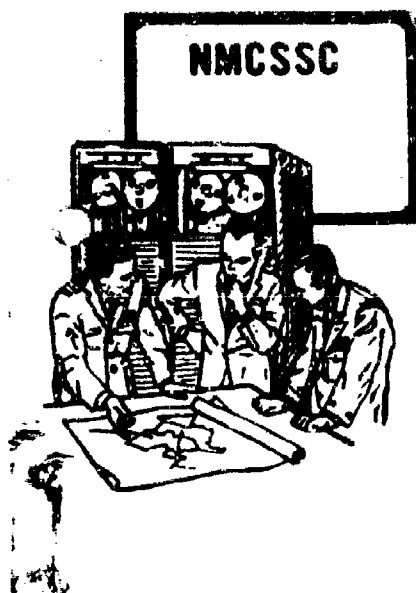


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VOLUME II, PART F
29 FEBRUARY 1972

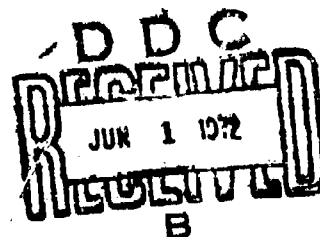
**THE NMCSSC
QUICK-REACTING
GENERAL WAR GAMING
SYSTEM
(QUICK)**

PLAN GENERATION SUBSYSTEM

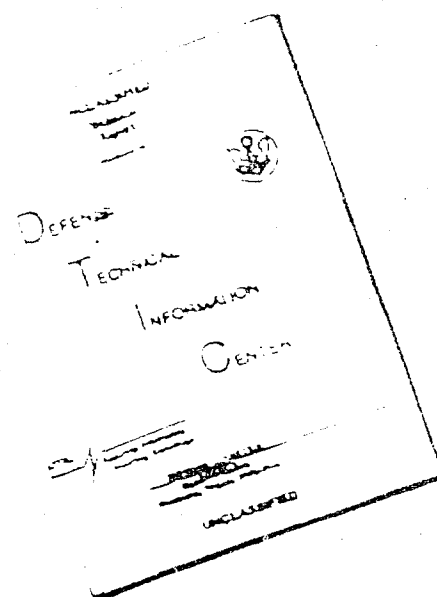
VOL. II - F E
AD 742788

**PROGRAMMING SPECIFICATIONS
MANUAL**

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13. ABSTRACT This is one of three volumes describing computer programs of the QUICK-Reacting General War Gaming System (QUICK). These volumes complement other NMCSSC Computer System Manuals on QUICK by discussing the programs from a computer programming point of view. This volume, in six parts, concentrates on the Plan Generation Subsystem of QUICK. Other volumes are available for the Input Subsystem and Simulation Subsystem. Collectively, these volumes provide a good basis for maintenance activity on the QUICK System. Based upon a suitable data base, and user control parameters, QUICK will generate individual bomber and missile plans suitable for war gaming. The generated plans are of a form suitable for independent review and revision. Subsequently, execution of the planned events can be simulated. Various statistical summaries can be produced to reflect the results of the war game. A variety of force postures and strategies can be accommodated. QUICK is documented extensively in a set of Computer System Manuals (series 9-67) published by the National Military Command System Support Center (NMCSSC), Defense Communications Agency (DCA), The Pentagon, Washington, DC 20301.			

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NATIONAL MILITARY COMMAND SYSTEM SUPPORT CENTER

Computer System Manual Number CSM PSM 9A-67

29 February 1972

THE NMCSSC QUICK-REACTING GENERAL WAR GAMING SYSTEM (QUICK)

Programming Specifications Manual

Volume II - Plan Generation Subsystem

Part F

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CONTENTS

Part A

Chapter

	<u>Page</u>
1 Introduction	1
2 Program PLANSET	10
3 Program PREPALOC	94
4 Program ALOC	182
5 Program ALOCOUT	371

Part B

6 Program FOOTPRNT	453
7 Program POSTALOC	606
8 Program PLNTPLAN	780
9 Program EVALALOC	982
10 Program INTRFACE	1036
11 Program TABLE	1084

Part C

Program PLANSET	1119
Program PREPALOC	1253

Part D

Program ALOC	1415
Program ALOCOUT	1720

Part E

	<u>Page</u>
Program FGOTPRNT	1853
Program POSTALOC	2073

Part F

<u>Program/Subroutine</u>	<u>Page</u>
ACKNOWLEDGMENT	ii
ABSTRACT	vii
PLNTPLAN	2347
ADJUST	2415
AGDE	2426
BOUNDARY	2429
CHKSUM	2440
CLINDATA	2443
DECOYADD	2447
DISTIME	2456
FINDZONE	2463
FLYPOINT	2469
INITANK	2473
LATCV	2478
LAUNCH	2481
LNCHDATA	2485
PLANTANK	2493
PLANTMIS	2510
POST	4
POSTIAIN	28
PRNTAB	2531
SNAPCON	2535

Program/Subroutine

Page

PLNTPPLAN (cont.)	
SNAPIT	2541
SNAPOUT	2544
SWTCHALT	2571
TIMELNCH	2574
VAM	2582
ZONECROS	2592
EVALALOC	2597
BOMRPAKR	2604
DIST	2609
EVALPLAN	2612
EVAL2	2623
MISIPAKR	2651
PACK	2656
SEARCH	2670
SSSPCALC	2673
TGTMODIF	2677
UNPACKER	2686
WPNMODIF	2694
INTRFACE	2701
FINDTIME	2735
IGETHOB	2738
KNORANK	2745
LATBT	2748
LATS	2752
NORLANK	2756
NOFFSYS	2759
NOP	2763
NPLNFTYP	2766
NTIME	2769
PRNTOFFS	2772

<u>Program/Subroutine</u>	<u>Page</u>
INTRFACE (cont.)	
VINTRFAC	2775
YLDFRAC	2778
TABLE	
HELP	2782
.	2797
DISTRIBUTION	2801
DD Form 1473	2802

ABSTRACT

The computerized Quick-Reacting General War Gaming System (QUICK) will accept input data, automatically generate global strategic nuclear war plans, simulate the planned events, and provide statistical output summaries. QUICK has been programmed in FORTRAN for use on the NMCSSC CDC 3800 computer system.

The QUICK Programming Specifications Manual (PSM) consists of three volumes: Volume I, Data Input Subsystem; Volume II, Plan Generation Subsystem; Volume III, Simulation and Data Output Subsystems. The Programming Specifications Manual complements the other QUICK Computer System Manuals to facilitate maintenance of the war gaming system. This volume, Volume II, provides the programmer/analyst with a technical description of the purpose, functions, general procedures, and programming techniques applicable to the programs of the Plan Generation Subsystem. This volume is in six parts: Parts A and B provide a description of the programs which make up the subsystem; Part C through F contain the associated program listings. Companion documents are:

1. GENERAL DESCRIPTION
Computer System Manual CSM GD 9A-67
A nontechnical description for senior management personnel
2. ANALYTICAL MANUAL
Computer System Manual CSM AM 9A-67 (three volumes)
Provides a description of the system methodology for the nonprogrammer analysts
3. USER'S MANUAL
Computer System Manual CSM UM 9-67
Provides detailed instructions for applications of the system
4. OPERATOR'S MANUAL
Computer System Manual CSM OM 9A-67
Provides instructions and procedures for the computer operators

11/26/71

```

PROGRAM PLNPLAN
CSUBR  PLNPLAN 18A71E *****
C      THIS PLNPLAN IS FOR THE 1971 NMCSSC VERSION OF THE QUICK SYSTEM *****
C
CUSE  MAX 16FEB71 *****
COMMON /MAX/ MAIRDEZ, MALERT, MASHIYP, MBMDRY, MCCREGN,
1 MCLASS, MCNTHYS, MCGRR, MASHIYP, MOPEN,
2 MDEPNLG, MGRGUP, MPAYLSD, MRECGVR,
3 MRECULG, MREF, MKTLEG, MHTPI,
4 MSPEMT, MTANKS, MTKCLS, MTKCLS, MTARCPX,
5 MTARETS, MTARGET, MTKIND, MTKSEC, MTANTEI,
6 MTARTYP, MTARVAL, MTKMCH, MTKDAS,
7 MTYPE, MVULN, MWEAPSP, MMDTPE, MZONEPT,
8 MZONES, MTKRCL *****
CEND *****
C
DATA ( MAIRDEZ =20 )
DATA ( MALERT =2 )
DATA ( MASHIYP =20 )
DATA ( MBMDRY =200 )
DATA ( MCCREGN =20 )
DATA ( MCLASS =2 )
DATA ( MCNTHYS = 250 )
DATA ( MCGRR = 30 )
DATA ( MASHIYP =5 )
DATA ( MOPEN =50 )
DATA ( MDEPNLG =50 )
DATA ( MGRGUP =200 )
DATA ( MPAYLSD =40 )
DATA ( MRECGVR =200 )
DATA ( MRECULG =60 )
DATA ( MREF =20 )
DATA ( MKTLEG =200 )
DATA ( MHTPI =200 )
DATA ( MSPEMT =5 )
DATA ( MTANKS =50 )
DATA ( MTKCLS =15 )
DATA ( MTKCLS =4000 )
DATA ( MTARCPX =4000 )
DATA ( MTARETS =100 )
DATA ( MTARGET =5000 )
DATA ( MTARIND =12000 )
DATA ( MTARCL =40 )
DATA ( MTARSEC =4000 )
DATA ( MTARTEL =500 )
DATA ( MTARTYP =250 )
DATA ( MTARVAL =2500 )
DATA ( MTKMCH =40 )
DATA ( MTKDAS =150 )
DATA ( MTYPE =80 )
DATA ( MVULN =50 )
DATA ( MWEAPSP =1000 )
DATA ( MMDTPE =50 )
DATA ( MZONEPT =200 )

```


DATA (MZONES = 63)

C	MAIRDEZ	20	AIR DEFENSE ZONES	14410
C	MALENT	2	ALERT CONDITIONS	14420
C	MASTYP	20	ASM TYPES(10)	14430
C	MBNDY	200	BOUNDARY LEGS (BLEGNS)	14440
C	MCCREYN	20	COMMAND/CONTROL	14450
C	MCLASS	2	WEAPON CLASSES	14460
C	MCNTHYS	250	COUNTRY CODES	14470
C	MCCR	30	PENETRATION CORRIDORS	14480
C	MCRTP	5	CORRIDOR TYPES	14490
C	MDEPNL	50	DEPENETRATION LEGS	14500
C	MGRUP	200	WEAPON GROUPS	14510
C	MPAYLOU	40	PAYLOAD TYPES (PER SIDE)	14520
C	MRECOVR	200	RECOVERY BASES (POINTS)	14530
C	MRECVLG	60	RECOVERY LEGS	14540
C	MREF	20	REFUEL POINTS(DIRECTED)	14550
C	MRTLEG	200	ROUTE LEGS	14560
C	MRTPI	200	ROUTE POINTS	14570
C	MSPERMT	5	SITES PER MULTIPLE TARGET	14580
C	MTAKGS	50	TANKER BASES	14590
C	MTARCLS	15	TARGET CLASSES	14600
C	MTARGCL	4000	TARGETS COLLOCATED	14610
C	MTARGPX	4000	TARGET COMPLEXES(TOTAL)	14620
C	MTAREHS	100	TARGETS PER COLLOCATION ISLAND	14630
C	MTARGET	5000	TARGETS (ALLOCATION)	14640
C	MTARIND	12000	TARGET INDEX NUMBERS	14650
C	MTARSEC	4000	TARGETS PER EARTH SECTOR	14660
C	MTARTEL	500	TGT WITH TERMINAL INTRCPIRS(ARM)	14670
C	MTARTYP	250	TARGET TYPES-TOTAL	14680
C	MTARVAL	2500	TARGET COMPLEX WITH VAL 0	14690
C	MTELMCM	40	TARGET ELEMENTS PER COMPLEX	14700
C	MTOTBAS	150	WEAPON BASES PER GROUP	14710
C	MTYPE	60	WEAPON TYPES (MSLS + BMBS / SIDE)	14720
C	MTYPE	50	WEAPONS PER GROUP (MSLS+BMBS)	14730
C	MTYPE	50	WEAPON TYPES	14740
C	MZONEPT	200	ZONE POINTS	14750
C	MZONE	63	ZONES	14760
C	MTARPCCL	140=MSL+BMBS/20=OTHERS; TGT TYPES/CLASS		14770
C	PLANTYPE	2DEC70		14780
C	COMMON/PLANTYPE/INITIALS(IRS,CONMSL,CONCOMB)			14790
C	CONCOMB = THE DISTANCE(N*100) FROM THE CORRIDOR ENTRY POINT			14800
C	AT TIME = 0			14810
C	PLANTYPE			14820
C	USED BY PLANTANK/SNAPOUT			14830
C	OPENREF 16FEB71			14840
C	COMMON /OPENREF / DPLINK(150),DPLAT(150),DPLONG(150),			14850
C	* TYPE INTEGER DPLINK			14860
C	DPLINK,DPLAT,DPLONG(MUPEN),MUPEN=MAX NUM DEVEN POINTS			14870
C	DPLAT,DPLONG(MREFU), MREFU=MAX NUM REFUEL POINTS(DIRECTED)			14880
C	OPENREF			14890

```

CUSE      PAYLOAD 2UECT0 *****
COMMON/PAYLOAD/NUBOMB1(40),IMHDI(40),NDBOMB2(40),IMHDI(40)
1 *NASM(40),IASM(40),NUM(40),NDECOYS(40),NADCCOYS(40),IMIRV(40)
CENU      PAYLOAD *****
C          USE BY SNAP/OUTDISTIME,PLNTMIS
C          NDBOMB1 NUMBER WORDS OF BOMB TYPE1
C          IMHDI WARHEAD TYPE INDEX FOR TYPE 1
C          NDBOMB2 DITTO FOR BOMB2
C          IAHDI DITTO FOR BOMB2
C          NASM NUMBER OF ASMS
C          IASM ASM TABLE INDEX
C          NCM NUMBER OF COUNTERMEASURES
C          NDECOYS NUMBER OF DECOYS
C          NADCCOYS NUMBER AREA DECOYS
CUSE      ASMTABLE 10FEB71 *****
COMMON /ASMTABLE/ IMMUMASH(20),RANGEASH(20),RELASH(20),
1 *      CEP 1(20),SPEEDASH(20)
C          DIMENSION = MASH1TP = MAX NUM ASM TYPES
C          ASMTABLE *****
C          USED BY SNAP/OUTDISTIME
C          IAHDI WARHEAD TYPE INDEX
C          RANGEASH RANGE (N. MI.)
C          RELASH RELIABILITY OF ASM
C          CEPASH CEP
C          SPEEDASH SPEED
C          *****
CUSE      CORRCHAR 10FEB71 *****
COMMON /CORRCHAR/ PCLAT(30),PCLONG(30),PCZONE(30),RPLAT(30),
1 *      RPLONG(30),RPLAT(30),ENTLONG(30),CHLENGTH(30),
2 *      KRSSTYLE(30),ATTCKOR(30),ATTSHUPF(30),
3 *      HILCATIR(30),DEFRANGE(30),NPMCHDEF(30),
4 *      DEFUJST(30,3),ATTHPNE(30,3),NDATA
C          TYPE INTEGER PCZONE
C          DIMENSION = MCRSH = MAX NUM PENETRATION CORRIDORS
C          CORRCHAR *****
C          USED BY SNAP/OUT
C          DATA(LMAX=3)
C          LMAX IS SECOND DIM. OF DEFUJST,ATTHPNE
CUSE      COMMON /FILES/ 10FEB71 *****
COMMON /FILES/ 10FEB71 BASFILE(2),MSLTIME(2),ALGCTAH(2),
1 *      TYPALOG(2),ALGGRP(2),STKRFIL(2),EVENTAPE,PLANTAPE
C          TYPE INTEGER 10FEB71 BASFILE,ALGCTAH,TYPALOG,ALGGRP,STKRFIL
C          TYPE INTEGER EVENTAPE,PLANTAPE
C          FILES *****
C          FOR EACH FILE,(1) LOGICAL UNIT NO.(2) MAX FILE LENGTH IN WORDS
C          FILES USED BY PLNTPLAN + ITS SUBROUTINES ARE
C          BASFILE DATA BASE INFORMATION FILE
C          STKRFIL STRIKE FILE, PREPARED BY POSTALOG
C          EVENTAPE SIMULATION INPUT, WRITTEN BY PLNTPLAN FROM INDATA
C          PLANTAPE DETAILED PLANS TAPE, OUTPUT BY PLNTPLAN
C          MASTER 10FEB71 *****
COMMON/MASTER/INDATE,LUENING,ISIDE,NHTPT,NCORR,NUPEN,NRECOVER
1 *      INHEF,NBNDRT,NREG,NITYPE,NHGROUP,NTGBASE,NPATLOG,NASHTYPE,NMUTYPE
2 *      ENTANKBAS,NCOMPLEX,NCCLASS,NALEH,NFIS,NCORTYPE,NCNTHT
C          MASTER *****
CENU      MASTER *****

```

```

CENU LUNY, DIST *****
C     ASMANHAY *****
C     USED BY FLYPOINT, SNAPOUT, ADJUST *****
C     DATA (IOT=1010), (IOMU=1010) *****
CUSE  BOUND 2DEC70 *****
C     COMMON/BOUND/A1,Y1,X2,Y2,I2N,XR,YR,NZ,N1,Z1 *****
C     BOUND *****
C     USED BY ZONECROSS, BOUNDARY, SNAPOUT *****
CUSE  CONTROL 2DEC70 *****
C     COMMON/CONTROL/ICE,LS,LOE,NPLCT,ISSE,SCALE *****
C     CONTROL *****
C     USED BY ZONECROSS, PLANIMIS, PLANTANK, SNAPOUT *****
C     ICE=1 FOR EVENTAPE OUTPUT, 2 FOR PLANTAPE OUTPUT, 3 FOR BOTH *****
C     DATA (ICE=1) *****
CUSE  CORCOUNT 2DEC70 *****
C     COMMON/CORCOUNT/IN,KC,JH,LC *****
C     CORCOUNT *****
C     USED BY SNAPOUT *****
CUSE  DINDATA 2DEC70 *****
C     COMMON/DINDATA/HUT(90),KPL(90),JIP(90),HLA(90),MLG(90),TZT(90), *****
C     I2N(90),PA(90),HMT,NPL *****
C     DINDATA *****
C     USED BY ADJUST,ZONECROSS, SWITCH, DISTIME, PLANTANK, CLINDATA, SNAPOUT *****
C     CHKSUM, POST, DECOYADD *****
C     MHT TIME - FOR DETAILED HISTORY *****
C     KPL PLACE - FOR DETAILED HISTORY *****
C     JIP EVENT - FOR DETAILED HISTORY *****
C     HLA LAT - FOR DETAILED HISTORY *****
C     MLC LONG - FOR DETAILED HISTORY *****
C     MHT TOTAL NO LINES IN DETAILED PLAN (PLANNED AND ALTERNATES) *****
C     NPL NO OF PLANNED EVENTS *****
C     DINDATA2 2DEC70 *****
CUSE  COMMON/DINDATA2/CMT(90),IMH(90) *****
C     DINDATA2 *****
C     USED BY DISTIME, PLANTANK, SNAPOUT, DECOYADD *****
C     CMT CUMULATIVE TIME FOR PRINT 3 *****
C     JWH WARHEAD INDEX FOR PRINT 3 *****
CUSE  DISTC 2DEC70 *****
C     COMMON/DISTC/DISTC(20) *****
C     DISTC *****
C     USED BY DECOYADD, ADJUST *****
CUSE  EVENTS 2DEC70 *****
C     COMMON/EVENTS/LAUNCH, LAUNCH, LEAFUEL, INSECTOR, LCCLATT, LAUNCH *****
C     LAUNCH, LANDING, LCH, MISSILE, LEAD, LABORT, LEAFUEL, LEAFUEL *****
C     LAUNCH, LANDING, LCH, MISSILE, LEAD, LABORT, LEAFUEL, LEAFUEL *****
C     EVENTS *****
C     USED BY DISTIME, PLANTANK, ZONECROSS, SWITCH, DECOYADD, ADJUST, POST *****
C     DATA (LAUNCH = 1) *****
C     ** (LAUNCH = 2) *****
C     ** (LEAFUEL = 4) *****
C     ** (INSECTOR = 5) *****
C     ** (LCCLATT = 8) *****
C     ** (MISSILE = 9) *****
C     ** (LABORT = 13) *****
C     ** (LEAFUEL = 11) *****
C     ** (LEAFUEL = 12) *****

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CEND      LASP      ***** 203000
C          USED BY FLYPOINT,LAUNCH,SNAPCUT ***** 204000
CUSE      MM        2DEC70 ***** 205000
          COMMON/PH/MMHINA(10),MMHAXA(10),MMHMA,MMHX ***** 1000
CEND      MM        ***** 205000
C          USED BY SNAPCUT ***** 206000
CUSE      MH2       2DEC70 ***** 207000
          COMMON/MH2/MMHIN(2),MMHAX(2) ***** 1000
CEND      MH2       ***** 207000
C          MISCT     2DEC70 ***** 208000
          COMMON/MISCT/MISCT,MTARST ***** 209000
CEND      MISCT     ***** 1000
          USED BY PLANTHIS ***** 209000
C          MISCT     NUMBER OF MISSILE BOOSTERS PROCESSED ***** 210000
C          MTARST    NUMBER OF MISSILE TARGETS PROCESSED ***** 211000
CUSE      MRVFLG    18AG71E ***** 212000
          COMMON /MRVFLG/ MRVFLG ***** 1000
CEND      MRVFLG    ***** 212500
          DATA (MRVFLG = 0) ***** 212700
CUSE      MYIDENT   2DEC70 ***** 213000
          COMMON/MYIDENT/MYIDENT ***** 1000
CEND      MYIDENT   ***** 213000
CUSE      MYLABEL   16FEB71 ***** 213500
          COMMON /MYLABEL/ MYFORM,MYSECH,MYLENGTH,MYCOMM(5) ***** 1000
CEND      MYLABEL   ***** 213500
CUSE      NOPRINT   2DEC70 ***** 214000
          COMMON/NOPRINT/NOPRINT ***** 1000
CEND      NOPRINT   ***** 214000
CUSE      CUTSRT    16FEB71 ***** 215000
          COMMON/CUTSRT/ICUTSRT ***** 1000
          1,MYORCUP,MYCORR,INDVEM,INEF,IPDEN,IPAYLOAD,LNCHBASE,IITYP ***** 2000
          2,BLAT,BLNG,NHAP,ISITYPE(10),CBLAT(10),CBLONG(10),DLAT(10),DLONG(10) ***** 3000
          3),IBJEC(10),IBUES(10),IBTSK(10),IBCTY(10),IBFLG(10),AIRGUT(10), ***** 4000
          4,SUNVOUT(10),GOLCWI,GOLCW2,GOLCW3,SPULS, ***** 4500
          5,SPDHI,RANGE,RANGERE,DELAY,IRG,ILRT,IDCHMBER,AVAILCW,ANGDEC ***** 5000
          /CUTSRT/ IS THE INPUT RECORD FROM STNKFIL ***** 7000
C          CUTSRT ***** 215000
          USED BY DISTIME,FLYPOINT,SNAPCON,SNAPCUT,ADJUST,PLANTANK,PLANTHIS ***** 216000
C          ICUTSRT SORTY NO. ***** 217000
C          MYGROUP   GROUP INDEX ***** 218000
C          MYCORR     CORRIDGN INDEX ***** 219000
C          INDVEM     VEHICLE INDEX ***** 220000
C          IREF       REFUEL INDEX ***** 221000
C          IPDEN      DEPENDENTATION INDEX ***** 222000
C          IPAYLOAD    PAYLOAD INDEX ***** 223000
C          LNCHBASE   BASE INDEX ***** 224000
C          IITYP      ISITYPE ***** 225000
C          BLAT       BASE LATITUDE ***** 226000
C          BLNG       BASE LONGITUDE ***** 227000
C          NHAP       NUMBER OF HAPPENINGS (TARGETS) ***** 228000
C          IRPYTE      (IRAP)TYPE OF HAPPENING ***** 229000
C          CBLAT      (CBLAT)LATITUDE OF HAPPENING ***** 230000
C          CBLONG      (CBLONG)LONGITUDE OF HAPPENING ***** 231000
C          DLAT       TARGET OFF-SET IN DEGREES LAT ***** 232000
C          DLONG      TARGET OFF-SET IN DEGREES LONG ***** 233000

```

C	IBUEC(SNAP/PLACE OF HAPPENING	234000
C	IDES TARGET DESIGNATOR	234100
C	IBTSK TASK CODE OF TARGET	234200
C	IBCTY COUNTRY CODE OF TARGET	234300
C	IBFLG FLAG OF TARGET	234400
C	ATTROUT LOCAL ATTRITION	234500
C	SURVOUT CUMULATIVE SURVIVAL PROBABILITY	234600
C	GCLOW1 LOW ALTITUDE RANGE AVAILABLE FOR USE IN CORRIDOR	235000
C	GCLOW2 LOW ALTITUDE RANGE AVAILABLE FOR USE BEFORE FIRST TARGET	236000
C	GCLOW3 LOW ALTITUDE RANGE AVAILABLE FOR USE AFTER FIRST TARGET	237000
C	SPDLO SPEED AT LOW ALTITUDE	238000
C	SPDHI SPEED AT HIGH ALTITUDE	239000
C	RANGE RANGE OF VEHICLE	240000
C	RANGREF REFUELED RANGE OF VEHICLE	241000
C	DELAY DELAY	242000
C	IRG IREG	243000
C	ILRT IALERT	244000
C	IDBOMBER BOMBER IDENTIFICATION	244100
C	AVAILOR AVAILABLE LOW ALTITUDE RANGE	244200
C	RNGDEC RANGE DECREMENT AT LOW ALTITUDE	244300
C	POLITE POLITE 2DECTO *****	245000
CUSE	COMMON/POLITE/S1,T1,S2,I2,FACTOR,SR,TR	1000
C	POLITE *****	245000
C	USED BY INTER,INTERC *****	246000
C	IO 16FEB71 *****	247000
CUSE	COMMON /10/ MCBLAT(50.4),MCBLON(50.4),INDBAS(50.4),INDCAP(50.4),	1000
	DISTR(50.4),TOF(50.4)	2000
C	USED BY PLNTPLAN,PLANTANK *****	3000
C	IO *****	247000
CUSE	REF 2DECTO *****	248000
C	COMMON/REF/NFLAT(50),NFLONG(50) *****	1000
C	REF *****	248000
C	USED BY PLANTANK *****	249000
CUSE	RL 2DECTO *****	250000
C	COMMON/RL/RL,RH *****	1000
C	RL *****	250000
C	USED BY DECCYADD *****	251000
CUSE	SNAPON 2DECTO *****	252000
C	COMMON/SNAPON/NAP(15) *****	1000
C	SNAPON *****	252000
C	USED BY PLANTHIS,PLANTANK,SNAPCON,SNAPIT *****	253000
CUSE	SPASH 2DECTO *****	254000
C	COMMON/SPASH/SPASH *****	1000
C	SPASH *****	254000
C	USED BY DISTIME,SNAPOUT *****	255000
CUSE	TEMPC 2DECTO *****	256000
C	COMMON/TEMPC/DT(50),JT(50),TLN(50),LPL(50) *****	1000
C	TEMPC *****	256000
CUSE	TWORO 2DECTO *****	257000
C	COMMON/TWORO/TWORO,ITWORO *****	1000
C	EQUIVALENCE(ITWORO,TWORO) *****	2000
C	TWORO *****	257000
CUSE	VICINITY 2DECTO *****	258000
C	COMMON/VICINITY/VMB,VMA,VLB,VLA,BCHIN *****	1000
C	VICINITY *****	252000
C	USED BY ADJUST *****	259000

11/24/71

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CUSE      WPNGRPX 16FEB71 *****
COMMON /WPNGRPX/ ITYPEX(200),IUBLX(200)
C          DIMENSION = NGROUP = MAX NUM WEAPON GROUPS
C          WPNGRPX *****
C          USED BY PLANTNIS,SNAPOUT
CUSE      WPNTYPEX 16FEB71 *****
COMMON /WPNTYPEX/ REL(80),IMTYPE(80),IFNCTN(80)
C          DIMENSION = MIPE = MAX NUM WEAPON TYPES
C          WPNTYPEX *****
C          USED BY PLANTNIS,SNAPOUT
CUSE      NAVAL 16FEB71 *****
COMMON /NAVAL/ NNAVAL,IUBL(200),PNAVAL(200),ISVX(6),LSIDBLBS
C          DATA (LSIDBLBS = 0)
C          NAVAL *****
C          USED BY PLNTPLAN AND PLANTNIS
C          1 2UECTO *****
COMMON /1/ DELUIS(6),LPRIORTY(20),LMHT(90),NDCYRU(20),NPSLN,
+NURDCOYS
C          1 *****
C          USED BY DECOYAU,POSTLAUN
C          USED BY DECOYAU
C          7 20MAY71 *****
COMMON /7/ IINDYTK(60),TKRLAT(60),TKHLNG(60),IIRFTK(60),
+ NIKPSUN(60),NALTKN(60),TANSPD(60),IRULYALT(60),
+ TRULYNL(60),TKTGT(60),IITPK(60),THANGE(60)
C          7 *****
C          DATA (NMIST=80)
C          DATA (BASFILE(1)=8)
C          DATA (TCGMIN=0.25)
C          DATA (THB=0.25)
C          DATA (THA=0.033333333)
C          DATA (TLB=0.166666667)
C          DATA (TLA=0.05)
C          DATA (DISDECOY=50)
C          DATA (NREFMAX=4)
C          DATA (TANKERD=100)
C          DATA (NDUMCORR = 2)
C          DATA (NFASTX=23), (NFILEX=16)
C          DATA (NCCORR=60), (NASTAB=100), (NPAYLDX=100), (NDPENX=190)
C          DATA (NPLANTX=3)
C          NMISTX = LENGTH OF COMMON BLOCK MASTER
C          NFILEX = LENGTH OF COMMON BLOCK FILES
C          NCCORRX = LENGTH OF COMMON BLOCK CORRX
C          NASTABX = LENGTH OF COMMON BLOCK ASMTABLE
C          NPAYLDX = LENGTH OF COMMON BLOCK PAYLOAD
C          NDPENX = LENGTH OF COMMON BLOCK DPENHEF
C          NPLANTX = LENGTH OF COMMON BLOCK PLANTYPE
C          *****
C          NMIST=MAX,NC=LINES IN HISTORY TABLE
C          BASFILE MUST BE DATA SET
C          TCGMIN MINIMUM GLOW TIME IN HOURS

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FTN5.5

11/24/71

PAGE NO.

13

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      GO TO 42
      40 CONTINUE
      10 FORMAT(AB,12,(10)
      17 IF(ICE,LE,1) 10,14
      16 ICE=1
      C   PAGE SKIP
      14 KR3=(ICE-1)
      PRINT 11,(NAMIT,INMESS(KK+1),INMESS(KK+2),INMESS(KK+3))
      11 FORMAT(1M,5X,AB,2X,3AB)
      MYGROUP=1 $ MYCORR=1 $ IOUTSRT=1
      19 MYIDENT=BHSTKMFIL
      ITP=STKMFIL(1)
      CALL SETREAD
      CALL SNAPCON
      C
      PRINT 18,(ITKRLAT(1),TKRLONG(1),TRANGE(1),I=1,NTANKSAS)
      18 FORMAT(5X,BHSTKMFIL,6X,7M,TKRLONG,6X,6M,TRANGE/12X,12,2X,F5,1,6X,F6,1
      1,6X,F6,0/))
      LSIDE=2
      IF(LSIDE.EQ.4HBLUE)20,21
      20 LSIDE=1
      21 GO TO (100,101,102),LSIDE
      101 REWIND PLANTAPE $ GO TO 199
      102 REWIND PLANTAPE
      100 MYIDENT = BHEVENTAPE
      ITP=EVENTAPE
      MYFORM = 8H JUNE 71
      MYLENGTH=99999
      CALL SETWRITE
      CALL TIMEFIL(1)
      199 CALL TIMEFIL(1)
      36 IOPCHK(IIC)=0
      MISC7 = MYARGC1 = 0
      NSORTICS=0
      ICSORTXS=0
      CALL SNAPIT(9,1)
      C
      BLOCK 15 -- MAIN LOOP
      C
      READ FIRST PLAN
      ITP=STKMFIL(1)
      CALL RDARRAY(IOUTSRT,LCS)
      IF(IIDBOMBER.EQ.CHBOMBER)197,198
      198 CALL PLANTMIS
      197 IF(INHAP,LE,2)196,193
      196 PRINT 194,MYGROUP,MYCORR,IOUTSRT
      194 FORMAT(10X,5HGROUP,14,2X,6HMYCORR,14,2X,6HISORTIE,14,2X,
      11,4HAS NO HEADCONS)
      IF (MYGROUP=MYGROUP) 195,195,999
      193 IF(INHAP,GT,10)1199,192
      1199 PRINT 191,MYGROUP,MYCORR,IOUTSRT,INHAP
      191 FORMAT(5HGROUP,14,2X,6HMYCORR,14,2X,6HISORTIE,14,2X,29HHAS TCG M
      *ANY TGIS * * NHAP = ,110)
      GO TO 195
      192 INDEX=10000*IOUTSRT+100*MYCORR+MYGROUP

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2359

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200 CONTINUE
    CALL SNAPCON
    CALL SNAPIT(1,1)
    CALL TIME(3)
    CALL SNAPIT(13,1)
    CALL SNAPIT(14,1)
    IC1FLG=0
    IF (NAP(14),EQ,3) 999,208
C
C      BLOCK 20 HAS END SENTINEL BEEN REACHED
C
208 IF (MYGRUP=MYGRUP) 209,209,999
C      GROUP GT MONOP TERMINATES BOMBER PLANS
209 IF (MYGRUP.EQ,MYGRUP) 201,210
210 MYGRUP=MYGRUP
    INDEX=ITYPEX(MYGRUP)
201 IF (MYCRR .LE. NOUMCRR) 204, 203
C
203 IF (MYCRR.EQ,MYCRR) 230,202
C      INITIALIZE PLAN FOR NEW CORRIDOR
C
204 MYCRR = MYCRR
    CBLAT(1)=FINDLAT=BLAT
    CBLONG(1)=FINDLON=BLONG
    CALL FINDZONE
    KZN = IFOUNDN
    GSGG = GCLOC1=0
    IREF=0
    GO TO 232
202 MYCRR=MYCRR
    KZN=PCZONE(1C)
    IM=IHAP(MYCRR)
    KC=KOUNT(1C)
    CALL SNAPIT(7,1)
230 GSGG=GCLOC1=GCLOC1
    ALTERNATE PLAN
    IF (INDEX.EQ,INDEXOLD) 231,232
231 MPL=MHT
    IALX = 2
    IF (GCLOC1.LI,0.) GO TO 235
234 I=1,NHAP
    J=NHAP+1
    IBJEC(J)=IRJEC(1)
    IBDESC(J)=IBDESC(1)
    IBTSKO(J)=IBTSKO(1)
    IBCTY(J)=IBCTY(1)
    IBFLG(J)=IBFLG(1)
234 CONTINUE
    NHAP=NHAP+1
    GO TO 299
235 MHT = MHT+1
    JTP(MHT) = LANDHQ
    HLA(MHT) = BLAT
    HLC(MHT) = BLONG
    KPL(MHT) = LNCBASE
    GO TO 800
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11/24/71

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232 NPL=0
    JALX = 1
    MMIN(1)=MMIN(2)=1
    MMAX(1)=MMAX(2)=1
    KICK SORTIE COUNT
    NSORTIES=NSORTIES+1
    ICUTOLD=ICUTFSH
    INDEXOLD=INDEX
    MNT=0
    IF (GCLC=1,LT,6,1)236,240
236 GCLCX1=C.
    C
    C BLOCK 24 INITIALIZE PLAN
    C INITIALIZE /INDATA/
240 CALL CLINDATA
    C=HJAP(IOPEN)
    LCHQUNT(IOPEN)
    INDATA = LSIDE
    INBASE = LNCMBASE
    INDV=INDVEH
    ICLASS = 18CMBER
    SPDMIC=SPDMI
    SPULCO=SPULC
    DELAYO = DELAY
    ITYPE = IITYP
    INEG = IRG
    IALERT = ILRT
    LPAYLOAD=IPAYLOAD
    NCMSBNCW(LPAYLOAD)
    LREF=IREF
    IUP(1)=IOP(2)=0
    LOPEN = IOPEN
    DC 241 I=1,NMAP
    IJECQ(1)=IJECQ(1)
    IODESC(1)=IOUES(1)
    IRTSK(1)=IRTSK(1)
    IRTY(1)=IRCTY(1)
    IRLGQ(1)=IRFLQ(1)
    JFACTN=IFACTN(INDX)
    NMAP=NMAP
241 CONTINUE
    KCKC=IASM(IPAYLOAD)
    RASM=RANGEASM(KCKC)
    SPASM=SPEEDASM(KCKC)
    FIVE=SPDMIO.093333333
    FIVE IS DIST TRAVELED IN 5 MINUTES
    C
    DC 2253 I=1,190
    ILAUNDEC(1)=0
    TIMELAUN(1)=0.0
    LMT(1)=0.
    DISTORE(1,1)=0.0
    DISTORE(1,2)=0.0
    DISTORE(1,3)=0.0
2253 DISTORE(1,3)=0.0
    CMIN=IGOMIN*SPDMI
    GMIN IS MIN TIME A BOMBER SHOULD FLY LOW
    C
    VMB = TMB*SPULC

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11/24/71

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C      VHB VICINITY HIGH ALT BEFORE TARGET
VHA = TLA*SPOLC
VLB = TLA*SPUMI
VLA = TLA*SPUMI
CALL SNAPIT(8,1)

