

```

0 REM *****
2 REM >>UPDATE<< - STI-40-U - COPYRIGHT (C) 1979 SAT TRAK
3 REM BY WILLIAM N BARKER AND DAVID G COOKE
4 REM ALL RIGHTS RESERVED 10 FEB 80
5 REM *****

```

```

10 CLEAR 4000
20 DIM N$(9);DIM DB(9,13);DIM M$(50);DIM MD(50,13);DIM FF(13)
30 CLS;PRINT;PRINT;PRINT" FILE UPDATE PROGRAM";PRINT
40 OPEN'I',2,"MASTER/DTA";INPUT#2,L;CLOSE
50 IF L>0 PRINT L+1;" SATELLITE FILES AVAILABLE"
60 PRINT"OPTIONS:"
70 PRINT;PRINT"1 ENTER SATELLITE IN MASTER DATA BASE"
80 PRINT"2 CHANGE CURRENT SATELLITE DATA"
90 PRINT"3 REPACK AND ORDER SATELLITE DATA"
100 PRINT"4 REBUILD WORKING FILE"
110 PRINT"5 RETURN TO CONTROL"
120 PRINT;INPUT"ENTER OPTION NUMBER";N
130 ON N GOSUB 150,630,1200,1560,2090
140 GOTO 30
150 CLS;PRINT"MASTER FILE UPDATE";PRINT:L=-1 YES WILL
160 PRINT"DO YOU WISH TO BUILD A NEW MASTER FILE";PRINT;PRINT"WARNING!
DELETE CURRENT MASTER FILE";PRINT;INPUT"ENTER <YES> OR <NO>";ZZ$
170 IF ZZ$="YES" THEN FOR Z1=1 TO 5: PRINT"YOU ARE DESTROYING THE EXISTING
;INPUT"ARE YOU SURE? <YES OR NO>";ZA$ FILE"
180 IF ZA$="YES" THEN ZA$="NO": GOTO 340
190 OPEN'I',2,"MASTER/DTA"
200 CLS;PRINT CHR$(23)
210 INPUT#2,L
220 FOR I=0 TO L
230 PRINT@450,"*** INPUTING FROM DISK ***"
240 INPUT#2,M$(I)
250 FOR J=0 TO 13
260 INPUT#2,MD(I,J)
270 NEXT J
280 PRINT@450,"
290 NEXT I
300 CLOSE
310 CLS;IF L>49 PRINT CHR$(23),"MASTER FILE FULL"
320 IF L>49 PRINT"DELETE/REPACK FILE"
330 IF L>49 INPUT"ENTER TO RETURN";Z$:RETURN
340 CLS;PRINT"ENTER SATELLITE DATA:"
350 L=L+1
360 INPUT"SATELLITE COMMON NAME";M$(L)
370 MD(L,0)=L;PRINT"1. SATELLITE FILE #";L+1
380 INPUT"2. SATELLITE NUMBER";MD(L,1)
390 INPUT"3. EPOCH YEAR";MD(L,2)
400 INPUT"4. EPOCH DAY";MD(L,3)
410 INPUT"5. EPOCH FACTION OF DAY";MD(L,4)
420 INPUT"6. PERIOD DECAY RATE";MD(L,5)
430 INPUT"7. ELEMENT SET NUMBER";MD(L,6)
440 INPUT"8. INCLINATION";MD(L,7)
450 INPUT"9. RIGHT ASCENSION OF NODE";MD(L,8)
460 INPUT"10. ECCENTRICITY";MD(L,9)
470 INPUT"11. ARGUMENT OF PERIGEE";MD(L,10)
480 INPUT"12. MEAN ANOMALY";MD(L,11)
490 INPUT"13. MEAN MOTION";MD(L,12)
500 INPUT"14. EPOCH REVOLUTION";MD(L,13)

