)1.-B.-C
23	CNO	3.28	4.01	0.390	(A+B)1.-B.-C
24		1.00	2.00	0.390	
25	- 29	SAME AS BOX 24			
30	PROTON	24.00	29.00	2.560	D.E.-F.-G
31	PROTON	29.00	35.30	3.150	D.E.-F.-G
32	PROTON	35.30	42.70	3.100	D.E.-F.-G
33	PROTON	42.70	50.70	2.980	D.E.-F.-G
34	PROTON	50.70	63.10	2.800	D.E.-F.-G
35	PROTON	63.10	82.00	2.530	D.E.-F.-G
36	ALPHA	24.00	29.00	2.560	D.E.-F.-G
37	ALPHA	29.00	35.10	3.150	D.E.-F.-G
38	ALPHA	35.10	42.60	3.100	D.E.-F.-G
39	ALPHA	42.60	51.00	2.980	D.E.-F.-G
40	ALPHA	51.00	62.70	2.800	D.E.-F.-G
41	ALPHA	62.70	82.00	2.530	D.E.-F.-G
42	ALPHA	82.00	101.00	2.350	D.E.F.-G
43	ALPHA	82.00	101.00	2.350	D.E.F.-G
44	ALPHA	82.00	101.00	2.350	D.E.F.-G
45	ALPHA	82.00	101.00	2.350	D.E.F.-G
46		1.00	2.00	2.350	
47		1.00	2.00	2.350	
48	ALPHA	101.00	117.80	2.350	D.E.F.-G

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 49  ALPHA     101.00 117.80  2.350  D.E.F.-G
 50  ALPHA     117.80 134.50  4.700  D.E.F.-G
 51  ALPHA     134.50 168.80  4.700  D.E.F.-G
 52  ALPHA     168.80 198.50  4.700  D.E.F.-G
 53  ALPHA     198.50 250.00  4.700  D.E.F.-G
 54  ALPHA     250.00 307.00  4.700  D.E.F.-G
 55  ALPHA     307.00 381.50  4.700  D.E.F.-G
 56  ALPHA     381.50 455.50  4.700  D.E.F.-G
 57             1.00   2.00  1.000
 58             1.00   2.00  1.000
 59             1.00   2.00  1.000
 60  PROTON     82.00  87.00  2.350  D.E.F.-G
 61  PROTON     82.00  87.00  2.350  D.E.F.-G
 62  PROTON     82.00  87.00  2.350  D.E.F.-G
 63  PROTON     82.00  87.00  2.350  D.E.F.-G
 64  PROTON     82.00  87.00  2.350  D.E.F.-G
 65  PROTON     82.00  87.00  2.350  D.E.F.-G
 66             1.00   2.00  1.000
 67  PROTON     87.00  92.50  4.700  D.E.F.-G
 68  PROTON     92.50 107.30  4.700  D.E.F.-G
 69  PROTON    107.30 121.00  4.700  D.E.F.-G
 70             1.00   2.00  1.000
 71             1.00   2.00  1.000
 72  PROTON    121.00 154.50  4.700  D.E.F.-G
 73  PROTON    154.50 178.00  4.700  D.E.F.-G
 74  PROTON    178.00 229.50  4.700  D.E.F.-G
 75  PROTON    229.50 327.00  4.700  D.E.F.-G
 76  PROTON    327.00 485.00  4.700  D.E.F.-G
 77             1.00   2.00  1.000
 78  - 400       SAME AS BOX 77
401  A.-B.-C     1.00   2.00  1.000  A.-B.-C
402  AB1.-B-C    1.00   2.00  1.000  (A+B)1.-B.-C
403             1.00   2.00  1.000
404  A.B.-C      1.00   2.00  1.000  A.B.-C
405  AB1.B.-C    1.00   2.00  1.000  (A+B)1.B.-C
406             1.00   2.00  1.000
407  D.E.F       1.00   2.00  1.000  D.E.F.G
408  D.E.-F-G    1.00   2.00  1.000  D.E.-F.-G
409  D.E.F.-G    1.00   2.00  1.000  D.E.F.-G
410             1.00   2.00  1.000
411  DE2.-F-G    1.00   2.00  1.000  (D+E)2.E.-F.-G
412             1.00   2.00  1.000
413  -  500      SAME AS BOX 412
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 1 BOX               IMP-7
 NO. PARTICLE    ELOW    EUP    GEOM    EVENT TYPE
  1  PROTON       0.89    1.16   0.390   A.-B.-C
  2  PROTON       1.16    1.44   0.390   A.-B.-C
  3  PROTON       1.44    1.84   0.390   A.-B.-C
  4  PROTON       1.84    2.37   0.390   A.-B.-C
  5  PROTON       2.37    3.13   0.390   A.-B.-C
  6  PROTON       3.13    4.20   0.390   A.-B.-C
  7  ALPHA        1.15    1.52   0.390   A.-B.-C
  8  ALPHA        1.52    1.91   0.390   A.-B.-C
  9  ALPHA        1.91    2.41   0.390   A.-B.-C
 10  ALPHA        2.41    3.09   0.390   A.-B.-C
 11  ALPHA        3.09    4.14   0.390   A.-B.-C
 12  PROTON       4.20    5.98   0.390   A.B.-C
 13  PROTON       5.98    8.67   0.390   A.B.-C
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14 PROTON      8.67   13.94   0.390   A.B.-C
15 PROTON     13.94   22.80   0.390   A.B.-C
16 ALPHA       4.10    5.95   0.390   A.B.-C
17 ALPHA       5.95    8.76   0.390   A.B.-C
18 ALPHA       8.76   13.71   0.390   A.B.-C
19 ALPHA      13.71   22.80   0.390   A.B.-C
20 CNO         1.55    1.93   0.390   (A+B)1.-B.-C
21 CNO         1.93    2.40   0.390   (A+B)1.-B.-C
22 CNO         2.40    3.09   0.390   (A+B)1.-B.-C
23 CNO         3.09    4.03   0.390   (A+B)1.-B.-C
24 CNO         4.03    5.85   0.390   (A+B)1.-B.-C