C      BLOCK 25 POST LAUNCH EVENT
C
C      250 MHT=MHT+1
JTP(MHT)=LAUNB
HLA(MHT)=SI*BLAT
HLC(MHT)=TI*BLONG
KPL(MHT)=LNCHBASE
ICJFLG=0
IF (MYCORR .LE. NOUNCORR) 2264, 2263
2264 IF (KZLN*LE.2)2260,2261
2260 ICJFLG=1
GO TO 2263
2261 MHT=MHT+1
JTP(MHT)=INSECTOR
HLA(MHT)=RLAT
HLC(MHT)=BLONG
KPL(MHT)=KZN
CALL POSTLAUN(5,MHT,1)
2263 CONTINUE
IN = IN-KC-1
C1 = S2 = MAPLAT(IN)
D1 = T2 = MAPLONG(IN)
DUST=DISIF(S1,I1,S2,I2)

C      BLOCK 26-- POST REFUEL EVENTS
C
C      IN=IRF=IREF
IF (IREF)254,259,280
COMPUTE BUDDY REFUEL POINT
254 DIS=DUST
IRFP=0
REFDIF=RANGEREV-RANGE
251 IF (DIS.LE.REFDIF)255,256
255 FACTOR=(DIS-FIVE)/DIS
FACTOR=MAXIF(FACTOR,0.0)
GO TO 257
256 FACTOR=REFDIF/DIS
257 CALL INTERP
IRFP=0
IF (IR.LE.24)258,282
FIND REFUEL AREA
258 ASSIGN 259 TO LOCATE
CAX=SR & OXY=TR
TKDIS=MN=1E6
DC 2585 I=1,NTANKBAS
TKX=TKRLAT(I) & TKY=TKRLONG(I) & TKRG=TRANGE(I)
TKDIS=DISIF(SR,TR,TKX,TKY)
IF (TKDIS.LE.TKRG)2583,2581
2583 ITK8=0 & GO TO 2586

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270 IF (NRF*GE*NMFFMAX)271,272
271 DPREV=IEO _5 GC TO 273
C TANKERD DEFINES REFUEL NEIGHBORHOOD
272 DPREV=TANKEMO
273 RPDF=REFDIF*1.
274 GC 276 I=1,NRF
275 RFLAT=RFLAT(I)
RFLONG=RFLONG(I)
X=DISF(SI,I),RELAT(RFLONG,I)
IF (X.LE.RPDF)274,276
C SK,TR IS BUOY POINT
274 Z=DISF(SK,TR),RELAT(RFLONG,I)
IF (Z.LT.DPREV)275,276
275 DPREV=Z
INF=1
276 CONTINUE
277 IF (IRF)277,278
277 SR=RFLAT(IRF)
TR=RFLONG(IRF)
GC TO 279
278 IF (NRF*GE*NMFFMAX)2270,2278
2270 RPDF = RPDF + 0.1*REFDIF
GC TO 2273
2278 NRF=NRF+1
RFLAT(NRF)=SR
RFLONG(NRF)=TR
IRF=NRF
279 GC TO LOCATE
C
C LOCAL SUBROUTINE--IAHINE--COMPUTE ARRIVAL TIME
C WHEN NON=0, CL=BASE TO 1ST REFUEL-DISTANCE
C CR=LAST REFUEL TO CORRIDOR DIST
290 CP=DISF(SI,TR),SH,TR)
IF (INITSTNK.EQ.1)293,294
293 C=DISF(SR,TR),S2,T2)
DUST=C*CP+CH*CL
D=(CORCORNB-(C*CH))/SPDH1*DELATC
GC TO 295
294 D=(CP*CL)/SPDH1*DELATC
295 ANVLS(1,INCNT)=0
CSUBR PLNTPLAZ 1SMART1 *****
IAVLS(2,INCNT)=IRF
INCNT=INCNT+1
A=ARTIME(IRF)
IF (D.LT.A)291,292
291 ARTIME(IRF)=0
292 GC TO IARTIME
299 CONTINUE
IFLGDPEN=0
GC 2250 I=1,3
LOHMT(I)=0
2250 LOHMT(I)=0
GC 2251 I=1,6
2251 DELOIS(I)=0.0
1SMOT1=0
1SMOT4=0

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FT.5.5

11/24/71

PAGE NO. 19

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LOWFLAG=0
OC 2252 I=1.20
LPRIORITY(I)=0
2252 NOCYHQ(I)=0
OC 2254 I=1.50
2254 TSTORE(I)=0.0
NUMDCOYS=NDECCOYS(IPAYLOAD)
IF(NMDCYS)2268,2269
2268 NUMDCOYS=NMDOYS
2269 CONTINUE
C
C BLOCK 27 INITIALIZE PLAN WITH RESPECT TO GCOLW RANGE
C
GCOLX2=GCOLW2
GCOLX3=GCOLW3
IF(GCOLX1.LT.GCOLX2)260,261
260 GCOLX2=GCOLX2+GCOLX1
GCOLX1=0.0
261 GCOLX=GCOLX2+GCOLX3
IF(GCOLX.LT.GCOLX1)262,263
262 GCOLX=GCOLX2+GCOLX3+0.0
263 CONTINUE
IF(GCOLX1=0)
NPSLN=0
KOST=1
IF (MYCORN .LE. NOUNCORN) 400, 300
C
C BLOCK 30 PROCESS PRECORRIDOR LEGS AND APPLY GCOLW 1
C
300 CONTINUE
CALL SNAPIT(7,1)
IF(GCOLX1)301,301,303
301 INF=1
IF(JAPTYPE(IH).EQ.1)333,304
C SET FLAG TO CONTINUE DECY COVERAGE PAST ORIGIN
333 IF(GCOLX1=1)
GO TO 304
C APPLY GCOLW RANGE TO CORRIDOR
303 INF=0
C INITIALIZE OO LOOP
304 GCOL=GCOLX1
IUEL=1
JA=0
JDO=0
DC 310 JIN=1,KC
J1=JIN+JDC
JC=JIN+JIN-1
302 J1(J1)=LEGDCO
LPL(J1)=0
JAJA=JAPTYPE(JC)
JAJA=JAPTYPE(JC)
IF(JAJA)312,307
307 IF(JAJA.EQ.IUEL)308,309
312 IF(JIN)350,351
C NUMBER HIGH OVER ATTRITED AREA - ACCUMULATE DIST. FOR DECY COVERAGE
350 DELDIS(KOST)=DELDIS(KOST)+MAPDIST(JC)
GO TO 352

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2365

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C BOMBEN LOW OVER ATTRITTED AREA
351 ELDIS = MAPDIS(JC)
IF (ELDIS .LT. GCLC) 313,318
313 GCLC=GCLC-ELDIS
352 CONTINUE
IF (JAJA .EQ. (LOEL*3)) 314,309
314 IF (INF) 353,354
C END ATTRITTED AREA AT HIGH ALT. - STOP DECUY COVERAGE
353 LOHMT(KOST) = JI
KOST=KOST+1
GC TO 355
C END ATTRITTED AREA AT LOW ALT. - BOMBEN GOES HIGH
354 JT(JI) = LOHI
LOHMT(LOEL) = JI
355 IF (LOEL.LT.LMAX) 315,316
315 LOEL=LOEL+1
316 JA = 0
GC TO 309
C GC LOW RANGE EXPIRED - CALCULATE GC HIGH LOCATION
318 INF=1
IF (ELDIS.EQ.GCLC) 317,320
317 JT(JI)=LOHI
LOHMT(LOEL) = JI
GC TO 309
320 FACTOR=GCLC/ELDIS
SI=MAPLAT(JC-1)
TI=MAPLNG(JC-1)
S2=MAPLAT(JC)
T2=MAPLNG(JC)
CALL INTERP
LT(JI) = SR
TLN(JI) = TH
JT(JI)=LOHI
LOHMT(LOEL) = JI
JUC=JUC+1
JI=JI+1
JT(JI) = LEUDCV
LPL(JI) = 0
UELDIS(KDST)=UELDIS(KUST)*ELDIS-GCLC
GC TO 352
C BEGIN ATTRITTED AREA
308 JA=1
IF (INF) 309,391
C BOMBEN GOES LOW
391 JT(JI) = LOHI
309 TLT(JI)=MAPLAT(JC)
TLN(JI)=MAPLNG(JC)
310 CONTINUE
C
C BLOCK 31 POST COMBUDGH EVENTS
C
JADE=JUC*NC
JZ(1)=JT(1)
TAT(1)=Y1=TLT(1)
TAN(1)=Y1=TLN(1)
LPZ(1)=LPL(1)

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P1=5.5

11/24/71

PAGE NO. 21

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IZN=ZN
MZ=0
IDL=1
DC 320 I=2-JADE
K=1-MZ
X2=TLT(I)
Y2=TLN(I)
330 CALL BOUNDARY
IF (IZN.EG.0) 332+331
331 MZ=MZ+1
TAT(K)=M
TAN(K)=YR
JZ(K)=INSECTOR
LPZ(K)=IZN
IZN=ZN
AL=XP
V=YP
K=K+1
GC TO 330
332 TAT(K)=I=K2
TAN(K)=Y=K2
JZ(K)=J(I)
LPZ(K)=PL(I)
IF (LDHMT(IDL).EQ.1) 360+361
360 LDHMT(IDL) = K
IDL = IDL+1
361 IF (LDHMT(KUL).EQ.1) 362+329
362 LDHMT(KUL)=K
KUL = KUL+1
329 CONTINUE
C POST INSECTOR AT CORRIDOR ENTRY IF NOT ZONE ZERO
IF (IZN.EG.0) 340+341
340 MZ=MZ+1
K=JZ+JADE
JZ(K)=INSECTOR
TAT(K)=I
TAN(K)=Y
LPZ(K)=IZN
341 CONTINUE
JADE=JADE+MZ
IDL = KEST-1
DC 395 I=1+J
J = 3-I+1
IF (LDHMT(J)) 394+395
395 CONTINUE
394 KUL = J
UC 342 I=1-JADE
K=JADE-I+1
LDHMT=1
IF (LDHMT(IDL).EQ.K) 370+371
370 LDHMT(IDL) = L
IF (IDL.EG.1) 371+374
374 IDL = IDL - 1
371 IF (LDHMT(KUL).EQ.K) 374+373
372 LDHMT(KUL) = L

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11/24/71

FIN5.5

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IF (KOL=EQ.1)373,375
375 KOL = KOL -1
373 CONTINUE
JTP(L)=JZ(K)
HLA(L)=STAT(K)
HLC(L)=TAN(K)
KPL(L)=LPZ(K)
392 CONTINUE
MMT=MT*JADE
MMIN(LALX)=MMT
DC 380 I=1,3
IF (LDMT(I))381,382
381 L=I = LDMT(I)
CALL POSTLAUN(5,LMT,I)
382 IF (LOHINT(I))383,380
383 LMT=LCHIMT(I)
CALL POSTLAUN(2,LMT,I)
380 CONTINUE
C
C BLOCK 4C ADJUST/GUTSHT/FCR ASM EVENTS
C
400 CONTINUE
IASMFLAG = 0
WRITE DEPEND COMM AS LAST POINT
CBLAT(NHAP)=HAPLAT(JH)
CBLONG(NHAP)=HAPLONG(JH)
IF (MYCCRN =LE= NOUNCCRN) 406, 402
C
WRITE PEN COMM AS FIRST POINT
402 CBLAT(1)=HAPLAT(IH)
CBLONG(1)=HAPLONG(IH)
406 DC 405 I=1,NHAP
IF (IBTYPE(I)=EQ=8H AIM ASM) 401,404
401 IASMFLAG = 1
IF ((RASP,LE=0.)OR.(SPASH,LE=0.))411,404
411 PRINT 412,PAYLOAD
412 FORMAT(10X,1YHNG,ASMS FOR PAYLOAD,14)
404 ALAT(I) = CBLAT(I)
404 ALON(I) = CBLONG(I)
405 CONTINUE
IF (IASMFLAG)409,5000
C PASS 1--TEST ALL ASM POINTS
408 IFLY(1)=1
DC 410 I=2,NHAP
IFLY(I)=1
IBTYPE=IBTYPE(I)
IF (IBTYPE=EQ=8H AIM ASM)403,410
403 JAY=I-1
CBLAT(I)
VAT=ALON(I)
CALL PHEFLY
PHEFLY GETS DIST FROM PREVIOUS NON ASM FLY POINT
IF (DIST.LT.NASH)407,410
407 IFLY(I)=0
410 CONTINUE
C PASS 2--TEST ASM FLY POINTS AND CALCULATE THEIR AIM POINTS

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2369

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IF (IDIST.LE.INASH;424,427
424 IF (J.EQ.1)427,425
425 J=J+1
IF (IFLY(J).EQ.1)423,424
427 IDIS(I)=J*10000 + IDIST
430 CONTINUE
CALL ORDER(IDIS,ICRU,NHAP)
CALL REORDER(ICRU,NHAP,7,IBJEC,IBTYPE,CBLAT,CBLONG,ALAT,ALON,IFLY)
CALL REORDER(ICRU,NHAP,3,ULAT,DLONG,DIS,O,Q,U,Q)
CALL SNAPIT(6,1)
PASS 4--CALCULATE REST OF AIM POINTS
C
DC 440 I=2,NHAP
IF (IFLY(I).EQ.0)431,440
431 U=ALAT(I-1)
V=ALON(I-1)
UAT=ALAT(I)
VAT=ALON(I)
JAY=1
CALL PGSTFLY
ALAT(I)=RLAT
ALON(I)=RLONG
440 CONTINUE
CALL SNAPIT(6,1)
C
5000 CONTINUE
CALL ADJUST
IF (IG0000/800,500
C BLOCK 50 - APPLY GOLOR2 BEGORE FIRST TARGET
C
500 CONTINUE
SET IZN AGAIN TO CORRIDOR ORIGIN, ZONE
LP5=0
IZN=IZN
LOWZONE = 0
X1=S1=ALAT(1)
Y1=T1=ALON(1)
INC=1
511 INC=INC+1
S2=ALAT(INC)
T2=ALON(INC)
LHT=HHT
IF (IBTYPE(INC).EQ.8H AIM ASM)519,513
519 IF ((S1.EQ.S2).AND.(T1.EQ.T2))512,513
C ASMS LAUNCHED FROM CORRIDOR ORIGIN
512 HHT=HHT+1
JTP(HHT)=LAUNASH
HLA(HHT)=ALAT(INC)
HLC(HHT)=ALON(INC)
KPL(HHT)=KOKO
HMT=HMT+1
JTP(HMT)=U
HLA(HMT)=CBLAT(INC)
HLC(HMT)=CBLONG(INC)
KPL(HMT)=IBJEC(INC)
PA(HMT)=REL(INDXI)*SUNVOUT(INC)*DBLK(MYGRGUPQ)
GO TO 511

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513 IF(INC.EQ.NMAP)5014,5013
5014 X2=X1
5015 Y2=Y1
CSUBR      PLNTPLA3 TSEPT1 *****
5013 ISTORED=KOST-1
C INSERT ALT. CHANGES, POST TARGET AREA EVENTS, FIND ZONECROSSINGS.
C POSSIBLE DECGY LAUNCHES
DC 548 I=INC.NMAP
INK=1-1
IGTY=IGTYPE(I)
IF(I87Y.EQ.SMDEPEN)5153,5154
5153 IF(LGDPEN=1
5154 IF(FLGCLG)5101,5102
5101 KOST=ISTORNDI
LP5=1
5102 IF(LOWFLAG)5124,5120,5110
5120 IF ((LP5 .EQ. 0) .AND. (MYCORN .LE. NDUMCORR)) 5200, 5201
5200 LP5=1
C POSSIBLE DECGY LAUNCH AT CORRIDOR ORIGIN
IF(IJTP(LMT).EQ.0)5202,5203
5202 LMT=LMT-1
5203 CONTINUE
CALL POSTLAUN(5,LMT,KUST)
5201 IF(ISTORED.EQ.INK)5121,5122
5122 DELDIS(KOST)=DELDIS(KUST)+DISTC(LINK)
GC TO 5130
C INSERT GO LOW
5121 LOWFLAG=1
IF(LGCLG)0
LOWZONE = 1
C SEE SUBROUTINE ZONECROS FOR LOWZONE SETTINGS
X1=X1+ALAT(LINK)
Y1=Y1+ALON(LINK)
S2=ALAT(I)
T2=ALON(I)
FACTOR=FACTOR/DISTC(LINK)
CALL INTERP
X2=SR
Y2=TR
DELDIS(KOST)=DELDIS(KUST)+FACTOR
CALL ZONECROS
IF(LOWZONE.EQ.2)5124,5123
5124 X1 = X2
Y1 = Y2
X2 = ALAT(I)
Y2 = ALON(I)
LOWZONE=3
CALL ZONECROS
KOST = KOST+1
GC TO 5125
5123 CONTINUE
CALL POST17(SR,TR,0)
CALL POSTLAUN(2,MHT,1)
KOST=KOST+1
X1=X2

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Y1=Y2
GO TO 5135
5110 IF(ISTOREMI.EQ.INK)5111,5130
C INSERT GO HIGH
5111 X1=S1*ALAT(INK)
Y1=T1*ALON(INK)
X2=S2*ALAT(I)
Y2=T2*ALON(I)
5204 FACTOR=FACHI/DISTC(INK)
X2=SR
Y2=TR
CALL ZONECRCS
CALL POST17(SR,TR,0)
LCPLAGE=1
IF(IFLGDPEN.EQ.2)5155,5156
5156 IF((ISHGT4.EQ.1)5150,5151
5150 CALL POSTLAUN(7,MHT,KUST)
GO TO 5152
5151 CALL POSTLAUN(5,MHT,KUST)
5152 CONTINUE
5155 X1=X2
Y1=Y2
GO TO 5135
C POST EVENTS
5130 X1=ALAT(INK)
Y1=ALON(INK)
5135 X2=ALAT(I)
Y2=ALON(I)
IF(18TY.EQ.8)MUPEN(60,547
547 IF(18TY.EQ.4)LAND(591,530
530 IF(18TY.EQ.8)D1VEPISL(599,529
529 CALL ZONECRCS
5125 CONTINUE
IF(18TY.EQ.8)MOPBCH(554,546
546 IF(18TY.EQ.8)ALM ASW(560,548
554 IF((CFLAG)5141,5141,5140
5140 LMT=MHT+1
5143 IF((ISHGT))5147,5143
5143 CONTINUE
CALL POSTLAUN(1,LMT,I)
KUST=KUST+1
ISHGT=1
GO TO 5142
5147 CONTINUE
CALL POSTLAUN(9,LMT,I)
5142 CALL POSTB(CALAT(I),CJLONG(I),IBJEC(I))
IN=1
T2T(MHT)=DLAT(4K)
T2N(MHT)=OLONG(1K)
PA(MHT)=REL(INUXX)*SUNVCUT(1K)*UBLX(MYGRGUPC)
GO TO 548
5141 IF((ISHGT4)5142,5146
5146 LMT=MHT+1
CALL POSTLAUN(4,LMT,KUST)

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11/24/71

PAGE NO. 27

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150074=1
KUST=KUST+1
CALL POSTLAUN(0,0,0,KUST)
GC TO 5142
500 MNT=MNT+1
    IK=1
    JIP(MNT)=LAUNAS
    MLC(MNT)=ALAT(IK)
    MLC(MNT)=ALON(IK)
    KPL(MNT)=KRCG
    TZI(MNT)=ULAT(IK)
    TZN(MNT)=ULON(IK)
    MNT=MNT+1
    JIP(MNT)=0
    PA(MNT)=MEL(INDIA)*SUNVOUT(IK)*UBLA(MYGROUP)
    MLC(MNT)=OBLAT(IK)
    MLC(MNT)=OBLON(IK)
    KPL(MNT)=IBJEC(IK)
540 CONTINUE
C REFUEL ARCT
541 MNT=MNT+1
    JIP(MNT)=LACRI
    KPL(MNT)=0
    DIST=0.5*STF(AL,Y1,X2,Y2)
    S1=X1
    T1=Y1
    S2=X2
    T2=Y2
    FACTOR=FIVE/DIST
    CALL INTERP
    MLC(MNT)=SR
    MLC(MNT)=TR
    DELDIS(KUST)=DELDIS(KUST)-DISTC(IK)*FIVE
542 MNT=MNT+1
    JIP(MNT)=LACRI
    KPL(MNT)=0
    MLC(MNT)=X1
    MLC(MNT)=Y1
    GC TO 620
549 MNT=MNT+1
    JIP(MNT)=LACRI
    KPL(MNT)=0
    MLC(MNT)=X1
    MLC(MNT)=Y1
    GC TO 620
C
C BLOCK 60 POST OPEN EVENTS
C
600 CONTINUE
    DSTLGS=0
    CALL ZONECROS
    IF LGOPEN=1
        MNT=MNT+1
        IF (IGOLEFT) 601,605
        601 CALL POSTIT(X2,Y2,0)
        605 MNT=MNT+1
        JIP(MNT)=INSECTOR
        MLC(MNT)=X2
        MLC(MNT)=Y2
        KPL(MNT)=0

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MHTDPN=MHT
MPI = 1
X1=X2
Y1=Y2

C
  LCMQD = LC - 1
  6051 LBJ = JH + MPI - 1
  S2 = X2 = MAPLAT(LBJ)
  T2 = Y2 = MAPLONG(LBJ)
  DISLAS=DISL=UISIF(X1,Y1,X2,Y2)
  IF(DIST)GOTO6060
  6050 DSTLGS=DSTLGS+DIST
  MHT = MHT+1
  HLA(MHT) = X1 = S1 = A2
  HLC(MHT) = Y1 = T1 = Y2
  JIP(MHT) = LEGUON
  KPL(MHT) = U
  6060 IF (IMPI.GE.LCMQD) GOTO607
  607 MPI = IMPI+1
  GO TO 6051
  610 CONTINUE
  MHT = MHT + 1
  JIP(MHT) = LANUMC
  C DISMAX IS MAXIMUM DISTANCE BOMBER CAN FLY AT HIGH ALT FROM LAST LEG
  DISMAX=(GCLG*AVAILGW)*(RNUDEC-1)*DISLAS
  IF (IDPCMK(IDPEN)*EQ.1)GOTO619
  619 DC 625 ARBAS=1.4
  IF (INDCAP(IDPEN,NRBAS)*EQ.0)GOTO621
  621 TCF(IDPEN,NRBAS)=(DISIR(IDPEN,NRBAS)*DSTLGS-DISLAS)/SPDHI
  625 CONTINUE
  626 IDPCMK(IDPEN)=1
  MABAS=1
  DC 530 ARBAS=2.4
  IF (IDCAP(IDPEN,NRBAS)*EQ.0)GOTO627
  627 IF (DISMAX.GE.IDISIR(IDPEN,NRBAS))GOTO615
  628 MABAS=NRBAS
  630 CONTINUE
  615 HLA(MHT) = HCLLAT(IDPEN,MABAS)
  HLC(MHT) = HCLONG(IDPEN,MABAS)
  KPL(MHT) = INDRAS(IDPEN,MABAS)
  CALL IPUT ( KEYDPEN, MHTDPN, IDPEN, KPL )
  CALL IPUT ( KEYBAX, MHTDPN, MABAS, KPL )
  620 CONTINUE

C
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C
  800 CONTINUE
  IF(INDXRD*EQ.INDEXEND(IITABRT))8195,8196
  8195 IF(IITABRT*EQ.F*ABCRTR)8197,8198
  8197 CALL ABCRT
  8198 IITABRT = IITABRT+1
  IPROCESS=0
  8196 IIP=STNKFIL(1)
  CALL RDRARRY(IOUTSRT,LCS)
  IF (IDBCNBER*EQ.6)HCHMBER)816,817
  817 CALL PLANTMIS

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816 CONTINUE
818 IF ((INDEX(EG(1),INDEX(NU(1)),EQ,018192,8191
8191 INDEX=10000*MYGROUP+100*MYCORN+ICUTSMT
8194 IF ((INDEX(EG(1),INDEX(EG(1),8193,8194
8194 IF ((PROCESS(1),8192,8196
8193 PROCESS=1
8192 IF (MYGROUP=MYGROUP) 805,805,8801
8801 IF (MYCORN=LE, NUUMCORN) 844, 801
805 IF (INAPLE,2184,818
840 INDEX=10000*ICUTSMT+100*MYCORN+MYGROUP
      IF (GLO(1),1,0,AND,INDEX(EG(1),8193,8194) 80 TO 8180
      PRINT 194, MYGROUP,MYCORN,ICUTSMT
      GO TO 800
818 INDEX=10000*ICUTSMT+100*MYCORN+MYGROUP
8180 MMXMMX(IALA)
      IF (MYCORN=LE, NUUMCORN) 844,822
844 DUST=0.0
      GO TO 801
      IS THIS PLAN AN ALTERNATE
      822 IF (INDEX(EG(1),INDEX(NU(1),803,801
      THERE IS AN ALTERNATE FOLLOWING
      830 IF (MY(1,61,75) 810,814
      810 PRINT 901,MYGROUP,MYCORN,ICUTSMT
      PRINT 811
      811 FORMAT(20H HAS MORE THAN ONE ALTERNATE:
      812 DEL=0.0
      IF (INITSTK,EG(1),820,814
      820 DEL=(CORSCMB-DUST)/SPUHC
      IF (DEL,61,0,0)815,814
      815 DEL=0.0
      814 MCT(1)=MCT(1)+DELAYC*DEL
      CALL SWITCH
      CALL DISTIME
      MKVC=MHT
      CALL DECCTAUD
      MKVC=MHT-MKVC
      CALL SNAPIT(10,2)
      GO TO 200
      801 IF (INPL)813,802
      802 DEL=0.0
      IF (INITSTK,EG(1),809,809
      808 DEL=(CORSCMB-DUST)/SPUHC
      IF (DEL,61,0,0)824,809
      824 DEL=0.0
      809 MCT(1)=MCT(1)+DELAYC*DEL
      CALL SWITCH
      CALL DISTIME
      MKVC=MHT
      CALL DECCTAUD
      CALL SNAPIT(10,2)
      GO TO 850
      THIS IS THE ALTERNATE
      813 CONTINUE
      CNT(INPL + 1) = CNT(3)

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11/24/71

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C      TEST FOR ALTERNATE PLAN ABORT
C      IF ( GOGC .LT. 0 ) 807, 828
C      TEST FOR NUMBER OF REFUELS.
C      828 IF ( LREF .EQ. -5 ) 819, 803
C      HERE WE HAVE TWO REFUELS - SET CUM TIME TO SECOND REFUEL
C      819 CPT(INPL * 1) = CMT(4)
C      GO TO 803
C      ALTERNATE PLAN ABORTED. SET ALTERNATE MISSION TO RECOVER.
C      807 IF (LREF .EQ. -5) 831, 832
C      831 CPT(INPL * 1) = CMT(3) + MDI(3) + MDI(2)
C      GO TO 803
C      832 CPT(INPL * 1) = CMT(2) + MDI(2)
C      CALL SWITCHALT
C      CALL DISTIME
C      MKVC = MHI - LKVC
C      CALL DECAYADD
C      IF ( GOGC .LT. 0 ) 804, 806
C      ALTERNATE PLAN ABORTED
C      804 IF ( LREF .EQ. -5 ) 833, 834
C      833 MDI(INPL * 1) = MDI(2) + MDI(3)
C      GO TO 850
C      834 MDI(INPL * 1) = MDI(2)
C      GO TO 850
C      TEST NB OF REFUEL EVENTS
C      806 IF (LREF .EQ. -5) 835, 836
C      HERE TWO REFUELS
C      835 MDI(INPL * 1) = MDI(4)
C      GO TO 850
C      HERE ONE REFUEL
C      836 MDI(INPL * 1) = MDI(3)
C
C      WRITE DETAILED PLAN
C
C      850 CONTINUE
C      * * * INSERT DECAY LAUNCH * * *
C      KVC=0
C      LC=1
C      IF (INPL) 8065, 8066
C      8066 MCHMKVC
C      JFLAG=1
C      GO TO 8067
C      8065 MCHNPL-LKVC
C      JFLAG=0
C      8067 CONTINUE
C      RLS=SPULOG
C      RMC=SPDHIG
C      8030 CONTINUE
C      DTIME = RL/HLC
C      DTIME=RH/RMC
C      JC = LC
C      8072 CONTINUE
C      IF (ILAUNDEC(JC).EQ.0) 8001, 8002
C      8002 IF (ILAUNDEC(JC).LT.0) 8040, 8041
C      8041 IF (JTP(JC).EQ.0) 8003, 8004
C      POST LOW ALTITUDE DECAY LAUNCH - CALCULATE LOCATION
C      8040 UCCTIME = DTIME-MDI(JC)

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8022 JJC=XVC=1
IF(JTPX(JJC).EQ.0)8023,8024
8023 JJC=JJC-1
8024 CPTX(KVC)=CHIX(JJC)+HUTX(KVC)
8025 S1=HLAX(JJC)
T1=HLGX(JJC)
S2=MLA(JJC)
T2=MLC(JJC)
DIST=DISTF(S1,I1,S2,T2)
FACTOR=DECUS1/DIST
CALL INTERP
HLAX(KVC)=S1
HLGX(KVC)=T1
JTPX(KVC)=LAUNUCOY
IHX(KVC)=0
8002 CONTINUE
LPH(KVC)=JC
8001 KVC=XVC+1
HLTX(KVC)=HDT(JJC)
KPLX(KVC)=KPL(JJC)
JTPX(KVC)=JTP(JJC)
HLGX(KVC)=HLA(JJC)
HLGX(KVC)=HLC(JJC)
TZX(KVC)=TZI(JJC)
TZNX(KVC)=TZN(JJC)
IHX(KVC)=IHX(JJC)
PAX(KVC)=PAX(JJC)
CPTX(KVC)=CPT(JJC)
8000 IF(JC.GE.PG)8070,8071
8071 JC = JC+1
GO TO 8072
8070 CONTINUE
IF(JFLAG.EQ.0)8031,8032
C POST ALTERNATE PLAN
8031 JFLAG=1
LC=NPL+1
MC=KVC+LKVC
HLC=SPULC
HMG=SPUM1
GO TO 8030
8032 CONTINUE
*****POST DELAY TERMINATION *****
JF = 1
JL = 0
LAUNFLAG = 0
SPUM=SPDM1C
KVC=0
DC 8500 JVC=1,KVC
IF(JTPX(JVC).EQ.IGCLC*)8500,8811
8800 SPUM=SPBLCC
GO TO 8503
8811 IF(JTPX(JVC).EQ.IGCHI)8803,8802
8803 SPUM=SPDM1C
GO TO 8503
8802 CONTINUE

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11/24/71

PTN5.5

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IF (JTPX(JVC).EQ.ILAUNUCY)8501.8503
8501 IF (KPLX(JVC)8533.8504.8504
C- LOW ALTITUDE LAUNCH - NO TERMINATION REQUIRED
8533 KPLX(JVC) = -KPLX(JVC)
GO TO 8503
C HIGH ALTITUDE LAUNCH - MUST FIND TERMINATION LOCATION
8504 JC = LMT(JVC)
LAUNFLAG = 1
IF (DISTORE(JC.4).EQ.U.18505.8506
8505 ILAUN = KPLX(JVC)
JLAUN = ILAUN-1
IF (DISTORE(JC.1LAUN).EQ.U)STOKE(JC.1LAUN)18505.8508
C TWO TERMINATION EVENTS REQUIRED FOR ONE LAUNCH EVENT
8508 JL = JL+1
TSTORE(JL)=DISTORE(JC.1LAUN)/SPDHIC*MDTA(JVC)
JL = JL+1
ITSTORE(JL) = -1
JL = JL+1
TSTORE(JL)=DISTORE(JC.1LAUN)/SPDHIC*MDTA(JVC)
JL = JL+1
ITSTORE(JL) = -JLAUN
GO TO 8610
C ONE TERMINATION EVENT REQUIRED FOR ONE LAUNCH EVENT
8505 JL = JL+1
TSTORE(JL)=DISTORE(JC.1)/SPDHIC*MDTA(JVC)
JL = JL+1
ITSTORE(JL) = -KPLX(JVC)
8610 JLMIN2 = JL - 2
8611 ISECHK = 0
DO 8613 I = JF. JLMIN2. 2
IF (ITSTORE(I).LE. ITSTORE(I+2)) 8613. 8612
ISECHK = ITSTORE(I)
ITSTORE(I) = ITSTORE(I+2)
ITSTORE(I+2) = ISECHK
ISECHK = ITSTORE(I+1)
ITSTORE(I+1) = ITSTORE(I+3)
ITSTORE(I+3) = ISECHK
ISECHK = 1
8613 CONTINUE
IF (.ISECHK) 8611. 8615. 8611
8503 IF (LAUNFLAG)8555.8512
8555 CONTINUE
C SKIP ASM TARGET WHEN SUBTRACTING TIME
8625 KVC=KVC+1
8625 GO TO 8602
8615 CONTINUE
DO 8656 I=JF. JL+2
8556 TSTORE(I)=ITSTORE(I)-MDTA(JVC)
8509 IF (TSTORE(JF))8511.8512
C INSENT DECAY TERMINATION EVENT
8511 KVC = KVC+1
MDT(KVC) = MDTA(JVC)*ITSTORE(JF)
8622 DECDIST=MDT(KVC)*SPDH
JVC=KVC-1
IF (JTP(JVC).EQ. 0) 8627.8626

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8627 JVC=JVC-1
8628 S1=HLA(JVC)
      T1=HLC(JVC)
      CMT(KVC)=CMT(JVC)+HUI(KVC)
      S2 = HLA(JVC)
      T2 = HLC(JVC)
      CIST = CIST(S1,T1,S2,T2)
      FACTOR = DECUISY/DIST
      CALL INTERP
      HLA(KVC) = S1
      HLC(KVC) = T1
      MUTA(JVC) = -TSTORE(JF)
      KPL(KVC)=TSTORE(JF+1)
      JTP(KVC) = LAUNUCGY
      IMH(KVC)=0
      JF = JF+2
      IF (TSTORE(JF)) 8511,85+5,8512
85+5 IF (JF,GT,JL) 8500-8511
      C ALL DECYS CURRENTLY LAUNCHED HAVE BEEN TERMINATED
8550 LAUNFLAG=0
8512 KVC = KVC+1
      IF ((JTP(KVC)+EQ,INSECTON,AND,KPLA(JVC)+GT+83)+CH,
1 JTPA(JVC)+EQ,LAUNCHRT)) 8601, 8602
8601 IF (TSTORE(JF)) 8602,8602+8603
      C INSERT ALL REMAINING DECYS TERMINATIONS BEFORE END OF PLAN
8603 CONTINUE
      MUTA(KVC)=MUTA(JVC)
      HUIA(JVC) = 0
      KPL(KVC)=TSTORE(JF+1)
      JTP(KVC)=LAUNUCGY
      HLA(KVC)=HLA(JVC)
      HLC(KVC)=HLC(JVC)
      IMH(KVC)=0
      CMT(KVC)=CMTA(JVC)
      KVC=KVC+1
      JF=JF+2
      LAUNFLAG=0
      GO TO 8601
      C POST CURRENT EVENT
8602 CONTINUE
      MUTA(KVC) = MUTA(JVC)
      KPL(KVC) = KPLA(JVC)
      JTP(KVC) = JTPA(JVC)
      HLA(KVC) = HLA(JVC)
      HLC(KVC) = HLC(JVC)
      TLT(KVC) = TLT(JVC)
      TZN(KVC) = TZN(JVC)
      IMH(KVC) = IMHA(JVC)
      PAK(KVC) = PAX(JVC)
      CMT(KVC) = CMTA(JVC)
8500 CONTINUE
      CALL SNAPIT(3+1)
      IF (ECCLE,1) 900,8990
8990 NIG=0
      C
      UC 9991 I=1,NHAPC
COUNT NUMBER OF TARGETS IN PLAN

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IVC=1
IRFABORT=1
IINC(1)=MUT(1)
INOP(1)=KPL(1)
INDE(1)=JTP(1)
DC 941 JC=2,MHT
JTPJC=JTP(JC)
903 IF (JTPJC.EQ.LCCLATH) 915,904
904 IF (JTPJC.EQ.LAUNASH) 914,905
905 IF (JTPJC.EQ.LGCHI) GC TO 9125
906 IF (JTPJC.EQ.LVCLW) 913,906
907 IF (JTPJC.EQ.LEGCG) 914,910
910 IF (JTPJC.EQ.LANDHC) 910,910
910 IF (JTPJC.LANDHC) * (JTPJC-LABORT) 940,910,940
912 MUT(JC+1)=MUT(JC+1)+MUT(JC)
GC TO 940
9125 KPL(JC) = 1
913 JTP(JC)=LGCHI
GC TO 910
914 JMW=JMW+1
IATP(JMW)=IWAHA
GC TO 918
915 JMW=JMW+1
IF (NBS) 917,917,916
916 NBS=NBS+1
IATP(JMW)=IWAH1
GC TO 918
917 IATP(JMW)=IWAH2
XDGZ,YDGZ ARE IN 50THS OF A NAUTICAL MILE
918 XDGZ(JMW) =3000.*TZT(JC)
YDGZ(JMW) =3000.*TZN(JC)*COSF(TZT(JC)/57.2957795)
ZDGZ(JMW)=0
910 IF (IVC.GE.MHIST) 902,941
921 IVC=IVC+1
IINC(IVC)=MUT(JC)
INOP(IVC)=KPL(JC)
INDE(IVC)=JTP(JC)
IF (IRFABORT) 930,940
930 IF ((JTPJC.EQ.INSECTOR.AND.KPL(JC).GT.63).OR.(JTPJC.EQ.LABORT))
*922,940
922 NPLAN=IVC
IRFABORT=0
NBS=NBS
940 JTPJC=JTPJC
941 CONTINUE
GC TO 908
902 PRINT 907,MYGROUP,MYCONRO,ICUTOLD
907 FORMAT (/,'14MPLAN FOR GROUP,14,24,8MCONRIDCH,10,2X
1,5HSORTY,16)
PRINT 911
911 FORMAT(17H EXCEEDS 80 LINES)
COUNTX=ICOUNTAS+1
GC TO 200
908 MFL=IVC
IF (NPLAN) 920,919
919 NPLAN=MFL

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920 MNT=JMW
   ITP = EVENTAPE
   IF (IDBL(MYHQUPO) .GT. 0) .AND. (INBASE .NE. LSTOBL5) 931, 932
931 LSTOBL5 = INBASE
   DC 933 I = 1, 6
   ISVX(I) = ISVY(I)
933 ISV(1) = 0
   INDV = IDBL(MYHQUPO)
   IDUM2(1) = SHNAVAL
   ITWORD = LOBL
   CALL WRNCRD
   CALL WRARRAY(INDATA, LOBL)
   DC 934 I = 1, 6
   ISVY(I) = ISVX(I)
932 FILAST = PKRAY(MYHQUPO)
   ITWORD = 26
   CALL WRNCRD
   CALL WRARRAY (INDATA, 26)
   CALL WRARRAY (INC,MFL)
   CALL WRARRAY (IND,MFL)
   CALL WRARRAY (INDE,MFL)
   CALL WRARRAY (INTYP,MNT)
   CALL WRARRAY (ADGZ, MNT)
   CALL WRARRAY (YDGZ, MNT)
   CALL WRARRAY (ZDGZ, MNT)
   CALL SNAPIT(2,1)
   CALL SNAPIT(12,1)
   GC TO 200

C
C
999 CONTINUE
   CALL PLANTANK
   CALL TIMEP(4)
   PRINT 990, NSCHTIES
990 FORMAT(/10X,10,2X,22#BOMBER PLANS PROCESSED//)
997 PRINT 997, MISC1, MTHGCT
   1,9HTARGETS//)
   PRINT 990,ICOUNTXS
9900 FORMAT(2X,10,22# PLANS EXCEED 80 LINES)
C
   WRITE DUMMY LAST PLAN
   ILAST=4*PLAST
   GC TO(991,992,993)ICE
991 CALL CLINDATA
   ILAST=4*PLAST
   INDATA=ISIDE
   ITP=EVENTAPE
   NWORDS=0
   ITWORD=NRCDROS
   CALL WRNCRD
   CALL WRARRAY(INDBAS,400)
   CALL WRARRAY(ITCF,200)
   ITP=EVENTAPE S CALL TERMTAPE
992 ITP=STKFEIL(1)
   CALL TERMTAPE

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ITP=MSLTIME(1)
CALL TERMTAPE
ITP=QASFILE(1)
CALL TERMTAPE
      REMIND ALL
      GC TO(998,999,999,ICE
994 ILAST=HLAST
    WHITE(PLANTAPE) (MZEND,I=1,24),ILAST)
    END FILE PLANTAPE
    WHITE(PLANTAPE,980),NRF
    WHITE(PLANTAPE,981) (RPLAT(1),NFLONG(1),I=1,NRF)
    END FILE PLANTAPE
    REMIND PLANTAPE
996 CALL PRNTAB
    PRINT 993
993 FORMAT(1H1)
    CALL CMKSUM(2)
980 FORMAT(5X,I2)
981 FORMAT(5X,F10.6,5X,F10.6)
    CALL TIMEWE(5)
    CALL TIMEWE(1)
    WHITE(44,7777)
    PRINT 7777
7777 FORMAT ('41H ***** PROCESSOR PLNTPLAN COMPLETED *****')
    IF (MRVFLG) GC TO 985
    MYIDENT = THIMPALOC
    GC TO 987
985 MYIDENT = THALOCGRP
987 CALL DEACTIV
    STOP
    END

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5.4TS PLNTPLAN

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IOENT PLNTPLAN

11/24/71

EO 0

PAGE NO.