```

```

510 CLS:PRINT M$(L);" LAST SATELLITE FILE BUILT"
520 PRINT:INPUT"ANOTHER SATELLITE <YES OR NO>";ZZ$
530 IF ZZ$="YES" GOTO 340
540 OPEN"O",2,"MASTER/DTA"
550 CLS:PRINT" *** OUTPUTING TO DISK ***"
560 PRINT#2,L
570 FOR I=0 TO L
580 PRINT#2,M$(I)
590 FOR J=0 TO 13
600 PRINT#2,MD(I,J)
610 NEXT J
620 NEXT I:CLOSE:RETURN
630 CLS
640 PRINTCHR$(23):PRINT@260,"SATELLITE UPDATE"
650 OPEN"I",2,"MASTER/DTA"
660 INPUT#2,L
670 FOR I=0 TO L
680 PRINT@450,"*** INPUTING FROM DISK ***"
690 INPUT#2,M$(I)
700 FOR J=0 TO 13
710 INPUT#2,MD(I,J)
720 NEXT J
730 PRINT@450,"
740 NEXT I
750 CLOSE:CLS
760 CLOSE
770 I=0 : GOSUB 1980
780 PRINT"ENTER <SATELLITE NUMBER TO UPDATE> OR <E=EXIT>"
790 INPUT C$:IF C$="E" THEN 1050 ELSE SN=VAL(C$)-1
800 FL=-5
810 FOR I=0 TO L
820 IF SN=MD(I,0) FL=I
830 NEXT I
840 IF FL=-5 INPUT"SATELLITE NOT FOUND, TRY AGAIN";SN
850 IF FL=-5 GOTO 810
860 CLS
870 CLS:PRINT"SATELLITE TO UPDATE "
880 PRINT"1. COMMON NAME: ";M$(FL),TAB(32);"2. NUMBER: ";MD(FL,1)
890 PRINT"3. EPOCH YEAR: ";MD(FL,2),TAB(32);"4. EPOCH DAY: ";MD(FL,3)
900 PRINT"5. FACT OF DAY: ";MD(FL,4),TAB(32);"6. DECAY RATE: ";MD(FL,5)
910 PRINT"7. ELSET #";MD(FL,6),TAB(32);"8. INCLINATION: ";MD(FL,7)
920 PRINT"9. RIGHT ASC OF NODE: ";MD(FL,8),TAB(32);"10. ECCENTRICITY: ";MD(FL,9)
930 PRINT"11. ARG OF PERIGEE: ";MD(FL,10),TAB(32);"12. MEAN ANOMALY: ";MD(FL,11)
940 PRINT"13. MEAN MOTION: ";MD(FL,12),TAB(32);"14. EPOCH REVOLUTION: ";MD(FL,13)
)
950 PRINT:INPUT"CHANGE <LINE NUMBER> OR <D=DELETE E=EXIT>";C$
960 IFC$="E" THEN 770
970 IF C$="D" THEN GOSUB 1150
980 IF C$="D" THEN 770
990 NC=VAL(C$)
1000 IF(NC<1)OR(NC>14) GOTO 950
1010 IF NC=1 INPUT"ENTER NEW COMMON NAME";M$(FL)
1020 IF NC=1 GOTO 870
1030 PRINT"ENTER NEW VALUE FOR #";NC;:NC=NC-1:INPUT MD(FL,NC)
1040 GOTO 870
1050 OPEN"O",2,"MASTER/DTA"
1060 CLS:PRINT CHR$(23)
1070 PRINT#2,L
1080 FOR I=0 TO L