25 CNO         5.85    8.75   0.390   (A+B)1.-B.-C
26 NESI        5.80   11.20   0.390   (A+B)1.-B.-C
27 IRON        6.10    8.80   0.390   (A+B)1.-B.-C
28 IRON        8.80   13.80   0.390   (A+B)1.-B.-C
29             1.00    2.00   0.390
30 PROTON     24.00   29.00   2.560   D.E.-F.-G
31 PROTON     29.00   35.30   3.150   D.E.-F.-G
32 PROTON     35.30   42.70   3.100   D.E.-F.-G
33 PROTON     42.70   50.70   2.980   D.E.-F.-G
34 PROTON     50.70   63.10   2.800   D.E.-F.-G
35 PROTON     63.10   82.00   2.530   D.E.-F.-G
36 ALPHA      24.00   29.00   2.560   D.E.-F.-G
37 ALPHA      29.00   35.10   3.150   D.E.-F.-G
38 ALPHA      35.10   42.60   3.100   D.E.-F.-G
39 ALPHA      42.60   51.00   2.980   D.E.-F.-G
40 ALPHA      51.00   62.70   2.800   D.E.-F.-G
41 ALPHA      62.70   82.00   2.530   D.E.-F.-G
42 ALPHA      82.00  101.00   2.570   D.E.F.-G
43 ALPHA      82.00  101.00   2.570   D.E.F.-G
44 ALPHA      82.00  101.00   2.570   D.E.F.-G
45 ALPHA      82.00  101.00   2.570   D.E.F.-G
46             1.00    2.00   2.570
47             1.00    2.00   2.570
48 ALPHA     101.00  117.80   2.570   D.E.F.-G
49 ALPHA     101.00  117.80   2.570   D.E.F.-G
50 ALPHA     117.80  134.50   5.140   D.E.F.-G
51 ALPHA     134.50  168.80   5.140   D.E.F.-G
52 ALPHA     168.80  198.50   5.140   D.E.F.-G
53 ALPHA     198.50  250.00   5.140   D.E.F.-G
54 ALPHA     250.00  307.00   5.140   D.E.F.-G
55 ALPHA     307.00  381.50   5.140   D.E.F.-G
56 ALPHA     381.50  455.50   5.140   D.E.F.-G
57             1.00    2.00   1.000
58             1.00    2.00   1.000
59             1.00    2.00   1.000
60 PROTON     82.00   87.00   2.570   D.E.F.-G
61 PROTON     82.00   87.00   2.570   D.E.F.-G
62 PROTON     82.00   87.00   2.570   D.E.F.-G
63 PROTON     82.00   87.00   2.570   D.E.F.-G
64 PROTON     82.00   87.00   2.570   D.E.F.-G
65 PROTON     82.00   87.00   2.570   D.E.F.-G
66             1.00    2.00   1.000
67 PROTON     87.00   92.50   5.140   D.E.F.-G
68 PROTON     92.50  107.30   5.140   D.E.F.-G
69 PROTON    107.30  121.00   5.140   D.E.F.-G
70             1.00    2.00   1.000
71             1.00    2.00   1.000
72 PROTON    121.00  154.50   5.140   D.E.F.-G
73 PROTON    154.50  178.00   5.140   D.E.F.-G
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 74  PROTON    178.00 229.50  5.140  D.E.F.-G
 75  PROTON    229.50 327.00  5.140  D.E.F.-G
 76  PROTON    327.00 485.00  5.140  D.E.F.-G
 77              1.00   2.00  1.000
 78  -  110      SAME AS BOX 77
111  CARBON      8.80  40.70  0.390  (A+B)1.B.-C
112  NITROGEN    8.80  41.00  0.390  (A+B)1.B.-C
113  OXYGEN      8.80  11.10  0.390  (A+B)1.B.-C
114  OXYGEN     11.10  13.80  0.390  (A+B)1.B.-C
115  OXYGEN     13.80  21.90  0.390  (A+B)1.B.-C
116  OXYGEN     21.90  40.80  0.390  (A+B)1.B.-C
117  NEON       11.20  40.80  0.390  (A+B)1.B.-C
118  MG         11.20  40.90  0.390  (A+B)1.B.-C
119  SILICON    11.20  40.80  0.390  (A+B)1.B.-C
120  IRON       13.80  40.80  0.390  (A+B)1.B.-C
121  ELECT-1     3.50   7.50  1.000  D.E.-F.-G
122  ELECT-2     6.50  10.00  1.000  D.E.-F.-G
123  ELECT-3    10.00  15.00  1.000  D.E.-F.-G
124  ELECT-4     7.50  13.00  1.000  D.E.-F.-G
125  ELECT-5    13.00  19.00  1.000  D.E.-F.-G
126  BKGND-1A    3.50   7.50  1.000  D.E.-F.-G
127  BKGND-2A    6.50  10.00  1.000  D.E.-F.-G
128  BKGND-3A   10.00  15.00  1.000  D.E.-F.-G
129  BKGND-4A    7.50  13.00  1.000  D.E.-F.-G
130  BKGND-5A   13.00  19.00  1.000  D.E.-F.-G
131             1.00   2.00  1.000
132  -  400      SAME AS BOX 131
401  A.-B.-C     1.00   2.00  1.000  A.-B.-C
402  AB1.-B-C    1.00   2.00  1.000  (A+B)1.-B.-C
403             1.00   2.00  1.000
404  A.B.-C      1.00   2.00  1.000  A.B.-C
405  AB1.B.-C    1.00   2.00  1.000  (A+B)1.B.-C
406             1.00   2.00  1.000
407  D.E.F       1.00   2.00  1.000  D.E.F.G
408  D.E.-F-G    1.00   2.00  1.000  D.E.-F.-G
409  D.E.F.-G    1.00   2.00  1.000  D.E.F.-G
410             1.00   2.00  1.000
411  DE2.-F-G    1.00   2.00  1.000  (D+E)2.E.-F.-G