39

PLNTPLAN	IOENT	PLNTPLAN
MAX	11333	
PLNTTYPE	U1564	
DPENREF	U0047	
U0276	U0003	
U0020	U0276	
ASMTABLE	U0144	
U1131	U1131	
CONRCHAH	U0020	
FILES	U0027	
MASTER	U7304	
9	U0144	
8	U0147	
ARTIME	U0064	
ASMAHAY	U0011	
BOUND	U0005	
CONTROL	U0004	
CONCUNT	U1322	
DINDATA	U0264	
DINDATA2	U0024	
DISTC	U0020	
EVENTS	U0014	
FILABEL	U0003	
FINDZONE	U0006	
HILC	U0002	
ICLASS	U0002	
IDP	U0003	
IFLGUPEN	U0001	
I90	U0500	
INDATA	U0157	
ICUTOLD	U0002	
INF	U0001	
IIP	U0010	
KEYLENG	U0002	
KEYS	U0011	
LASH	U0026	
MH	U0004	
MH2	U0002	
MISC1	U0001	
MRVFL0	U0001	
MYIDENT	U0010	
MYLABEL	U0001	
NCPRIHT	U0221	
OUTSHI	U0007	
POLIE	U2260	
10	U0144	
REF	U0002	
RL	U0017	
SNAPON	U0001	
SPASH	U0372	
TEMPO	U0001	
TOROU	U0005	
VICINITY	U0820	
WPNRPA	U0360	
WPNTPKX		

00630
00212
01320

NAVAL
1
7

EXTERNAL SYMBOLS

QBQENTRY
TREND.
QBUSTOPS
QBUL0040
Q1010100
QB000040
QBUDICT.
KEYMAKE
STORAGE
TIME
CHRSUM
VPLNPLA
INITAPE
SETHRAD
RDARRAY
SKIP
RLWCHU
INITANK
SNAPCON
LNCUATA
SETHKITE
SNAPIT
PLANIMIS
FINDZONE
CLINATA
POSTLAUN
DISTP
INTERP
POST4
BOUNDARY
PREFLY1
PREFLY2
POSTFLY
CHUER
REGRUEH
ADJUST
ZONELHOS
POST17
POST18
IPUT
ASORI
SMICMALT
DISTIME
DECCYADD
WMCND
WRARRAY
PLANTANK
TEHMTAPE
PHNTAB
DEACTIV
MAXIF
CUSF

5.4TS PLNPLAN

EFT.
REM.
TSH.
STB.
QNSINGL.

11/24/71

ED 0

PAGE NO.

41

[illegible]

PAGE NO. 43

ED O

11/24/71

ST. PETERS

C00002	C00001	C00004	C00006	C00007	C00008	C00009	C00010	C00011	C00012	C00013	C00014	C00015	C00016	C00017	C00018	C00019	C00020	C00021	C00022	C00023	C00024	C00025	C00026	C00027	C00028	C00029	C00030	C00031	C00032	C00033	C00034	C00035	C00036	C00037	C00038	C00039	C00040	C00041	C00042	C00043	C00044	C00045	C00046	C00047	C00048	C00049	C00050	C00051	C00052	C00053	C00054	C00055	C00056	C00057	C00058	C00059	C00060	C00061	C00062	C00063	C00064	C00065	C00066	C00067	C00068	C00069	C00070	C00071	C00072	C00073	C00074	C00075	C00076	C00077	C00078	C00079	C00080	C00081	C00082	C00083	C00084	C00085	C00086	C00087	C00088	C00089	C00090	C00091	C00092	C00093	C00094	C00095	C00096	C00097	C00098	C00099	C00100	C00101	C00102	C00103	C00104	C00105	C00106	C00107	C00108	C00109	C00110	C00111	C00112	C00113	C00114	C00115	C00116	C00117	C00118	C00119	C00120	C00121	C00122	C00123	C00124	C00125	C00126	C00127	C00128	C00129	C00130	C00131	C00132	C00133	C00134	C00135	C00136	C00137	C00138	C00139	C00140	C00141	C00142	C00143	C00144	C00145	C00146	C00147	C00148	C00149	C00150	C00151	C00152	C00153	C00154	C00155	C00156	C00157	C00158	C00159	C00160	C00161	C00162	C00163	C00164	C00165	C00166	C00167	C00168	C00169	C00170	C00171	C00172	C00173	C00174	C00175	C00176	C00177	C00178	C00179	C00180	C00181	C00182	C00183	C00184	C00185	C00186	C00187	C00188	C00189	C00190	C00191	C00192	C00193	C00194	C00195	C00196	C00197	C00198	C00199	C00200	C00201	C00202	C00203	C00204	C00205	C00206	C00207	C00208	C00209	C00210	C00211	C00212	C00213	C00214	C00215	C00216	C00217	C00218	C00219	C00220	C00221	C00222	C00223	C00224	C00225	C00226	C00227	C00228	C00229	C00230	C00231	C00232	C00233	C00234	C00235	C00236	C00237	C00238	C00239	C00240	C00241	C00242	C00243	C00244	C00245	C00246	C00247	C00248	C00249	C00250	C00251	C00252	C00253	C00254	C00255	C00256	C00257	C00258	C00259	C00260	C00261	C00262	C00263	C00264	C00265	C00266	C00267	C00268	C00269	C00270	C00271	C00272	C00273	C00274	C00275	C00276	C00277	C00278	C00279	C00280	C00281	C00282	C00283	C00284	C00285	C00286	C00287	C00288	C00289	C00290	C00291	C00292	C00293	C00294	C00295	C00296	C00297	C00298	C00299	C00300	C00301	C00302	C00303	C00304	C00305	C00306	C00307	C00308	C00309	C00310	C00311	C00312	C00313	C00314	C00315	C00316	C00317	C00318	C00319	C00320	C00321	C00322	C00323	C00324	C00325	C00326	C00327	C00328	C00329	C00330	C00331	C00332	C00333	C00334	C00335	C00336	C00337	C00338	C00339	C00340	C00341	C00342	C00343	C00344	C00345	C00346	C00347	C00348	C00349	C00350	C00351	C00352	C00353	C00354	C00355	C00356	C00357	C00358	C00359	C00360	C00361	C00362	C00363	C00364	C00365	C00366	C00367	C00368	C00369	C00370	C00371	C00372	C00373	C00374	C00375	C00376	C00377	C00378	C00379	C00380	C00381	C00382	C00383	C00384	C00385	C00386	C00387	C00388	C00389	C00390	C00391	C00392	C00393	C00394	C00395	C00396	C00397	C00398	C00399	C00400	C00401	C00402	C00403	C00404	C00405	C00406	C00407	C00408	C00409	C00410	C00411	C00412	C00413	C00414	C00415	C00416	C00417	C00418	C00419	C00420	C00421	C00422	C00423	C00424	C00425	C00426	C00427	C00428	C00429	C00430	C00431	C00432	C00433	C00434	C00435	C00436	C00437	C00438	C00439	C00440	C00441	C00442	C00443	C00444	C00445	C00446	C00447	C00448	C00449	C00450	C00451	C00452	C00453	C00454	C00455	C00456	C00457	C00458	C00459	C00460	C00461	C00462	C00463	C00464	C00465	C00466	C00467	C00468	C00469	C00470	C00471	C00472	C00473	C00474	C00475	C00476	C00477	C00478	C00479	C00480	C00481	C00482	C00483	C00484	C00485	C00486	C00487	C00488	C00489	C00490	C00491	C00492	C00493	C00494	C00495	C00496	C00497	C00498	C00499	C00500	C00501	C00502	C00503	C00504	C00505	C00506	C00507	C00508	C00509	C00510	C00511	C00512	C00513	C00514	C00515	C00516	C00517	C00518	C00519	C00520	C00521	C00522	C00523	C00524	C00525	C00526	C00527	C00528	C00529	C00530	C00531	C00532	C00533	C00534	C00535	C00536	C00537	C00538	C00539	C00540	C00541	C00542	C00543	C00544	C00545	C00546	C00547	C00548	C00549	C00550	C00551	C00552	C00553	C00554	C00555	C00556	C00557	C00558	C00559	C00560	C00561	C00562	C00563	C00564	C00565	C00566	C00567	C00568	C00569	C00570	C00571	C00572	C00573	C00574	C00575	C00576	C00577	C00578	C00579	C00580	C00581	C00582	C00583	C00584	C00585	C00586	C00587	C00588	C00589	C00590	C00591	C00592	C00593	C00594	C00595	C00596	C00597	C00598	C00599	C00600	C00601	C00602	C00603	C00604	C00605	C00606	C00607	C00608	C00609	C00610	C00611	C00612	C00613	C00614	C00615	C00616	C00617	C00618	C00619	C00620	C00621	C00622	C00623	C00624	C00625	C00626	C00627	C00628	C00629	C00630	C00631	C00632	C00633	C00634	C00635	C00636	C00637	C00638	C00639	C00640	C00641	C00642	C00643	C00644	C00645	C00646	C00647	C00648	C00649	C00650	C00651	C00652	C00653	C00654	C00655	C00656	C00657	C00658	C00659	C00660	C00661	C00662	C00663	C00664	C00665	C00666	C00667	C00668	C00669	C00670	C00671	C00672	C00673	C00674	C00675	C00676	C00677	C00678	C00679	C00680	C00681	C00682	C00683	C00684	C00685	C00686	C00687	C00688	C00689	C00690	C00691	C00692	C00693	C00694	C00695	C00696	C00697	C00698	C00699	C00700	C00701	C00702	C00703	C00704	C00705	C00706	C00707	C00708	C00709	C00710	C00711	C00712	C00713	C00714	C00715	C00716	C0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5-4TS PLMTPLAN

11/24/71

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PAGE NO.

45

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5.415 PLNTPLAN

	11/24/71	ED	PAGE NO.	46
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CO0107 IBCTYC	03170	03371	03422	03545
CO0110 IBUES	03144	03371	04137	04153
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CO0133 IBFLGC	02727			
CO0076 IBJEC	02716	07763		
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PI1146 ICC	02112	02166	02173	02263
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CO0011 ICCLASS	10242	03743	03747	
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PI1152 IDL	04662	04676	04723	
CO0000 IDP	02703	04601	04527	04243

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2395

5.475 PLNTPLAN

11/24/71

ED 0

PAGE NO.

50

P02414 .192				
P02375 .193				
P02340 .195				
P02357 .196				
P02354 .197				
P02351 .198				
P02311 .199				
P02261 .20				
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P02466 .201				
P02516 .202				
P02472 .203				
P02475 .204				
P02452 .208				
P02456 .209				
P02263 .21				
P02461 .210				
P03542 .2250				
P03550 .2251				
P03563 .2252				
P02761 .2253				
P03571 .2254				
P03033 .2260				
P03035 .2261				
P03055 .2263				
P03030 .2264				
P03601 .2268				
P03603 .2269				
P03441 .2270				
P03370 .2273				
P03444 .2278				
P02534 .230				
P02540 .231				
P02615 .232				
P02574 .234				
P02602 .235				
P02636 .236				
P02640 .240				
P02734 .241				
P04552 .242				
P04555 .243				
P04564 .244				
P04610 .245				
P03007 .250				
P03106 .251				
P03257 .252				
P03255 .2520				
P03101 .254				
P03111 .255				
P03120 .256				
P03123 .257				
P03132 .258				
P03164 .2581				
P03167 .2582				
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	03253			
	03100			
	03107			
	03110			
	03117			
	03131			
	03161			

11/26/71

ED 0

PAGE NO.

51

P03162 .2583	03160		
P03175 .2585	03165		
P03201 .2586	03166		
P03203 .2587			
P03252 .259			
P03312 .260			
P03615 .261	03610		
P03621 .262			
P03624 .263	03620		
P03302 .268	03254		
P03304 .269			
P03357 .270	03251		
P03352 .271			
P03364 .272			
P03366 .273			
P03412 .274			
P03421 .275			
P03424 .276	03417	03420	
P03430 .277			
P03436 .278			
P03455 .279			
P03312 .280			
P03321 .281			
P03324 .282			
P03317 .284	03322		
P03336 .287			
P03460 .290	03356		
P03525 .291			
P03530 .292	03524		
P03457 .293			
P03504 .294			
P03510 .295			
P03533 .299			
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P03671 .302			
P03652 .303			
P03654 .304	03647		
P03701 .307			
P04030 .308	03703		
P04036 .309	03702		
P02073 .31			
P04044 .310			
P03704 .312	03700		
P03721 .313			
P03730 .314			
P03746 .315			
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P03756 .317			
P03752 .318	03720		
P03764 .320	03755		
P04161 .329	04154		
P04103 .330	04131		
	03727	03751	03763 04032

5.4TS PLNTPLAN

11/24/71 EO 0 PAGE NO. 53

P04675 .427	U4664	U4667
P02130 .43	U2126	
P04700 .430	U4637	
P04742 .431		
P04766 .440	U4741	
P04776 .5000	U4414	
P05003 .500		
P05100 .5013	U5074	
P05075 .5014		
P01650 .51		
P05117 .5101	U5116	
P05122 .5102	U5116	
P05017 .511	U5071	
P05257 .5110	U5124	
P05262 .5111		
P05037 .512		
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P05156 .5121	U5147	
P05150 .5122	U5123	
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P05221 .5124		
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P05434 .5142	U5426	U5463
P05416 .5143		U5504
P05464 .5146		
P05427 .5147		
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P05337 .5151	U5330	
P05344 .5152	U5336	
P05113 .5153		
P05115 .5154	U5112	
P05351 .5155	U5326	
P05327 .5156	U5326	
P05033 .519		
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P05136 .5202	U5135	
P05140 .5203		
P05300 .5204		
P05377 .529	U5375	
P01665 .53	U1647	
P05374 .530	U5372	
P05405 .546	U5403	
P05371 .547	U5367	
P05545 .548	U5406	U5461
P05410 .554	U5404	
P05505 .560	U5407	
P05551 .591	U5373	
P05614 .592		

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P05632 .600	05077	
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P05653 .605	05645	
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P05674 .6051	05744	
P05737 .6060	05715	
P05742 .607	05741	
P05745 .610	05740	05741
P06034 .615	06021	06025
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P06057 .620	05617	05631
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P06020 .628	06024	
P06031 .630		
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P06557 .8003	06460	
P06627 .8004	06474	
P06302 .801	06474	
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P06674 .8025		
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P06434 .8066		
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P06360 .807	06351	
P06773 .8070	06765	06766
P06767 .8071	06766	
P06456 .8072	06772	

5-415 PLN1PLAN

11/24/71

ED 0

PAGE NO.

55

P06310 .808
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11/24/71

EO 0

PAGE NO.

56

P07337 .8603			
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P07140 .8611			
P07154 .8612			
P07164 .8613			
P07200 .8615			
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P10244 .908			
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P05442	..2000C2.	05435	07141	07362	07564					
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5-ATS PLANPLAN

66

PAGE NO.

0

EU

11/24/71

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P11324 TKXI

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C00006 TR

C01224 TRANGE

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P02576 TS000C6.

P02735 TS000C7.

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P03426 TS00012.

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5.415 PLNTPLAK

11/26/71

03

PAGE NO.

89

P03561	WS00015	03565
P03571	WS00016	03573
P03663	WS00017	04046
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        1,JAY,JOIST *****
  CEND
  CUSE   ASHARRY *****
        DINDATA 2DEC70 *****
        COMMON/DINDATA/HUT(90),KPL(90),JTP(90),MLA(90),MLC(90),TZT(90),
        1,TZN(90),IPA(90),PHI,NPL *****
  CEND
  CUSE   DINDATA *****
        DINSTC 2DEC70 *****
        COMMON/DINSTC/DISTC(20) *****
  CEND
  CUSE   DINSTC *****
        EVENTS 2DEC70 *****
        COMMON/EVENTS/LAUNCH,LAUNCH,LEREFUEL,INSECTOR,LCCLAT,TR,LAUNCH,
        1,LAUNCH,CC,LAUNCH, LCH,MISSAT,LEUD,LABORT,LENTREF,LEAVEREF,
        1,IGCHI,IG,LOW *****
  CEND
  CUSE   EVENTS *****
        MILC 2DEC70 *****
        COMMON/MILC/ISTOREHI,ISTORELO,IGLEFT,FACHI,FACLO,GOLC *****
  CEND
  CUSE   MILC *****
        IGC 2DEC70 *****
        COMMON/IGC/IGC800 *****
  CEND
  CUSE   IGC *****
        CUTSRT 16FEB71 *****
        COMMON/CUTSRT/IGTSRT *****
        1,MYGROUP,MYCORR,INDVEM,IREF,IGPEN,IPAYLOAD,LNCHBASE,IYP *****
        2,BLAT,BLON,GNAP,IBTYPE(10),GBLAT(10),GBLON(10),DLAT(10),DLON(10) *****
        3,IBJEC(10),IBDES(10),IBTSK(10),IBCTY(10),IBFLG(10),ATTRCUT(10), *****
        4,SURVUT(10),GOLW1,GOLW2,GOLW3,SPDLG *****
        4,SPDLG,RANGEX,ANGREF,UELAY,IRG,ILRT,IDBOMBER,AVAILLOW,MNGDEC *****
        /CUTSRT/ IS THE INPUT RECORD FROM STRKFILE *****
  CEND
  CUSE   CUTSRT *****
        POLITE 2DEC70 *****
        COMMON/POLITE/S1,T1,SC,T2,FACTOR,SR,TR *****
  CEND
  CUSE   POLITE *****
        VICINITY 2DEC70 *****
        COMMON/VICINITY/VNB,VMA,VLB,VLA,GBMIN *****
  CEND
  CUSE   VICINITY *****
        IGC800=C *****
        GOLX2=GOLW2 *****
        GOLX3=GOLW3 *****
        MHAP=MHAP-1 *****
        DC 5600 I=1,20 *****
        DISTC(I)=0 *****
  C FIND DISTANCES BETWEEN TARGET EVENTS *****
        DC 5300 I=1,MHAP *****
        A1=ALAT(I) *****
        B1=ALON(I) *****
        A2=ALAT(I+1) *****
        B2=ALON(I+1) *****
        DISTC(I)=DISTF(A1,B1,A2,B2) *****
  CEND
  CUSE   DISTC *****
        CALL SNAPIT(11,1) *****
        DC 5398 I=1,MHAP *****
        IF (DISTC(I).NE.0.) 5399,5398 *****
        5300 CONTINUE *****

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5398 CONTINUE
PRINT 5668
5668 FORMAT(32MONO EVENTS AFTER CORRIDOR ORIGIN)
160800=1
GC TO 5460
5399 13=1
IF(1.61.1)600.901
C ASMS LAUNCHED AT ORIGIN
600 G2=GOLX2*GCMIN
IF(12.17.DISTC(1))601.602
C GC LOW AT ORIGIN - LAUNCH ASMS FIVE MINUTES LATER
602 S1=ALAT(1)
T1=ALON(1)
S2=ALAT(13)
T2=ALON(13)
FACTOR = (SPULO/12.) / DISTF (S1.11.S2.12)
CALL INTERP
K=13-1
DC 603 J=2,K
ALAT(1)=SR
603 ALON(1)=TR
13=2
GC TO 5331
601 CONTINUE
IF(GOLX2)5301.5302.5303
C BOMBER GOES LOW AFTER FIRST TARGET
5301 GCLOW=GOLX2
DC 5310 1=13*MAP
GCLOW=GCLOW-DISTC(1)
IF(GLOW)5311.5311.5310
5310 CONTINUE
PRINT 5669
5669 FORMAT(41MONO NEGATIVE WOLX2 EXTENDS TO END OF SORTIE)
160800=1
GC TO 5460
5311 1STOREL=1
DISTA=DISTC(1)*GCLOW
DISTB=-GCLOW
GC TO 5350
5302 IF(GOLX3)5320.5321
C BOMBER GOES LOW A1 FIRST TARGET
5320 1STOREL=13-1
DISTA=DISTC(1)(1)GLOW
DISTB=0.
GC TO 5350
C BOMBER CANNOT GO LOW AT ALL
5321 1STOREL=0
1STOREH=0
GC TO 5460
5303 G2=GOLX2*GCMIN
1STOREL=13-1
IF(12.17.DISTC(1))5330.5331
C BOMBER GOES LOW BETWEEN ORIGIN AND FIRST TARGET
5330 DISTB=GOLX2

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11/24/71

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DISTA=DISC(ISTORELO)=60LOX2
GC TO 5350
C BOMBER GOES LOW AT CORRIDOR ORIGIN
5331 ISTORELO=1
FACLO=0.
IF(JTPT(MHT).EQ.LOW(1)5001,5390
C BOMBER IS APPROACHING ORIGIN AT LOW ALTITUDE -
CANCEL GC HIGH POSTED IN BLOCK 30
5601 MHT=MHT-1
LOWFLAG=1
GC TO 5390
CHECK GC LOW FOR POSSIBLE BACKWARD ADJUSTMENT
5350 ACDIST=DISC
JSTORELO=ISTORELO+1
DC 5355 I=JSTORELO,MHAP
IBTYPE=IBTYPE(1)
IF((IBTYPEI.EQ.8MDRCPQMB).OR.(IBTYPEI.EQ.8H AIM ASM))5351,5352
5352 ACDIST=ACDIST+DISTC(1)
5355 CONTINUE
GC TO 5370
5351 IF(ACDIST.LT.VLB)5360,5370
C BOMBER GOES LOW TOO SOON BEFORE TARGET - MUST GO LOW EARLIER
5360 ACDIST=VLB-ACDIST+DISC
DISTA=DISC(ISTORELO)=ACDIST
5360 ACDIST=JSTORELO+1
C LOW MUST BE MOVED BEFORE PREVIOUS EVENT(S)
5361 DC 5365 I=1,ISTORELO
J=ISTORELO-1+1
ACDIST=ACDIST-DISTC(J)
IF(ACDIST<5366,5366,5367
5367 IF(J.EQ.1)5368,5369
5369 IBTYPE=IBTYPE(J)
IF((IBTYPEI.EQ.8MDRCPQMB).OR.(IBTYPEI.EQ.8H AIM ASM))5362,5365
5365 CONTINUE
C GC LOW IS MOVED BEFORE EVENT J
5366 ISTORELO=J
DISTA=ACDIST
GC TO 5370
C ANOTHER TARGET ENCOUNTERED BEFORE COMPLETION OF ADJUSTMENT FOR LAST
C TARGET - MOVE GC LOW TO SUITABLE DISTANCE BEFORE THIS TARGET
5362 ACDIST=VLB
ISTORELO=J-1
GC TO 5361
C GC LOW CANNOT BE MOVED PAST CORRIDOR ORIGIN
5368 ISTORELO=1
DISTA=0.
C BACKWARD ADJUSTMENT COMPLETE - CHECK FOR FORWARD ADJUSTMENT
5370 ACDIST=DISTA
DC 5375 I=1,ISTORELO
J=ISTORELO-1+1
IF(J.EQ.1)5400,5379
5379 IF(ACDIST.LT.VLB)5371,5400
5371 IBTYPE=IBTYPE(J)
IF((IBTYPEI.EQ.8MDRCPQMB).OR.(IBTYPEI.EQ.8H AIM ASM))5372,5373
5373 ACDIST=ACDIST+DISTC(J-1)
5375 CONTINUE

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11/24/71

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C BOMBER GOES LOW TOO SOON AFTER TARGET - MOVE GO LOW TO
C APPROPRIATE DISTANCE BEFORE TARGET
5372 ACQIST=VLB
    ISTOREL=J-1
    GO TO 5380
C STORE FINAL GO LOW FACTOR
5400 FACLO=DISTA
5390 CONTINUE
C FIND GO HIGH LOCATION
    TGOLO=GOLOX2*GOLOX3
    ACQIST=DISTC(ISTOREL)-FACLO
    I=ISTOREL-1
    DC 5410 J=1,NHAP
    GOLO=GOLO-ACQIST
    IF (GOLO) 5405,5405,5400
    5406 ACQIST=ACQIST+DISTC(J)
C BOMBER GOES HIGH AFTER DEPENETRATION
    ISTOREH=J-1
    I=LEFT=1
    GO TO 5460
C BOMBER GOES HIGH OVER TARGET AREA
5405 ISTOREH=J-1
    I=LEFT=0
    DISTA=DISTC(ISTOREH)*GOLO
    DISTB=GOLO
    ACQIST=DISTA
    ISTOREH=I
    ISTOREH=I-1
C USES BOMBER GO HIGH TOO SOON AFTER TARGET
    DC 5425 J=1,ISIMI
    IF (ACQIST+LI*VM-1) 5420,5430
    5420 K=ISTOREH-J+1
    5424 I=ISTOREH+I*TYPE(K)
    5422 ACQIST=ACQIST+DISTC(K-1)
    5425 CONTINUE
    GO TO 5430
C MOVE GO HIGH TO APPROPRIATE DISTANCE AFTER TARGET
5421 ACQIST=VMA
    CMELO TO INSURE NEW LOCATION IS NOT TOO CLOSE TO ANOTHER TARGET
    DC 5426 I=K,NHAP
    ACQIST=ACQIST-DISTC(I)
    IF (ACQIST) 5427,5427,5428
    5428 I=ISTOREH+I*TYPE(I+1)
    IF (I=ISTOREH+I*TYPE(I+1)*RMDROP) 5429,5429,5426
    5426 CONTINUE
    ISTOREH=I
    FACLO=DISTC(I)
    GO TO 5460
C GO HIGH MUST BE MOVED PAST ANOTHER TARGET
5429 K=I+1
    GO TO 5421
C GO HIGH IS NOT MOVED PAST ANOTHER TARGET
5427 ISTOREH=I
    DISTA=DISTC(I)*ACQIST
    DISTB=ACQIST

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5.4TS

AUGUST

11/24/71

ED

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PAGE NO.

6

AUGUST

IDENT

U0115
U0037
U0064
U1322
U0024
U0020
U0008
U0001
U0221
U0007
U0005

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

AUGUST

ASHMANNAY
DINDATA
DISTG
EVENTS
MILC
IGC
OUTSAT
POLITE
VICINITY

EXTERNAL SYMBOLS

THEND.
QDDICT.
DISTF
SNAPIT
INTERP
STK.

DATE	ADJUST	11/24/71	ED	0	PAGE NO.	7
P00667	A1	00065	00076			
P00670	A2	00071	00077			
P00671	ACD1ST	00005	00321	00331	00335	00357
		00003	00413	00445	00471	00515
		00523	00540	00554	00613	00634
		00641				
P00637	ADJUST	00037	00064	00140	00145	00174
C00000	ALAT	00064	00072	00142	00147	00176
C00012	ALCH	00066				
C00160	ATTROUT					
C00672	B1	00067	00076			
P00673	B2	00073	00077			
P00654	BEGIN.	00655				
C00011	BLAT					
C00012	BLONG					
P00674	CCUNT.	00062	00171	00172		
P00003	CRFMT.	00124	00226			
C00213	DELAY					
P00001	DICT.	00041	00075	00120	00164	00225
C00063	DIST	00235	00245	00342	00512	00515
P00675	DISTA	00642	00246	00304	00611	00610
P00676	DISTB	00236	00246	00304	00611	
C00000	DISTC	00055	00056	00100	00135	00233
		00233	00244	00262	00322	00340
		00345	00356	00436	00472	00510
		00510	00541	00555	00606	00633
		00074	00154			
X00003	DISTF					
C00052	DLAT					
C00064	DLONG					
P00656	ENDING.	00042	00654			
P00000	EXIT.	00657				
C00003	FACHI	00575	00577	00647		
C00004	FACLC	00274	00452	00457	00457	
C00004	FACTOR	00161				
P00003	FORMAT.	00310	00414	00521	00552	
P00677	G2	00134	00255			
P00124	GGG0000.	00116				
P00426	G-000001.	00220				
C00005	GCLC	00466	00467	00511	00513	
C00204	GCLCH1					
C00205	GCLCH2	00044	00045			
C00206	GCLCH3	00046	00047			
P00700	GCLCH2	00132	00202	00205	00253	00453
P00701	GCLCH3	00050	00454			
P00702	GCLUM	00206	00210	00234	00235	
C00004	GCLUM	00133	00254	00254		
C00000	HGT					
C00016	HLA					
C00550	HLC	00053	00054	00063	00106	00135
P00703	I	00211	00215	00230	00310	00353
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				06586	06617	
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				06648	06679	
				06679	06710	
				06710	06741	

S.A.T.S. ADJUST

PAGE NO. 8

ED 0

11/24/71

ADJUST	00500	00503	00505	00521	00522	00632	00635	00644	00532	00552	00562	00623
P00704 I3	00127	00144	00165	00201	00206	00241	00255					
P00134 IBCTV												
C00110 IBDES												
C00146 IBFLG												
C00076 IBJEC												
C00122 IBTSK												
C00014 IBTYPE												
P00705 IBTYPEI												
C00216 IDBCH8EM												
C00036 IDIS												
C00005 IDPEN												
P00316 IF00001.												
P00370 IF00002.												
P00432 IF00003.												
P00535 IF00004.												
P00565 IF00005.												
P00626 IF00006.												
C00024 IFLY												
C00000 IGB80C												
C00016 IGCHI												
C00002 IGCLEFT												
C00017 IGCLEN												
C00215 ILRT												
C00003 INOVEM												
P00054 INITIAL.												
C00003 INSECTOR												
X00005 INTENP												
C00050 IQRD												
C00000 ICUTSRT												
C00004 IPAYLCAD												
C00214 IREF												
P00706 ISTMI												
C00000 ISTCHEMI												
C00001 ISTCRELC												
C00010 ITPP												
P00101 .5300												
P00205 .5301												
P00237 .5302												
P00253 .5303												
P00215 .5310												
P00230 .5311												
P00241 .5320												
P00250 .5321												
P00264 .5330												
P00272 .5331												
P00304 .5350												

S-ATS

ADJUST

11/24/71

ED

0

PAGE NO.

9

P00331 .5351	00315	00320			
P00321 .5352	00317				
P00325 .5355					
P00334 .5360					
P00350 .5361	00347	00406			
P00402 .5362	00307	00372			
P00373 .5365	00371				
P00376 .5366	00360				
P00361 .5367					
P00407 .5368	00303				
P00364 .5369	00302				
P00412 .5370	00330				
P00426 .5371	00333	00333	00346	00346	00401
P00444 .5372					
P00435 .5373	00431	00434			
P00441 .5375	00433				
P00423 .5379	00421				
P00443 .5380	00450				
P00453 .5390	00277	00303			
P00113 .5398	00112				
P00126 .5399	00112				
P00451 .5400	00422	00425			
P00504 .5405	00467	00470			
P00471 .5406					
P00475 .5410					
P00526 .5420					
P00550 .5421	00534	00537	00602	00645	
P00540 .5422	00536				
P00531 .5424					
P00544 .5425					
P00570 .5426	00566				
P00603 .5427	00557	00560			
P00561 .5428					
P00600 .5429	00594	00567			
P00612 .5430	00525	00525	00547		
P00641 .5431	00625	00630			
P00631 .5432	00627				
P00644 .5433					
P00635 .5435					
P00646 .5450	00617	00640	00643		
P00650 .5460	00125	00427	00252	00503	00577
P00620 .5471	00617				
P00655 .5600					
P00300 .5601					
P00132 .600					
P00202 .601	00131	00137			
P00140 .602	00136	00137			
P00175 .603					
P00660 .ERASER.	00153	00160	00160	00161	
P00023 .100000	00315				
P00024 .100001	00317				
P00025 .100002	00367				
P00026 .100003	00371				
P00027 .100004	00431				

P00030	..100005	00433						
P00031	..100006	00534						
P00032	..100007	00536						
P00033	..100008	00504						
P00034	..100009	00506						
P00035	..100010	00625						
P00036	..100011	00627						
P00037	..100012	00121						
P00038	..100013	00223						
P00039	..100014	00167						
P00040	..100015	00446						
P00041	..100016	00172	00354	00355	00361	00376	00404	00436
P00042	..100017	00167	00472	00475	00500	00521	00527	00620
P00043	..100018	00446						
P00044	..100019	00307						
P00045	..100020	00275						
P00046	..100021	00166						
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P00080	..100055							
P00081	..100056							
P00082	..100057							
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P00209	..100184							
P00210	..100185							
P00211	..100186							
P00212	..100187							
P00213	..100188							

5.4TS

AUGUST

P00714 TSCLC
X00001 THENO.
C00006 TR
P00102 TS00002.
P00114 TS00001.
P00200 TS00004.
P00210 TS00005.
P00326 TS00006.
P00374 TS00007.
P00442 TS00010.
P00476 TS00011.
P00545 TS00012.
P00571 TS00013.
P00636 TS00014.
C01034 TZN
C00702 TZT
C00001 VHA
C00000 VHB
C00003 VLA
C00002 VLB
P00055 WS00001.
P00064 WS00002.
P00107 WS00003.
P00173 WS00004.
P00210 WS00005.
P00312 WS00006.
P00352 WS00007.
P00416 WS00010.
P00465 WS00011.
P00523 WS00012.
P00554 WS00013.
P00622 WS00014.
00347 SYMBCL5

00454
00122
00175
00062
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00171
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00311
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00621
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00642
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00101
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00217
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00572
00637

00402 00402 00444 00444

11/24/71

ED

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PAGE NO.

11

11/64/71

FTMS-5

```

FUNCTION AGDF (A1,Y1,XC,Y2)
      CSUBR
      AGDF 20EC70 *****
      C=.01745329252
      A1=X1/C
      A2=X2/C
      D=0.1745329252*(Y1-Y2)*C
      AGDF=ACOSF(SINF(A1)*SINF(A2)+COSF(A1)*COSF(A2)*COSF(U1))
      AGDF=ABSF(AGDF)
      RETURN
      END

```

1000
64000
2000
3000
4000
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6000
7000
8000
9000

5.4TS

AGDF

PROGRAM LENGTH
ENTRY POINTS
EXTERNAL SYMBOLS

AGDF

QBUDICT.
DIFFLONG
SINF
COSF
ACOSF

IDENT

U0127
U0003

AGDF

11/26/71

ED 0

PAGE NO.