```

```

1090 PRINT@450,"*** OUTPUT TO DISK ***"
1100 PRINT#2,M$(I)
1110 FOR J=0 TO 13:PRINT#2,MD(I,J):NEXT J
1120 PRINT@460,"
1130 NEXT I
1140 CLS:CLOSE:RETURN
1150 REM CLOSING A SATELLITE FILE
1160 M$(FL)="CLOSED"
1170 FOR J=0 TO 13:MD(FL,J)=1:NEXT J
1180 MD(FL,1)=99999
1190 RETURN
1200 OPEN"I",2,"MASTER/DTA"
1210 INPUT#2,L
1220 FOR I=0 TO L
1230 CLS:PRINTCHR$(23):PRINT@450,"*** INPUTING FROM DISK ***"
1240 INPUT#2,M$(I)
1250 FOR J=0 TO 13:INPUT#2,MD(I,J):NEXT J
1260 NEXTI:CLOSE
1270 CLS:GOSUB1980
1280 INPUT"<ENTER> TO REPACK AND SAVE":G#
1290 CLS:PRINT CHR$(23):PRINT@450,"ORDERING AND REPACKING"
1300 FOR I=1 TO L+1
1310 FOR G=1 TO L+1-I
1320 J=G-1
1330 N=MD(J,1)
1340 O=MD(J+1,1)
1350 IF N<O THEN 1420
1360 X#=M$(J+1)
1370 M$(J+1)=M$(J)
1380 M$(J)=X#
1390 FOR P=0 TO 13:FF(P)=MD(J+1,P):NEXT P
1400 FOR P=0 TO 13:MD(J+1,P)=MD(J,P):NEXT P
1410 FOR P=0 TO 13:MD(J,P)=FF(P):NEXT P
1420 NEXT G
1429 NEXT I
1430 FOR I=0 TO L
1431 MD(I,0)=I
1432 NEXT I
1440 FOR I=0 TO L
1450 IF MD(I,1)=99999 L=I-1:GOTO 1470
1460 NEXT I
1470 OPEN"O",2,"MASTER/DTA"
1480 PRINT#2,L
1490 FOR I=0 TO L
1500 CLS:PRINTCHR$(23):PRINT@450,"*** OUTPUT TO DISK ***"
1510 PRINT#2, M$(I)
1520 FOR J=0 TO 13:PRINT#2,MD(I,J):NEXT J
1530 NEXT I
1540 CLOSE
1550 RETURN
1560 OPEN"I",2,"MASTER/DTA"
1570 INPUT#2,L
1580 FOR I=0 TO L
1590 INPUT#2,M$(I)
1600 FOR J=0 TO 13
1610 INPUT#2,MD(I,J)
1620 NEXT J
1630 NEXT I
1640 CLOSE

```

```

1650 GOSUB 1980:K=0
1660 FOR I=0 TO 9
1670 N$(I)="SPARE"
1680 DE(I,0)=I+1
1690 FOR J=1 TO 13
1700 DE(I,J)=1
1710 NEXT J:NEXT I
1720 FOR K=0 TO 9
1730 PRINT@940,"
1740 PRINT@896," ";
1750 LL=-5
1760 INPUT"SELECT UP TO 10 SATELLITES <E=EXIT>";C$
1770 IF C$="E" THEN 1890
1780 SN=VAL(C$)-1
1790 FOR I=0 TO L
1800 IF SN=MD(I,0) LL=I
1810 IF SN=MD(I,0) GOTO 1850
1820 NEXT I
1830 IF LL=-5 PRINT@834,"SATELLITE NOT FOUND ENTER AGAIN"
1840 IF LL=-5 GOTO 1760
1850 N$(K)=M$(LL)
1860 FOR J=0 TO 13:DE(K,J)=MD(LL,J):NEXT J
1870 NEXT K
1880 PRINT 0
1890 OPEN "0",1,"WKFILE"
1900 FOR I=0 TO 9
1910 PRINT#1,N$(I)
1920 FOR J=0 TO 13
1930 PRINT#1,DE(I,J)
1940 NEXT J
1950 NEXT I
1960 CLOSE
1970 RETURN
1980 CLS:PRINT"SATELLITE MENU FROM MASTER DATA FILE":K=0:I=0
1990 FOR Z=1 TO 64:PRINT CHR$(176);:NEXT Z
2000 FOR I=0 TO L
2010 K=K+1
2020 IFK=1 PRINTMD(I,0)+1;"      ";M$(I);TAB(21);CHR$(170);
2030 IFK=2 PRINTMD(I,0)+1;"      ";M$(I);TAB(41);CHR$(170);
2040 IFK=3PRINTMD(I,0)+1;"      ";M$(I)
2050 IFK=3 K=0
2060 NEXT I
2070 PRINT:PRINT
2080 RETURN
2090 RUN"CONTROL"

```