412  A           1.00   2.00  1.000  A    RATE
413  B           1.00   2.00  1.000  B    RATE
414  C           1.00   2.00  1.000  C    RATE
415  D           1.00   2.00  1.000  D    RATE
416  E           1.00   2.00  1.000  E    RATE
417  F           1.00   2.00  1.000  F    RATE
418  G           1.00   2.00  1.000  G    RATE
419             1.00   2.00  1.000
420  -  500      SAME AS BOX 419
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 1 BOX               IMP-8
 NO. PARTICLE    ELOW    EUP    GEOM    EVENT TYPE
  1  PROTON      0.88    1.15  0.390   A.-B.-C
  2  PROTON      1.15    1.43  0.390   A.-B.-C
  3  PROTON      1.43    1.79  0.390   A.-B.-C
  4  PROTON      1.79    2.27  0.390   A.-B.-C
  5  PROTON      2.27    3.03  0.390   A.-B.-C
  6  PROTON      3.03    4.20  0.390   A.-B.-C
  7  ALPHA       1.14    1.36  0.390   A.-B.-C
  8  ALPHA       1.36    1.88  0.390   A.-B.-C
  9  ALPHA       1.88    2.37  0.390   A.-B.-C
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10	ALPHA	2.37	3.06	0.390	A.-B.-C
11	ALPHA	3.06	3.98	0.390	A.-B.-C
12	PROTON	4.10	5.96	0.390	A.B.-C
13	PROTON	5.96	8.65	0.390	A.B.-C
14	PROTON	8.65	13.60	0.390	A.B.-C
15	PROTON	13.60	22.70	0.390	A.B.-C
16	ALPHA	3.95	5.82	0.390	A.B.-C
17	ALPHA	5.82	8.75	0.390	A.B.-C
18	ALPHA	8.75	13.78	0.390	A.B.-C
19	ALPHA	13.78	22.70	0.390	A.B.-C
20	CNO	1.49	1.92	0.390	(A+B)1.-B.-C
21	CNO	1.92	2.40	0.390	(A+B)1.-B.-C
22	CNO	2.40	3.10	0.390	(A+B)1.-B.-C
23	CNO	3.10	4.02	0.390	(A+B)1.-B.-C
24	CNO	4.02	5.85	0.390	(A+B)1.-B.-C
25	CNO	5.85	8.40	0.390	(A+B)1.-B.-C
26	NESI	5.80	10.70	0.390	(A+B)1.-B.-C
27	IRON	5.90	8.80	0.390	(A+B)1.-B.-C
28	IRON	8.80	13.20	0.390	(A+B)1.-B.-C
29		1.00	2.00	0.390	
30	PROTON	24.25	28.74	3.180	D.E.-F.-G
31	PROTON	28.74	35.20	3.110	D.E.-F.-G
32	PROTON	35.20	42.90	3.030	D.E.-F.-G
33	PROTON	42.93	51.00	2.910	D.E.-F.-G
34	PROTON	51.03	63.20	2.760	D.E.-F.-G
35	PROTON	63.21	81.00	2.520	D.E.-F.-G
36	ALPHA	24.16	28.64	3.180	D.E.-F.-G
37	ALPHA	28.64	35.15	3.110	D.E.-F.-G
38	ALPHA	35.15	42.96	3.030	D.E.-F.-G
39	ALPHA	42.96	51.02	2.910	D.E.-F.-G
40	ALPHA	51.02	63.27	2.760	D.E.-F.-G
41	ALPHA	63.27	81.00	2.520	D.E.-F.-G
42	ALPHA	81.00	101.00	2.490	D.E.F.-G
43	ALPHA	81.00	101.00	2.490	D.E.F.-G
44	ALPHA	81.00	101.00	2.490	D.E.F.-G
45	ALPHA	81.00	101.00	2.490	D.E.F.-G
46		1.00	2.00	2.490	
47		1.00	2.00	2.490	
48	ALPHA	101.00	117.80	2.490	D.E.F.-G
49	ALPHA	101.00	117.80	2.490	D.E.F.-G
50	ALPHA	117.80	134.50	4.980	D.E.F.-G
51	ALPHA	134.50	168.80	4.980	D.E.F.-G
52	ALPHA	168.80	198.50	4.980	D.E.F.-G
53	ALPHA	198.50	250.00	4.980	D.E.F.-G
54	ALPHA	250.00	307.00	4.980	D.E.F.-G
55	ALPHA	307.00	381.50	4.980	D.E.F.-G
56	ALPHA	381.50	455.50	4.980	D.E.F.-G
57		1.00	2.00	1.000	
58		1.00	2.00	1.000	
59		1.00	2.00	1.000	
60	PROTON	81.00	87.00	2.490	D.E.F.-G
61	PROTON	81.00	87.00	2.490	D.E.F.-G
62	PROTON	81.00	87.00	2.490	D.E.F.-G
63	PROTON	81.00	87.00	2.490	D.E.F.-G
64	PROTON	81.00	87.00	2.490	D.E.F.-G
65	PROTON	81.00	87.00	2.490	D.E.F.-G
66		1.00	2.00	1.000	
67	PR+ALPHA	87.00	92.50	4.980	D.E.F.-G
68	PR+ALPHA	92.50	107.30	4.980	D.E.F.-G
69	PROTON	107.30	121.00	4.980	D.E.F.-G

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 70             1.00    2.00   1.000
 71             1.00    2.00   1.000
 72  PROTON    121.00 154.50   4.980   D.E.F.-G
 73  PROTON    154.50 178.00   4.980   D.E.F.-G
 74  PROTON    178.00 229.50   4.980   D.E.F.-G
 75  PROTON    229.50 327.00   4.980   D.E.F.-G
 76  PROTON    327.00 485.00   4.980   D.E.F.-G
 77  PROTON     19.35  24.25   3.220   D.E.-F.-G
 78  ALPHA      19.45  24.16   3.220   D.E.-F.-G
 79             1.00    2.00   1.000
 80             1.00    2.00   1.000   (A+B)2.-B.-C
 81  -  90      SAME AS BOX 80
 91             1.00    2.00   1.000   (A+B)2.B.-C
 92  -  98      SAME AS BOX 91
 99             1.00    2.00   1.000   (D+E)1.-F.-G
100  -  110     SAME AS BOX 99
111  CARBON      8.60   40.40   0.390   (A+B)1.B.-C
112  NITROGEN    8.80   40.60   0.390   (A+B)1.B.-C
113  OXYGEN      8.80   10.70   0.390   (A+B)1.B.-C