2

P00123 A1	00012	00031				
P00124 A2	00015	00034				
X00005 AC9SF	00045					
F00003 AGDF	00003					
F00053 BEGIN.	00101	00114				
P00125 C	00010	00014	00021			
X00004 C9SF	00032	00035	00041			
P00126 D	00021	00040				
P00001 DICT.	00005	00017	00024	00027	00033	00042
X00002 DIFFLNG	00016				00036	00046
P00102 ENDING.	00006	00051	00053		00055	00055
P00000 EXIT.	00106					
P00010 FP000C1.	00065					
P00013 FP000C2.	00074					
P00020 FP000C3.	00071					
P00117 GETPL.	00060	00076				
P00107 GETPU.	00063	00072	00113			
P00053 INITIAL.	00006					
P00120 .ERASER.	00025	00030	00034	00037	00043	00044
P00067 PF000C2.	00064					
P00072 PF000C3.	00070					
P00076 PF000C4.	00073					
P00101 PF000C5.	00077					
X00001 Q8GDICT.	00000	00004				
X00003 SINP	00023	00026				
P00052 VALUE.	00047	00051				
P00003 X1	00011					
P00003 X2	00013					
P00003 Y1	00020					
P00003 Y2	00020					
00036 SYMBOLS						


```

SUBROUTINE BOUNDARY
  CSUBR  BOUNDARY ZUECTO *****
  C      COMPUTE ZONE CROSSINGS FOR LINE SEGMENT DESIGNATED IN /LINE/ *****
  CUSE   BOUND ZUECTO *****
  C      COMMON/BOUND/X1,Y1,X2,Y2,I2N,AR,YR,NZ,NZIT *****
  CEND   BOUND *****
  C      EQUIVALENCE (FLAT1,X1), (FLAT2,X2), (LZONE,I2N) *****
  C      1, (INTL1,AR), (INTL2,NZ), (INTL3,NZ) *****
  CUSE   BOUNDPT ZUECTO *****
  C      COMMON/BOUNDPT/ZLAT1(20),ZLON1(20),ZLAT2(20),ZLON2(20),KK *****
  CEND   BOUNDPT *****
  C      1, (ICURZCN,CHECK,BETA,CROSSING(2,10),AJZONE(20),LNG *****
  CUSE   MASTER 16FEB71 *****
  C      COMMON/PASTER/INDATE,IDENTNO,ISIDE,NRPT,NCORR,NDPEN,NRECOVER *****
  C      1,NREF,NBNDY,NHEG,NTYPE,NRGUP,NTGBASE,NPAYLCAU,NASHIYPE,NMHDTYPE *****
  C      2,NTANKBAS,NCOMPLEX,NCCLASS,NALERT,NIGTS,NCORTYPE,NCNTRY *****
  C      MASTER *****
  C      9A 16FEB71 *****
  C      UNTIL TANKER PROCESSING BEGINS, THIS BLOCK CONTAINS THE DATA *****
  C      DEFINED HERE. IT IS A COMBINATION OF SEVERAL FORMER BLOCKS, *****
  C      ENABLING REUSE OF THIS SPACE DURING SUBROUTINE PLANTANK. *****
  C      THE REDEFINITION IS IN BLOCK 9A *****
  C ***** NOTE THAT BLOCK 9A AND BLOCK 9A ARE THE SAME AND MUST BE *****
  C      MODIFIED SIMULTANEOUSLY *****
  C      COMMON /9/ LLAUNDEC(90),JTPX(90),MLAX(90),MLQ(90),ZTX(90),TZNR(90), *****
  C      1 MDTX(90),KPLX(90),JTPX(90),MLAX(90),MLQ(90),ZTX(90),TZNR(90), *****
  C      2 IMHX(90),PAX(90),CHTX(90), *****
  C      3 BP,INK(200),BPLAT(200),BPLONG(200),BPLONG(200),BPLONG(200), *****
  C      4 NEXTZONE(200), *****
  C      5 KQUNT(30),IMAP(30),MCUNT(50),JMAP(50), *****
  C      6 JAPTYPE(250),MAPLAT(250),MAPLONG(250),MAPDIST(250) *****
  C      TYPE INTEGER BPLINK,BPZONE *****
  C      LINES 3 - 4 CORRESPOND TO /BOUNDARY/ ON BASFILE *****
  C      LINE 5 TO /CHARTER/, LINE 6 TO /HAPPEN/ *****
  C      9A *****
  C      DIMENSION ALPHAST(10),BETAST(10),LIND(10) *****
  C      DIMENSION LEGIND(20) *****
  C      TYPE INTEGER RINZONE,AJZONE,BPTNG *****
  C      DATA (EFSLN,00000001) *****
  C      DATA (ICORCHK,324000) *****
  C      DIMENSION JUEGZONE(100) *****
  C      DATA ITAB=0) *****
  C      COMMON/ITAB/ITAB *****
  C      IF (ITAB)100,1 *****
  C      1 ITAB=1 *****
  C      DC 2 1=1,100 *****
  C      2 JUEGZONE(I)=0 *****
  C      DC 10 1=1,NBNDY *****
  C      KZONE=BPZONE(I) *****
  C      IF (KZONE-67,100)3,4 *****
  C      3 PRINT 31,KZONE *****
  C      31 FORMAT(31M MORE THAN 100 ZONES. KZONE = ,15,46M REDIMENSION JBEG *****
  C      1ZCN IN SUBROUTINE BOUNDARY.) *****
  C      CALL ABCRT *****
  C      4 IF (JUEGZONE(KZONE))10,5 *****
  C      5 JUEGZONE(KZONE)=1 *****

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10 CONTINUE
100 CONTINUE ZONE INDEX
   C
   CALL SNAPIT(4,I)
   IF (IZONE.EQ.0) 98,99
498 RTZONE=0
   IZIT =0
   RETURN
499 CONTINUE
   FLON1 = Y1
   FLON2 = Y2
   ICURZON=IZONE
   ZERO=-EPSLN
   ONE=1.*EPSLN
   LNC=0
   IF (JBEGZONE(IZONE)) 529,528
528 CONTINUE
501 PRINT 503,IZONE
503 FORMAT(25H DATA NOT FOUND FOR ZONE ,I4)
   IZNNZN=0
   XR=X2
   YR=Y2
   RETURN
529 CONTINUE
   NHCLD=JBEGZONE(IZONE)
5332 IND=BP LINK(N)
   LNC=LNC+1
   ZLAT1(LNC)=BPLAT(N)
   ZLON1(LNC)=BPLOM(N)
   ZLAT2(LNC)=BPLAT(INDX)
   ZLON2(LNC)=BPLOM(INDX)
   AJZONE(IND)=NEXTZONE(N)
   IF (INDX.EQ.NHCLD) 533 5331
5331 N=INDX
   IF (LNC.GT.20) 5333,5334
5333 PRINT 5334,IZONE
5334 FORMAT(35H INCOMPLETE BOUNDARY DATA FOR ZONE ,I4)
   IZNNZN=IZIT+0
   XR=X2 $ YR=Y2
   RETURN
533 CONTINUE
   CC 600 K=1,LNC
   DIFFLAG = ZLON1(K)-ZLON2(K)
   DIFFLG = DIFFLG+DIFFLG
   IF (DIFFLG.GT.CORCHK) 901,603
600 CONTINUE
   ISPLIT=0
   GO TO 613
601 ISPLIT=1
613 CONTINUE
   DIFFLIN=Y1-Y2
   DIFFLIN=DIFFLIN+DIFFLIN
   IF (DIFFLIN.GT.CORCHK) 906,609
606 CONTINUE
   ISPLIT=1
   GO TO 65C

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609 ISPLIT=0
650 IF (ISPLIT.GT.0) 651,654
651 IF (FLCN1.LT.180.) 607,608
607 FLCN1=FLCN1+360.
608 IF (FLCN2.LT.180.) 652,653
652 FLCN2=FLCN2+360.
653 CONTINUE
      DC 602 K=1,LNC
      IF (ZLCN1(K).LT.180.) 603,604
603 ZLCN1(K)=ZLCN1(K)+360.
604 IF (ZLCN2(K).LT.180.) 605,602
605 ZLCN2(K)=ZLCN2(K)+360.
602 CONTINUE
654 CONTINUE
      IZIT=0
      MINZONE=1ZONE
      MINLAT=FLAT2
      RTNLCN=1Z
      C DETERMINE WHETHER LINK CROSSES ZONE BOUNDARY
      NL=0
      DC 515 K=1,LNC
      KK=K
      CALL SNAPIT(4,2)
      UX=FLAT2-FLAT1
      VY=(540.-FLCN2)-(540.-FLCN1)
      VY=(540.-ZLCN2(K))-ZLAT1(K)
      VY=(540.-ZLCN2(K))-(540.-ZLCN1(K))
      CHECK=UX*VY-UY*VX
      CALL SNAPIT(4,3)
      IF (CHECK) 515,516,516
516 NL=NL+1
      LEGIND(NL)=K
515 CONTINUE
518 IF (NL.EQ.0) 517,518
518 CONTINUE
      LNC=0
      JJ=1
513 CONTINUE
      DC 506 J=JJ,NL
      K=LEGIND(J)
      A1=FLAT1-FLAT2
      A2=FLCN1-FLCN2
      A3=ZLAT2(K)-ZLAT1(K)
      A4=ZLCN2(K)-ZLCN1(K)
      A5=ZLAT2(K)-FLAT2
      A6=ZLCN2(K)-FLCN2
      DEE=A1*A4-A3*A2
      IF (DEE.EQ.0.) 506,514
514 CONTINUE
      ALPHA=A5*A4-A3*A6
      ALPHA=ALPHA/DEE
      IF (ALPHA.LT.-ONE.AND.ALPHA.GT.0) 505,506
505 BETA=A1*A6-A5*A2
      BETA=BETA/DEE
      CALL SNAPIT(4,4)
      IF (BETA.LT.-ONE.AND.BETA.GT.-ZERO) 507,506

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506 CONTINUE
   IF (LNC.EQ.0) 517,534
534 ALPHAMIN=ALPHAST(1)  3  ISAVE=1
   DC 536 4=2,LNC
   IF (ALPHAST(M).GT.ALPHAMIN) 535,536
535 ALPHAMIN=ALPHAST(M)
   ISAVE=M
536 CONTINUE
   IF (BETAST(ISAVE).EQ.1.) 537,540
537 CONTINUE
   DC 539 4=1,LNC
   IF (BETAST(M).EQ.0.) AND .ALPHAST(M).EQ.ALPHAMIN) 538,539
538 ISAVE=M
   GC TO 540
539 CONTINUE
540 RINLAT=CROSSING(1,ISAVE)
   RINLON=CROSSING(2,ISAVE)
   IF (RINLON.GT.360.) 610,611
610 RINLON=RINLON-360.
611 CONTINUE
   KK=LINLND(ISAVE)
   RINZONE=AJZONE(KK)
517 CONTINUE
   CALL SNAPIT(4,0)
   IF (FLON2.GT.360.) 655,656
655 FLON2=FLON2-360.
656 IF (FLON1.GT.360.) 657,658
657 FLON1=FLON1-360.
658 CONTINUE
   RETURN
507 KK=K
   J=J+1
   IF (BETA.GT.(1.-EPSLN)) 522,523
522 BETA=1.
   GC TO 525
523 IF (BETA.L1.EPSLN) 524,525
524 BETA=0.
525 CONTINUE
   IF (BETA*ALPHA.EQ.0.) 513,512
C   COMPUTE POINT OF CROSSING
512 CONTINUE
   A1=FLAT2-FLAT1
   A4=1.044
   A5=FLON1*FLAT2-FLON2*FLAT1
   A6=ZLAT2(KK)*ZLON1(KK)-ZLAT1(KK)*ZLON2(KK)
   DEE=A1*A4-A2*A3
   LNC=LNC+1
   CROSSING(1,LNC)=(A1*A6-A5*A3)/DEE
   CROSSING(2,LNC)=(A5*A4-A2*A6)/DEE
   ALPHAST(LNC)=ALPHA
   BETAST(LNC)=BETA
   LIND(LNC)=KK
   IZIT=1
   CALL SNAPIT(4,2)
   CALL SNAPIT(4,5)
   GC TO 513

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FT05.5

END

11/24/71

PAGE NO. 5

199000

5.415 BOUNDARY

11/24/71

ED 0

PAGE NO.

6

IDENT BOUNDARY

U1247
U0273
U0011
U0175
U0027
U7304
U0001

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

BOUNDARY

BOUND
BOUNDPT
MASTER
9

EXTERNAL SYMBOLS

ITAB
THEND.
QWQDICT.
ABORT
SNAPIT
STH.
QNSINGL.

5.415 BOUNDARY

PAGE NO. 7

EO 0

11/24/72

P01207 A1	00644	00661	00700	01060	01075	01104			
P01210 A2	00645	00663	00702	01077	01113				
P01211 A3	00650	00662	00670	01077	01106				
P01212 A4	00653	00661	00667	01061	01061	01076	01112		
P01213 A5	00656	00666	00702	01067	01106				
P01214 A6	00660	00670	00701	01075	01105	01114			
X00003 A8GRT	00326								
C00150 AJZONE	00430	00431	01012						
P01215 ALPHA	00671	00672	00675	01053	01117				
P01216 ALPHAMIN	00731	00742	00745	00763					
P00003 ALPHAST	00730	00741	00744	00763	01121				
P01166 BEGIN.	01170								
C00123 BETA	00703	00704	00705	00706	00713	00716	01040	01043	01043
	01045	01045	01050	01051	01052	01052	01122		
	00753	00760	01123						
P00015 BETA5T	00273								
C03434 BPLAT	00416	00416	00423	00424					
C03124 BPLINK	00411	00411							
C03744 BPLONG	00420	00421	00425	00426					
C04254 BPZONE	00312								
C00122 CHECK	00607	00610	00615						
C02772 CMTX									
P01141 CNVRT11.	00323	00375	00445						
P00232 CORCHK	00464	00501							
P01217 COUNT.	00530	00531	00737	00740					
P00233 CRFMT.	00326	00400	00450						
C00124 CROSSING	00775	00775	00777	00777	01110	01115	01116		
P01220 DEE	00664	00672	00705	01100	01107				
P00001 DICT.	00275	00320	00325	00327	00341	00372	00442	00562	00612
	00710	01015	01130	01134					
	00477	00477	00500	00500					
	00462	00462	00463	00463					
P01221 DIFFLIN									
P01222 DIFFLNG									
C00264 DISTORE	00276	00350	00404	00454	01032	01167	01170		
P01171 ENDING.	00357	00361	01037	01046					
P00231 EPSLN	01172								
P00000 EXIT.	00566								
C00000 FLAT1	00551	00542	00642	01057	01065	01065			
C00002 FLAT2	00352	00565	00643	00643	00654	00655	01056	01062	01063
P01223 FLON1	00354	00512	00515	00516	00571	00644	01030	01031	01062
P01224 FLON2	00354	00517	00522	00523	00570	00645	01020	01023	01064
P00233 FORMAT.									
P00326 G600000.	00316								
P00400 G600001.	00370								
P00450 G600002.	00440								
C06712 HAPDIS									
C05726 HAPLAT									
C06320 HAPLONG									
C01320 HDIX									
C01736 HMAX									
C02070 HMAX									
P01225 I	00303	00304	00310	00311	00333	00335			
C00121 ICURZON	00356	00356							
C00001 IDENTNG									
P00675 IF00001.									

5-4TS BOUNDARY

11/24/71	ED	0	PAGE NO.	8
P00716 IF00002.				
P00762 IF00003.				
C05132 IMAP				
C00000 INDATE				
C00000 ILAUNDEC				
P01142 IN00014.				
P01143 IN00016.				
P01226 INX				
P01167 INITIAL.				
P01227 ISAVE				
C00002 ISIDE				
P01230 ISPLIT				
C00000 ITAB				
C62506 IMX				
C00010 IZIT				
C00004 IZN				
C00004 IZONE				
P00301 .1				
P00335 .10				
P00340 .100				
P00305 .2				
P00316 .3				
P00331 .4				
P00346 .498				
P00351 .499				
P00333 .5				
P00370 .501				
P00700 .505				
P00722 .506				
P01033 .507				
P01056 .512				
P00636 .513				
P00666 .514				
P00623 .515				
P00617 .516				
P01014 .517				
P00631 .518				
P01042 .522				
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P00410 .5332				
P00440 .5333				
P00730 .534				
P00744 .535				
P00750 .536				
P00755 .537				
P00765 .538				
P00771 .539				
00774 01164				
01110 01155				
00412 00423				
00276 00746				
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00472 00474				
00233 00277				
00350 00450				
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00630 00727				
00627				
01041 01041				
01044 01047				
00367				
00433				
00433				
00437 00437				
00726				
00742 00743				
00761 00764				
00432 00434				
00504 00507				
00277 00301				
00451 00547				
00355 00355				
00365 00365				
00374 00374				
00405 00405				
00444				
00676 00676				
00677 00677				
00714 00714				
00715 00715				
00720 00720				

P00774	.540	Q0754	V0770
P00466	.600	Q0464	L0465
P00473	.601	Q0465	
P00546	.602	Q0542	V0542
P00535	.603		
P00540	.604	Q0534	V0534
P00543	.605		
P00503	.606		
P00515	.607		
P00517	.608	Q0513	V0514
P00505	.609	Q0501	V0502
P01004	.610		
P01007	.611	Q1002	V1003
P00475	.613	Q0472	
P00507	.650	Q0504	
P00512	.651		
P00522	.652		
P00524	.653	Q0520	V0521
P00547	.654	Q0510	V0511
P01023	.655		
P01025	.656	Q1021	V1022
P01030	.657		
P01032	.658	Q1026	V1027
P01173	.ERASER.	Q0570	V0572
		Q0703	V1064
		Q0321	
P00233	.J	Q0321	V0640
P00252	.K	Q0443	
P00262	J	Q0637	V0637
P01231	K		
C05334	JAPTTYPE	Q0306	V0332
P0G065	JBEGZCNE		
C05E52	JMAP	Q0635	V0636
P01232	JJ	Q0456	V0457
C01604	JTPX	Q0646	V1033
P01233	K	Q0560	V0560
C00120	M	Q0313	V0314
C05074	KOUNT	Q0622	V0641
C01452	KPLX	Q1010	V1125
P01234	KZONE	Q0362	V0363
P00041	LEGIMO	Q0525	V0526
P00027	LIND	Q0772	V1101
C00174	LINC	Q0734	V0740
P01235	N	Q0407	V0410
C05170	KOUNT		
P01236	N		
C00023	NALEHT		
C00016	NASHMYPE		
C00010	NBNDRY	Q0336	V0336
C00022	NCLASS		
C00026	NCRNTH		
C00021	NCOMPLEX		

5.4TS BOUNDARY

	11/24/71	ED	0	PAGE NO.	11
C00002 X2					
C00005 XR					
C00001 Y1					
C00003 Y2					
C00006 YR					
P01246 ZERG					
C00000 ZLAT1					
C00050 ZLAT2					
C00024 ZLON1					
C00074 ZLON2					

00333 SYMBOLS

11/24/71

FTW5.5

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SUBROUTINE CHKSUM(I)
  CSUBR   CHKSUM   20ECTG *****
  C       I = 0 TO CLEAR I TO SUM AND 2 TO PRINT *****
  C       SUMS THE CONTENT OF /JINDATA/IN FIXED POINT *****
  CUSE    DINDATA  20ECTG *****
  COMMON/DINDATA/HDT(90),KPL(90),JTP(90),HLA(90),MLC(90),I2I(90),
  1T2N(90),PA(90),MHT,NPL *****
  CEND    DINDATA *****
  DIMENSION KNECK(630)
  DATA(MCHK=630)
  EQUIVALENCE(MDT(1),KNECK(1))
  MCHK SET FOR 7 ARRAYS IN /DINDATA/AT 90 EACH
  IF (I.EQ.0) 10,20
  10 KSUM=0 $ RETURN
  20 IF (I.EQ.1) 30,50
  30 DO 40 J=1,MCHK
  KSUM=KSUM+KNECK(J)
  40 CONTINUE
  RETURN
  50 PRINT 60,KSUM
  60 FORMAT(//10X,9HCHECKSUM=,116//)
  RETURN
  END

```

5.4TS CHKSUM

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

CHKSUM

DINDATA

EXTERNAL SYMBOLS

THEND.
QDDICT.
STM.
QNSINGL.

IDENT

U0113

U0015

U1322

CHKSUM

P00054	BEGIN.	00072	00100	00104		
P00015	CHKSUM	00015				
P00053	CNVRT1.	00046				
P0011J	COUNT.	00032	00033			
P00004	CRFNT.	00051				
P00001	DICT.	00017	00043	00050	00057	00060
P00073	ENDING.	00020	00024	00040	00051	00054
P00000	EXIT.	00076				
P00004	FORNAT.					
P00021	FP00001.	00066	00067			
P00025	FP00002.	00070	00071			
P00107	GETPL.	00061				
P00077	GETPU.	00064	00103			
P00051	GG00000.	00041				
C00000	HDT					
C00016	HLA					
C00550	MLG					
P00004	I	00021	00025			
P00054	INITIAL.	00020				
P00023	.10					
P00025	.20	00022				
P00027	.30					
P00037	.40					
P00041	.50	00026				
P00004	.60	00044				
P00111	J	00030	00032			
C00264	JTP					
C00000	KHECK	00035	00035			
C00132	KPL					
P00112	KSUM	00024	00034	00036	00045	
P00003	MCHK	00030				
C01320	MHT					
C01321	NPL					
C01166	PA					
P00072	PF00002.	00065				
X00002	Q800001.	00000	00014			
X00004	QNSINGL.	00052				
X00003	STH.	00042				
X00001	TEND.	00047				
P00040	TS00001.	00031				
C01034	TZN					
C00702	TZI					
P00034	WS00001.	00037				
	W0053 SYMBCLS					

FTNS.5

11/24/71

PAGE NO. 1

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SUBROUTINE CLINDATA
  CSUBR      CLINDATA 16FEB71
  C          TC CLEAR AND INITIALIZE /INDATA/
  CUSE       DINDATA 2DEC70
  COMMON/INDATA/INDATA(90),JTP(90),HLA(90),PLC(90),TZT(90),
  1TZN(90),PA(90),MHT,NPL
  CEND       DINDATA
  CUSE       INDATA 16FEB71
  COMMON /INDATA/ INDATA,INBASE,INDV,IDUM1(2),ILAST,IDUM2(2),
  1ITYPE,ICLASS,IREG,IALERT,IOUM3(3),IALT,NCMS,IDUM4(3),
  2MFL,MWT,IDUMA(2),NPLAM,IDUM5,INC(80),INDP(80),INUE(80),INTYP(12),
  3XDBZ(12),YDBZ(12),ZDBZ(12),IDUMS(6)
  TYPE INTEGER XDBZ,YDBZ,ZDBZ

  C          DIMENSION ISVY(6)
  EQUIVALENCE (ISVY,INDV) , (FILAST,ILAST)
  CEND       INDATA
  CUSE       EQUIVALENCE(INDATA,ICLEAR)
  C          KEYLENG 2DEC70
  COMMON /KEYLENG/ LOS, LIN, LDN, LINC, LTK, LMIS, LMC, LDBL
  C          KEYLENG
  DIMENSION ICLEAR(1)
  DO 1 I=1,LIN
  1 ICLEAR(I)=0
  DO 3 I=1,26
  3 ICLEAR(I)=0
  IALT=1
  DO 2 I=1,LDN
  2 MHT(I)=0
  END

```

1000
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14000
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16000

5.4TS CLINDATA

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

CLINDATA

CLINDATA
INDATA
KEYLENG

EXTERNAL SYMBOLS

UNWIDICT.

IDENT

W0046
W0003

U1322
W0500
W0010

CLINDATA

11/24/71

ED

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PAGE NO.

2

5-1TS CLINDATA

11/24/71 ED 0 PAGE NO. 3

P00040	BEGIN.	00041		
P00003	CLINDATA	00003		
P00044	CCUNT.	00013		
P00001	DICT.	00005	00014	00032 00033
P00042	ENDING.	00006	00037	00040
P00000	EXIT.	00043		
G00005	FILEAST			
C00000	HOT	00034	00035	
C00016	HLA			
C00550	HLG			
P00045	I	00010	00013	00021 00027 00033
C00013	I ALERT	00026		
C00017	I ALT			
C00011	ICLASS			
C00000	ICLEAR	00015	00016	00023 00024
C00003	IDUM1			
C00006	IDUM2			
C00014	IDUM3			
C00021	IDUM4			
C00031	ICJMS			
C00072	IDUM5			
C00026	IDUMA			
C10005	ILAST			
C10001	INBASE			
C07000	INDATA			
C01272	INDE			
C00052	INDP			
C00002	INDV	00006		
P00040	INITIAL.			
C00012	IREG			
C00002	ISVY			
C00010	ITYPE			
C00012	INTYP			
P00015	.1			
P00034	.2			
P00023	.3			
C00264	JTP			
C00132	KPL			
C00007	LDL			
C00002	LDM			
C00001	LIN			
C00003	LINC			
C00005	LMS			
C00006	LMO			
C00000	LOS			
C00004	LTK			
C00024	MFL			
C01320	MHT			
C00025	MW.			
C00020	NCMS			
C01321	NPL			
C00030	NPLAN			
C01166	PA			
X00001	00001CT.	00000	00030	00034
			00010	00011

11/24/71

5.4TS CLINDATA

CO0032	TINC	00012
PO0020	TS00001.	00031
PQ0037	TS00003.	
CO1034	TZN	
CO0702	TZI	
PO0015	WS00001.	00017
PQ0023	WS00002.	00025
PO0034	WS00003.	00036
CO0426	XDBZ	
CO0442	YDBZ	
CO0456	ZDBZ	
	00101 SYMBCLS	

```

SUBROUTINE DECAYADD
  CSUBR  DECAYADD 2DEC70 *****
  CUSE  DIMDATA 2DEC70 *****
  COMMON/DIMDATA/ROT(90),KPL(90),JTP(90),HLA(90),HLC(90),TZT(90),
  1  TZN(90),PA(90),MHT,NPL
  CEND  DIMDATA *****
  CUSE  DISIC 2DEC70 *****
  COMMON/DISIC/DISIC(20) *****
  CEND  DISIC *****
  CUSE  EVENTS 2DEC70 *****
  COMMON/EVENTS/LAUNCH,LAUNCH,LEFUEL,INSECTOR,LCLATITR,LAUNASH
  *LAUNCH,LAUNCH,LOHI,MISSATTR,LEDCO,LABORT,LENTREF,LEAVEREF
  *IGLOW,IGLOW *****
  CEND  EVENTS *****
  CUSE  IOUTOLD 16FEB71 *****
  COMMON/IOUTOLD/IOUTOLD,KOKO,MYGROUP,MYCORPO,LPAYLOAD,LOPEN
  1  *SPUHC,SPDLCQ,JFCTNG,NHAPC,IBJEC(20),IBDES(20),IBTSK(20),
  2  IBCTYC(20),IBFLG(20)
  CEND  IOUTOLD *****
  CUSE  RL 2DEC70 *****
  COMMON/RL/RL,RL *****
  CEND  RL *****
  CUSE  1 2DEC70 *****
  COMMON/1/DELDIS(6),LPMJORITY(20),LMHT(90),NDCYRN(20),NPSLN,
  *NUMDCYS *****
  CEND  1 *****
  CUSE  9A 16FEB71 *****
  C  UNTIL TANKER PROCESSING BEGINS, THIS BLOCK CONTAINS THE DATA
  C  DEFINED HERE. IT IS A COMBINATION OF SEVERAL FORMER BLOCKS.
  C  ENABLING REUSE OF THIS SPACE DURING SUBROUTINE PLANANK.
  C  THE REDEFINITION IS IN BLOCK 9A.
  C ***** NOTE THAT BLOCK 9A AND BLOCK 9A ARE THE SAME AND MUST BE
  C  MODIFIED SIMULTANEOUSLY *****
  COMMON /9/ ILAUNDEC(90),TIMELAUN(90),DISTCRE(90,6),
  1  HOTX(90),KPLX(90),JTPX(90),HLAX(90),HLCX(90),TZTX(90),TZNX(90),
  2  IMX(90),PAX(90),CMIX(90),
  3  BPLINK(200),BPLAT(200),BPLONG(200),BPZONE(200),
  4  NEXTZONE(200),
  5  KOUNT(30),IMAP(30),MOUNT(50),JMAP(50),
  6  JARTYPE(250),MAPLAT(250),MAPLONG(250),MAPDIS(250)
  TYPE INTEGER BPLINK,MAPZONE
  C  LINES 3 + 4 CORRESPOND TO /BOUNDARY/ ON BASFILE
  C  LINE 5 IS /CHARTER/, LINE 6 TO /HAPPEN/
  C  9A *****
  CEND  9A *****
  DIMENSION NEWIND(20)
  DIMENSION MHTY(90)
  IF (NUMDCYS .LE. 0) 999, 101
  101 CONTINUE
  IGLOW,IGLOW
  CALL ORDER(LPRIORITY,NEWIND,NPSLN)
  CALL REORDER(NEWIND,NPSLN,3,LPRIORITY,LMHT,NUCYRN,0,0,0,0)
  OMTIME=RM/SPDLCQ
  KFLAG=0
  DC 500 K=1,90
  500 MHTY(K)=1.
  IF CURE=0

```

11/24/71

```

1LAUN=1
MN=1
MN=2
150 CONTINUE
IF (NUMOCYS)200,200,10
10 DC 300 I=1,NPSLN
NMT=LMT(I)
IF (AFLAG.EQ.1)910,611
C SECOND OR GREATER DECOY ALLOCATION
610 GO TO (612,614,5,615,5,612,5)LPRIORITY(I)
612 ILAUNDEC(NMT)=ILAUN
NUMOCYS=NUMOCYS-1
GO TO 100
615 DISTRE(NMT,ILAUN)=RM
KLAUN=ILAUN
IFCUR=1
614 ILAUNDEC(NMT)=ILAUN
NUMOCYS=NUMOCYS-1
GO TO 100
611 CONTINUE
C FIRST DECOY ALLOCATION
C PRIORITY 1,6 LAUNCHES
GO TO (1,2,5,4,5,1,5)LPRIORITY(I)
1 CONTINUE
11 ILAUNDEC(NMT)=ILAUN
NUMOCYS=NUMOCYS-1
NMT=NMT+MM
GO TO 100
C PRIORITY 2 LAUNCH
2 ILAUNDEC(NMT)=ILAUN
TIMELAUN(NMT)=MUT(NMT)
MGTY(NMT)=0.
DISTRE(NMT,1)=RM
NUMOCYS=NUMOCYS-1
NMT=NMT+MM
GO TO 100
4 IF (NUMOCYS.EQ.1)100,40
C PRIORITY 4 LAUNCH
40 KUST=NOCVHQ(I)
LMT=NMT
KMT=0
DCGYTIME=DHIME
45 DCGYTIME=DCGYTIME-MDT(NMT)
44 IF (DCGYTIME)41,41,42
42 NMT=NMT-1
49 IF (JTP(NMT).EQ.IGCH)43,49
47 IF (JTP(NMT).EQ.LEGDCG)410,47
48 NMT=NMT-1
KMT=NMT+1
GO TO 45
410 LMT=LMT-NMT-KMT
DC 411 K=1,LMT
411 DELDIS(KUST)=DELDIS(KUST)-DISTC(K)
DCGYTIME=-MDT(NMT)
GO TO 46

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FTNS.5

11/24/71

PAGE NO.

3

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43 DELDIS(KDST)=0.
   DCGTIME=MDT(NHT)
   GO TO 46
41 DELDIS(KDST)=DELDIS(KDST)+RM
46 DISTORE(NHT,1)=RM
   ILAUNDEC(NHT)=ILAUN
   TIMELAUN(NHT)=DCGYTIME
   MDT(NHT)=MDT(NHT)+DCGYTIME
   NUMDCGYS=NUMDCGYS+1
   IST=NHT
   NHT=NHT+RM
   GO TO 100
C PRIORITY 5,7,8 LAUNCHES
  5 KDT=NDGYS(1)
  IF (DELDIS(KDST).LE.0.)GO TO 51
51 CONTINUE
   NDCY=DELDIS(KDST)/RM
   NDCY=NDGYS+1
   NUMDCGYS=NUMDCGYS+NDGYS
   IF (NUMDCGYS)52,53,53
C INSUFFICIENT DECGYS FOR COVERAGE - COVER WITH ALL THAT REMAIN
52 NDCY=NDGYS+NUMDCGYS
53 NUMDCGYS=0
54 NHT=IST4
   DISTORE(NHT,ILAUN)=DISTORE(NHT,ILAUN)+NDCY*RM
   GO TO 100
55 ILAUNDEC(NHT)=ILAUN
   TIMELAUN(NHT)=MDT(NHT)
   MDT(NHT)=0.
56 CONTINUE
   DISTORE(NHT,ILAUN)=NDCY*RM
   IF (ILAUN.GT.1)GO TO 601
600 JLAUN=ILAUN-1
   IF (DISTORE(NHT,ILAUN).EQ.DISTORE(NHT,ILAUN))601,602
C TWO TERMINATIONS REQUIRED FOR ONE LAUNCH
602 NHT=NHT+1
601 CONTINUE
   NHT=NHT+RM
100 LMHT(1)=NHT
   IF (NUMDCGYS)200,200,300
300 CONTINUE
C SUFFICIENT DECGYS REMAIN FOR ANOTHER ALLOCATION
   NM=NM+0
   ILAUN=ILAUN+1
   IF (ILAUN.GT.6)630,631
630 PRINT 632
632 FORMAT(62)NUMBER OF DECGY LAUNCHES EXCEEDS CAPACITY OF DECGY ALLC
   *CATION)
   RETURN
631 CONTINUE
   KFLAG=1
   GO TO 150
200 CONTINUE
   IF (IFOUR)622,621
622 CONTINUE

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FTNS.5

11/24/71

PAGE NO.