114  OXYGEN     10.70   13.80   0.390   (A+B)1.B.-C
115  OXYGEN     13.80   22.00   0.390   (A+B)1.B.-C
116  OXYGEN     22.00   40.80   0.390   (A+B)1.B.-C
117  NEON       10.60   40.80   0.390   (A+B)1.B.-C
118  MG         10.60   40.90   0.390   (A+B)1.B.-C
119  SILICON    10.70   40.90   0.390   (A+B)1.B.-C
120  IRON       13.80   40.90   0.390   (A+B)1.B.-C
121  ELECT-1     3.60    7.00   1.000   D.E.-F.-G
122  ELECT-2     6.00    9.50   1.000   D.E.-F.-G
123  ELECT-3     9.50   14.50   1.000   D.E.-F.-G
124  ELECT-4     7.00   12.50   1.000   D.E.-F.-G
125  ELECT-5    12.50   18.50   1.000   D.E.-F.-G
126  BKGND-1A    3.60    7.00   1.000   D.E.-F.-G
127  BKGND-2A    6.00    9.50   1.000   D.E.-F.-G
128  BKGND-3A    9.50   14.50   1.000   D.E.-F.-G
129  BKGND-4A    7.00   12.50   1.000   D.E.-F.-G
130  BKGND-5A   12.50   18.50   1.000   D.E.-F.-G
131  PROTON      1.00    2.00   1.000
132  ALPHA       1.00    2.00   1.000   (D+E)1.-F.-G
133             1.00    2.00   1.000
134  -  400     SAME AS BOX 133
401  A.-B.-C     1.00    2.00   1.000   A.-B.-C
402  AB1.-B-C    1.00    2.00   1.000   (A+B)1.-B.-C
403  AB2.-B-C    1.00    2.00   1.000   (A+B)2.-B.-C
404  A.B.-C      1.00    2.00   1.000   A.B.-C
405  AB1.B.-C    1.00    2.00   1.000   (A+B)1.B.-C
406  AB2.B.-C    1.00    2.00   1.000   (A+B)2.B.-C
407  D.E.F       1.00    2.00   1.000   D.E.F
408  D.E.-F-G    1.00    2.00   1.000   D.E.-F.-G
409  D.E.F.-G    1.00    2.00   1.000   D.E.F.-G
410  DE1.-F-G    1.00    2.00   1.000   (D+E)1.-F.-G
411  DE2.-F-G    1.00    2.00   1.000   (D+E)2.-F.-G
412  A           1.00    2.00   1.000   A    RATE
413  B           1.00    2.00   1.000   B    RATE
414  C           1.00    2.00   1.000   C    RATE
415  D           1.00    2.00   1.000   D    RATE
416  E           1.00    2.00   1.000   E    RATE
417  F           1.00    2.00   1.000   F    RATE
418  G           1.00    2.00   1.000   G    RATE
419             1.00    2.00   1.000
420  -  500     SAME AS BOX 419
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Appendix A. FLEXPLOT Flux Box Event assignments

1 BOX IMP-6

NO.	PARTICLE	ELOW	EUP	GEOM	EVENT TYPE
1	PROTON	0.93	1.25	0.390	A.-B.-C
2	PROTON	1.25	1.57	0.390	A.-B.-C
3	PROTON	1.57	2.00	0.390	A.-B.-C
4	PROTON	2.00	2.55	0.390	A.-B.-C
5	PROTON	2.55	3.32	0.390	A.-B.-C
6	PROTON	3.32	3.97	0.390	A.-B.-C
7	ALPHA	1.20	1.54	0.390	A.-B.-C
8	ALPHA	1.54	2.00	0.390	A.-B.-C
9	ALPHA	2.00	2.55	0.390	A.-B.-C
10	ALPHA	2.55	3.30	0.390	A.-B.-C
11	ALPHA	3.30	3.99	0.390	A.-B.-C
12	PROTON	4.00	6.02	0.390	A.B.-C
13	PROTON	6.02	8.30	0.390	A.B.-C
14	PROTON	8.30	13.40	0.390	A.B.-C
15	PROTON	13.40	22.70	0.390	A.B.-C
16	ALPHA	4.00	6.02	0.390	A.B.-C
17	ALPHA	6.02	8.29	0.390	A.B.-C
18	ALPHA	8.29	13.40	0.390	A.B.-C
19	ALPHA	13.40	22.70	0.390	A.B.-C
20	CNO	1.56	2.00	0.390	(A+B)1.-B.-C
21	CNO	2.00	2.58	0.390	(A+B)1.-B.-C
22	CNO	2.58	3.28	0.390	(A+B)1.-B.-C
23	CNO	3.28	4.01	0.390	(A+B)1.-B.-C
24		1.00	2.00	0.390	
25		1.00	2.00	0.390	
26		1.00	2.00	0.390	
27		1.00	2.00	0.390	
28		1.00	2.00	0.390	
29		1.00	2.00	0.390	
30	PROTON	24.00	29.00	2.560	D.E.-F.-G
31	PROTON	29.00	35.30	3.150	D.E.-F.-G
32	PROTON	35.30	42.70	3.100	D.E.-F.-G
33	PROTON	42.70	50.70	2.980	D.E.-F.-G
34	PROTON	50.70	63.10	2.800	D.E.-F.-G
35	PROTON	63.10	82.00	2.530	D.E.-F.-G
36	ALPHA	24.00	29.00	2.560	D.E.-F.-G
37	ALPHA	29.00	35.10	3.150	D.E.-F.-G
38	ALPHA	35.10	42.60	3.100	D.E.-F.-G
39	ALPHA	42.60	51.00	2.980	D.E.-F.-G
40	ALPHA	51.00	62.70	2.800	D.E.-F.-G
41	ALPHA	62.70	82.00	2.530	D.E.-F.-G
42	ALPHA	82.00	101.00	2.350	D.E.F.-G
43	ALPHA	82.00	101.00	2.350	D.E.F.-G
44	ALPHA	82.00	101.00	2.350	D.E.F.-G

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 45  ALPHA      82.00 101.00  2.350  D.E.F.-G
 46             1.00   2.00  2.350
 47             1.00   2.00  2.350
 48  ALPHA     101.00 117.80  2.350  D.E.F.-G
 49  ALPHA     101.00 117.80  2.350  D.E.F.-G
 50  ALPHA     117.80 134.50  4.700  D.E.F.-G
 51  ALPHA     134.50 168.80  4.700  D.E.F.-G
 52  ALPHA     168.80 198.50  4.700  D.E.F.-G
 53  ALPHA     198.50 250.00  4.700  D.E.F.-G
 54  ALPHA     250.00 307.00  4.700  D.E.F.-G
 55  ALPHA     307.00 381.50  4.700  D.E.F.-G
 56  ALPHA     381.50 455.50  4.700  D.E.F.-G
 57             1.00   2.00  1.000
 58             1.00   2.00  1.000
 59             1.00   2.00  1.000
 60  PROTON     82.00  87.00  2.350  D.E.F.-G
 61  PROTON     82.00  87.00  2.350  D.E.F.-G
 62  PROTON     82.00  87.00  2.350  D.E.F.-G
 63  PROTON     82.00  87.00  2.350  D.E.F.-G
 64  PROTON     82.00  87.00  2.350  D.E.F.-G
 65  PROTON     82.00  87.00  2.350  D.E.F.-G
 66             1.00   2.00  1.000
 67  PROTON     87.00  92.50  4.700  D.E.F.-G
 68  PROTON     92.50 107.30  4.700  D.E.F.-G
 69  PROTON    107.30 121.00  4.700  D.E.F.-G
 70             1.00   2.00  1.000
 71             1.00   2.00  1.000
 72  PROTON    121.00 154.50  4.700  D.E.F.-G
 73  PROTON    154.50 178.00  4.700  D.E.F.-G
 74  PROTON    178.00 229.50  4.700  D.E.F.-G
 75  PROTON    229.50 327.00  4.700  D.E.F.-G
 76  PROTON    327.00 485.00  4.700  D.E.F.-G
 77             1.00   2.00  1.000
 78 - 400        same as box 77
401  A.-B.-C     1.00   2.00  1.000  A.-B.-C
402  AB1.-B-C    1.00   2.00  1.000  (A+B)1.-B.-C
403              1.00   2.00  1.000
404  A.B.-C      1.00   2.00  1.000  A.B.-C
405  AB1.B.-C    1.00   2.00  1.000  (A+B)1.B.-C
406              1.00   2.00  1.000
407  D.E.F       1.00   2.00  1.000  D.E.F.G
408  D.E.-F-G    1.00   2.00  1.000  D.E.-F.-G
409  D.E.F.-G    1.00   2.00  1.000  D.E.F.-G
410              1.00   2.00  1.000
411  DE2.-F-G    1.00   2.00  1.000  (D+E)2.E.-F.-G
412              1.00   2.00  1.000
413 - 500        same as box 412

1 BOX                IMP-7
  NO. PARTICLE    ELOW    EUP    GEOM    EVENT TYPE
   1  PROTON      0.89    1.16  0.390   A.-B.-C
   2  PROTON      1.16    1.44  0.390   A.-B.-C
   3  PROTON      1.44    1.84  0.390   A.-B.-C
   4  PROTON      1.84    2.37  0.390   A.-B.-C
   5  PROTON      2.37    3.13  0.390   A.-B.-C
   6  PROTON      3.13    4.20  0.390   A.-B.-C
   7  ALPHA       1.15    1.52  0.390   A.-B.-C
   8  ALPHA       1.52    1.91  0.390   A.-B.-C
   9  ALPHA       1.91    2.41  0.390   A.-B.-C
  10  ALPHA       2.41    3.09  0.390   A.-B.-C
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11 ALPHA      3.09   4.14  0.390  A.-B.-C
12 PROTON     4.30   5.03  0.390  A.B.-C
13 PROTON     5.98   7.30  0.390  A.B.-C
14 PROTON     8.67  11.20  0.390  A.B.-C
15 PROTON    16.75  19.40  0.390  A.B.-C
16 ALPHA      4.03   5.00  0.390  A.B.-C
17 ALPHA      5.95   7.30  0.390  A.B.-C
18 ALPHA      8.75  11.19  0.390  A.B.-C
19 ALPHA     13.96  16.76  0.390  A.B.-C
20 CNO        1.55   1.93  0.390  (A+B)1.-B.-C
21 CNO        1.93   2.40  0.390  (A+B)1.-B.-C
22 CNO        2.40   3.09  0.390  (A+B)1.-B.-C
23 CNO        3.09   4.03  0.390  (A+B)1.-B.-C
24 CNO        4.03   5.85  0.390  (A+B)1.-B.-C
25 CNO        5.85   8.75  0.390  (A+B)1.-B.-C
26 NESI       5.80  11.20  0.390  (A+B)1.-B.-C
27 IRON       6.10   8.80  0.390  (A+B)1.-B.-C
28 IRON       8.80  13.80  0.390  (A+B)1.-B.-C
29          1.00   2.00  0.390
30 PROTON    24.00  29.00  2.560  D.E.-F.-G
31 PROTON    29.00  35.30  3.150  D.E.-F.-G
32 PROTON    35.30  42.70  3.100  D.E.-F.-G
33 PROTON    42.70  50.70  2.980  D.E.-F.-G
34 PROTON    50.70  63.10  2.800  D.E.-F.-G
35 PROTON    63.10  82.00  2.530  D.E.-F.-G
36 ALPHA     24.00  29.00  2.560  D.E.-F.-G
37 ALPHA     29.00  35.10  3.150  D.E.-F.-G
38 ALPHA     35.10  42.60  3.100  D.E.-F.-G
39 ALPHA     42.60  51.00  2.980  D.E.-F.-G
40 ALPHA     51.00  62.70  2.800  D.E.-F.-G
41 ALPHA     62.70  82.00  2.530  D.E.-F.-G
42 ALPHA     82.00 101.00  2.570  D.E.F.-G
43 ALPHA     82.00 101.00  2.570  D.E.F.-G
44 ALPHA     82.00 101.00  2.570  D.E.F.-G
45 ALPHA     82.00 101.00  2.570  D.E.F.-G
46 ALPHA      5.00   5.95  0.390  A.B.-C
47 ALPHA      7.30   8.75  0.390  A.B.-C
48 ALPHA    101.00 117.80  2.570  D.E.F.-G
49 ALPHA    101.00 117.80  3.950  D.E.F.-G
50 ALPHA    117.80 134.50  4.080  D.E.F.-G