4

```
JLAUN=KLAUN-1
IF(DISTORE(IIST,KLAUN).EQ.DISTORE(IIST,JLAUN))621,620
C SECOND OR GREATER ALLOCATION CAUSED PRIORITY 4.8 LAUNCH TO REQUIRE
C TWO TERMINATIONS
620 MHT=MHT+1
621 CONTINUE
C UPDATE TIME ARRAY
DC 400 K=1,90
IF(MDTY(K))400,401,401
401 MDT(K)=MDTY(K)
400 CONTINUE
999 CONTINUE
RETURN
END
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133000
134000
135000
136000
137000
138000
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140000
141000
142000
143000
144000
145000
146000

5.75 DECYADU

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

DECYADU
DINDATA
DISTC
EVENTS
ICUTGLO
RL
1
9

EXTERNAL SYMBOLS

Q1Q1Q1Q0
THEND.
QDDICT.
CHUEN
REORDER
STH.

IOENT

U0745
U0174
W1322
W0024
W0020
W0157
W0002
W0212
UT304

DECYADU

11/24/71

ED 0

PAGE NO.

5

5.4TS DECOYADD

PAGE NO.

7

11/24/71

ED

0

00461

00462

00517

C00000 IOUTGLD
P00731 1574
C02506 1WHX
P00240 .10
P00311 .11
P00355 .100
P00203 .101
P00311 .11
P00236 .150
P00321 .2
P00604 .200
P00331 .21
P00561 .300
P00337 .4
P00342 .40
P00627 .400
P00625 .401
P00401 .410
P00426 .41
P00410 .411
P00356 .42
P00420 .43
P00354 .44
P00350 .45
P00432 .46
P00371 .47
P00374 .48
P00365 .49
P00226 .500
P00454 .5
P00463 .51
P00476 .52
P00503 .53
P00506 .54
P00520 .55
P00526 .56
P00540 .600
P00552 .601
P00550 .602
P00250 .610
P00301 .611
P00260 .612
P00274 .614
P00265 .615
P00616 .620
P00620 .621
P00606 .622
P00573 .630
P00602 .631
P00630 .999
P00161 .632
C05334 JAPTYPE
C00011 JFCINC
C05252 JMAP

00446 00506 00700

00304 00310 00320

00264 00300 00336

00202 00320 00341

00603 00320 00453

00305 00320 00461

00237 00237 00560

00237 00560 00560

00306 00340 00364

00340 00364 00373

00624 00624 00417

00624 00370 00370

00370 00355 00355

00355 00355 00363

00363 00363 00255

00255 00256 00257

00475 00475 00306

00475 00475 00257

00505 00505 00537

00537 00537 00547

00547 00547 00247

00247 00253 00253

00253 00254 00254

00254 00255 00255

00255 00614 00614

00614 00605 00605

00605 00605 00572

00572 00572 00201

00201 00576 00576

00576 00576 00576

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08VACJ3G SL+G

PAGE NO. 8

03

6

11/24/71

P00732	JLAUN	MISSATTH
C0064	JTP	MN
C00604	JTPX	MH
P00733	K	NMOUNT
P00734	KDST	MYCRRQ
P00735	FLAG	MYGRUPO
P00736	KHT	NDCY
P00737	KLAUN	NDCTRG
P00738	KKKG	NEIND
C00574	KGUNT	NETICNE
C00132	KPL	NHAPC
C01452	KPLX	NMT
C00013	LABORT	
C00007	LANDC	
C00005	LAUNASH	
C00001	LAUNE	
C00006	LAUNDCCY	
C00000	LAUNH	
C00006	LDPEN	
C00015	LEAVEREF	
C00012	LEGDSG	
C00014	LENTEREF	
C00002	LEREFUEL	
P00740	LHT	LREF
C00032	LMHT	MNT
C00004	LOCLATTR	
C00010	LCMI	
C00004	LPAYLCAU	
C00006	LPRIORITY	
C00005	LREF	
C00005	MNT	
C00011	MISSATTH	
P00741	MN	
P00742	MH	
C05170	MOUNT	
C00003	MYCRRQ	
C00002	MYGRUPO	
P00743	NDCY	
C00064	NDCTRG	
P00003	NEIND	
C04564	NETICNE	
C00012	NHAPC	
P00744	NMT	
C01321	NPL	
C00210	NPSLN	
C00211	NUMDCCYS	
X00004	ORDER	
C0166	PA	
C02640	PAX	

[illegible]

2454

5.4TS DEC0YADD

PAGE NO. 9

ED 0

11/24/71

X00001 Q1Q10100 00466
 X00003 Q80DICT. 00000
 X00005 REORDER 00211
 C00-01 RH 00220 00465
 C00000 RL 00221
 C00007 SPDHIC 00574
 C00010 SPDLOC 00577
 X00006 STH. 00324
 X00002 TMEND. 00241
 C00132 TIMELAUN 00405
 P00562 TS00002. 00245
 P00414 TS00003. 00233
 C01034 TZN 00542
 C02354 TZNX 00272
 C00702 TZT 00447
 C02222 TZTX 00230
 P00636 UP00002. 00563
 P00946 UP00003. 00413
 P00656 UP00005. 00627
 P00667 UP00006. 00261
 P00677 UP00007. 00261
 P00226 W500001. 00261
 P00242 W500002. 00261
 P00410 W500003. 00261
 P00623 W500004. 00261
 00261 SYMBOLS

00175
 00220 00514
 00221
 00325
 00360 00570 00610 00670 00700 00563

00265 00514
 00265 00532
 00440
 00440
 00376 00447 00610 00657 00671 00701

00265 00532
 00265 00532
 00440
 00440
 00510 00650 00660 00672 00702

00327 00532
 00327 00532
 00523 00524
 00637 00651 00653 00661 00674 00705

00430 00430 00430 00430 00641 00644 00644

00430 00430 00430 00430 00641 00654 00665

00430 00430 00430 00430 00641 00654 00665

00430 00430 00430 00430 00641 00654 00665

00430 00430 00430 00430 00641 00654 00665

00430 00430 00430 00430 00641 00654 00665

```

SUBROUTINE UJTIME
      CSUBR   DISTIME  ZDEC70 *****
      C       CONVERTS DISTANCE TO TIME *****
      CUSE    ASMTABLE 16FEB71 *****
      COMMON /ASMTABLE/ INHDSM(20), RANGEASM(20), RELASH(20),
      *        CEPASM(20), SPEEDASM(20)
      C       DIMENSION = MASHTYP = MAX NUM ASM TYPES
      CEND     ASMTABLE *****
      CUSE    CINDATA  ZDEC70 *****
      COMMON/DINDATA/HOT(90), KPL(90), JTP(90), HLA(90), HLC(90), TZT(90),
      1ZTN(90), PA(90), MHT, NPL *****
      CEND     DINDATA *****
      CUSE    DINDAT2  ZDEC70 *****
      COMMON/DINDAT2/CMT(90), IIMH(90) *****
      CEND     DINDAT2 *****
      CUSE    EVENTS  ZDEC70 *****
      COMMON/EVENTS/LAUNMS, LAUNCH, LCREFUEL, INSCTOR, LOCALTR, LAUNASH
      *LAUNDCGT, LANOMC, LCM1, MISSATT, LEGDGG, LABORT, LEINTEREF, LEAVEREF
      *LGCHI, LGCOLW *****
      CEND     EVENTS *****
      CUSE    IOUTSLD 16FEB71 *****
      COMMON/IOUTSLD/IOUTGLU, CKCG, MYGRGUPQ, MYCJRCG, LPAYLAD, LREF, LDPEN
      1 SPDHIC, SPDLCG, JFCFNG, NHAPC, IBJECG(20), IBDESG(20), IBTSKC(20),
      2 IBCTYC(20), IBFLBG(20) *****
      CEND     IOUTSLD *****
      CUSE    OUTSRT 16FEB71 *****
      COMMON/OUTSRT/IOUTSRT *****
      1MYRGUP, MYCRGN, INDVEN, IREF, IDOPEN, IPAYLOAD, LNCHBASE, ITYP
      2BLAT, BLONG, NHAP, IBTYPE(10), CRLAT(10), DBLONG(10), BLAT(10), DLONG(10)
      3IBJEC(10), IBDES(10), IBTSK(10), IBCTY(10), ISPLG(10), AIRGUT(10),
      4SURVOUT(10), GCLCN1, GCLCX2, GCLCN3, SPOLC,
      *SPDHIC, RANGE, RANGEREFF, DELAY, IRG, ILRT, IDCSMBER, AVAILCW, MNODEC
      /OUTSRT/ IS THE INPUT RECORD FROM STRKFIL *****
      CEND     OUTSRT *****
      CUSE    PAYCAD  ZDEC70 *****
      COMMON/PAYCAD/NBCHN1(40), IHMD1(40), NBCHNB2(40), IHMD2(40)
      1,NASK(40), TASM(40), NCNM(40), ANDECOYS(40), NADECOYS(40), IMIRV(40)
      PAYCAD *****
      CEND     PAYCAD *****
      CUSE    SPASH  ZDEC70 *****
      COMMON/SPASH/SPASH *****
      CEND     SPASH *****
      CUSE    NS=NCHMB1(LPAYCAD) *****
      IWAR1=IHMD1(LPAYCAD) *****
      IWAR2=IHMD2(LPAYCAD) *****
      IWARA=INHDSM(MCKG) *****
      IFY=1 *****
      JFY=0 *****
      MINENPL*2 *****
      IWHMIN=-1)=0 *****
      C       COMPUTE ALL DISTANCES *****
      DC 705 I = MIN,MHT *****
      X1 = HLA(I-1) $ Y1 = HLO(I-1) *****
      X2 = HLA(I) $ Y2 = HLO(I) *****
      MDI(I) = DISTF(X1,Y1,X2,Y2) *****
      CONTINUE *****
      705 ADJUST DISTANCES FOR SECTOR CROSSINGS *****

```

```

I=MIN
710 IF(JTP(I).EQ.INSECTOR)711,716
711 J = I
    X1 = HLA(I-1)
    Y1 = HLC(I-1)
    DSUM = MOT(I)
712 J = J+1
    DSUM = DSUM+MOT(J)
    IF(JTP(J).EQ.INSECTOR)713,714
713 IF(J.LE.MHT)712,714
714 X2 = HLA(J) $ Y2 = HLC(J)
    OS = DISTF(X1,Y1,X2,Y2)
715 MOT(I) = MOT(I)+OS/DSUM
    I = I+1
    IF(L.GT.J)717,715
716 I = I+1
717 IF(L.GT.MHT)719,710
719 CONTINUE
    DC 820 I=MIN,MHT
    IF(IFY)850,851
    850 SPUD=SPOLCO $ GC TO 852
    851 SPUD=SPOLCO
    852 I=M(I)+C
        CUMTIME=CMT(I-1)
        DIST=MOT(I)
        JTP=JTP(I)
        IF(JTP).EQ.LOCLATRI)812,813
    812 IF(INS)815,815,816
    816 NBS = NBS+1
        I=M(I)+IMARI
        GC TO 813
    815 I=M(I)+IMAR2
    813 IF(JFY)801,808
    801 IF(JFY.EQ.LAUNASM)814,807
    809 JFY=0
        C HERE AFTER ASM TARGET
        DIST=DISTF(HLAIMP,HLCIMP,HLA(I),HLC(I))
        CUMTIME = CMT(I-2)
    808 IF(JTP).EQ.LAUNASM)814,807
    814 I=M(I)+IMARA
        GC TO 806
    807 IF(JTP).EQ.IGCHI).OR.(JTP).EQ.IGCLOW)804,810
    805 JFY=2
        C HERE FOR ASM TARGET
        MOT(I)=DELTIME+DIST/SPASH
        GC TO 820
    806 JFY=1 $ HLAIMP=HLA(I) $ HLCIMP=HLC(I)
        C HERE FOR ASM LAUNCH
        GC TO 610
    804 IFY=1-IFY
        C FLIP IFY
    810 MOT(I)=DELTIME+DIST/SPUD
    820 CMT(I)=CUMTIME+DELTIME
        END

```

5.4TS DISTIME

PROGRAM LENGTH
ENTRY PCINTS
BLOCK NAMES

DISTIME

ASMTABLE

DINDATA

DINDATA2

EVENTS

ICUTOLD

OUTSRT

PAYLORD

SPASH

EXTERNAL SYMBOLS

QUDDICT.

DISTP

DISTIME

IDENT

U0310

U0003

U0144

U1322

U0264

U0020

U0157

U0221

U0620

U0001

[illegible]

5.4TS U15TIME

11/24/71

ED 0

PAGE NO.

6

C00001 LAUNB	00161	00102	00133	00136	00137
C00006 LAUNDCOY	00007	00031	00133	00135	00140
C00000 LAUNH	00007	00031	00053		
C00006 LOPEN		00026			
C00015 LEAVEREF					
C00012 LEGDOG					
C00014 LENTEREF					
C00002 LEREFUEL					
C00007 LNCMBASE					
C00004 LCCLATTR	00161				
C00010 LOMI					
C00004 LPAYLCAD					
C00005 LREF					
C01320 MHT	00031	00102	00133	00136	00137
P00301 MIN	00025	00030	00053	00140	
C00011 MISSATTR					
C00002 MYCORR					
C00003 MYCORRO					
C00001 MYGROUP					
C00002 MYGRUPO					
C00500 NADECCYS					
C00240 NASM					
P00302 NBS	00011	00163	00165	00166	
C00360 NOM					
C00030 NDECCYS					
C00013 NHAP					
C00012 NHAPC	00010	00010			
C00000 N8CMB1					
C00120 N8CMB2	00023	00023			
C01321 NPL					
C00026 CBLAT					
C00040 CBLONG					
C01166 PA	00000	00004			
X00001 Q80DICT.					
C00211 RANGE					
C00024 RANGEASM					
C00212 RANGREF					
C00050 RELASH					
C00020 RNDDEC	00231	00231			
C00000 SPASH	00145	00145			
C00210 SP0H1					
C00007 SP0HIC	00150	00150			
C00207 SP0LC					
C00010 SP0LOC					
C00120 SPEEDASH	00146	00151	00246		
P00303 SPUD					
C00172 SURVOUT	00033				
P00053 T500001.	00140				
P000254 T500002.					
C01034 T2N					
C00702 T2T					
P00035 W500001.	00052				
P00143 W500002.	00253				
P00304 X1	00036	00064	00114		

5:47S DISTIME

P00305 X2
P00306 Y1
P00307 Y2
00241 SYMBOLS

00042
00040
00044

00050
00047
00050

00107
00066
00111

00115
00114
00115

11/24/71

ED

0

PAGE NO.

7

```

SUBROUTINE FINZONE
  FINZONE(206871) *****
  FINZONE(206870) *****
COMMON/FINZONE/FINZLN1,FINZLN2,IFOUNDZN
  FINZONE *****
EQUIVALENCE(A,FINDLAT),(Y,FINDLN)
  MASTER 106871 *****
COMMON/MASTER/MASTER,IDENTNO,ISIDE,NKPT,NCORR,NUPEN,NRECOVEN
  1,NHREF,NDRY,NHGETYPE,NRCUP,NTOTBASE,NP1LOAD,NASHIPE,NMHDTYPE
  2,NANKBAS,NCOMPLEX,NCCLASS,NALERT,NTOTS,NCORTYPE,NCNTPY
  MASTER *****
  MASTER 106871 *****
  9A *****
  UNTIL TANKER PROCESSING BEGINS, THIS BLOCK CONTAINS THE DATA
  C DEFINED HERE. IT IS A COMBINATION OF SEVERAL FORMER BLOCKS.
  C ENABLING REUSE OF THIS SPACE DURING SUBROUTINE PLANTANK.
  C THE REDEFINITION IS IN BLOCK 9A.
  C ***** NOTE THAT BLOCK 9A AND BLOCK 9A ARE THE SAME AND MUST BE
  C MODIFIED SIMULTANEOUSLY *****
COMMON /9/ ILAUNEC(90),TIMELAUN(90),DISTORE(90,6),
  1 MOTX(90),KPLX(90),JTPX(90),HLAX(90),HLGX(90),ZTX(90),TZNX(90),
  2 IMX(90),PAK(90),CMTX(90),
  3 BPLINK(200),BPLAT(200),BPLONG(200),BP IE(200),
  4 NEXIZONE(200),
  5 KOUNT(30),INAP(30),MOUNT(50),JMAP(50),
  6 JAPT(250),MAPLAT(250),MAPLONG(250),MAPDIST(250)
  TYPE INTEGER BPLINK,BPZONE
  C LINES 3 + 4 COMPENSATE TO /BOUNDARY/ ON BASFILE
  C LINE 5 TO /CHARTER/, LINE 6 TO /HAPPEN/
  9A *****
  DIMENSION NUX(200), NUXX(200)
  DATA(1BEGIN=0)
COMMON/ITAB/ITAB
  IF(1BEGIN)300,300,301
  1BEGIN=1
  300 *****
  C HECROER ARRAYS
  CALL ORDER(BPZONE,NDA,NNDRY)
  CALL RECHER(NUX,NNDRY,5,BPLAT,BPLONG,BPZONE,NEXIZONE,BPLINK,0,0)
  C FIX UP LINKS,IF THE 200 MUST BE NEEDED THIS MAY BE DONE IN A DC
  C A LOOP AT THE EXPENSE OF SPEED
  CALL CHDR(NUX,NNDRY,NNDRY)
  DC 302,N1,NNDRY
  K=BPLINK(N)
  BPLINK(N)=NDAR(K)
  CONTINUE
  CONTINUE
  I=0
  I=I+1
  IF(BPZONE(I))200,200,201
  CONTINUE
  I=I-1
  CONTINUE
  I=I+1
  IF(S)=1
  IF(I=NNDRY)220,152,152
  CONTINUE
  220 *****

```

```

35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
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71000
72000
73000
74000
75000
76000
77000
78000
79000
80000

YI=BP LONG(I)
C=DIFF LONG(YI,Y)
YL=YI
XL=BP LAT(I)
THET=0.0
XDIFL=XL-X
YDIFL=C
DISTL=XDIFL*XDIFL+YDIFL*YDIFL
LINK=I
ICURZONE=BPZONE(I)
CLO ZONE=COMPUT NEXT ANGLE
I=LINK
LINK=BP LINK(I)
XN=BP LAT(LINK)
YN=BP LONG(LINK)
YDIFN=C-DIFF LONG(YI,YN)
XDIFN=XN-X
DISTN=XDIFN*XDIFN+YDIFN*YDIFN
SS=DIS TL*DIS TL
IF(SS)6.6.7
SS=SQR(TF(SS))
D=(DISTL*DISTN-(XN-XL)**2-DIFF LONG(YN,YL)**2)/(2.0*SS)
PRINT 22.0
IF(D)6.6.20
IF(D)=1 THE POINT IS ON A BOUNDARY. IF +1 ON THE BOUNDARY EXTENDED
C
D=0/ABSF(D)
PCRNAT(360*IN FNDZONE COSINE OF THE ANGLE WAS E10.3)
IF(D)6.6.20
IF(D)=1 THE POINT IS ON A BOUNDARY. IF +1 ON THE BOUNDARY EXTENDED
C
T=ACCSF(D)
SIGN=1.0
IF(XDIFN*YDIFL-XDIFL*YDIFN)1.1.2
SIGN=-1.0
SIGN=THET*SIGN
XL=XN
YL=YN
XDIFL=XDIFN
YDIFL=YDIFN
DISTL=DISTN
IF(LINK-IFIRST)105.210.105
210 IF(ABSF(THET)-.0)136.6.6
152 CONTINUE
RETURN
IF FOUND ZN=ICURZONE
RETURN
END

```

SATS FINDZONE

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

FINDZONE

FINDZONE
MASTER

9

ITAB

EXTERNAL SYMBOLS

THEND.
QUADICT.
ORDER
REORDER
DIFFLONG
SURTF
ACCSF
STM.
ONSINGL.

IDENT

U1141
U0635
U0003
U0027
U7304
U0001

FINDZONE

5-ITS FINDZONE

11/24/71 ED 0 PAGE NO. 4

X0007 ACQSF	01036					
P01076 BEGIN	01077					
C03434 BPLAT	00656					
C03124 BPLINK	00660					
C03744 BPLONG	00657			00747	00747	
C04254 BPZONE	00651			00742	00743	
P01111 C	00726					
C02772 CMTX						
P01075 CNVRT1	01024					
P01112 COUNT1	00672					
P00624 CRFMT1	01027					
P01113 D	01013					
P00001 DICT	00637					
X00005 DIFFELONG	00723			01032	01035	01037
P01114 DISTL	00741			00724	00757	
P01115 DISTN	00770					
C00264 DISTORE						
P01100 ENDING	00640					
P00000 EXIT	01101					
C00000 FINDLAT						
C00001 FINDLON						
P00635 FINDZONE	00635					
P00624 FORMAT	01017					
P01027 G600000						
C06712 HAPDIST						
C05726 HAPLAT						
C06320 HAPLONG						
C01320 HDTX						
C01736 HLAX						
C02070 HLCX						
P01116 I						
P00623 IBEGIN	00702					
P01117 ICURZONE	00746					
C00001 IDENTAC	00641					
C00002 IFOUNDN	00744					
P01120 IFRST	01067					
C05132 IMAP	00714					
C00000 IMDATE						
P01076 ILAUNDEC	00640					
C00002 ISIDE						
C00000 ITAB	00646					
C02506 IMHX						
P01046 .1	01044					
P00745 .105	01045					
P00712 .136	01062					
P01060 .150	01066					
P01067 .152						
P00703 .200	00716					
P01035 .20	00706					
P01050 .2	01016					
P00710 .201	01045					
P01017 .21						
P00623 IBEGIN	00703					
P01117 ICURZONE	00746					
C00001 IDENTAC	00641					
C00002 IFOUNDN	00744					
P01120 IFRST	01067					
C05132 IMAP	00714					
C00000 IMDATE						
P01076 ILAUNDEC	00640					
C00002 ISIDE						
C00000 ITAB	00646					
C02506 IMHX						
P01046 .1	01044					
P00745 .105	01045					
P00712 .136	01062					
P01060 .150	01066					
P01067 .152						
P00703 .200	00716					
P01035 .20	00706					
P01050 .2	01016					
P00710 .201	01045					
P01017 .21						
P00623 IBEGIN	00703					
P01117 ICURZONE	00746					
C00001 IDENTAC	00641					
C00002 IFOUNDN	00744					
P01120 IFRST	01067					
C05132 IMAP	00714					
C00000 IMDATE						
P01076 ILAUNDEC	00640					
C00002 ISIDE						
C00000 ITAB	00646					
C02506 IMHX						
P01046 .1	01044					
P00745 .105	01045					
P00712 .136	01062					
P01060 .150	01066					
P01067 .152						
P00703 .200	00716					
P01035 .20	00706					
P01050 .2	01016					
P00710 .201	01045					
P01017 .21						
P00623 IBEGIN	00703					
P01117 ICURZONE	00746					
C00001 IDENTAC	00641					
C00002 IFOUNDN	00744					
P01120 IFRST	01067					
C05132 IMAP	00714					
C00000 IMDATE						
P01076 ILAUNDEC	00640					
C00002 ISIDE						
C00000 ITAB	00646					
C02506 IMHX						
P01046 .1	01044					
P00745 .105	01045					
P00712 .136	01062					
P01060 .150	01066					
P01067 .152						
P00703 .200	00716					
P01035 .20	00706					
P01050 .2	01016					
P00710 .201	01045					
P01017 .21						

5.475 FINDZONE

11/24/71

ED 0

PAGE NO.

5

P01063	-210	01061				
P00720	-220	00716				
P01033	-22	01015				
P00644	-300	00642				
P00701	-301	00643				
P00700	-302					
P01071	-6	00771	01034	01065	01066	
P00773	-7					
P01102	-ERASER.	00737	00767	00777	01000	01007
		01011	01031	01032	01042	01010
		01022				
P00624	-22					
C05334	JAPTYPE					
C05252	JHAP					
C01604	JTPX					
P01121	K	00675	00676			
C05074	KCOUNT					
C01452	KPLX					
P01122	LINK					
C05170	KCOUNT	00742	00745	00750	00751	01060
P01123	N	00667	00672			
C00023	NALENT					
C00016	NASMTYPE					
C00010	NBNDRY	00652	00655	00665	00667	00715
C00026	NCLASS					
C00021	NCOMPLEX					
C00004	NCON					
C00025	NCONTYPE					
C00005	NOPEN					
P00003	NDX	00651	00655	00664		
P00313	NDXR	00664	00676			
C04504	NEXTZONE	00660				
C00013	NGROUP					
C00015	NPAYLOAD					
C00006	NRECOVER					
C00007	NREF					
C00011	NREG					
C00003	NRTT					
C00020	NTANKBAS					
C00024	NTGTS					
C00014	NTGTBASE					
C00012	NTYPE					
C00017	NWMTYPE					
X00003	ORDER	00647	00662			
C02640	PAX					
X00002	ORDDICT.	00000	00036			
X00011	UNSLINGL.	01074				
X00004	REORDER	00653				
P01124	SIGN	01041	01051			
X00006	SKRTF	00774				
P01125	SS	00771	00773	00776	01011	
X00010	STH.	01020				
P01126	T	01043				
X00001	TMENU.	01025				

5.4TS FINUZONE

11/24/71 ED 0 PAGE NO. 6

P01127	THET	00732	01051	01052	01063	
C00132	TIMELAUN					
P00701	TS0000CL	00671				
C02354	TZNX					
C02222	TZTX					
P00674	MS0000CL					
C00000	X	00700				
P01130	XDIFL	00733	00733	00763	00763	
P01131	XDIFN	00734	00736	00736	01043	01055
P01132	AL	00704	00765	01041	01054	
P01133	XN	00731	00732	00777	01053	
C00001	Y	00753	00762	00776	01052	
P01134	YDIFL	00725				
P01135	YDIFN	00735	00737	00740	01042	01056
P01136	YI	00762	00766	00766	01043	01055
P01137	YL	00722	00725	00726	00760	
P01140	YN	00727	01005	01005	01053	
	00173 SYMBCL	00755	00760			

FTn5.5

11/24/71

PAGE NO.

1

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SUERGUINE FLYPOINT
CSUBR FLYPOINT ZDEC70 *****
C FLYPOINT HAS 3 ENTRIES, IS AN INTEGRAL *****
C PART OF BLOCK 40 *****
CUSE ASMARAY ZDEC70 *****
COMMON/ASMARAY/ALAT(20),ALON(10),IFLY(10),IDIS(10),ICRD(10),
1JAY,DIST *****
CEND ASMARAY *****
CUSE LASM ZDEC70 *****
COMMON/LASM/U1,V1,U2,V2,UAT,VAT,RASK,RLAT,RLONG *****
LASM *****
CEND GUISRT 10FEB71 *****
CUSE COMMON/CUTSRT/ICUTSRT *****
1,MYGRUP,MYCRR,INDVEN,IREF,IOPEN,IPAYLOAD,INCHBASE,IITYP *****
2,RLAT,RLONG,WHAP,IBTYPE(10),GBLAT(10),GBLONG(10),OLAT(10),OLONG(10) *****
3,IBJEC(10),IBUES(10),IBTSK(10),IBCTY(10),IBFLG(10),AIRGUT(10), *****
4,SURVCUT(10),GLOM1,GLOM2,GLOM3,SPULO, *****
4SPDNI,RANGE,RANGREF,VELAY,ING,ILRT,IOSCMBER,AVAILON,MNGDEC *****
C /CUTSRT/ IS THE INPUT RECORD FROM STKFILE *****
CEND CUTSRT *****
ENTRY PREFLY1
7 IF (IFLY(JAY).EQ.1).AND. (IBTYPE(JAY).NE.0H AIM ASM)13*8
8 JAY=JAY-1
GC TO 7
ENTRY PREFLY2
1 IF (IFLY(JAY).EQ.1)3*2
2 JAY=JAY-1
GC TO 1
3 U1=ALAT(JAY)
V1=ALON(JAY)
DIST=DISF(U1,V1,UAT,VAT)
RETURN
ENTRY POSTFLY
4 IF (IFLY(JAY).EQ.1)6*5
5 JAY=JAY+1
GC TO 4
6 U2=ALAT(JAY)
V2=ALON(JAY)
CALL LAUNCH
RETURN
END
1000
7000
2000
3000
4000
1000
2000
4000
5000
1000
5000
6000
1000
2000
3000
4000
4500
5000
7000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000

```

IDENT FLYPOINT

00100
00004
00054
00011
00027
00064
00011
00221

FLYPOINT
POSTFLY
PREFLY1
PREFLY2

ASMAHAY
LASH
OUTSRT

EXTERNAL SYMBOLS
QUUDICT.
DISTF
LAUNCH

PROGRAM LENGTH
ENTRY POINTS

BLOCK NAMES

5.475 FLYPCINT

ED 0 PAGE NO. 3

11/24/71

CU0000	ALAT	00042	00067	00070	00071				
CU0012	ALON	00043	00044						
CU0160	ATTROUT								
CU0217	AVAIL2M								
PU0076	BEGIN.	00076							
CU0011	BLAT								
CU0012	BLONG								
CU0213	DELAY								
PU0001	DICT.	00006	00013	00031	00047	00056	00074		
CU0063	DIST	00052	00052						
X00002	DISTF	00046							
CU0052	DLAT								
CU0064	DLONG								
PU0077	ENDING.	00007	00014	00032	00053	00057	00075		
PU0000	EXIT.	00077							
PU0004	FLYPCINT	00004							
PU0003	FORMAT.	00015							
CU0204	GLOW1								
CU0205	GLOW2								
CU0206	GLOW3								
CU0134	ISCTY								
CU0110	ISDES								
CU0146	ISFLG								
CU0076	ISJEC								
CU0122	ISTSK								
CU0014	ISTYPE	00021	00021						
CU0216	ISCHMBER								
CU0036	IDIS								
CU0005	IDPEX								
PU0020	IF00001.								
CU0024	IFLY	00016	00034	00061					
CU0215	ILRT								
CU0003	INDVEN								
PU0076	INITIAL.	00007	00014	00032	00057				
CU0050	ICOR								
CU0000	ICUTSRT								
CU0006	IPAYLOAD								
CU0004	IREF								
CU0214	IRG								
CU0010	IITYP								
PU0033	.1	00040							
PU0036	.2	00035							
PU0041	.3	00023	00035						
PU0060	.4	00065							
PU0063	.5	00062							
PU0066	.6	00062							
PU0015	.7	00026							
PU0024	.8	00017							
PU0003	..100000	00022	00015	00020	00024	00024	00024	00033	00036
CU0062	JAY	00015	00041	00060	00063	00063	00063	00066	00066
X00003	LAUNCH	00037							
CU0007	LNCMBASE	00073							
CU0002	MYCORR								

5.3TS FLYPOINT

11/24/71

ED 0

PAGE NO.

4

CO0001 MYGROUP
 CO0013 NMAP
 CO0026 CBLAT
 CO0040 RBLONG
 PO0054 POSTFLY
 PO0011 PREFLY1
 PO0027 PREFLY2
 MO0001 ORGODICT.
 CO0211 RANGE
 CO0212 RANGERE
 CO0006 RASH
 CO0007 RLAT
 CO0010 RBLONG
 CO0220 RRGDEC
 CO0210 SPDHI
 CO0207 SPOLC
 CO0172 SURVCUT
 CO0000 U1
 CO0002 U2
 CO0004 DAT
 CO0001 V1
 CO0003 V2
 CO0005 VAT
 CO0114 SYMBOLS

00054
 00011
 00027
 00006

00005 00012 00030 00055

00042 00043 00050
 00087 00070
 00051 00045 00050
 00044 00072
 00071 00051

2475

FT05.5

TKTTOS(IJK)=ITOS
IITPTK(IJK)=IITPETH
THANGE(IJK)=TANKRANGE
1200 CONTINUE
RETURN
END

11/26/71

PAGE NO. 2

21500
21600
21700
22000
24000
25000

2474

ED

11/24/71

SATS INITANK

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

INITANK

IDENT

INITANK

00074
00007

7

KEYLENG

REF

INF

MASTER

FILES

TANKER

9

01320

00010

00144

00002

00027

00020

00014

07246

EXTERNAL SYMBOLS

THEND.
QUODICT.

ROADWAY

SIN.

S-ITS INITANK

11/24/71

ED 0

PAGE NO.

4

C00012 ALOCGRP				
C00006 ALOCSTAR				
C00002 BASFILE				
P00070 BEGIN.				
C06320 CBASLCC				
C06500 CMAX				
C00300 COST				
P00303 CRFMT.				
P00001 OICF.				
C06504 DISTREF				
C00007 DLYALTK				
C00010 DLYNLTK				
P00071 ENDING.				
C00016 EVENTAPE				
P00000 EXIT.				
C06566 FILL				
P00003 FORMAT.				
P00024 G600000.				
C00001 IDENTG				
C00000 IMDATE				
C00000 IINDXTK				
C00264 IIREFTK				
C01130 IITYPTK				
C00000 IND'XTK				
P00007 INITANK				
P00070 INITIAL.				
C06503 IRCDIF				
C06501 IRCHK				
C00003 IREFIK				
C00000 IRF				
C00002 ISIDE				
C05764 ISOL				
P00072 ITR				
P00073 ITP				
C00012 ITPETK				
P00016 .1000				
P00064 .1200				
P00015 .9				
P00003 .2				
C00007 LDBL				
C00002 LDN				
C00001 LIN				
C00003 LINC				
C00005 LMS				
C00006 LMO				
C00000 LGS				
C00004 LTK				
C00004 MSLTIME				
C00023 NALERT				
C00005 NALRTK				
C00054 NALRTAK				
C00016 NASMTYPE				
C00010 NBNDRY				
C00022 NCLASS				

5.ATS

INITIAL

11/26/71

ED

0

PAGE NO.

5

CU0026	NCNTRY				
CU0021	NCOMPLEX				
CU0004	NCORR				
CU0025	NCORTYPE				
CU0005	NOPEN				
CU0013	NCRSUP				
CU0015	NPAYLOAD				
CU0004	NPSONTK	00044	00044		
CU0006	NRECOVER				
CU0007	NREF				
CU0011	NREG				
CU0001	NRF				
CU0003	NRTPT				
CU0076	NSQL				
CU0020	NTANKBAS	00013	00013	00065	00065
CU0024	NTGTS				
CU0030	NTKSGN	00045	00045		
CU0014	NTOTBASE				
CU0012	NTYPE				
CU0017	NWOTYPE				
CU0017	PLANTAPE				
XU0002	QBQDICT.	00000	00010		
CU0142	KBASLCC				
XU0003	HDARWAY	00030			
CU0000	RFLAT				
CU0062	RFLONG				
CU0077	RMAX				
CU0070	SOURCE				
CU0006	SPEEDTK	00050	00050		
XU0004	STM.	00017			
CU0014	STRKFL.				
CU0013	TANKRGE	00002	00062		
CU0050	TANKSPU	00051	00051		
CU0000	TGFILE				
XU0001	THEND.	00022			
CU0044	TKOLYALF	00053	00053		
CU0040	TKOLYNL	00055	00055		
CU0001	TKLAT	00036	00036		
CU0002	TKLNG	00040	00040		
CU0074	TKRLAT	00037	00037		
CU0070	TKRLONG	00041	00041		
CU0034	TKTGS	00057	00057		
CU0010	IMPALCC				
CU0024	TRANGE	00063	00063		
PU0065	TS00001.	00025			
CU0011	TICS	00056	00056		
PU0026	W50001.	00066	00066		
CU0145	SYMBCLS				

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10000
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32000
33000

5.4TS

LATCV

PROGRAM LENGTH
ENTRY POINTS

LATCV
LONCV

EXTERNAL SYMBOLS

IDENT

LATCV

U0176
U0006
U0076

11/24/71

ED 0

PAGE NO.

2

2479

S-4TS

LATCV

11/24/71

ED 0

PAGE NO.

3

PU0003 A	UU012					
PU0123 BEGIN.	UU0150	00154				
PU0122 CNVRT1.	UU067					
PU0003 CRFT.	UU072					
PU0001 DICT.	UU010					
X00004 ENC.	UU064					
PU0142 ENDING.	UU075					
PU0000 EXIT.	UU011	00101	00123	00124	00125	00125
PU0000 EXIT.	UU046					
PU0003 FCRHAF.	UU035					
PU0012 FP000C1.	UU036					
PU0102 FP00002.	UU037					
PU0157 GETPL.	UU030					
PU0147 GETPU.	UU053					
PU0072 GG00000.	UU063					
PU0123 INITIAL.	UU011					
PU0017 .1	UU016					
PU0107 .11						
PU0021 .2						
PU0046 .3						
PU0051 .4						
PU0053 .5						
PU0056 .6						
PU0023 .7						
PU0160 .ERASER.						
PU0003 .10	UU016	00106	00106	00112		
PU0006 LATCV	UU061					
PU0172 LATFIX	UU054	00055	00061			
PU0117 LATFLT	UU015	00021	00022	00023	00031	00111 00111
PU0116 LATFLT	UU031					
PU0173 LERESFIX	UU062					
PU0174 LHEK	UU020	00074	00104	00110		
PU0076 LONCV	UU076					
PU0175 MINFIX	UU035					
PU0115 MINFLT	UU033					
PU0114 MINFLT	UU041					
PU0141 PF00002.	UU042					
X00001 Q1010100	UU034	00043				
X00003 Q800100	UU024					
X00005 Q800100	UU007	00077				
PU0120 Q800100	UU000					
X00005 Q800100	UU012					
PU0002 SECFLX	UU044	00057				
X00002 TMEU.	UU070					
PU0113 VALUE.	UU072	00073	00075	00145		
UU052 SYMBOLS						

11/24/71

```

SUBROUTINE LAUNCH
  CSUBH      LAUNCH  2DEC70 *****
  C          LAUNCH COMPUTES AIM POINT FOR ASM *****
  CUSE       LASM  2DEC70 *****
  COMMON/LASM/ V1,V2,V2,UAT,VAT,RASH,RLAT,RLONG *****
  LASM *****
  LAUSNAP  2DEC70 *****
  COMMON/LAUSNAP/ INRANGE,FRACPATH *****
  LAUSNAP *****
  IF (RASH.LE.0.15,6
5  RLAT=UAT
  RLONG=VAT
  RETURN
6  CONTINUE
  INRANGE=1
  ALFACOSF(UAT/57.2957795)
  GASH=RASH/60. $ COS=GASH*.75 $GASH2=GASH*GASH
  AI=(DIFFLONG(VAT,V1))*ALF
  BI=UAT-UI
  RISQ=AI*AI+BI*BI
  IF (RISQ.LT.GASH2) 10, 20
10  RLAT=UI $ RLONG=V1 $ GO TO 80
20  A=(DIFFLONG(V2,V1))*ALF
     B=UC-UI $ PATHSQ=A*A + B*B
  IF (PATHSQ.LT.0.0000001)26,25
25  TEMP1=BI*A-AI*B
  BIPSO=TEMP1*TEMP1/ PATHSQ
  A2=A-A1 $ B2=B-B1 $ R2SQ=A2*A2+B2*B2
  IF (BIPSQ.LT.GASH2) 30,60
30  FRACPATH=1.0-GASH/SQRIF(RISQ) $ INRANGE = 0
  AF=AI*FRACPATH
  BF=BI*FRACPATH
  GO TO 7C
30  TEMP2=A*A1+B*B1
  IF (TEMP2*(TEMP2-PATHSQ).GT.0.0) 40, 50
40  IF (R2SQ.LT.GASH2) 50, 60
50  FRACPATH=(TEMP2-SORTF(TEMP2*TEMP2-PATHSQ*(RISQ-GASH2)))/PATHSQ
  AF=AF*FRACPATH $BF=BF*FRACPATH $ GO TO 7D
60  INRANGE=0
  DI=SQRIF(RISQ)-CON $ D2=SQRIF(R2SQ)-CON
  FRACPATH=DI/(DI+D2)
  AT=AF*FRACPATH $ BT=B*FRACPATH
  ATMB1=AT-A1
  BTMB1=BT-B1
  DIST=SQRT(ATMB1*ATMB1+BTMB1*BTMB1)
  AF=AI+GASH*ATMB1/DIST
  BF=BI+GASH*BTMB1/DIST
  RLAT=UI+BF $ RLONG=V1 + AF/ALF
70  IF (RLONG.GT.360.) 75, 80
75  RLONG=RLONG-360.
80  CALL SNAPIT(5,1)
  RETURN
END

```

PROGRAM LENGTH	U0302	IDENT	LAUNCH
ENTRY POINTS	U0003		
BLOCK NAMES			
	U0011		
	U0002		
EXTERNAL SYMBOLS			
	LASM		
	LAUNSNAP		
	Q000ICT.		
	DIFFLONG		
	SNAPIT		
	SWRTF		
	COSF		

5.015 LAUNCH

X00004 SORTF
 P00300 TEMP1
 P00301 TEMP2
 C00000 U1
 C00002 U2
 C00004 UAT
 C00001 V1
 C00003 V2
 C00005 VAT
 00075 SYMCLS

00105
 00070
 00124
 00036
 00054
 00012
 00033
 00052
 00013

00140
 00071
 00125
 00045
 00055
 00012
 00033
 00046
 00033

00156
 00135
 00045
 00055
 00016
 00052
 00017
 00221

00162
 00136
 00055
 00215
 00035
 00222

11/24/71

ED

0

PAGE NO.

4


```

SUBROUTINE LNCMDATA
  LNCMDATA 20MAY71
  FILES 16FEB71
  COMMON /FILES/ TOTFILE(2),BASFILE(2),MSLTINE(2),ALOCJAR(2),
    * TMPALOC(2),ALOCGRP(2),STRKFL(2),SEVENTAPE,PLANTAPE
  C
  TYPE INTEGER TOTFILE,BASFILE,ALOCJAR,TMPALOC,ALOCGRP,STRKFL
  TYPE INTEGER EVENTAPE,PLANTAPE
  FILES
  ITP 20EC70
  COMMON/ITP/ITP
  ITP
  MYIDENT 20EC70
  COMMON/MYIDENT/MYIDENT
  MYIDENT
  MASTER 16FEB71
  COMMON/MASTER/MASTER,IDENT,ISIDE,NRPT,NCORR,NOPEN,NRECOVER
  1,NREF,NBDRY,NMEX,NNTYPE,NORCUP,NICIBASE,NPAYLOAD,NASHI,NMHDTYPE
  2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE,NCNTRY
  MASTER
  TIMELINE 16FEB71
  COMMON/TIMELINE/ ITIME,TYP(40), CORMSLX(40), FLTIM(40)
  1,INDXFIX(1000),TIME(1000),TOATA(252),ZLAT(50,2),ZLONG(50,2)
  2,XC(50),YC(50),ZC(50),DL(50),TMLNCH(10),GOLD
  3,NFIAPS,NLEFT,NLINES,MSLFL(5)
  TYPE INTEGER GSAVE, GOLD
  TYPE LOGICAL ITIME,TYP
  EQUIVALENCE (GSAVE,MSLFL(1)),(NDEKSAVE,MSLFL(2))
  EQUIVALENCE (ITIME,SAVE,MSLFL(5))
  DIMENSION ITDATA(252)
  EQUIVALENCE (ITDATA, I(1))
  DATA (NLINES = 0), (CORCHK = 32400), (GOLD = 0)
  DATA ITDOP1 = 0.2831853070, ICH = 0.01745359252)
  TIMELINE
  BLOCK 16FEB71
  COMMON/BLOCK/ LOCK(320)
  DIMENSION BLOCK(320)
  EQUIVALENCE (LOCK, BLCK)
  BLOCK
  C
  C READ LINE DATA
  C
  1001 READ 1002, (LOCK(I), I = 1, 32)
  1002 FORMAT (8I4,1A,2,1A,2,A1)
  IF (LOCK(1) .EQ. 8H ) 1100, 1003
  C
  C GET LAT AND LONG AND PUT IN RIGHT FORMAT
  C
  1003 DC 1099 K = 1, 17, 16
  IF (LOCK(K) .EQ. 8H ) 1099, 1004
  1004 NLINES = NLINES + 1
  IF (NLINES .GT. 50) 1005, 1006
  1005 READ 1002, LOCK(1)
  IF (LOCK(1) .EQ. 8H ) 1100, 1005
  1006 L = 0 3 KK = K + 8
  DC 1013 J = K, KK, 8

```

```

L = L + 1
FD = NUMGET(LOCK(J), J)
FM = NUMGET(LOCK(J+1), 2)
FS = NUMGET(LOCK(J+2), 2)
ZLAT(NLINES, L) = FD + FM/60. + FS/3600.
IF (LOCK(J+3) .EQ. 1H) 1007, 1008
1007 ZLAT(NLINES, L) = -ZLAT(NLINES, L)
1008 FD = NUMGET(LOCK(J+4), 3)
FM = NUMGET(LOCK(J+5), 2)
FS = NUMGET(LOCK(J+6), 2)
ZLONG(NLINES, L) = FD + FM/60. + FS/3600.
IF (LOCK(J+7) .EQ. 1H) 1009, 1013
1009 ZLONG(NLINES, L) = -ZLONG(NLINES, L)
1013 CONTINUE
DL(NLINES) = DISTF(ZLAT(NLINES, 1), ZLONG(NLINES, 1), ZLAT(NLINES, 2),
1 ZLONG(NLINES, 2))
C
C COMPUTE PERPENDICULAR TO PLANE OF LINE
C
A01 = TNGPI - CR * ZLONG(NLINES, 1)
A02 = TNGPI - CR * ZLONG(NLINES, 2)
DL1 = CR * ZLAT(NLINES, 1)
DL2 = CR * ZLAT(NLINES, 2)
CUS = COSF(DL1)
R11 = COSF(A01) * CUS
R12 = SINF(A01) * CUS
R13 = SINF(DL1)
CUS = COSF(DL2)
R21 = COSF(A02) * CUS
R22 = SINF(A02) * CUS
R23 = SINF(DL2)
XC(NLINES) = R23 * R14 - R13 * R22
YC(NLINES) = R21 * R13 - R11 * R23
ZC(NLINES) = R11 * R22 - R12 * R21
1099 CONTINUE
GC TO 1001
C
C READ AND STORE CORMSLX DATA
C
1100 DC 1101 J = 1, 40
CORMSLX(J) = -10.E+7
ITIMETYP(J) = 0
1101 FLTIMIN(J) = 0.0
1102 READ 1103, (LOCK(I), I=1, 3), BLOCK(4), BLOCK(5), (LOCK(I), I=6, 8)
1103 FORMAT (2(A8, A2, A8, 2X, 2F10.0))
1104 IF (LOCK(1)) .EQ. 8H .AND. LOCK(2) .EQ. 8H
1105 IF (LOCK(1)) .EQ. 1H .OR. 10 .EQ. 40
1106 IF (LOCK(1)) .EQ. 1H .OR. 10 .EQ. 40
1107 FLTIMIN(10) = BLOCK(J+3)/60.
CORMSLX(10) = BLOCK(J+3)
IF (LOCK(J+2) .EQ. 4HLINE) 1106, 1107
C
C ITIMETYP=0 CORMSLX IS PERCENT OF FLIGHT PATH COMPLETE AT T=0.0
C ITIMETYP=1 CORMSLX IS TIME ON LINE
C

```

```

C
1106 ITIME(TP(ID) = 1
      CSMSLA(ID) = CSMSLX(ID)/60.
      GO TO 1199
1107 IF (CSMSLA(ID) .GT. 1.0) 1108, 1109
1108 CSMSLX(ID) = 1.0
      GO TO 1199
1109 IF (CSMPSLX(ID) .LT. 0.0) 1110, 1199
1110 CSMPSLX(ID) = 0.0
1199 CONTINUE
      GO TO 1102

C
C      HEAD FIRST FIXED WEAPON RECORD FROM MSLTIME FILE.
C
1200 MYIDENT=BMMSLTIME
      ITP=MSLTIME(1)
      CALL SETREAD
      CALL READHAY(MSLFILDS)
      IF (GSAVE.LE.NONGUP) GO TO 2000
      GSAVE=ICQO
      PRINT 1208
1208 FORMAT (/4SHUNG FIXED MISSILE INFORMATION ON MSLTIME FILE )
2000 PRINT 2001, NLINES
2001 FORMAT (/9H LNCUATA//6H LINES,14//3H NO.3X,5HZLAT1,X,6HZLONG1,
      1 3X,5HZLAT2,X,6HZLON2,3X,6HLENGTH,14X,6HXCROSS,3X,6HXCROSS,
      2 JA, 6HZCROSS)
      PRINT 2002(JX,1ZLAT(JX,1X),1ZLONG(JX,1X),1X=1.2),DL(JA),AC(JA),
      1 VC(JA), ZC(JX),
      1 JA = 1, NLINES)
2002 FORMAT(1X, 12, 5F9.3, 10X, 3F9.3)
      PRINT 2003
2003 FORMAT (/12H COMPSL DATA//30H LTYP TYPE CSMMSL MIN FLT )
      PRINT 2004, JX, ITIME(TP(JX), CSMSLA(JX), FLTIME(JX), JX=1.40)
2004 FORMAT(1X, 13, 13, 3X, 10.3, F10.3)
      PRINT 2005, GSAVE
2005 FORMAT (/20H FIRST FIXED GROUP =,14)
      RETURN
      END
78000
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120000
121000

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DATA LNCMDATA

PAGE NO. 5

ED 0

11/24/71

P01062 AD1	00400	00413	00417						
P01063 AD2	00403	00421	00435						
C00012 ALCCSRP									
C00006 ALCCFAR									
C00002 BASFILE									
P00039 BEGINS	01040	00513	00515	00525	00527	00555	00560	00561	
C00000 BLOCK	00513	00227	00505	00512	00517	00524	00551	00565	00672
P00082 CNVRT11.	00673	00700	00701	00702	00730	00741	00755		
P00003 CORCHK	00470	00470	00561	00562	00571	00573	00576	00576	00602
C00002 CORMSLX	00603	00605	00605	00611	00612	00740			
X00012 CCSE	00411	00414	00427	00432					
P01064 CCUNT.	00247	00250							
P00005 CR	00375	00400	00403	00406	00712	00750	0076		
P00006 CRFMT.	00205	00534	00544	00544	00734	00750			
P00005 CUS	00413	00416	00422	00431	00434	00440			
P00001 DICT.	00166	00172	00204	00225	00232	00256	00266	00331	00341
	00371	00412	00415	00421	00425	00430	00433	00501	00531
	00546	00622	00625	00640	00643	00646	00653	00711	00717
	00722	00736	00747	00752	00757				
X00006 DISIF	00370	00374	00677	00700					
C05174 LL	00374	00374	00677	00700					
P01066 DL1	00405	00410	00423						
P01067 UL2	00410	00426	00441						
P01041 ENDING.	00167	00760	01037	01040					
C00016 EVENTA.E									
P00000 EXIT.	01042	00304	00326	00347	00742				
P01070 FD	00263	00475	00557	00560					
C00052 FLTHA	00474	00303	00336	00346					
P01071 FM	00273	00410	00233	00243	00532	00540	00515		
P00006 FORMAT.	00205	00410	00233	00243					
P01072 FS	00303	00305	00346	00350					
P00205 G600000.	00170								
P00233 G600001.	00223								
P00532 G600002.	00477								
P00644 G600003.	00636								
P00654 G600004.	00644								
P00712 G600005.	00654								
P00720 G600006.	00712								
P00750 G600007.	00720								
P00760 G600010.	00750								
C05300 GOLD	00004								
C05304 GSARE	00630	00634	00635	00635	00754	00754			
P01073 I	00175	00177	00201	00504	00506	00510	00520	00522	
P01074 ID	00550	00552	00557	00566	00575	00602	00604	00611	
C00001 IDENTING									
P00535 IF00001.	00551								
P00552 IF00002.									
C00000 IMDATE									
P00763 IN00004.	00307	00313	00352	00357	01024	01034			
P00764 IN00007.	00670	00770	01002	01004	01014				
C00122 INDXFIX									
P0103 INITIAL.	00167								

CU0002	ISIDE						
CU0042	ITDATA						
CU0000	ITMETYP						
CU0000	ITP						
P00033	.100001	00473	00570	00733			
P00034	.100002	00620	00620				
P00170	.1001	00632					
P00210	.1003	00663					
P00216	.1004	00207					
P00223	.1005	00215					
P00236	.1006	00235					
P00313	.1007	00222					
P00316	.1008	00312					
P00356	.1009	00355					
P00361	.1013	00215					
P00461	.1099	00207					
P00474	.1101	00614					
P00477	.1102	00534					
P00540	.1104	00553					
P00555	.1105	00564					
P00565	.1106	00600					
P00575	.1107	00554					
P00601	.1108	00551					
P00604	.1109	00537					
P00610	.1110	00537					
P00613	.1119	00603	00607	00607			
P00615	.1200	00306	00350	00445	00451	00453	00456
P00644	.2000	00214					
P01043	.ERASER	00305					
P00020	.100000	00206					
P00021	.100001	00214					
P00022	.100002	00234					
P00023	.100003	00312					
P00024	.100004	00355					
P00036	.100005	00533					
P00037	.100006	00536					
P00040	.100007	00564					
P00041	.100008	00615					
P00006	.1002	00173					
P00025	.1103	00502					
P00042	.1208	00641					
P00054	.2001	00647					
P00121	.2002	00657					
P00130	.2003	00715					
P00144	.2004	00723					
P00154	.2005	00753					
P00257	.200001	00254					
P00267	.200002	00264					
P00277	.200003	00274					
P00322	.200004	00317					
P00332	.200005	00327					
P00342	.200006	00337					
P00372	.200007	00364					
		00365	00366	00367			

5.4TS	LNCMDATA	11/26/71	ED	0	PAGE NO.	8
P01107	R22	00440				
P01110	R23	00444				
X00010	RDARRAY	00624				
P00766	RELCON..	00623				
X00007	SETREAD	00621				
X00011	SINF	00420				
X00014	STH.	00637				
C00014	STRKFL	00436	00713	00751		
C00042	TDATA	00655				
C00000	TGFILE					
X00001	TNEND.	00203				
C02072	TIME	00231	00530	00716	00746	00756
C05310	TIMESAVE					
C05250	TMLNCH					
C00010	TMPLACC					
P00362	TS00003.	00245				
P00706	TS00011.	00663				
X00013	TSM.	00171				
P00004	TWCP1	00377				
P00775	UP00002.	00607				
P01010	UP00003.	00662				
P01017	UP00004.	00220				
P01027	UP00006.	00240				
P00176	W500001.	00202				
P00212	W500002.	00403				
P00251	W500003.	00301				
P00467	W500004.	00476				
P00505	W500005.	00511				
P00517	W500006.	00523				
P00543	W500007.	00513				
P00670	W500010.	00676				
P00664	W500011.	00707				
P00727	W500012.	00745				
C04746	XC	00447	00701			
C05030	YC	00453	00702			
C05112	ZC	00460	00703			
C04436	ZLAT	00307	00314	00363	00373	00404
		00406	00671			
C04002	ZLCNG	00352	00357	00366	00372	00376
		00401	00673			
00277 SYMBOLS						


```

SUBROUTINE PLANTANK
  CSUBR      PLANTANK 23JUN71
  C          GENERATES TANKER PLANS
  CUSE      ARTIME 5FEB71
  COMMON/ARTIME/ARTIME(50),NBUDREF,NBOMBREF(50),NTANKREF(50),
  *          IARVLS(2,1000),IARVLS(2,1000)
  EQUIVALENCE (IARVLS,ARVLS)
  CUSE      ARTIME *****
  CUSE      CONTROL 2DEC70 *****
  COMMON/CONTROL/ICE,LSIDE,NPLCT,LSIZE,SCALE
  CUSE      CONTROL *****
  DINDATA 2DEC70 *****
  COMMON/DINDATA/MDT(90),KPL(90),JLP(90),MLA(90),MLC(90),TZT(90),
  ITZN(90),PA(90),MMT,NPL
  DINDATA *****
  DINDATA2 2DEC70 *****
  COMMON/DINDATA2/AC/CP(90),IM(90)
  DINDATA2 *****
  REF 2DEC70 *****
  COMMON/REF/MLAT(50),MFLGND(50)
  REF *****
  EVENTS 2DEC70 *****
  COMMON/EVENTS/LAUNCH,LAUNCH,LENEFUEL,INSECTOR,LOCCLATIR,LAUNCHM
  *LAUNCH,LAUNCH,LCMI,MISSATN,LEWUC,LABCRT,LENTREF,LEAVEREF
  *JGCHI,IGOLD *****
  EVENTS *****
  ICLASS 2DEC70 *****
  COMMON/ICLASS/ICORREN,ITANKER
  ICLASS *****
  INDATA 16FEB71 *****
  COMMON/INDATA/INDATA,INBASE,INDV,INDUM1(2),ILAST,INDUM2(2),
  ITYPE,ICLASS,INES,IALER(3),IDUM3(3),IALT,NCMS,IDUM4(3),
  2MFL,MMT,IDUMA(2),NPLAN,INDUM5,INC(80),INUP(80),INDE(80),INTYP(12),
  JALGZ(12),YOGZ(12),ZOGZ(12),IDUM6(6)
  TYPE INTEGER A00Z,Y00Z,Z00Z

  C
  DIMENSION ISV(6)
  EQUIVALENCE (ISV, INUV), (FILAST, ILAST)
  INDATA *****
  ICUTOLD 16FEB71 *****
  COMMON/ICUTOLD/ICUTOLD,KCKC,MYGUCUP,MYCORRC,LPAYLCAU,LKREF,LDPEN
  1,SPUMIC,SPULCO,JFCING,NHAPC,IBJEC(20),IBDES(20),IBTSKC(20),
  2ICUTY(20),IBFLG(20)
  ICUTOLD *****
  IRF 2DEC70 *****
  COMMON/IRF/IRF,NRF
  IRF *****
  IRFTK 2DEC70 *****
  COMMON/IRFTK/IRFTK
  IRFTK *****
  ITP 2DEC70 *****
  COMMON/ITP/ITP
  ITP *****
  KEYLENG 2DEC70 *****
  COMMON/KEYLENG/ LGS, LIN, LDN, LINC, LTK, LMS, LMC, LDBL
  KEYLENG *****

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[illegible]

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COMMON/TORU/TORU
EQUIVALENCE(IWCRU,ITWCRU)
CUSE 7 20MAY71 *****
COMMON /7/ IINDXK(60),IKHLAI(60),IKHLCHG(60),IIRFTK(60),
* NIKPSUN(60),NALRTNK(60),TANASPD(60),IKDLVALT(60),
* IKULYNL(60),IKTICS(60),IITPK(60),IRANGE(60)
* *****
CENU 7 *****
CUSE 8 20EC70 *****
COMMON/8/RECLAI(50),RECLONG(50)
* *****
CENU 8 *****
CUSE 9 10FEB71 *****
COMMON/ 9/GCSI(60,50),SOURCE(60),ISQ(110),RRASLCC(110),
* CHASLCC(110),NSQLRMAX,CMAX,IRCHK(60),IRCDIF,DIRSTREF(50)
* *****
* FILLR(304)
TYPE LOGICAL IRCHK
TYPE INTEGER COST,SOURCE,RRASLCC,CHASLCC,RMAX,CMAX
TYPE INTEGER COST TO HAVE LENGTH OF BLOCK VAN CORRESPOND TO 9A$S
* *****
C C
CENU DIMENSION DLAX(2),NLAX(2)
* *****
DIMENSION ISAX(2)
DIMENSION ISPREF(50)
DIMENSION INDR(180),DI(180),ICAN(4)
DATA(MZERO=0)
IF(NTANKBAS) 1000,9
9 RETURN
1000 PRINT 2
2 FORMAT(1H1)
JCTNG = BH 0
DC 1009 I=1,60
DC 1009 J=1,50
1009 COST(I,J)=0
DC 1010 I=1,60
IRCHK(I)=0
1010 SOURCE(I)=0
IRCDIF=0
DC 1200 ITK=1,NTANKBAS
IF (IIRFTK(I) .EQ. 0 .OR. IIRFTK(I) .LE. -J) 1020,1025
1020 SOURCE(I) = SOURCE(I) + NIKPSUN(I)
60 TO 1170
1025 IRCHK(I) = 1
J = IIRFTK(I)
NRCMBREF(J) = NRCMBREF(J) - NIKPSUN(I)
IF (NRCMBREF(J) .LT. 0) NRCMBREF(J) = 0
IRCDIF = IRCDIF + 1
1170 DC 1190 IV=1,NMF
DIRSTREF(IV) = DIRSTREF(IV) + IIRFTK(I) + IIRFTK(I) + IIRFTK(I)
ICHNGNM = DIRSTREF(IV) + 3
COST(I,IV) = ICHNGNM
1190 CONTINUE
1200 CONTINUE
RMAX = NTANKBAS
CMAX = NMF
CALL VAN
DC 1300 I=1,50
1300 ISPREF(I) = NRCMBREF(I) + 1
NIKSRTYS=0

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C

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CALL CLINDATA
INDATA=LSIDE
ICLASS = ITANKER
SET INTAR FOR TANKERS
MYGROUP=MYGROUPC=-1
MYCRRG=ICUTOLU=0
IRF=0
LUPEN=LPALOAD=0
CALL SNAPCON
NPL=0
NTEFLENPLAN=7
CPT(1)=CMT(2)=CMT(3)=CMT(4)=CMT(5)=CMT(6)=CMT(7)=C
IMH(1)=IMH(2)=IMH(3)=IMH(4)=IMH(5)=IMH(6)=IMH(7)=C
JIP(1)=INDE(1)=LAUNB
JIP(2)=INDE(2)=LEAVEREF
JIP(3)=INDE(3)=LEAVEREF
JIP(4)=JIP(5)=JIP(6)=JIP(7)=LANDHC
INDE(4)=INDE(5)=INDE(6)=INDE(7)=LANDHC
DC 20 ITR=1,NTANKBAS
DC 100 IV=1,NKF

```

100 DISTREF(IV)=COST(ITK*IV) RETRIEVE NEXT TANKER RECORD FROM /7/

C

```

INDEXK=IINXK(ITK)
TKLAT=TKRLAT(ITK)
TKLONG=TKRLONG(ITK)
IREFTK=IREFIK(ITK)
NPSUNTK=NTKPSUN(ITK)
NALRTK=NALRTNK(ITK)
SPEEDTK=TANKSPD(ITK)
DLYALTK=TDLYALIT(ITK)
DLYNLTK=TDLYNLIT(ITK)
TICS=TTICSI(JIA)
ITYPEK=ITITPTK(ITK)
TANKRGE=TRANGE(ITK)

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C

```

LREF=INEFTK
DLXX(1)=DLYALTK
DLXX(2)=DLYNLTK
NLXX(1)=NALRTK
NLXX(2)=NPSUNTK-NALRTK
ISXX(1)=0
ISXX(2)=NALRTK
DC 15 IXX=1,2
INBASE=INDEATK
INEFTK=IREFTK
ITYPE=ITYPETK
MUT(3)=TING(3)=TICS
KPL(1)=INDP(1)=INDEXTK
MLC(1)=TKLAT
NAL=NLXX(IXX)
ISTRSTY=ISXX(IXX)
IALERT=IXX
DC 10 IPI=1,NAL
IF(IREFTK)IPI,IUS,400
TANKER BASES WITH IREFTK OF -1,-2 ARE SKIPPED OVER

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115000

11/24/71

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101 IF (IREFTK,GE,-2)102,105
102 PRINT 103,INDEXTA,IREFTK
103 FORMAT(10A,11H)TANKER BASE,16,2X,15HSKIPPED,IREFTK,13)
GC TO 20
C TANKER BASES WITH IREFTK OF 0,-3,-4,-5 ARE AUTOMATICALLY ALLOCATED
C CHOOSE REFUEL POINT TO SEND TANKER TO BY VAN SOLUTION
105 JREFLPT=C
TSURP = -24.0
DC 115 JRM=1,NSCL
IF (ISCL(JRK).GT.0)106,115
106 IF (RBSLCC(JRK).EQ.ITA)109,115
109 JREFLPT=RBSLCC(JRK)
ISCL(JRK)=ISCL(JRK)-1
110 CONTINUE
IF (RBSLCC(JRK).GT.NRF)300,120
115 CONTINUE
120 IREFTK=JREFLPT
GC TO 400
C ALL BOMBERS SERVICED--ALLOCATE SURPLUS EQUALLY
C OVER REACHABLE AREAS
300 KRM=0 $ ISURPO=1E6
DC 310 KRM=1,NRF
C IF (NGBMREF(KRM).EQ.0)310,303
303 IF (DISTREF(KRM)-TANKRMGE) 304,304,310
304 ISURP=100*ISPREF(KRM)/NGBMREF(KRM)
IF (ISURP.LT.ISUMPO)305,310
305 ISURPO=ISURP
KRM=KRM+1
310 CONTINUE
IF (KRM)330,312
312 NC REACHABLE AREAS--CHOOSE CLOSEST
DC 320 KRM=1,NRF
IF (DISTREF(KRM)-DISIC) 314,320,320
314 KRM=KRM+1
DISTO=DISTREF(KRM)
320 CONTINUE
330 IREFTK=KRM
ISPREF(KRM) = ISPREF(KRM) + 1
400 DISTO=DISTREF(IREFTK)
XL=HFLAT(IREFTK)
YL=HFLONG(IREFTK)
DEL = 0.0
MUT(1)=TINC(1)*DULXX(IAX)*DEL
IF (INITSTK.EQ.1)1,3
1 DC 450 IDIV=1,1000
IAREF=IARVLS(C,IDIV)
IF (IAREF) 450,450,410
410 IF (IAREF-IREFTK) 450,420,450
420 AHTIM=ARVLS(1,IDIV)
IARVLS(2,IDIV)=0
IATRA=0
430 DEL=AHTIM-DIST/SPEEDIK-.1
GC TO 460
450 CONTINUE

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11/26/71

PAGE 5

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AHTIM=ARTIME (LHFTK)
IATRA=IRFTK
GC TO 430
460 CONTINUE
3 HUT(1)=TINC(1)*UEL
KPL(2)=TINC(2)*UJST/SPEEDIK
HLA(2)=HLA(3)*AL
HLC(2)=HLC(3)*YL
NUT=0
DC 520 KHE=1*NDPHEW
UC 519 KHC=1*4
NUT=NDST+1
IF (INDCAP(KH,KKC).EQ.V) 505,506
505 UI(NDST)=1E6
GC TO 519
506 DI(NDST)=DISTF(AL,YL,HCLAT(KH,KKC)*HCLON(KH,KKC))
519 CONTINUE
520 CONTINUE
CALL ORDER(UJ,IRUH,NDST)
UC 525 KHE=1*4
ICAN(KN)=IRUK(KN)
INKR=ICAN(KN)/4 + 1
INKRC=ICAN(KN)-(4*(INKR-1))
I3PLKR=3*KR
TINC(I3PLKR)=HUT(I3PLKR)*UI(ICAN(KN))/SPEEDIK
HLA(I3PLKR)=HCLAT(INKR,INKRC)
HLC(I3PLKR)=HCLON(INKR,INKRC)
CALL IPUT(KEYOPEN,I3PLKR,INKR,KPL)
CALL IPUT(KEYVMA,I3PLKR,INKRC,KPL)
INDP(I3PLKR)=KPL(I3PLR)
525 CONTINUE
INDV=ICUTCLU=ISHTSY*1*1
IFT = HUT(2)*HUT(3)*HUT(4)
CMT(1)=HUT(1)
DC 606 NMJ=2*4
CMT(KM)=CMT(KM-1)*HUT(KMT)
606 NIKRSTYS=NTKSTYS+1
602 NTANKREF(IRFTK)=NTANKREF(LHFTK)+1
GC TO (5,7,5,5),ICE
5 ITP=EVERTAPE
21WORD = 26
CALL WHHCHD
CALL WHHARAY (INDATA, 26)
CALL WHHARAY (TINC,MFL)
CALL WHHARAY (INDP,MFL)
CALL WHHARAY (INDE,MFL)
IRF=IRFTK
CALL SNAPIT(3,2)
IF (IXTRA) 53,5,53
53 PRINT 535,IXTRA
535 FORMAT (21H,TANKER EXIRA AT AREA,15)
GC TO (10,7,7,10),ICE
7 WHITE(PLANTAPE) (LSIDE*MYGHQUP*MZERO,NTKSTYS,INDEATK,INDV,ITANKER,
11TYPE,MZERO,JALET,MZERO,MHT,(MZERO,I=1,12))
WHITE(PLANTAPE) (HUT(1),KPL(1),JTP(1),HLA(1),HLC(1),CMT(1),I=1,MHT)

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211200
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211800
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212200
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212800
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219800
220000
220200
220400
220600
220800
221000

FTN5.5

11/24/71

PAGE NO.

7

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IF (NAP(2).EQ.3) 900,10
900 PRINT 901,LSIDE,MYGROUP,NTKSRTYS,INDEXTK,INDV,ITANKEM,ITYPE
1,IALERT,MHT
901 FORMAT(1X,5MSIDE,12,2X,5MGROUP,13,2X,7MTKCCUNT,15,2X,7HBASE,16,2X
1,5MVEHID,13,2X,5MCLASS,12,2X,6MS-TYPE,13,2X,6MIALERT,12,2X
2,7MNLINES,13,2X, /)
PRINT 902
902 FORMAT(4X,3MMDI,4X,3MKPL,2X,3MJTP,3X,3MKLA,5X,3MHLG,4X,3HCMT)
PRINT 903,(MUT(1),KPL(1),JTP(1),MLA(1),HLC(1),CAT(1),A=1,MHT)
903 FORMAT(1X,F7.2,F7.2,F7.2,F7.2,F7.2,F7.2)
10 CONTINUE
15 CONTINUE
20 CONTINUE
DO 25 IDIV=1,1000
1P (IARVLS(2,IDIV)) 23,25,23
23 PRINT 24, IARVLS(2,IDIV),ARVLS(1,IDIV)
24 FORMAT (52HPROGRAM ERROR,NO TANKER ASSIGNED TO NUMBER ARRIVING,
15M AT REFUEL AREA,16,7MAY TIME,F7.3)
25 CONTINUE
PRINT 990, NTKSRTYS
990 FORMAT(/10X,16,2X,22MTANKER PLANS PROCESSED )
RETURN
END

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222000
223000
224000
225000
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S-SITS PLANTANK

11/24/71

ED 0

PAGE NO.

8

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

PLANTANK

IDENT

PLANTANK	IDENT
J2551	
J1040	
ARTIME	
CONTRCL	
DINDATA	
DINDATA2	
REF	
EVENTS	
IGLASS	
INDATA	
ISUTGLU	
INF	
INFTK	
IIP	
KEYLENG	
KEYS	
MASTER	
MAX	
MYIDENT	
OUTSKI	
PLANTYPE	
IC	
SNAPON	
TANKER	
FILES	
TWGRU	
7	
8	
9	

EXTERNAL SYMBOLS

THEND.
Q3910040
Q1010100
GRUOICT.
DISTF
VAM
CLINDATA
SNAPCON
GRUEN
IPUT
WHWCHU
WHARHAY
SNAPIT
STM.
STB.
ONSINGL.

5.4TS PLANTANK

11/24/71 ED 0 PAGE NO. 10

P02214 GG000075. 02165
P02222 GG00006. 02214
P02251 GG00007. 02222
P02302 GG00010. 02270
P02314 GG00011. 02305
C00204 G01C01
C00205 G01C02
C00206 G01C03
C00300 M01
C00416 HLA
C00550 HLC
P02512 I
P02513 I3PLKR
C00013 IALERT
C00017 IALT
P02514 IARREF
C00227 IARVLS
C00134 IBCFYC
C00107 IBCFYC
C00110 IBUES
C00037 IBDESC
C00146 IBFLG
C00133 IBFLGC
C00075 IBJEC
C00013 IBJEC
C00000 IBMBER
C00122 IBISK
C00063 IBTSKC
C00014 IBTYPE
P00043 ICAN
P00000 ICE
P00051 ICHNGAM
C00011 ICLASS
C00016 IDCMBER
C00001 IBENTAC
P02516 IDIV
C00005 IDPEN
C00003 IDUM1
C00006 IDUM2
C00014 IDUM3
C00021 IDUM4
C00031 IDUM5
C00072 IDUM6
C00026 IDUMA
P01114 IF000C1.
C00016 IGMH
C00017 IGLC01
P02517 IGLC01
C00000 IMDAIE
C00000 IINDXIK
C00026 IIREFTK
C01130 IITYPTK

01400 01400 01570 01571 01635 01641 01740 01772
01772 01773 01773 01775 02003 02003 02145 02233
01405 01405 01647 01647 01744 01744 02151 02237
01407 01407 01651 01652 01746 01746 02152 02240
01060 01071 01074 01076 01211 01213 02127 02155
02227 02232 02243 02331 01761
01733 01737 01751 01756 02207
01413 01414 02113 02113
01601 01603 01612 01613 02266 02275 02275
01600 01600
01720 01727 01733 02061 02061
02013 02013 02061 02061
01226 01226
01575 01622 02263 02302 02406
02014 02062
01322 01322 01115 01115 01131 01330 01330
01112 01112 01346 01346

5.415 PLANTANK

11/24/71 ED 0 PAGE NO. 11

C00005 ILAST	01005	02324	02334	02336	02350								
C00215 ILRT	01154	01310	02352	02362	02364	02376							
P02317 IN000C1.	01577	01607	02265	02274	02400	02411							
P02320 IN000C6.	01663	02413	02423	02425	02437								
P02321 IN00014.	01742	02446	02456										
P02322 IN00015.	01371	01371											
P02323 IN00021.	01224	01224	02030										
C00001 INBASE	01666	01666											
C00000 INDATA	01257	01257											
C00620 INDBAS	02041												
C00130 INDCAP	01323	01323	01262	01262	01265	01265	01273	01274	01274	01275	01275	01275	01275
C00022 INDE	02177	01771	01370	01370	01401	01401	01431	01431	01431	02101	02101	02177	02177
C00000 INDEXTK	01402	01771	01643	01643	01644	01763	01763	01763	01763	02036			
C00152 INDP	01771		02103	02103	02201	02201							
C00002 INDV	01043												
C00007 INDVCH	01571	01572											
P02460 INITIAL.	01723	01752	02443										
C00000 INITSTNK	01730	01757	02452										
P02520 INKR	01232	01232	01770	01770									
P02521 INKRC													
C00003 INSECTON													
C00000 IOUTOLD	01747	01754											
C00000 IOUTSRT	01105	01144	01144	01145									
C00006 IPAYLCAD	01101	01130											
X00012 IPUT	01712	01720											
C00503 INCDIF	01331	01331	01352	01372	01372	01417	01417	01422	01422	01433			
C00501 INCHK	01234	01234	02043	02043									
P00073 IRDR	01373	01373	01471	01471	01552	01552	01556	01556	01556	01604	01604	01625	01625
C00004 IREF	01625	01625	01630	01642	01642	02010	02010	02042	02042				
C00003 IREFTK													
C00012 IREG													
C00000 IRF													
C00000 IRFTK													
C00214 IRG													
C00002 ISIDE	01444	01444	01456	01456	01457								
C05104 ISOL	01216	01514	01554	01555									
P00011 ISPREF	01412	01767											
P02522 ISTRISTY	01516	01520											
P02523 ISURP	01476	01516	01521										
P02524 ISURPC	01364	01366	01412										
C00002 ISVY	01225	01225	02105	02105	02203	02203	01176	01277	01321	01451	02256	02256	02256
P00007 ISXX	01106	01111	01114	01120	01126	01155							
C00003 ISZE	02357												
C00001 ITANKER	02041	02021											
P02525 ITK	01375	01347	02107	02107	02205	02205							
C00000 ITP													
C00000 ITWCHD													
C00010 ITYP													
C00010 ITYPE													
C00012 ITYPETK													

P02526 IV	01147	01154	01303	01310	02372
P02527 IM	01415	01767	02251	01254	01255
C00132 IM	01252	01253	01253	01254	01255
C00412 IMTP					
P02530 ITRA	01614	01031	02047	02055	
P02531 IXX	01367	01410	01413	01566	02254
P01047 .1000	01045				
P01312 .100					
P01574 .1					
P02251 .10	02063	02065	02164		
P01141 .1000C1					
P01144 .1000C2	01140	01140			
P01066 .1009					
P01102 .1010					
P01422 .101	01420				
P01120 .1020	01113	01116			
P01425 .102	01423				
P01125 .1025	01117				
P01437 .105	01420	01424			
P01447 .106					
P01453 .109					
P01460 .110	01445	01446	01452		
P01465 .115	01124				
P01146 .1170					
P01174 .1190					
P01176 .1200					
P01470 .120	01463	01463			
P01214 .1300					
P02254 .15					
P02256 .40	01436				
P02272 .23	02267				
P02302 .25	02267				
P01473 .300	01464				
P01636 .3	01573				
P01507 .303	01505				
P01513 .304	01511	01511			
P01520 .305					
P01523 .310			01517	01517	
P01527 .312					
P01543 .314					
P01547 .320	01541	01542			
P01551 .330	01526				
P01556 .400	01421	01472			
P01603 .410					
P01607 .420	01603				
P01615 .430	01632				
P01622 .450	01602				
P01633 .460	01621				
P02020 .5	02015	02017			
P01670 .505					
P01673 .506	01667				
P01703 .519	01672				
P01704 .520					
P01764 .525					

5-4TS PLANTANK

11/24/71 ED 0 PAGE NO. 13

PU2051 .53	04050						
PU2061 .6	02050						
PU2006 .602							
PU2002 .606							
PU2066 .7							
PU1046 .9	02016	U2064	U2065				
PU2165 .900							
PU2467 .ERASER	01725	U1726	01727	01730			
PU0654 .10000	01055						
PU0655 .103	U1430						
PU0650 .2	01052						
PU1005 .24	02273						
PU0671 .535	02054						
PU0700 .501	02170						
PU0750 .902	02217						
PU0774 .903	02225						
PU1026 .990	02310						
PU2466 .NSTIFF	01734	U1735					
PU1165 .200001	01157	U1160	01162				
PU1700 .200002	01674	U1675					
PU2332 J	01063	U1132	U1142	02344			
PU2533 J	01442	U1443	U1447	U1460	U1465		
CU0011 JFC TNC	01056	U1056					
PU2534 JREFLT	01440	U1440					
CU0264 JTP	01260	U1260	U1263	01266	01270	01271	01272
	02250	U2236					
PU2535 KB	01477	U1503	01521	01524	01532	01543	
PU2536 KBM	01474	U1522	01525	01530	01544	01551	
CU0001 KEYBMX	01756						
CU0000 KEYDPEN	01751						
PU2537 KMT	U2000						
CU0001 KKKO							
CU0132 KPL	01403	U1403	01644	01645	U1752	01757	02235
PU2540 KR	01655	U1704	01715	01717	U1732	U1764	
PU2541 KRC	01661	U2433					
CU0013 LABORT							
CU0007 LANDHC	01267	U1267	01272	01273			
CU0005 LAUNASH							
CU0001 LAUNB							
CU0006 LAUNCCY	01256	U1256					
CU0000 LAUNM							
CU0007 LDBL							
CU0002 LDN							
CU0006 LDPEM	01236						
CU0015 LEAVEREF	01264	U1264					
CU0012 LEODCG							
CU0014 LENTEREF							
CU0002 LEREFUEL	01261	U1261					
CU0001 LJN							
CU0003 LINC							
CU0005 LMS							
CU0006 LMO							
CU0007 LNCBASE							
CU0004 LNCPLATIN							

5-4TS PLANTANK

11/24/71 ED 0 PAGE NO. 15

C00044 MZCNEPT									
C00045 MZCNEB									
P02542 NAL	01411	02252							
C00023 NALERT									
C00005 NALPTK			01357	01360	01362	01365	01365		
C00454 NALRTNK									
C00000 NAP	01335	01335							
C00016 NASNTYPE	01334	02163							
C00010 NBNQRY									
C00063 NBNBREF	01134	01135	01136	01137	01142	01143	01214	01504	01514
	01515								
C00062 NBNBREF									
C00022 NCLASS									
C00020 NCMS									
C00026 NCNTRY									
C00021 NCNPLEX									
C00504 NCSRH									
C00025 NCRTYPE									
C00005 NDPEN	01706	01706	01665	01671	01702	01713			
P02543 NEST	01654	01664							
C00013 NGROUP									
C00013 NMAP									
C00012 NMAPC									
P00005 NLXX	01361	01363	01411						
C00015 NPAYLOAD									
C01321 NPL	01241	01242							
C00030 NPLAN	01243	01243							
C00002 NPLST									
C00004 NPSONTK	01333	01333	01361	01362					
C00006 NRECCVEH									
C00007 NREF									
C00011 NREG	01151	01151	01203	01204	01305	01462	01500	01500	01532
C00001 NRF	01533								
C00003 NRTP									
C00476 NSCL	01466	01466							
C00020 NTANKBAS	01044	01044	01200	01200	01202	02260	02260		
C00145 NTANKREF	02011	02011	02012						
C00024 NTGTS									
C00360 NTKPSGN	01122	01122	01135	01136	01332	01332			
P02544 NTKSRTYS	01220	02006	02007	02100	02175	02311			
C00014 NTOTRASE									
C00012 NTYPE									
C00017 NWHQTYPE									
C00026 ORLAT									
C00040 ORLONG									
X00011 ORDER	01710								
P02324 P0000C-U	02326								
P02336 P0001-U	02341								
P02352 P00002-U	02354								
P02364 P00003-U	02367								
P02400 P0001G-U	02403								
P02413 P0001-U	02415								
P02425 P00012-U	02430								

5.4TS PLANTANK

11/24/71 EO 0 PF - N. 16

C01166 PA									
P01040 PLANTANK	01040								
C00017 PLANTAPE	02066	02134	02134						
X00003 01010100	01171								
X00002 03010000	01100								
X00004 08001010	01000								
X00020 04010100	02315								
C00211 RANGE									
C00212 RANGERE									
C00142 RBASLCC	01450								
C00000 RBBLAT	01673								
C00310 RBBLCA	01674								
C00000 RECLAT									
C00062 RECLONG									
C00000 REFLAT	01160								
C00062 REFLONG	01161								
C00477 RMAX	01202								
C00220 RMODEC									
C00004 SCALE									
X00010 SHAPCON	01237								
X00015 SHAPIT	02044								
C00670 SOURCE	01102								
C00210 SPDHI									
C00007 SPDHC									
C00207 SPDLC									
C00010 SPDLOC									
C00006 SPEEDTK	01337								
X00017 STB.	02070								
X00016 STH.	01050								
C00014 STRKFIL									
C00172 SURVCUT									
C00013 TANKRNGE	01351								
C00550 TANKSPD	01336								
P02545 TFT	01774								
C00000 TGFIL									
X00001 THEND.	01053								
C00032 TINC	01377								
C00644 TKDLYALT	01340								
C00740 TKDLYAL	01342								
C00001 TKLAT	01325								
C00002 TKLONG	01327								
C00074 TKRLAT	01156								
C00170 TKRLONG	01157								
C01034 TKTTOS	01344								
C00010 TMAPALCC									
C01750 TDF									
C01224 TRANGE	01350								
P01200 TS00004.	01110								
P01176 TS00005.	01152								
P02260 TS00007.	01301								
P01321 TS00010.	01306								
P02252 TS00012.	01416								
P01486 TS00013.	01442								
P01525 TS00014.	01501								

S-475 PLANTANK

11/24/71 ED 0 PAGE NO. 17

P01551 TS00015.	01534								
P01706 TS00017.	01657								
P02157 TS00024.	02143								
P02245 TS00025.	02231								
P02546 TSURP	01441								
C00011 TTOS	01345	01376	01376						
C00000 TCRD									
C01034 T2N									
C00702 T2T									
P02330 UP00000.	01061	01072	01075	01212	02124	02130	02142	02156	02244 02324
	02331	02332	02333	02335	02335				
P02343 UP00001.	01064	01133	02337	02344	02345	02346	02350	02351	
P02356 UP00002.	01107	01177	01300	02257	02352	02357	02360	02361	02363
P02371 UP00003.	01150	01304	02365	02372	02373	02374	02376	02377	
P02405 UP00010.	01576	01623	02264	02303	02401	02406	02407	02410	02412
P02417 UP00011.	01656	01705	01716	01765	02413	02420	02421	02422	02424
P02432 UP00012.	01662	02426	02433	02434	02435	02437	02440		
P02442 UP00017.	01724	01753	02443	02444	02445	02447	02447		
P02451 UP00020.	01731	01760	02452	02453	02454	02456			
X00006 VAM	01206								
X00014 WRARRY	02026	02031	02034	02037					
X00013 WRCRD	02024								
P01062 W500001.	01073								
P01066 W500002.	01070								
P01077 W500003.	01104								
P01111 W500004.	01201	01201							
P01156 W500005.	01175								
P01214 W500006.	01217								
P01302 W500007.	02261	02261							
P01312 W500010.	01320								
P01370 W500011.	02255								
P01417 W500012.	02253	02253							
P01443 W500013.	01467	01467							
P01504 W500014.	01550								
P01537 W500015.	01624								
P01577 W500016.	01707	01707							
P01660 W500017.	01703								
P01664 W500020.	01766								
P01717 W500021.	02005								
P02002 W500022.	02131								
P02125 W500023.	02160	02160							
P02144 W500024.	02246	02246							
P02232 W500025.	02304								
P02265 W500026.	01562								
C00426 XD6Z	01564	01646	01700						
P02547 XL									
C00442 YD6Z									
P02550 YL		01651	01700						
C00456 ZD6Z									

00717 SYMBOLS

11/24/71