51 ALPHA    134.50 168.80  4.260  D.E.F.-G
52 ALPHA    168.80 198.50  4.400  D.E.F.-G
53 ALPHA    198.50 250.00  4.550  D.E.F.-G
54 ALPHA    250.00 307.00  4.680  D.E.F.-G
55 ALPHA    307.00 381.50  4.750  D.E.F.-G
56 ALPHA    381.50 455.50  4.800  D.E.F.-G
57 ALPHA     11.19  13.96  0.390  A.B.-C
58 ALPHA     16.76  19.43  0.390  A.B.-C
59 ALPHA     19.43  22.70  0.390  A.B.-C
60 PROTON    82.00  87.00  2.570  D.E.F.-G
61 PROTON    82.00  87.00  2.570  D.E.F.-G
62 PROTON    82.00  87.00  2.570  D.E.F.-G
63 PROTON    82.00  87.00  2.570  D.E.F.-G
64 PROTON    82.00  87.00  2.570  D.E.F.-G
65 PROTON    82.00  87.00  2.570  D.E.F.-G
66          1.00   2.00  1.000
67 PROTON    87.00  92.50  2.490  D.E.F.-G
68 PROTON    92.50 107.30  3.800  D.E.F.-G
69 PROTON   107.30 121.00  3.980  D.E.F.-G
70 PROTON    87.00  92.50  2.490  D.E.F.-G
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 71  PROTON     87.00  92.50  2.490  D.E.F.-G
 72  PROTON    121.00 154.50  4.130  D.E.F.-G
 73  PROTON    154.50 178.00  4.350  D.E.F.-G
 74  PROTON    178.00 229.50  4.510  D.E.F.-G
 75  PROTON    229.50 327.00  4.660  D.E.F.-G
 76  PROTON    327.00 485.00  4.800  D.E.F.-G
 77             1.00   2.00  1.000
 78 - 110       same as box 77
111  CARBON      8.80  40.70  0.390  (A+B)1.B.-C
112  NITROGEN    8.80  41.00  0.390  (A+B)1.B.-C
113  OXYGEN      8.80  11.10  0.390  (A+B)1.B.-C
114  OXYGEN     11.10  13.80  0.390  (A+B)1.B.-C
115  OXYGEN     13.80  21.90  0.390  (A+B)1.B.-C
116  OXYGEN     21.90  40.80  0.390  (A+B)1.B.-C
117  NEON       11.20  40.80  0.390  (A+B)1.B.-C
118  MG         11.20  40.90  0.390  (A+B)1.B.-C
119  SILICON    11.20  40.80  0.390  (A+B)1.B.-C
120  IRON       13.80  40.80  0.390  (A+B)1.B.-C
121  ELECT-1     3.50   7.50  1.000  D.E.-F.-G
122  ELECT-2     6.50  10.00  1.000  D.E.-F.-G
123  ELECT-3    10.00  15.00  1.000  D.E.-F.-G
124  ELECT-4     7.50  13.00  1.000  D.E.-F.-G
125  ELECT-5    13.00  19.00  1.000  D.E.-F.-G
126  BKGND-1A    3.50   7.50  1.000  D.E.-F.-G
127  BKGND-2A    6.50  10.00  1.000  D.E.-F.-G
128  BKGND-3A   10.00  15.00  1.000  D.E.-F.-G
129  BKGND-4A    7.50  13.00  1.000  D.E.-F.-G
130  BKGND-5A   13.00  19.00  1.000  D.E.-F.-G
131             1.00   2.00  1.000
132             1.00   2.00  1.000
133  PROTON      5.03   5.96  0.390  A.B.-C
134  PROTON      7.30   8.67  0.390  A.B.-C
135  PROTON     11.20  13.94  0.390  A.B.-C
136  PROTON     13.94  16.75  0.390  A.B.-C
137  PROTON     19.40  22.70  0.390  A.B.-C
138             1.00   2.00  1.000
139             1.00   2.00  1.000
140  ALPHA      1.00   2.00  1.000
141  ALPHA      1.00   2.00  1.000
142  ALPHA      1.00   2.00  1.000
143  ALPHA      1.00   2.00  1.000
144  ALPHA      1.00   2.00  1.000
145             1.00   2.00  1.000
146 - 400       same as box 145
401  A.-B.-C    1.00   2.00  1.000  A.-B.-C
402  AB1.-B-C   1.00   2.00  1.000  (A+B)1.-B.-C
403             1.00   2.00  1.000
404  A.B.-C     1.00   2.00  1.000  A.B.-C
405  AB1.B.-C   1.00   2.00  1.000  (A+B)1.B.-C
406             1.00   2.00  1.000
407  D.E.F      1.00   2.00  1.000  D.E.F.G
408  D.E.-F-G   1.00   2.00  1.000  D.E.-F.-G
409  D.E.F.-G   1.00   2.00  1.000  D.E.F.-G
410             1.00   2.00  1.000
411  DE2.-F-G   1.00   2.00  1.000  (D+E)2.E.-F.-G
412  A          1.00   2.00  1.000  A   RATE
413  B          1.00   2.00  1.000  B   RATE
414  C          1.00   2.00  1.000  C   RATE
415  D          1.00   2.00  1.000  D   RATE
416  E          1.00   2.00  1.000  E   RATE
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417	F	1.00	2.00	1.000	F	RATE
418	G	1.00	2.00	1.000	G	RATE
419		1.00	2.00	1.000		
420 - 500		same as box 419				

1 BOX IMP-8

NO.	PARTICLE	ELOW	EUP	GEOM	EVENT TYPE
1	PROTON	0.88	1.15	0.390	A.-B.-C
2	PROTON	1.15	1.43	0.390	A.-B.-C
3	PROTON	1.43	1.79	0.390	A.-B.-C
4	PROTON	1.79	2.27	0.390	A.-B.-C
5	PROTON	2.27	3.03	0.390	A.-B.-C
6	PROTON	3.03	4.20	0.390	A.-B.-C
7	ALPHA	1.14	1.36	0.390	A.-B.-C
8	ALPHA	1.36	1.88	0.390	A.-B.-C
9	ALPHA	1.88	2.37	0.390	A.-B.-C
10	ALPHA	2.37	3.06	0.390	A.-B.-C
11	ALPHA	3.06	3.98	0.390	A.-B.-C
12	PROTON	4.20	4.94	0.390	A.B.-C
13	PROTON	5.96	7.25	0.390	A.B.-C
14	PROTON	8.65	11.10	0.390	A.B.-C
15	PROTON	16.15	18.72	0.390	A.B.-C
16	ALPHA	3.98	4.94	0.390	A.B.-C
17	ALPHA	5.91	7.26	0.390	A.B.-C
18	ALPHA	8.63	11.02	0.390	A.B.-C
19	ALPHA	13.65	16.12	0.390	A.B.-C
20	CNO	1.49	1.92	0.390	(A+B)1.-B.-C
21	CNO	1.92	2.40	0.390	(A+B)1.-B.-C
22	CNO	2.40	3.10	0.390	(A+B)1.-B.-C
23	CNO	3.10	4.02	0.390	(A+B)1.-B.-C
24	CNO	4.02	5.85	0.390	(A+B)1.-B.-C
25	CNO	5.85	8.40	0.390	(A+B)1.-B.-C
26	NESI	5.80	10.70	0.390	(A+B)1.-B.-C
27	IRON	5.90	8.80	0.390	(A+B)1.-B.-C
28	IRON	8.80	13.20	0.390	(A+B)1.-B.-C
29		1.00	2.00	0.390	
30	PROTON	24.25	28.74	3.180	D.E.-F.-G
31	PROTON	28.74	35.20	3.110	D.E.-F.-G
32	PROTON	35.20	42.90	3.030	D.E.-F.-G
33	PROTON	42.93	51.00	2.910	D.E.-F.-G
34	PROTON	51.03	63.20	2.760	D.E.-F.-G
35	PROTON	63.21	81.00	2.520	D.E.-F.-G
36	ALPHA	24.16	28.64	3.180	D.E.-F.-G
37	ALPHA	28.64	35.15	3.110	D.E.-F.-G
38	ALPHA	35.15	42.96	3.030	D.E.-F.-G
39	ALPHA	42.96	51.02	2.910	D.E.-F.-G
40	ALPHA	51.02	63.27	2.760	D.E.-F.-G
41	ALPHA	63.27	81.00	2.520	D.E.-F.-G
42	ALPHA	81.00	101.00	2.490	D.E.F.-G
43	ALPHA	81.00	101.00	2.490	D.E.F.-G
44	ALPHA	81.00	101.00	2.490	D.E.F.-G
45	ALPHA	81.00	101.00	2.490	D.E.F.-G
46	ALPHA	4.94	5.91	0.390	A.B.-C
47	ALPHA	7.26	8.63	0.390	A.B.-C
48	ALPHA	101.00	117.80	2.490	D.E.F.-G
49	ALPHA	101.00	117.80	3.950	D.E.F.-G
50	ALPHA	117.80	134.50	4.080	D.E.F.-G
51	ALPHA	134.50	168.80	4.260	D.E.F.-G
52	ALPHA	168.80	198.50	4.400	D.E.F.-G
53	ALPHA	198.50	250.00	4.550	D.E.F.-G

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 54  ALPHA     250.00 307.00  4.680  D.E.F.-G
 55  ALPHA     307.00 381.50  4.750  D.E.F.-G
 56  ALPHA     381.50 455.50  4.800  D.E.F.-G
 57  ALPHA      11.02  13.65  0.390  A.B.-C
 58  ALPHA      16.12  18.71  0.390  A.B.-C
 59  ALPHA      18.71  22.50  0.390  A.B.-C
 60  PROTON     81.00  87.00  2.490  D.E.F.-G
 61  PROTON     81.00  87.00  2.490  D.E.F.-G
 62  PROTON     81.00  87.00  2.490  D.E.F.-G
 63  PROTON     81.00  87.00  2.490  D.E.F.-G
 64  PROTON     81.00  87.00  2.490  D.E.F.-G
 65  PROTON     81.00  87.00  2.490  D.E.F.-G
 66             1.00   2.00   1.000
 67  PROTON     87.00  92.50  2.490  D.E.F.-G
 68  PROTON     92.50 107.30  3.800  D.E.F.-G
 69  PROTON    107.30 121.00  3.980  D.E.F.-G
 70  PROTON     87.00  92.50  2.490  D.E.F.-G
 71  PROTON     87.00  92.50  2.490  D.E.F.-G
 72  PROTON    121.00 154.50  4.130  D.E.F.-G
 73  PROTON    154.50 178.00  4.350  D.E.F.-G
 74  PROTON    178.00 229.50  4.510  D.E.F.-G
 75  PROTON    229.50 327.00  4.660  D.E.F.-G
 76  PROTON    327.00 485.00  4.800  D.E.F.-G
 77  PROTON     19.80  24.25  3.220  D.E.-F.-G
 78  ALPHA      19.45  24.16  3.220  D.E.-F.-G
 79             1.00   2.00   1.000
 80             1.00   2.00   1.000  (A+B)2.-B.-C
 81             1.00   2.00   1.000  (A+B)2.-B.-C
 82             1.00   2.00   1.000  (A+B)2.-B.-C
 83             1.00   2.00   1.000  (A+B)2.-B.-C
 84             1.00   2.00   1.000  (A+B)2.-B.-C
 85             1.00   2.00   1.000  (A+B)2.-B.-C
 86             1.00   2.00   1.000  (A+B)2.-B.-C
 87             1.00   2.00   1.000  (A+B)2.-B.-C
 88             1.00   2.00   1.000  (A+B)2.-B.-C
 89             1.00   2.00   1.000  (A+B)2.-B.-C
 90             1.00   2.00   1.000  (A+B)2.-B.-C
 91             1.00   2.00   1.000  (A+B)2.B.-C
 92             1.00   2.00   1.000  (A+B)2.B.-C
 93             1.00   2.00   1.000  (A+B)2.B.-C
 94             1.00   2.00   1.000  (A+B)2.B.-C
 95             1.00   2.00   1.000  (A+B)2.B.-C
 96             1.00   2.00   1.000  (A+B)2.B.-C
 97             1.00   2.00   1.000  (A+B)2.B.-C
 98             1.00   2.00   1.000  (A+B)2.B.-C
 99             1.00   2.00   1.000  (D+E)1.-F.-G
100             1.00   2.00   1.000  (D+E)1.-F.-G
101             1.00   2.00   1.000  (D+E)1.-F.-G
102             1.00   2.00   1.000  (D+E)1.-F.-G
103             1.00   2.00   1.000  (D+E)1.-F.-G