```

SUBROUTINE PLANTHIS
  PLANTHIS 18671E *****
  C      PROCESS MISSILE PLANS FROM STRKFILE
  CUSE    BLOCK 10FEB71 *****
  C      COMMON/BLOCK/ LOCK(320)
  C      DIMENSION BLOCK(320)
  C      EQUIVALENCE (LOCK, BLOCK)
  C      BLOCK *****
  C      CONTROL 20EC70 *****
  C      COMMON/CONTROL/ICE,LSIDE,NPLST,ISZ,SCALE
  C      CONTROL *****
  C      ITP *****
  C      COMMON/ITP/ITP *****
  C      ITP *****
  C      TWCRD 20EC70 *****
  C      COMMON/TWCRD/TWCRD,ITCRD
  C      EQUIVALENCE(ITCRD,TWCRD)
  C      TWCRD *****
  C      KEYLENG 20EC70 *****
  C      COMMON/KEYLENG/ LOS, LIN, LON, LINC, LTM, LMS, LMC, LDBL
  C      KEYLENG *****
  C      MAX 10FEB71 *****
  C      COMMON/ MAX/ MCLRDEZ, MCLERT, MASTYP, MENDRY, MCCREGN,
  C      1 MCLASS, MCNTRY, MCROR, MCRAT, MCRAT, MCRAT,
  C      2 MRECVLG, MREF, MRECVLG, MRECVLG, MRECVLG,
  C      3 MRECVLG, MREF, MRECVLG, MRECVLG, MRECVLG,
  C      4 MRECVLG, MREF, MRECVLG, MRECVLG, MRECVLG,
  C      5 MRECVLG, MREF, MRECVLG, MRECVLG, MRECVLG,
  C      6 MRECVLG, MREF, MRECVLG, MRECVLG, MRECVLG,
  C      7 MRECVLG, MREF, MRECVLG, MRECVLG, MRECVLG,
  C      8 MRECVLG, MREF, MRECVLG, MRECVLG, MRECVLG,
  C      MISCT 20EC70 *****
  C      COMMON/ MISCT/ MISCT, MIANGC
  C      MISCT *****
  C      OUTSRT 10FEB71 *****
  C      COMMON/OUTSRT/OUTSRT
  C      1 MYGROUP, MYCORN, INDOVER, IREF, IOPEN, IPAYLOAD, LNCBASE, ILYP
  C      2 BLAT, BLONG, NHAP, IRTYPE(10), SBLAT(10), SBLONG(10), BLAT(10), BLONG(10)
  C      3 IRTYPE(10), IRTYPE(10), IRTYPE(10), IRTYPE(10), IRTYPE(10), IRTYPE(10)
  C      4 SURVOUT(10), GLOCM, GLOCM, GLOCM, GLOCM, GLOCM, GLOCM
  C      4 SPDNT, RANGE, HANGREF, JELAY, INH, ILRT, IDCHBER, AVAILCH, HNGDEC
  C      /OUTSRT/ IS THE INPUT RECORD FROM STRKFILE
  C      OUTSRT *****
  C      EQUIVALENCE(OUTSRT, IUDM)
  C      DIMENSION IUDM(1)
  C      PAYLOAD 20EC70 *****
  C      COMMON/PAYLOAD/NGCHM(40), IWD1(40), NGCHM2(40), IWD2(40)
  C      1 NASH(40), IASH(40), NCM(40), NDECCYS(40), NDECCYS(40), INIRV(40)
  C      PAYLOAD *****
  C      SNAPCN 20EC70 *****
  C      COMMON/SNAPCN/NAP(15)
  C      SNAPCN *****
  C      FILES 10FEB71 *****
  C      COMMON /FILES/ IGFILE(2), BASFILE(2), NSLTIME(2), ALLOCAR(2)
  C      IGFILE(2), BASFILE(2), NSLTIME(2), ALLOCAR(2)

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11/24/71

```

L = LMS-LQS
ITP=STKFL(1)
CALL RDARRAY(LOCK(LOS+1),L)
INCREMENT COUNT OF NO OF MISSILE RECORDS
N=LOCK(17)
NT=LOCK(18)
MISCT = MISCTON
MTARGET = MTARGET + NI
SEE IF THIS IS A NEW GROUP WITH FIXED WEAPONS - IF SO READ DATA
C
C
C
IF (LOCK(3) .EQ. GSAVE) 2100, 2800
2100 GCLD = GSAVE
ITP=SLTIME(1)
DC 2200 J=1,1000
TIME(J) = TIMESAVE
INDEX(J) = INDEXSAVE
CALL RDARRAY(MSLFIL,5)
IF (LOCK(3)-GSAVE) 2101,2200,2101
2101 IF (GSAVE=1000) 2101,2200,2101
2103 GSAVE=1000
GO TO 2300
2200 CONTINUE
C
C
C
MORE THAN 1000 WEAPONS FIXED THIS GROUP
NFIWPS = NLEFT = 1000
2201 CALL RDARRAY(MSLFIL,5)
IF (GSAVE=999) 2203,2400,2203
2203 IF (LOCK(3) .EQ. GSAVE) 2201, 2800
2204 GSAVE = 1000
GO TO 2800
2300 NFIWPS = NLEFT = J
C
C
C
LOAD TARGET ARRAY AND CLEAN BLOCK ARRAY
DC 2800 J = 1, 90
ITDATA(J) = LOCK(J+18)
ITDATA(J+90) = LOCK(J+108)
LOCK(J+18) = LOCK(J+108) = MZERO
DC 2902 J=1,72
2902 ITDATA(J+180)=LOCK(J+198)
IPAY=LOCK(5)
IF (IMIRV(IPAY)) MRYFLG=1
CALL TIMEINCH
LOCK(18) = LOCK(17) = 1
NNN = N
S
GO TO (40,20,20,90),I,C
20 IGN=LOCK(3)
IF (IGN=IGN - MGRUP+MGRUP) 18,18,19
19 IGN=0 $ INDEX=0 $ REL=0 $ GO TO 17
18 CONTINUE
INDEX=ITYPEX(IUN)
REL=REL(INDEX)+DBLX(IGN)
17 IMH=IMH0(IPAY)
IMHTYPE=IMHTYPE(INDEX)

```

C WRITE DETAILED PLAN ON PLANTAPE

```

MVTST=0
MVTST2=0
DC 25 J=1,NT
NRECPLAN = NRECPLAN + 1
BLCK(4) = (MKNCH(J)
MSUB=BLCK(9)
IF (MVTST.EQ. ITDATA(J)) GO TO 170
FIND NUM TOTS ASSIGNED TO THIS MISSILE INDEX(MIRV)
LIM=(18-J)+1
DC 172 ATARG=1,LIP
NEWMSL=J*NTANG
IF (ITDATA(J)-ITDATA(NEWMSL)) 171,172,173
171 GO TO 173
2 CONTINUE

```

C 170 BLCK(163)=ITDATA(14+J)*TDATA(J+54)
 BLCK(181)=TDATA(162+J)*TDATA(72+J)
 BLCK(109)=ITDATA(90+J)
 BLCK(37) = ITDATA(18+J)
 BLCK(19) = ITDATA(J)
 BLCK(127)=ITDATA(108+J)
 BLCK(145)=ITDATA(125+J)
 BLCK(55) = ITDATA(36+J)
 BLCK(199)=ITDATA(180+J)
 BLCK(217)=ITDATA(198+J)
 MVTST = BLCK(19)
 BLCK(235)=ITDATA(216+J)
 BLCK(253)=ITDATA(234+J)

```

WRITE (PLANTAPE) BLCK(1),IGN,MZERG,NRECPLAN,MZERG,MZERG,BLCK(10),
1 BLCK(9),BLCK(11),BLCK(12),IPAY,MZERG,BLCK(18),BLCK(4),MZERG,
21=1,6),IMTYP,INDEX,IFNCTN(MSUB),MZERG)
ADD IN TARGET OFF SETS
170 BLCK(163)=TDATA(14+J)*TDATA(J+54)
BLCK(181)=TDATA(162+J)*TDATA(72+J)
BLCK(109)=ITDATA(90+J)
BLCK(37) = ITDATA(18+J)
BLCK(19) = ITDATA(J)
BLCK(127)=ITDATA(108+J)
BLCK(145)=ITDATA(125+J)
BLCK(55) = ITDATA(36+J)
BLCK(199)=ITDATA(180+J)
BLCK(217)=ITDATA(198+J)
MVTST = BLCK(19)
BLCK(235)=ITDATA(216+J)
BLCK(253)=ITDATA(234+J)
WRITE (PLANTAPE) BLCK(109),BLCK(37),BLCK(19),BLCK(11),BLCK(12),
1 BLCK(181),BLCK(127),BLCK(145),IMD,RELI,BLCK(55),
2 BLCK(199),BLCK(217),BLCK(235),BLCK(253)
IF (MVTST.EQ.3) 211,27
211 IF (MVTST2.EQ. BLCK(19)) GO TO 222
21 PRINT2,BLCK(1),IGN,MISCT,BLCK(10),BLCK(9),BLCK(11),BLCK(12),
1,BLCK(5),BLCK(18),BLCK(4),INDEX,IMTYP,IFNCTN(MSUB)
22 FORMAT(1X,4HSHUE,12,2X,5HGRUP,13,2X,6HMCOUNT,15,2X,5HCLASS,12,2X
1,4HTYPE,13,2X,4HREG,13,2X,6HIALEKI,12,2X,7HPAYLCAQ,13, /1X
2,7HNM,MISS,13,2X,6HNI,14X,13,2X,6HTWLAUN,F6.2,2X,6HPUYPE,13,2X
3,9HTYPE NAME,1X,48,1X,8HFUNCTION,1X,48 /)
222 PRINT 23
23 FORMAT(3X,7HMISSILE, 9X,4HMSITE,17X,6HTARGET,10X,6HFLIGHT, /
1,3X,SHINDEK,4X,5HINDEA,2X,4HPLAT,2X,5HLCNG,3X,5HINDEA,3X
2,4HPLAT,4X,5HLCNG,3X,4HTIME,5X,5HDESIG,2X,3HTRK,1X,5HCONTNY,2X,
3 1HF)
PRINT 24, BLCK(19),BLCK(37),BLCK(127),BLCK(145),BLCK(55),
1 BLCK(163),BLCK(181),BLCK(109),BLCK(199),BLCK(217),BLCK(235),
2 BLCK(253)
24 FORMAT (4X,14,3X,16,F6.1,F7.1,2X,16,F7.1,F9.1,F8.3,4X,AS,3X,A2,
+ 3X,A2,3X,A1)
27 GO TO (250,26,250),ICL

```

```

26 CALL SNAPIT(15,3)
250 WRVSTC=LCK(19)
25 CONTINUE
30 GO TO (40,60,80),ICE
C CLEAR OUT TAC END OF PLAN
40 L=LMQ+1
49 LCK(13)=LCK(17)
DC 50 L=L+LIN
50 LCK(1)=0
LCK(3)=0
C CONVERT ALIST,VLIST TO F.P. N. M#50
DC 55 L=LIN
IDATA(I+72) = 3000.*IDATA(I+72)*COSF(IDATA(I+54)/ST.2957795)
IDATA(I+54) = 3000. * IDATA(I+54)
55 CONTINUE
IIGT=0
DC 65 J = 1, NNN
LCK(14)=IMLNC(IIGT+1)
DC 66 KK=L+J-1, L
66 LCK(14+KK)=IDATA(KK+IIGT)
IS = IIGT + 1
MISSDEK = IDATA(IS)
DC 63 I = IS + 1
IF (IDATA(I) - MISSDEK) 64, 63, 64
63 CONTINUE
I = NI + 1
64 NIPM = I - IS
LCK(8) = NIPM
LCK(14) = NIPM * 2
DC 660 I=L+NTPM
IIGT=IIGT+1
K=50-2*I-1 $ KK=K+1
NDEC=NDECYS(IPAY) $ NADEC=NADECYS(IPAY)
IDATA(IDATA(54)+IIGT).AND.77778
IDLONG=IDATA(12+IIGT).AND.77778
LCK(K)=IDATA(36+IIGT)*2+33 + IDLATE+2+21 + IDLNG+2+9 +
1 INCB(IIGT)*2+6 + NADEC*2+3 + NDEC
660 LCK(KK)=IDATA(10+IIGT)
AND WRITE IF ON EVENTAPE
IF ((IDBLTEST.GT. 0) .AND. (LCK(2) .NE. LSTOULB5)) 70, 73
70 LSTOULB5 = LCK(2)
DC 71 I = 1, 6
J = I + 2
ISVX(I) = LCK(I)
71 LCK(J) = 0
LCK(3) = IDBLTEST
LCK(7) = SNAVAL
ITP = EVENTAPE
ITWDR = LDBL
CALL WRWRD
CALL WRWRAY(LCK, LDBL)
DC 72 I = 1, 6
72 LCK(I+2) = ISVX(I)
73 LCK(6) = PMAY(IGROUPIN)
ITP = EVENTAPE
ITWDR = 14

```

122000
122500
123000
124000
125000
126000
127000
128000
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130000
131000
132000
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171000
172000
173000
174000
175000

F145.5

11/24/71

PAGE NO.

6

```

CALL WNRCHD
CALL WNRARRAY (LOCK, 1*)
NCRDS = LOCK(13)
CALL WNRARRAY (LOCK(15), NCRDS)
CALL WNRARRAY (LOCK(33), NCRDS)
NCRDS = LOCK(14)
CALL WNRARRAY (LOCK(51), NCRDS)
CALL SNAPIT(15,2)
65 CONTINUE
C READ IN NEXT RECORD
GO ITP=STKPFIL(1)
CALL RDARRAY(IOUTSRT,LOS)
IS IT A BOMBER PLAN
105 IF (I08CDBER.EQ.DBCHMBEN) 110,5
110 CALL TIMEE(2)
RETURN
END

```

174600
174800
175000
175200
175400
175600
175800
180000
181000
182000
183000
183500
184000
185000
186000
187000
188000

5-4TS PLANTMIS

CU0006	ADRT	CU0305							
CU0012	ALCGRP								
CU0006	ALCCTAR								
CU0160	ATTRCUT								
CU0217	AVAILC*								
CU0002	WASFILE								
CU0142	BEGIN.								
CU0011	BLAT								
CU0000	BLOCK								
CU0012	BLONG								
CU0411	CNVRT1.								
CU0025	CDCHK								
CU0002	CDMSLK								
CU0014	COSE								
CU0441	COUNT.								
CU0027	CR								
CU0032	CRFMI.								
CU0310	DBLX								
CU0213	DELAY								
CU0001	DICT.								
CU0517	DL								
CU0052	DLAT								
CU0064	DLONG								
CU0145	ENDING.								
CU0016	EVENTAPE								
CU0000	EXIT.								
CU0052	FLTMIA								
CU0032	FORMAT.								
CU0305	GG0000.								
CU0007	GG0001.								
CU0736	GG0002.								
CU0000	GG0003.								
CU0006	GG0004.								
CU0031	GG0005.								
CU0300	GOLD								
CU0204	GOLC#1								
CU0205	GOLC#2								
CU0206	GOLC#3								
CU0504	GSARE								
CU0442	I								
CU0310	IASH								
CU0134	IBCTY								
CU0110	IBOES								

PLANTMIS

11/24/71 ED 0 PAGE NO. 10

PO0517 .100006	Q0515				
PO0743 .100007					
PO0744 .100008	Q0742				
PO1401 .105					
PO1404 .110					
PO0307 .15	Q0276				
PO0475 .17	Q0465				
PO0607 .170	Q0516				
PO0533 .171	Q0532				
PO0536 .172	Q0531				
PO0541 .173	Q0535				
PO0456 .18	Q0460				
PO0452 .19	Q0461				
PO0453 .20	Q0450				
PO0342 .2100					
PO0744 .21					
PO0361 .2101	Q0360				
PO0364 .2103	Q0362				
PO0740 .211					
PO0366 .2200	Q0360				
PO0372 .2201	Q0402				
PO0400 .2203	Q0377				
PO0403 .2204	Q0376				
PO1000 .222	Q0743				
PO0405 .2300	Q0363	Q0365			
PO1040 .250	Q1033	Q1034			
PO1042 .25					
PO1035 .26	Q1034				
PO1031 .27	Q0737				
PO0410 .2800	Q0341	Q0402	Q0404		
PO0417 .2900					
PO0425 .2902					
PO1045 .30					
PO1051 .40	Q0450	Q0452	Q1047		
PO1054 .49					
PO0263 .5	Q1403				
PO1063 .50					
PO1111 .55					
PO1374 .60	Q1050				
PO1147 .63	Q1145				
PO1154 .64	Q1145				
PO1371 .65					
PO1122 .66					
PO1256 .660					
PO1274 .70					
PO1306 .71					
PO1332 .72					
PO1335 .73					
PO1422 .ERASER.					
	Q1267	Q1270	Q1273	Q1076	Q1221
	Q0455	Q0460	Q0520	Q1244	Q1226
	Q1240	Q1242	Q1243	Q1245	Q1235
	Q1251	Q1252	Q1253	Q1246	Q1234
	Q1314			Q1246	Q1235
	Q1402			Q1247	Q1250
	Q0302				Q1251

5.ATS PLANTMIS

11/24/71 ED 0 PAGE NO. 11

P00043 ..22	00747	00622	00624	00631	00636	00645
P00142 ..23	01003	00657	00664	00671	00677	00677
P00225 ..24	01011	01125	01130	01201	01206	01214
P01420 .NSTIFF.	00611	00622	00624	00631	00636	00645
	00652	00657	00664	00671	00677	00677
	00704	01124	01130	01201	01206	01214
	01260	01125	01130	01201	01206	01214
P00425 .Z000C1.	00322	00405	00411	00423	00505	00520
P01457 J	00346	00426	00431	00435	00510	00520
	00524	00610	00617	00635	00644	00656
	00663	00670	00676	00682	00687	00691
P01460 K	01172	01254	01173	01173	01173	01173
P01461 KK	01121	01123	01124	01124	01124	01124
P01462 L	00315	00325	00325	00325	00325	00325
C00007 LDBL	01320	01320	01320	01320	01320	01320
C00002 LDN	00521	00537	00537	00537	00537	00537
P01463 LIM	01057	01057	01057	01057	01057	01057
C00001 LIN	00313	00314	00314	00314	00314	00314
C00003 LINC	01051	01051	01051	01051	01051	01051
C00005 LMS	00272	00272	00272	00272	00272	00272
C00006 LMC	00330	00337	00337	00337	00337	00337
C00007 LNC	00420	00420	00420	00420	00420	00420
C00000 LOCK	00453	00514	00514	00514	00514	00514
	00566	00566	00566	00566	00566	00566
	00654	00654	00654	00654	00654	00654
	00706	00706	00706	00706	00706	00706
	00726	00730	00730	00730	00730	00730
	00760	00761	00761	00761	00761	00761
	01023	01024	01024	01024	01024	01024
	01066	01067	01067	01067	01067	01067
	01271	01274	01274	01274	01274	01274
	01326	01333	01333	01333	01333	01333
	00264	00265	00265	00265	00265	00265
C00000 LCS	00030	01272	01272	01272	01272	01272
C00001 LSIDE						
C00027 LST0BL8S						
C00004 LTK						
C00000 MAIRDEZ						
C00001 MALEBT						
C00002 MASHMYP						
C00003 MBNDRY						
C00004 MCCREGN						
C00005 MCLASS						
C00006 MCNTRY						
C00007 MCDRR						
C00010 MCDRTYP						
C00012 MDEPNLG						
C00011 MOPEN						
C00013 MGROUP						
C00000 MISCI						
P01464 MISDEX						
C00014 MPAYLGO						

5.475 PLANTHIS

11/24/71 ED 0 PAGE NO. 12

CU0015 MRECOVR
CU0016 MRECVLG
CU0017 MREF
CU0020 MRLLEG
CU0021 MRLPT
CU0020 MRLFLG
P01465 MRLVST
P01466 MRLVST2
C05304 MSLFIL
CU0004 MSLTIME
CU0022 MSPERPT
P01467 MSUB
CU0023 MTANKBS
CU0024 MTARCLS
CU0025 MTARCCG
CU0026 MTARCPX
CU0027 MTARERS
CU0001 MTARGCT
CU0030 MTARGET
CU0031 MTARIAD
CU0046 MTARPCL
CU0032 MTARSEC
CU0033 MTARTEL
CU0034 MTARTYP
CU0035 MTARVAL
CU0036 MTELMCH
CU0037 MTCBRAS
CU0040 MTYPE
CU0041 MVULN
CU0042 MWEAPGP
CU0043 MWHOTPE
CU0002 MYCCRR
CU0001 MYGROUP
P00031 MZERQ
CU0044 MZONEPT
CU0045 MZONES
P01470 N
P01471 NADEC
C00500 NADECCYS
CU0000 NAP
C00240 NASM
CU00360 NCM
P01472 NDEC
C00430 NDECCYS
C05305 NDEXSAVE
P01473 NEWMSL
CU5301 NFIXWPS
CU0013 NHAP
CU5302 NLEFT
CU5303 NLINE
C00000 NNAVAL
P01474 NNN
CU0000 NNSMB1
C00120 NNSMB2

00435 00436
00503 00514
00504 00740
00355 00374
00343 00344
00513 00601
00774
00335 00336
00337
00417 00551
00553 00554
00564 00573
00603
00327 00333
01177 01252
01175 01176
00736 00736
01175 01253
01173 01174
00352 00352
00525 00530
00371 00407
00370 00371
00406 00406
00025
00444 01372

DATA PLANKS

11/24/71 ED 0 PAGE NO. 14

PU0425	WS00004.	Q0427	
PU0506	WS00005.	Q1044	Q1044
PU0524	WS00006.	Q0540	Q0540
PU0573	WS00007.	Q0576	
PU1763	WS00010.	Q1055	
PU1074	WS00011.	Q1111	
PU1115	WS00012.	Q1373	Q1373
PU1122	WS00013.	Q1133	
PU1142	WS00014.	Q1151	Q1151
PU1166	WS00015.	Q1205	
PU1301	WS00016.	Q1312	
PU1332	WS00017.	Q1334	
CU4746	XC		
CU5030	YC		
CU5112	ZC		
CU4436	ZLAT		
CU4602	ZLONG		
00462 SYMBOLS			

11/24/71

ED 0

SATS POST

PROGRAM LENGTH-
ENTRY POINTS

POST
POST15
POST17
POST14
POST13
POST8

BLOCK NAMES

DINDATA
EVENTS
FILES

EXTERNAL SYMBOLS
QUADICT.

IDENT POST

U0133
U0003
U0032
U0037
U0010
U0050
U0021

U1322
U0020
U0020

5-4TS

PCSI

11/24/71

ED 0

PAGE NO.

3

PU0003 A	UU061								
CU0012 ALDCGRP									
CU0006 ALCCITR									
PU0003 B	UU064								
CU0002 BASFILE									
PU0071 BEGIN	UU115	00127	00034	UU041	UU052	00074	00075		
PU0001 DICT	UU005	UU023	00035	UU042	UU053	00070	00071		
PU0116 ENDING	UU006	UU013						00072	00073
	UU073	00024							
CU0016 EVENTAPE									
PU0000 EXIT	UU121								
PU0061 FP000C1	UU104								
PU0063 FP000C2	UU110								
PU0065 FP000C3	UU113								
PU0132 GETPL	UU076								
PU0122 GETPU	UU101	00126							
CU0000 HDT									
CU0416 MLA	UU063								
CU0550 MLC	UU064								
PU0003 I	UU066								
CU0016 IGCHI									
CU0017 ISOLCH									
PU0071 INITIAL	UU006	UU024	00035	00042	00053				
CU0003 INSECTCH	UU056								
PU0061 100	UU020	UU047							
PU0070 110	UU036								
CU0026 JTP	UU020	UU047	00060						
CU0132 KPL	UU067								
CU0013 LABOMT									
CU0007 LANDHC									
CU0005 LAUNASH									
CU0001 LAUNB									
CU0006 LAUNOCY									
CU0000 LAUNM									
CU0015 LEAVEREF									
CU0012 LEGDCG									
CU0014 LENTEREF									
CU0002 LEREFUEL	UU16								
CU0004 LCCLATTH	UU027								
CU0010 LCHI	UU045								
CU1320 M	UU014	UU015	00017	00017	00025	00025	00026	00030	00043
	UU043	00046	00046	00054	00054	00055	00057	00062	00062
CU1320 MMT									
CU0011 MISSATTN									
CU0004 MSLTIME									
CU1321 NPL									
CU1160 PA									
PU0105 PF0000C2	UU102								
PU0111 PF0000C3	UU106								
PU0115 PF0000C4	UU112								
CU0017 PLANTAPE									
PU0003 POST	UU003								
PU0032 POST15	UU032								
PU0037 POST17	UU037								

2526

5..TS

POST

PU0010 POST4
PU0050 POST5
PU0021 POST6
X00001 Q8QDICT.
CU0014 STAKFIL
CU0000 TGTFILE
CU0010 TAPALCC
CU1034 TZN
CU0702 TZT
CU0075 SYMBOLS

11/24/71

PAGE NO.

0

ED

00051

U0040

00033

00022

00011

U0004

QU010
QU050
QU021
QU000

```

SUBROUTINE POSTLAUN(LPR,LMT,LUST)
  CSUBR   PCSTLAUN 4DEC70 *****
  CUSE    1        4DEC70 *****
          COMMON/1/DELUIS(6),LPXICRTY(20),LMT(90),NDCYRG(20),NPSLN,
          *NUMDCYS *****
  CENU    1        NPSLN = NPSLN+1 *****
          LPMICRTY(NPSLN) = LPM *****
          LPMI(NPSLN) = LMT *****
          NDCYRG(NPSLN) = LDST *****
          RETURN *****
          END
1000
90000
2000
1000
2000
2000
3000
4000
5000
6000
7000
8000

```

5.4TS POSTLAUN

11/24/71

EC 0

PAGE NO. 2

IDENT POSTLAUN

00062

00003

00212

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

POSTLAUN
1

EXTERNAL SYMBOLS
GRUOICT.

5.4TS POSTLAUN

PU0020 BEGIN.
 CU0000 DELDIS
 PU0001 DICT.
 PU0045 ENDING.
 PU0000 EXIT.
 PU0011 FPO00C1.
 PU0013 FPO00C2.
 PU0015 FPO00C3.
 PU0061 GETPL.
 PU0051 GETPU.
 PU0020 INITIAL.
 PU0003 LDI
 PU0003 LMT
 CU0032 LMT
 PU0003 LPR
 CU0006 LPRICITY
 CU0014 MDCYAC
 CU0020 NPSLN
 CU0021 NUMDCOYS
 PU0034 PF00002.
 PU0040 PF00003.
 PU0044 PF00004.
 PU0003 POSTLAUN
 X00001 0800DICT.
 00030 SYMBCL5

00044 00052 00056
 00005 00023 00024
 00006 00017 00020
 00052 00033 00022 00022 00022
 00032 00037
 00036 00043
 00042 00025 00034
 00025 00040 00055
 00030 00006
 00016 00014
 00014 00015
 00011 00017
 00013 00007
 00016 00010 00012 00012
 00007 00004
 00031 00035
 00041 00003
 00000

```

CSUBH      SUBROUTINE PHNTAB
CUSE       PRINTAB  ZUECTO *****
          ARTIME  5FEB71 *****
          COMMON/ANTIME/ANTIME(50),NBUDREF,NBCHREF(50),NTANKREF(50),
          *      IARVLS(2,1000),ARVLS(2,1000)
          EQUIVALENCE (IARVLS,ARVLS)
          ARTIME *****
          REF      ZUECTO *****
          COMMON/REF/NFLAT(50),NPLONG(50)
          REF *****
          IRF      ZUECTO *****
          COMMON/IRF/INF,NMF *****
          IRF *****
          MASTER  16FEB71 *****
          COMMON/MASTER/INDATE,IDENTNO,ISIDE,NRTPT,NCORR,NOPEN,NHCOVER
          1,NREF,NBNDRY,NREG,NTYPE,NRCUP,NTOTBASE,NPAYLOAD,NASMTYPE,NMMDTYPE
          2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTOTS,NCRTYPE,NCNTRY
          MASTER *****
          CEMU     DATA(NBUDREF=0) *****
          PRINT 1 *****
          1       FORMAT(1H1,21X,23HTANKEN ALLOCATION TABLE)
          PRINT 2 *****
          2       FORMAT(1//1X,11HREFUEL AREA,6X,7HTIME OF,5X,9HNUMBER OF,5X,
          *      PHNUMBER OF,6X,7HSURPLUS,5X,8MLATITUDE,5X,9HLONGITUDE)
          PRINT 3 *****
          3       FORMAT(18X,8HEARLIEST,5X,7HTANKERS,7X,7HNOCHBERS)
          PRINT 7 *****
          7       FORMAT(18X,7THANRIVAL,5X,8HASSIGNED,6X,8HASSIGNED)
          J=1
          K=NRREF
          LS=1
          10      CONTINUE
          PRINT 4 *****
          4       FORMAT(1//
          *      DC 5 I=J,K
          *      ISURP=NTANKREF(I)-NBCHREF(I)
          *      LAT=LATCV(REFLAT(I))
          *      LONG=LONCV(REFLONG(I))
          *      PRINT 6,I,ANTIME(I),NTANKREF(I),NBCHREF(I),ISURP,LAT,LON
          *      6 FORMAT(5X,13,10X,F7.3,7X,13,11X,13,11X,13,2X,2(5XAB))
          5       CONTINUE
          GO TO (11,12)LS=
          11      J=NRREF+1
          K=NRF
          LS=2
          GO TO 10
          12      PRINT 15,NBUDREF
          15      FORMAT(1//27H NUMBER OF BUDDY TANKERS = ,13)
          RETURN
          END

```

5.4TS PHNTAB

11/24/71

ED 0

PAGE NO.

2

PHNTAB

IDENT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

U0302

U0133

U4147

U0144

U0002

U0027

PHNTAB

ARTIME

REF

INF

MASTER

EXTERNAL SYMBOLS

THENJ.

QWQDICT.

LATCH

LONCV

STM.

ONSINGL.

5-4TS

PHNTAB

11/24/71

ED

0

PAGE NO.