104             1.00   2.00   1.000  (D+E)1.-F.-G
105             1.00   2.00   1.000  (D+E)1.-F.-G
106             1.00   2.00   1.000  (D+E)1.-F.-G
107             1.00   2.00   1.000  (D+E)1.-F.-G
108             1.00   2.00   1.000  (D+E)1.-F.-G
109             1.00   2.00   1.000  (D+E)1.-F.-G
110             1.00   2.00   1.000  (D+E)1.-F.-G
111 CARBON      8.60  40.40  0.390  (A+B)1.B.-C
112 NITROGEN    8.80  40.60  0.390  (A+B)1.B.-C
113 OXYGEN      8.80  10.70  0.390  (A+B)1.B.-C
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114	OXYGEN	10.70	13.80	0.390	(A+B)1.B.-C
115	OXYGEN	13.80	22.00	0.390	(A+B)1.B.-C
116	OXYGEN	22.00	40.80	0.390	(A+B)1.B.-C
117	NEON	10.60	40.80	0.390	(A+B)1.B.-C
118	MG	10.60	40.90	0.390	(A+B)1.B.-C
119	SILICON	10.70	40.90	0.390	(A+B)1.B.-C
120	IRON	13.80	40.90	0.390	(A+B)1.B.-C
121	ELECT-1	3.60	7.00	1.000	D.E.-F.-G
122	ELECT-2	6.00	9.50	1.000	D.E.-F.-G
123	ELECT-3	9.50	14.50	1.000	D.E.-F.-G
124	ELECT-4	7.00	12.50	1.000	D.E.-F.-G
125	ELECT-5	12.50	18.50	1.000	D.E.-F.-G
126	BKGND-1A	3.60	7.00	1.000	D.E.-F.-G
127	BKGND-2A	6.00	9.50	1.000	D.E.-F.-G
128	BKGND-3A	9.50	14.50	1.000	D.E.-F.-G
129	BKGND-4A	7.00	12.50	1.000	D.E.-F.-G
130	BKGND-5A	12.50	18.50	1.000	D.E.-F.-G
131	PROTON	1.00	2.00	1.000	
132	ALPHA	1.00	2.00	1.000	(D+E)1.-F.-G
133	PROTON	4.94	5.96	0.390	A.B.-C
134	PROTON	7.25	8.65	0.390	A.B.-C
135	PROTON	11.10	13.60	0.390	A.B.-C
136	PROTON	13.60	16.15	0.390	A.B.-C
137	PROTON	18.72	22.50	0.390	A.B.-C
138		1.00	2.00	1.000	
139		1.00	2.00	1.000	
140	ALPHA	1.00	2.00	0.390	(A+B)2.B.-C
141	ALPHA	1.00	2.00	0.390	(A+B)2.B.-C
142	ALPHA	1.00	2.00	0.390	(A+B)2.B.-C
143	ALPHA	1.00	2.00	0.390	(A+B)2.B.-C
144	ALPHA	1.00	2.00	0.390	(A+B)2.B.-C
145		1.00	2.00	1.000	
146 - 400	same as box 145				
401	A.-B.-C	1.00	2.00	1.000	A.-B.-C
402	AB1.-B-C	1.00	2.00	1.000	(A+B)1.-B.-C
403	AB2.-B-C	1.00	2.00	1.000	(A+B)2.-B.-C
404	A.B.-C	1.00	2.00	1.000	A.B.-C
405	AB1.B.-C	1.00	2.00	1.000	(A+B)1.B.-C
406	AB2.B.-C	1.00	2.00	1.000	(A+B)2.B.-C
407	D.E.F	1.00	2.00	1.000	D.E.F
408	D.E.-F-G	1.00	2.00	1.000	D.E.-F.-G
409	D.E.F.-G	1.00	2.00	1.000	D.E.F.-G
410	DE1.-F-G	1.00	2.00	1.000	(D+E)1.-F.-G
411	DE2.-F-G	1.00	2.00	1.000	(D+E)2.-F.-G
412	A	1.00	2.00	1.000	A RATE
413	B	1.00	2.00	1.000	B RATE
414	C	1.00	2.00	1.000	C RATE
415	D	1.00	2.00	1.000	D RATE
416	E	1.00	2.00	1.000	E RATE
417	F	1.00	2.00	1.000	F RATE
418	G	1.00	2.00	1.000	G RATE
419		1.00	2.00	1.000	
420 - 500	same as box 419				

Figure ID's

id	File	Page	Figure References
num1a	USERGD	7	1: 6, 6
num1	USERGD	8	2: 6
num2a	USERGD	10	3: 6, 9
num2	USERGD	11	4: 9

DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 00100000: .bf large
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 04430000: .bf small
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 04950000: .bf small
DSMLBR529E 'KP' WOULD EXCEED MAXIMUM SIZE.
DSMMOM395I 'USERGD' LINE 05560000: 803 37 38
DSMKDF474W FONT SAVE STACK EMPTY - DEFAULT ASSUMED.
DSMMOM395I 'USERGD' LINE 05780000: .pf
DSMKDF474W FONT SAVE STACK EMPTY - DEFAULT ASSUMED.
DSMMOM395I '.DSMFCAP' LINE 50: .pf
DSMMOM397I '.DSMFCAP' WAS IMBEDDED AT LINE 579 OF 'USERGD'
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 05880000: .bf small
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 06400000: .bf small
DSMBEG323I STARTING PASS 2 OF 2.
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 00100000: .bf large
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 04430000: .bf small
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 04950000: .bf small
DSMLBR529E 'KP' WOULD EXCEED MAXIMUM SIZE.
DSMMOM395I 'USERGD' LINE 05560000: 803 37 38
DSMKDF474W FONT SAVE STACK EMPTY - DEFAULT ASSUMED.
DSMMOM395I 'USERGD' LINE 05780000: .pf
DSMKDF474W FONT SAVE STACK EMPTY - DEFAULT ASSUMED.
DSMMOM395I '.DSMFCAP' LINE 50: .pf
DSMMOM397I '.DSMFCAP' WAS IMBEDDED AT LINE 579 OF 'USERGD'
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 05880000: .bf small
DSMKDF478E INVALID FONT SPECIFIED WITH .BF.
DSMMOM395I 'USERGD' LINE 06400000: .bf small