4

C00004 NCORR
 C00025 NCORR TYPE
 C00005 NOPEN
 C00013 NGRUP
 C00015 NPAYLCAD
 C00006 NRECOVER
 C00007 NREF
 C00011 NREG
 C00001 NRF
 C00003 NRPT
 C00020 NTANKBAS
 C00145 NTANKREF
 C00024 NTGTS
 C00014 NTOBASE
 C00012 NTYPE
 C00017 NWDTYPE
 P00133 PRNTAB
 X00002 Q8QDICT.
 X00006 QNSINGL.
 C00000 RFLAT
 C00002 RFLONG
 X00005 STM.
 X00001 THEND.
 P00242 TS000C1.
 P00204 W00001.
 C0116 SYMBCLS

00170 00171 00247 00247
 00251 00252

00205 00205 00231
 00133 00134

00266 00213
 00207 00220
 00214 00140
 00143 00151
 00203 00243

00154 00162 00175 00223 00254
 00157 00165 00200 00237 00263

```

SUBROUTINE SNAPCON
  CSUBR      SNAPCON 2DECTO *****
  C          KINDS OF SNAPS. EACH SNAP CARD SPECIFIES THE KIND OF SNAP
  C          THE GROUPS AND CORRIGS OVER WHICH IT IS TURNED ON AND THE
  C          FREQUENCY. IF GROUP(CORRIG) (FREQUENCY) ARE ZERO OR BLANK
  C          SNAPS ARE TURNED ON FOR ALL VALUES OF GROUP(CORRIG) (FREQUENCY).
  C          IFIPRNT 2DECTO *****
  CUSE       COMMON/IFIPRNT/IFIPRNT(10) *****
  C          IFIPRNT *****
  C          OUTSRT 16FEB71 *****
  C          COMMON/OUTSRT/OUTSRT
  C          1,MYGROUP,MYCORR,INDOVED,IREF,1UPEN,IPAYLCAD,LNCHBASE,11YP
  C          2,BLAT,BLONG,NAP,IBTYPE(10),OBLAT(10),OBLONG(10),OLAT(10),OLONG(10)
  C          3,IBJEC(10),IBUES(10),IBTSK(10),IBCTY(10),IBFLG(10),A1TRCUT(10),
  C          4,SURVCUT(10),GCLW1,GCLW2,GCLW3,SPDLC,
  C          4SPON1,RANGE,RANGERE,DELAY,IRG,ILRI,1DEQWER,AVALLON,MNGDEC
  C          /OUTSRT/ IS THE INPUT RECORD FROM STKFILE
  C          OUTSRT *****
  C          SNAPCON 2DECTO *****
  C          COMMON/SNAPCON/NAP(15) *****
  C          SNAPCON *****
  C          DATA(MAXREQ=40)
  C          MAXREQ MAXIMUM NUMBER OF REQUESTS
  C          MPRT MAXIMUM NUMBER OF SNAPS
  C          DIMENSION INDEXPR(40),JAGRCUP(40),JACORR(40),LAGRCUP(40),
  C          ILACORR(40),KREQ(40),ICOUNT(40),JASORT(40),LASORT(40)
  C          TYPE INTEGER BOUNDSL,BSOUNDUP
  C          DATA(GGGBCL=140 737 498 355 326)
  C          TYPE INTEGER GGGBCL
  C          DATA(IISMG1)
  C          DATA(IISMG1)
  C          DC 2 IPRT=1,MPRT
  C          2 NAP(IPRT)=1
  C          DC 12 I=1,10
  C          12 IFIPRNT(I)=0
  C          IF(IISMG1) 1,20
  C          1 ISMG1=0
  C          IREQ=1
  C          NREQ=0
  C          READ 9,INDEXPR(1),JAGRCUP(1),JACORR(1),JASORT(1),LAGRCUP(1),
  C          ILACORR(1),LASORT(1),KREQ(1)
  C          IF(INDEXPR(1).GT.0) 13,11
  C          13 PRINT 3
  C          3 FORMAT(23X,13H SNAP REQUESTS,/)
  C          PRINT 4
  C          4 FORMAT(6X,THREQUST,7X,6H LGROUP,4X,9H LCORR,10X,7X,6H L SORT,
  C          17X,6H L GROUP,4X,9H L CORR,10X,7X,6H L SORT,4X,9H FREQUENCY)
  C          5 IF(IREQ.GT.MAXREQ) 6,8
  C          6 IREQ=MAXREQ
  C          PRINT 7
  C          7 FORMAT( 23H TOO MANY SNAP REQUESTS)
  C          8 PRINT 10,INDEXPR(IREQ),JAGRCUP(IREQ),JACORR(IREQ),JASORT(IREQ),
  C          11LAGRCUP(IREQ),ILACORR(IREQ),KREQ(IREQ),LASORT(IREQ),
  C          10 FORMAT(8(13X,110))
  C          ICOUNT(IREQ)=0

```

```

IREQ = IREQ+1
HEAD 9,INDEXPH(IREQ),JAGROUP(IREQ),JACORR(IREQ),JASORT(IREQ),
JLAGROUP(IREQ),LACORR(IREQ),LASORT(IREQ),KFREQ(IREQ)
* FORMAT(B110)
IF (INDEXPH(IREQ).GT.0) * 1,1
11 NREQ=IREQ+1
RETURN
20 DC 30 IREQ=1+IREQ
IPRNT=INDEXPH(IREQ)
22 IF (MYGROUP.NE.ISGROUP) 23,24
23 ICOUNT(IREQ)=0
24 LAC=BOUNDLOW=JAGROUP(IREQ) $ LAC=.NOT.LAC
LBC=BOUNDUP=LACORR(IREQ) $ LBC=.NOT.LBC
BOUNDUP=BOUNDUP+LBC*BOUNDLOW+LAC*GGGCL
IF (BOUNDLOW.LE.MYGROUP.AND.MYGROUP.LE.BOUNDUP) 25,30
25 LAC=BOUNDLOW=JACORR(IREQ) $ LAC=.NOT.LAC
LBC=BOUNDUP=LACORR(IREQ) $ LBC=.NOT.LBC
BOUNDUP=BOUNDUP+LBC*BOUNDLOW+LAC*GGGCL
IF (BOUNDLOW.LE.MYCORR.AND.MYCORR.LE.BOUNDUP) 31,30
26 LAC=BOUNDLOW=JASORT(IREQ) $ LAC=.NOT.LAC
LBC=BOUNDUP=LASORT(IREQ) $ LBC=.NOT.LBC
BOUNDUP=BOUNDUP+LBC*BOUNDLOW+LAC*GGGCL
IF (BOUNDLOW.LE.ICUTSRI.AND.ICUTSRI.LE.BOUNDUP) 26,30
26 IF (IPRNT.LT.100) 28,27
27 LEG=XMODF(IPRNT,100)
IF (IPRNT(LEG)=KFREQ(IREQ)) $ 6C TO 30
28 ICOUNT(IREQ)=ICOUNT(IREQ)+1
IF (ICOUNT(IREQ).GE.KFREQ(IREQ)) 29,30
29 NAPI(IPRNT)=3
ICOUNT(IREQ)=0
30 CONTINUE
ISGROUP=MYGROUP
END

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71000
72000
73000
74000
75000
75000

5.4TS SNAPCON

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

SNAPCON

IFTPRINT
OUTSRT
SNAPCON

EXTERNAL SYMBOLS

THEND.
Q301004C
Q300004C
Q00DICT.
K00DF
TSM.
STM.
QNSINGL.

IDENT

U125U
U0542

U0012
U0221
U0017

SNAPCON

11/24/71

ED 0

PAGE NO.

3

5.4TS SNAPCON

11/24/71 ED 0 PAGE NO. 4

CODE	DESCRIPTION	U1030	U1037	U1064	U1073	U1122	U1127	U1136	U1165	U1172	U1186	U1172
CU0160	ATTRCUT											
CU0217	AVAILCM	U1235										
PU1234	BEGIN.											
CU0011	BLAT											
CU0012	BLONG											
PU1231	BOUNDLCM											
PU1230	BOUNDLP											
PU1233	CNVRT1.											
PU1241	COUNT.											
PU0557	CREMT.											
CU0213	DELAY											
PU0201	DICT.											
CU0052	DLAT											
CU0064	DLONG											
PU1236	ENDING.											
PU0000	EXIT.											
PU0557	FORMAT.											
PU0711	GG00000.											
PU0722	GG00001.											
PU0730	GG00002.											
PU0743	GG00003.											
PU0762	GG00004.											
PU1005	GG00005.											
CU0204	GLCw1											
CU0205	GLCw2											
CU0206	GLCw3											
PU0555	GC06CL											
PU1242	I											
CU0134	IBCTV											
CU0110	IBDES											
CU0146	IBFLG											
CU0076	IBJEC											
CU0122	IBTSK											
CU0014	IBTYPE											
PU0363	ICOUNT											
CU0216	IDBOMBER											
CU0005	IDPEN											
PU1036	IF00001.											
PU1037	IF00002.											
PU1051	IF00003.											
PU1052	IF00004.											
PU1067	IF00005.											
PU1101	IF00006.											
PU1102	IF00007.											
PU1114	IF00010.											
PU1115	IF00011.											
PU1132	IF00012.											
PU1144	IF00013.											
PU1145	IF00014.											
PU1157	IF00015.											

5,4TS SNAPCCN

11/24/71

003

PAGE 394d

[illegible]

5.4TS	SNAPCON	11/24/71	ED	0	PAGE NO.	6
P00553	MAXREG					
P00554	MPRNT					
C00002	MYCOMR					
C00001	MYGRUP	01007	01223	01223		
C00000	NAP	01007	01223	01223		
C00013	NHAP					
P01247	NREQ					
C00026	GBLAT					
C00040	GBLCNG					
X00003	GB000C40					
X00002	Q3010C40					
X00004	Q8001C40					
X00010	QNSINGL.					
C00211	RANGE					
C00212	RANGREF					
C00220	RNGDEC					
P00642	SNAPCON					
C00210	SPDHI					
C00207	SPDLC					
X00007	STH.					
C00172	SURVCUT					
X00001	THEMD.					
P00656	TS00001.					
P01223	TS00003.					
X00006	TSH.					
P00653	WS00001.					
P00661	WS00002.					
P01020	WS00003.					
X00005	XMC0F					
	00203 SYMBCLS					

11/24/71

FTMS.5

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SUBROUTINE SNAPIT(IG,NG)
  CSUBR  SNAPIT  2DEC70
  C      CONTROL AND DRIVER FOR SNAPOUT
  CUSE   SNAPON  2DEC70
  C      COMMON/SNAPON/NAP(15)
  CEND   SNAPON *****
        DATA(NAP=10(1))
        IF(NAP(IG).EQ.3)1,3
        1 CALL TIMEE(-2)
        4 PRINT 6
        6 FORMAT(1H )
        PRINT 2,IG
        2 FORMAT(1H+,1UX,13H PRINT NUMBER,14)
        IF(IG.EQ.4)7,5
        7 PRINT 477
        477 FORMAT(30X,13HBOUNDARY SNAP)
        5 CALL SNAPOUT(IG,NG)
        3 CALL TIMEE(-3)
        3 RETURN
        END
1000
95000
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13000
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S.OTS

SNAPIT

11/24/71

EO 0

PAGE NO.

2

IDENT

SNAPIT

00152

00020

00017

PROGRAM LENGTH

ENTRY POINTS

BLOCK NAMES

EXTERNAL SYMBOLS

SNAPIT

SNAPON

TREND.

ORODICT.

TIMEHE

SNAPOUT

SM.

QMSINGL.

[illegible]

11/24/71

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1, ITYPE, ICLASS, INE6, IALERT, IDUM3(3), IALT, NCMS, IDUM4(3),
2, MFL, MWI, IDUMA(2), NPLAN, IDUM5, IINC(80), INUP(80), INDE(80), INTYP(12),
3, XUGZ(12), YD6Z(12), ZD6Z(12), IDUM6(6)
TYPE INTEGER XUGZ, YD6Z, ZD6Z

C
DIMENSION ISVY(6)
EQUIVALENCE (ISVY, INDV) , (FILAST, ILAST)
INDATA
IOUTOLD 16FEB71
COMMON/IOUTOLD/IOUTOLD, KCKG, MYGRUP, MYCRRG, LPAYLOAD, LREF, LOPEN
1, SPD10, SPDLOC, JFC10, NHAPC, IBJEC(20), IBDESC(20), IBTSKC(20),
2, IBCTY(20), IBFLG(20)
IOUTOLD
IRF 2DEC70
COMMON/IRF/IRF, INRF
IRF
IRFTK 2DEC70
COMMON/IRFTK/IRFTK
IRFTK
ITP 2DEC70
COMMON/ITP/ITP
ITP
KEYLENG 2DEC70
COMMON/KEYLENG/ LOS, LIN, LON, LINC, LTK, LMS, LMB, LDBL
KEYLENG
LASH 2DEC70
COMMON/LASH/U1, V1, U2, V2, UAT, VAT, RASH, RLAT, RLONG
LASH
LAUSNAP 2DEC70
COMMON/LAUSNAP/INRANGE, IFACPATH
LAUSNAP
MASTER 16FEB71
COMMON/MASTER/INDATE, IDENTNO, ISIDE, NKPT, NCORR, NDPEN, NRECOVER
1, NREF, NNDRY, NNEG, NTYPE, NGRUP, NTOTBASE, NPAYLOAD, NASH1YPE, NMDTYPE
2, NTANKBAS, NCOMPLEX, NCLASS, NALERT, NTUTS, NCRITYPE, NCNTRY
MASTER
MH 2DEC70
COMMON/MH/MHMINA(10), MHMAXA(10), MHMN, MHMX
MH
MH2 2DEC70
COMMON/MH2/MHMIN(2), MHMAX(2)
MH2
OUTSRT 16FEB71
COMMON/OUTSRT/OUTSRT
OUTSRT
1, MYGROUP, MYCORR, INOVEM, IREF, IUPEN, IPAYLOAD, INCHBASE, IITYP
2, BLAT, BLONG, NHAP, IBTYPE(10), OBLAT(10), OBLONG(10), DLAT(10), DLONG(10)
3, IBJEC(10), IBUES(10), IB1SK(10), IBCTY(10), IBFLG(10), AIRCUT(10),
4, SURVCUT(10), GLOW1, GLOW2, GLOW3, SPOLC,
5, SPON1, RANGE, RANGREF, DELAY, IRG, ILRT, IDROMBER, AVAILCH, MNGDEC
/OUTSRT/ IS THE INPUT RECORD FROM STRKFILE
OUTSRT
PAYLOAD 2DEC70
COMMON/PAYLOAD/NBCHB1(40), IMHD1(40), NBCHB2(40), IMHD2(40)
1, NASM(40), IASM(40), NCMI(40), INDECCYS(40), INADECCYS(40), IMIRV(40)
PAYLOAD
PLANTYPE 2DEC70

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COMMON/PLANTYPE/INITSHR,COMMON/COROMB
COROMB = THE DISTANCE (N.M.) FROM THE COMIDON ENTRY POINT
C
C      AT TIME =0
CEND
CUSE
C      PLANTYPE 4DECT0 *****
C      SPASM    SPASM/SPASM *****
COMMON/SPASM/SPASM
CEND
CUSE
C      SPASM    4DECT0 *****
COMMON/TANKER/INUTXK,TKLAT,TKLONG,EPFTR,NP,SNKTR
1,NALRTK,SPEEDTK,ULVALTK,DLVNLTK,TTCS,ITYPSTR,TANKRNGE
CEND
CUSE
C      TANKER   16FEB71 *****
COMMON /FILES/ TGTFIL(2),BASFILE(2),MSLTIME(2),ALOCSTAR(2),
*      TMPALOC(2),ALCGGRP(2),STRKFIL(2),EVENTAPE,PLANTAPE
C
C      TYPE INTEGER TOTFILE,BASFILE,ALOCSTAR,TMPALOC,ALCGGRP,STRKFIL
C      TYPE INTEGER EVENTAPE,PLANTAPE
CEND
CUSE
C      FILES
COMMON /WPNGRP/ IYYPEX(200),UBLX(200)
CEND
CUSE
C      WPNGRP   16FEB71 *****
C      DIMENSION = MGROUP = MAX NUM WEAPON GROUPS
COMMON /WPNTPX/ REL(80),IMNTYPE(80),IFNCTN(80)
CEND
CUSE
C      WPNTPX   16FEB71 *****
C      DIMENSION = MTYPE = MAX NUM WEAPON TYPES
COMMON /WPNTPX *****
C      WPNTPX   16FEB71 *****
C      UNTIL TANKER PROCESSING BEGINS, THIS BLOCK CONTAINS THE DATA
C      DEFINED HERE. IT IS A COMBINATION OF SEVERAL FORMER BLOCKS,
C      ENABLING REUSE OF THIS SPACE DURING SUBROUTINE PLANTANK.
C      THE REDEFINITION IS IN BLOCK VAM.
C ***** NOTE THAT BLOCK VAM AND BLOCK 9A ARE THE SAME AND MUST BE
C      MODIFIED SIMULTANEOUSLY *****
COMMON /9/ ILAUNDEC(90),IMELAUN(90),DISTORE(90),
1  MDTA(90),KPLX(90),JTPX(90),MLAX(90),MLCX(90),TZTX(90),TZNX(90),
2  LmX(90),PAX(90),CMX(90),
3  BPLX(200),BPLAT(200),BPLONG(200),BPGONE(200),
4  NKTGONE(200),
5  KGUNT(30),IMAP(30),MCUNT(50),JMAP(50),
6  JAPTYPE(250),MAPLAT(250),MAPLONG(250),MAPDIST(250)
C
C      TYPE INTEGER BPLINK,BPGONE
C      LINES 3 * 4 CORRESPOND TO /BOUNDARY/ ON BASFILE
C      LINE 5 TO /CHARTER/, LINE 6 TO /MAPPEN/
C      9A *****
CEND
C      DIMENSION NAMCOR(20)
C      DIMENSION NGSUCH(11),NAMES(20)
C      DATA NGSUCH=8H ASM TOT )
C      DATA (NAMES=8H LAUNCH 8,1H*,6HREFUEL,8HINSECTOR,1H*,1H*
1,8HDROPBC8H,8HMISSATT,1H*,8HENTERREF,8HLEAVEREF,5HMBRCRT
2,8HLAUN ASM,8HLAUNDCOT,7HRECOVER,8HCHANGALT
3,7HGO HIGH,6HGO LOW,6HGOOGLE)
C      DIMENSION XUEC(40)
C      EQUIVALENCE (XUEC,NCM)
C      DATA (HFM=)
6C TO (1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16),ILK
1 CONTINUE

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11/24/71

2547

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K$INDE(II)
PRINT 23, (I,I*INC(I),I*INP(I),I*INDE(I),I*MAA
23 FORMAT(5X,I2,3X,I10,3X,I8,2X,I8,4X,I4)
24 CONTINUE
IF (NPRIM.EQ.MPL) 24,C5
25 L$NPRIM=1
PRINT 26
26 FORMAT(//,22A,10M$ALTERNATE PLANS,/)
DC 27 1Z,MPL
K$INDE(II)
PRINT 23, (I,I*INC(I),I*INP(I),I*INDE(I),I*MAA(K) )
27 PRINT WEAPON TABLE
28 PRINT 29
29 FORMAT(//,25X,I2,M$CAPON TABLE,//,10X,5M$INT(P,6),M$ I0G4,6X,M$YD0Z
10X,M$ZCGZ )
PRINT 30,(I,I*LATP(I),I*AD0Z(I),I*YD0Z(I),I*ZUGZ(I),I,I*IMF)
30 FORMAT(5X,I2,3X,I5, 31U)
RETURN
3 CONTINUE
PRINT 377
377 FORMAT(30X,I3,M$TAILED PLAN)
PRINT 9C
PRINT 34,INCAT,M$HGCUP,M$CORNG,I*OUTCLD,I*INBASE,I*NDY,M$INPL
10,REG,I*ALERT,I*TYPE,M$K$F,I*INF,I*DPEN,I*UP(I),I*DP(I2),I*PAYL$AD
2,I*CTNC
34 FORMAT(5X,M$MSUE,I2,C4,M$HGCUP,I4,2X,M$CORNGIDCM,I3,2X,
10$CRTE,I3,2X,M$INBASE,I5,2X,M$INDY,I3,2X,M$MMT,I3,2X,M$NPL,I3
2X,M$IREQ,I3,2X,7M$LENT,I2,2X,M$TYPE,I3 /
35X,M$IREF,I3,C4,I3,M$ASSIGNED MEX,I3,2X,M$IDPEN,I3,2X,
41$M$ASSIGNED DEFENS,I3,I4,I3,C4,M$PAYL$CAD,I3,2X,M$FUNCTION,M$B)
PRINT 31
31 FORMAT(15X,M$TIME,5X,M$PLACE,5X,M$EVENT,2X,I0M$EVENT TYPE,3X,M$LATI
TUDE,4X,M$LONGITUDE,2X,I0M$CUMULATIVE,3X,M$H$HEAD,3X,M$H$LATITUDE,3X
10$LC$G$ITUDE/I,4X,M$H$MU),5X,M$K$PL),5X,M$JTP),4X,M$TIME,8X,
10M$TYPE,4X,M$MLA),7X,M$MLC))
34 FORMAT(11L$IDM -----,2X,0M -----,2X,0M -----
1Z,9X,M$-----,2X,I1M -----,6X,M$-----,5X,0M-----,2X,
18M$-----,5X,9M$-----)
M$=1
M$=MPL
ASSIGN 30 TO IPRINT
GC TO 35
36 PRINT 36
M$=MPL+1
M$=MPL
ASSIGN 27 TO IPRINT
GC TO 35
37 RETURN
35 IF ((MAX=MIN).GT.9C,1350,300
35U MIN = 1 5 MAA = 9U
PRINT 351
351 FORMAT(10X,C5M$-----PLAN TOO LARGE-----)
36U DC 33 I=M$MIN,MAA
K = JTP(I)
LATITUDE = LATC(M$LA(I))
LONGITUDE = LONG(M$LC(I))

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PRINT 32,(I,MOT(I),MPL(I),K,NAMES(K),LATITUDE,LCNGTUOE
*CMCT(I),IMM(I),MLA(I),MLC(I))
32 FORMAT(SA,12A2A,FI,3,2A,1B,2A,1B,4A,AB,3A,AB,5A,AB,4A
*FB,2A,5A,1B,FI,3,2A,FI,3)
33 CONTINUE
GC TO IPHAT
SNAPT--4 BOUNDARY SNAP
4 CONTINUE
GC TO (A01,002,003,004,005,006)MLK
401 PRINT 41,ALAT,ALONG,YZ,12N
41 FORMERLY PRINT 509
411 FORMAT(19M INPUT LINE SEGMENT,4F11.4,10)
RETURN
402 PRINT 412,ZLAT1(K),ZLON1(KK),ZLAT2(KK),ZLON2(KK),ICUMZON
FORMERLY PRINT 508
412 FORMAT(19M ZONE BOUNDARY LINE,4F11.4,10)
RETURN
403 PRINT 413,CHECK
413 FORMERLY PRINT 52C
413 FORMAT(2M CHECK =F11.4)
RETURN
404 PRINT 414,BETA
414 FORMERLY PRINT 512
414 FORMAT(7M BETA =F13.0)
415 PRINT 415,CROSSING(1,LCNG),CROSSING(2,LCNG),AJZONE(KK)
FORMERLY PRINT 51C
415 FORMAT(22M POINT OF INTERSECTION,2F11.4,17/)
RETURN
406 PRINT 416,KK,KNZ
RETURN
407 SNAP--5 LAUNCH SNAP
5 CONTINUE
PRINT 577
577 FORMAT(30A,11M LAUNCH SNAP)
PRINT 9C
PRINT 510,1V1,02,V2,UAT,VAT,MASH
51 FORMAT(10A,3M UAT=FB,3,2A,3M VAT=FB,3,2A,3M UAT=FB,3,2A
10M V2=FB,3,2A,3M UAT=FB,3,2A,3M VAT=FB,3,2A,5M MASH=FB,1)
ISINSH IS
IF (INRANGE)53,52
52 ISINSH NOT
53 PRINT 54,ISIN
54 FORMAT(7M TARGET=5,10MIN RANGE OF PATH)
DISGCC=DISIF(RLAT,RLONG,UAT,VAT)
PRINT 55,FRACPATH,DISGCC,MLAT,RLONG
55 FORMAT(11A,9M FRACPATH=7,4A,6M DISGCC=FB,1,2A,5M MLAT=FB,3,2A
10M RLONG=FB,3)
RETURN
408 SNAP--6 SNAPS/ASHARRAY/DUING REORDER OF ASM EVENTS
6 CONTINUE
PRINT 677
677 FORMAT(30A,10M/ASHARRAY/)
PRINT 9C
PRINT 6C0
600 FORMAT(15A,4M LAT,6A,4M ALONG,4A,4M IFLY,6A,4M DIS,6A,4M ICRD

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1,5X,5H0BLAT,5X,6H0BLONG)
DC 602 I=1,NMAP
PRINT 601,ALAT(I),ALON(I),IFLY(I),JUIS(I),IORD(I)
1,6HBLAT(I),6HBLONG(I)
601 FORMAT(1A,F4.3,F10.3,F10.3,2A,2I10,2F10.3)
602 CONTINUE
RETURN
C SNAP--7 CORRUPT SNAP FROM/HAPPEN/
C WILL SNAP CORRUPTORS OVER 20 LINES.
7 CONTINUE
PRINT 777
777 FORMAT(30X,17HPRE-CORRUPTOR LEUS)
71 PRINT 778
778 SNAPSHOT 1 130CT71 *****
778 FORMAT(10X,31HPRINT DELETED--EXCEEDS 20 LINES)
RETURN
72 PRINT 90
73 PRINT 73
73 FORMAT(4X,2H1M,6X,7HJAPTYPE,3X,6HMAPLAT,4X,7HMAPLONG,3X,7HMAPDIST)
74 NAMCOR(I)=6H0000LEG
NAMCOR(I)=6H0000GIA
NAMCOR(KC)=5HENTHY
DC 76 I=1,KC
ISLE=IM-1-I
PRINT 75,ISLE,JAPTYPE(ISLE),MAPLAT(ISLE),MAPLONG(ISLE)
1,MAPDIST(ISLE),NAMCOR(I)
75 FORMAT(16,4X,10,4X,2F10.3,F10.1,2X,A8)
76 CONTINUE
RETURN
C SNAP--8 DEPEND CORRU SNAP FROM HAPPEN
8 CONTINUE
PRINT 877
877 FORMAT(30X,22HDEPENDENTATION CORRUPTOR)
PRINT 90
PRINT 81
81 FORMAT(4X,2H1M,6X,7HJAPTYPE,3X,6HMAPLAT,4X,7HMAPLONG,3X,7HMAPDIST)
DC 82 I=1,LC
82 NAMCOR(I)=6H0000LEG
NAMCOR(LC)=5HRECOV
DC 84 I=1,LC
ISLE=JM-1-I
PRINT 83,ISLE,JAPTYPE(ISLE),MAPLAT(ISLE),MAPLONG(ISLE)
1,MAPDIST(ISLE),NAMCOR(I)
83 FORMAT(16,4X,10,4X,2F10.3,F10.1,2X,A8)
84 CONTINUE
IF(1000)86,87
86 PRINT 85,X000,NASH,SPASH
85 FORMAT(10X,8HASH TYPE,16,2X,12HMAS RANGE OF,F7.1,2X
1,15HMAILES AND SPEED,F8.2,2X,3HMPH)
87 PRINT 88, NCMS
88 FORMAT(10X,5HNCMS,10)
RETURN
C SNAP--9 RESTART SNAP
9 CONTINUE

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2552

2553

FTNS.S

11/24/71

PAGE NO. 11

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1  DC 9370 I = 1, NMIS
   MISIND = LOCK(18+1)
   ISILCIND = LOCK(36+1)
   PRINT 9342, MISIND, ISILCIND
9342 FORMAT(9M, MISSILE, I3, 2X, MSILC, I6, 8M, TARGET, 5X, 3H0GY,
1  5X, 4H0MGB, 5X, 5HNADEL, 5X, 5HNTDEC, 5X, 11MFLIGHT TIME, 2X,
2  5H0ESIG, 2X, 3HTRK, 1X, 5H0CNTRY, 2X, 1HF)
   DC 9360 J = 1, NRV
9360 PRINT 9330, LOCK(J+50), LOCK(J+72), LOCK(J+90), LOCK(13), NADEC,
1  NDEC, LOCK(J+108), LOCK(J+198), LOCK(J+216), LOCK(J+234),
2  LOCK(J+252)
9370 CONTINUE
   RETURN
   END
205000
206000
207000
208000
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209100
209200
209300
210000
211000
212000
212500
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214000
215000

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2554

5.4TS SNAPSHOT

11/24/71

ED 0

PAGE NO.

12

IDENT SNAPSHOT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

SNAPSHOT	U5635
ASNAWAY	U2674
ASHTABLE	U0064
BLGCK	U0144
BOUNO	U0500
BOUNDPT	U0011
CONTROL	U0175
CORCHAR	U0005
CORCUNT	U1131
DENDATA	U0004
DINDATA2	U1322
DISTC	U0264
HEL	U0024
ILP	U0006
INDATA	U0002
ICUTOLD	U0500
IRF	U0157
IRFTK	U0002
ITP	U0001
KEYLENG	U0001
LASH	U0010
LAUNSNAP	U0011
MASTEN	U0002
NH	U0027
NH2	U0026
OUTSMT	U0004
PAYLOAD	U0221
PLANTYPE	U0620
S.4SM	U0003
TAPER	U0001
FILE S	U0014
WPNHPPX	U0020
WPNTPPX	U0620
	U0360
	U7304

EXTERNAL SYMBOLS

THEND.
QUDDICT.
LATCY
LONCY
DISTF
TIMEE
STM.
ONSINGL.

RATS SNAPSHOT

11/24/71

ED 0

PAGE NO.

14

C00322 CLENGTH
C00124 CROSSING
C00310 DBLX
C00844 DEFDIST
C00550 DEFRRANGE
C00213 DELAY
P00001 DICT.

03741	03763	04007	04025	04047	04056	04072	04114	04126	03096	03021
04214	04226	04242	04301	04322	04332	04341	04366	04377	03114	03132
04444	04463	04510	04532	04551	04570	04607	04615	04635	03235	03253
04674	04713	04734	04743	04763	05017	05071	05107	05125	03335	03362
05167	05227	05253	05354	05447					03452	03455
									03577	03604
									03723	03740
									04017	04024
									04076	04113
									04213	04222
									04324	04331
									04415	04420
									04515	04531
									04634	04650
									04737	04742
									05070	05106
									05166	05172
									05441	05453

P05576 DISGC
C00063 DIST
C00000 DISTC
X00005 DISTF
C00264 DISTRE
C00052 DLAT
C00064 DLONG
C00007 DLYALTK
C00010 DLYALTK
P05553 ENDING.

02761	02720	02723	02726	02731	02734	02766	02771	03003	03096	03021
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03145	03262	03265	03270	03273	03315	03320	03323	03335	03347	03362
03257	03375	03410	03416	03421	03424	03443	03447	03452	03455	03462
03365	03522	03525	03530	03540	03543	03564	03567	03577	03604	03611
03463	03653	03664	03670	03701	03705	03712	03716	03723	03727	03740
03744	03753	03757	03762	03765	03770	03773	04006	04017	04024	04026
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04350	04443	04451	04454	04457	04462	04467	04507	04515	04531	04534
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5.4TS SNAPSHOT

11/24/71

ED 0

PAGE NO.

15

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P02732	GG00001.	02724	
P02767	GG00002.	02732	
P03004	GG00003.	02767	
P03022	GG00004.	03004	
P03040	GG00005.	03022	
P03055	GG00006.	03040	
P03074	GG00007.	03056	
P03112	GG00010.	03074	
P03130	GG00011.	03112	
P03146	GG00012.	03130	
P03164	GG00013.	03146	
P03502	GG00014.	03164	
P03220	GG00015.	03202	
P03236	GG00016.	03220	
P03254	GG00017.	03236	
P03463	GG00020.	03255	
P03471	GG00021.	03253	
P03316	GG00022.	03271	
P03324	GG00023.	03316	
P03350	GG00024.	03333	
P03366	GG00025.	03360	
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P03422	GG00027.	03414	
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P03523	GG00033.	03461	
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P03635	GG00037.	03607	
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P03702	GG00041.	03666	
P03713	GG00042.	03703	
P03724	GG00043.	03714	
P03741	GG00044.	03725	
P03754	GG00045.	03742	
P03763	GG00046.	03755	
P03771	GG00047.	03763	
P04007	GG00050.	03771	
P04025	GG00051.	04015	
P04047	GG00052.	04032	
P04056	GG00053.	04050	
P04064	GG00054.	04056	
P04072	GG00055.	04064	
P04114	GG00056.	04074	
P04126	GG00057.	04120	
P04137	GG00060.	04131	
P04146	GG00061.	04140	

5.4TS SNAPOUT

11/24/71

ED 0

PAGE NO.

16

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 P04332 6600071. 04322
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 P04416 6600076. 04377
 P04424 6600077. 04416
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 C00206 60L3W3 02753
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U4273

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5.4TS SNAPOUT

PAGE NO. 18

11/24/71

ED 0

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CU0000	IMDATE	04353	04353			
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CU0000	ILAUNDEC					
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CU0215	ILRT	02764				
CU0550	IMRV					
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CU0000	INDATA	03275	03275	03465	04776	04776
CU0072	INDE	03331	03331	03371	03371	03404
CU0000	INDEXTK					
CU0152	INDP	03342	03403	05116		
CU0002	INDV	03305	03375	05006		
CU0003	INDVEH	02742				
PU0524	INITIAL	02677				
CU0000	INITSTRK	04372	04372			
CU0003	INRANGE	04010	04011			
PU0604	INTAN	05335	05342			
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CU0006	IPAYLCAO	02746				
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CU0003	IREFTK					
CU0012	IREF	03312	03501	05013		
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PU0610	ISIN	04010	04014			
PU0611	ISLE	04175	04202	04203		
PU0612	ISP	05025	05032	04267	04270	
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CU0001	ISTORELO	04752				
CU0002	ISVY					
CU0003	ISZE					
CU0000	ITP					
CU0010	ITYP	02754	03504	05007		
CU0010	ITYPE	03306				
CU0012	ITYPETK					
CU0000	ITYPEX	04561	04562			
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CU0030	IWH02	04477				
CU0010	IWH02	04434	04435			
CU0000	IWH02SM					
CU0206	IWHX					
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5.475

SNAPOUT

11/24/71

ED 0

PAGE NO.

19

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P04721	.100002			
P04642	.11	04717		
P04646	.110	02712		
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P04735	.112			
P04734	.113	04763		
P04744	.1140	04720		
P04862	.115	04743		
P04735	.116	04645		
P04713	.117			
P04764	.112	02712		
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P05023	.125			
P05030	.126	05022	05022	
P05026	.127	05024		
P05034	.128	05032		
P05053	.129	05036	05051	
P05037	.130	05035		
P05146	.13	02713		
P05161	.14	02714		
P05170	.15	02715		
P05201	.1501	05177		
P05363	.1502	02200		
P03255	.16	02715		
P03255	.2	02703		
P03324	.22			
P03350	.24	03354		
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P03373	.27	03355		
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P03552	.37	02704		
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P03651	.401	03645		
P03666	.402	03646		
P03703	.403	03646		
P03714	.404	03647		
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P03755	.5	04012		
P04013	.52	04011		
P04015	.53	02706		
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2562

SATS SNAPOUT

11/24/71 EO 0 PAGE NO. 20

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PU4306 .86	U4305								
PU4322 .87	U4305								
PU4333 .9	U4710								
PU4635 .922									
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PU1376 .0100004	04167								
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PU0233 .011	03007								
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PU2261 .01145	04747								
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PU2437 .01477	03164								
PU0330 .0148	03151								
PU0341 .015	03167								

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5-ATS

SNAPOUT

11/24/71

ED 0

PAGE NO.

22

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C00002	JH	04260					
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C05074	KQUNT						
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C01452	KPLX						
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C00006	LDPEN	03511					
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2565

5.ATS SNAPOUT

11/24/71

ED 0

PAGE NO.

23

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P05625	MISIND										
P00054	MLK										
C05170	MGUNT										
C00004	MSLTPE										
C00025	Mt										
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C00003	MYCORR										
C00001	MYGROUP										
C00002	MYGROUP										
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P05627	MZERC										
P05630	NADEC										
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C00023	NALERT										
C00005	NALRTK										
P00003	NAMCOR										
P00030	NAMES										
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C00016	NASMTYPE										
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C00022	NCLASS										
C00360	NCH										
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C00004	NCONH										
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C00012	NHAPC										
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C000120	NHOMB2										
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2566

5-4TS SNAPSHOT

25

PAGE NO.

0

ED

11/24/71

04307

04323

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05045

5-4TS SNAPOUT

11/24/71 ED 0 PAGE NO. 26

P05065 TS00040. 05061
 P05103 TS00041. 05076
 P05121 TS00042. 05114
 P05137 TS00043. 05132
 P05360 TS00044. 05230
 P05355 TS00045. 05254
 P05502 TS00046. 05424
 P05477 TS00047. 05450
 C00011 TTOS
 C01034 TZN
 C02354 TZX
 C00702 TZY
 C02222 TZTX
 C00000 U1 03775
 C00002 U2 04000
 C00004 UAT 04002
 P05514 UP00003. 05510
 C00001 V1 03777
 C00003 V2 04001
 C00005 VAT 04003
 P02775 W500001. 03001
 P03012 W500002. 03017
 P03030 W500003. 03035
 P03046 W500004. 03053
 P03064 W500005. 03071
 P03102 W500006. 03107
 P03120 W500007. 03125
 P03136 W500010. 03143
 P03154 W500011. 03161
 P03172 W500012. 03177
 P03210 W500013. 03215
 P03226 W500014. 03233
 P03244 W500015. 03251
 P03330 W500016. 03352
 P03370 W500017. 03413
 P03430 W500020. 03441
 P03572 W500021. 03637
 P04074 W500022. 04116
 P04162 W500023. 04164
 P04173 W500024. 04216
 P04250 W500025. 04252
 P04260 W500026. 04303
 P04405 W500027. 04413
 P04426 W500030. 04446
 P04465 W500031. 04512
 P04521 W500032. 04527
 P04540 W500033. 04546
 P04557 W500034. 04565
 P04576 W500035. 04604
 P04617 W500036. 04637
 P04676 W500037. 04715
 P05062 W500040. 05066
 P05077 W500041. 05104
 P05115 W500042. 05122

03775 03775
 04000 04030
 05510 05516
 03777 05517
 04001 05520
 04003 05522
 03001 05522
 03017 05522
 03035 05522
 03053 05522
 03071 05522
 03107 05522
 03125 05522
 03143 05522
 03161 05522
 03177 05522
 03215 05522
 03233 05522
 03251 05522
 03352 05522
 03413 05522
 03441 05522
 03637 05522
 04116 05522
 04216 05522
 04303 05522
 04413 05522
 04446 05522
 04512 05522
 04527 05522
 04546 05522
 04565 05522
 04604 05522
 04637 05522
 04715 05522
 05066 05522
 05104 05522
 05122 05522

S-4TS SNAPSHOT

P05133	MS00043.	05140	05140
P05231	MS00044.	05361	05361
P05255	MS00045.	05356	05356
P05425	MS00046.	05503	05503
P05451	MS00047.	05500	05500
C00000	X1	03655	03655
C00002	X2	03660	
C00360	XDEC	04503	
C00426	XDGZ	04334	
C00005	XR	03746	03746
CC0001	Y1	03657	
CC0003	Y2	03661	
C00442	YDGZ	03435	
C00006	YR	03750	
C00459	ZDGZ	03436	
C00000	ZLAT1	03673	
C00050	ZLAT2	03675	
C00024	ZLON1	03674	
C00074	ZLON2	03676	

01261 SYMBOLS

2571

SATS SWITCHALY

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

SWITCHALY

DIRECTA
EVENTS

EXTERNAL SYMBOLS

ORDDICT.

IDENT

U0056
U0005

U1322
U0020

SWITCHALY

11/24/71

ED

0

PAGE NO.

2

2572

5-15 SWITCHALY

11/24/71

ED 0

PAGE NO.

3

P00045 BEGIN.	00046			
P00051 COURT.	00024	00025		
P00001 DICT.	00007			
P00047 ENDING.	00010	00044	00045	00046
P00000 EXIT.	00050			
C00000 HDY				
C00416 HLA				
C00550 HLC				
P00052 I	00021	00024		
P00053 IFY	00015	00032		
P00003 IGO	00012	00041	00035	00040
C00016 IGOMI	00013	00013		
C00017 IGOLCM	00011	00011		
P00045 INITIAL.	00010			
C00033 INSECTOR				
P00032 .802				
P00034 .803	00033			
P00036 .804	00033			
P00040 .805	00035			
P00043 .820	00031			
C00264 JTP	00026	00041	00042	
P00054 JTP1	00027			
C00132 KPL				
C00013 LABORT				
C00007 LADMC				
C00005 LAUNASM				
C00001 LAUMB				
C00006 LAUNDCGY				
C00000 LAUNH				
C00015 LEAYEREF				
C00012 LEGGCG				
C00014 LENTEREF				
C00002 LEREFEL				
C00004 LOCLATTN				
C00010 LOMI	00030			
C01320 .M7	00021			
P00055 MIN	00020	00023		
C00011 MISSATTN				
C01321 NPL	00016			
C01166 PA				
X00001 000DICT.	00000			
P00005 SWITCHALY	00005			
P00044 T500001.	00023			
C01034 TZN				
C00702 TZT				
P00026 WS00001.	00043			
00056 SYMBCLS				


```

C SUBROUTINE TIMELNCH
C   TIMELNCH 16FEB71 *****
C   THIS ROUTINE COMPUTES LAUNCH TIMES AND ASSIGNS SPECIFIC FIXED
C   WEAPONS TO SPECIFIC TARGETS
C
C   WPNGRPX 16FEB71 *****
C   COMMON /WPNGRPX/ ITYPEX(200),DBLX(200)
C   DIMENSION MGRQUP = MAX NUM WEAPON GROUPS
C   WPNGRPX *****
C   PLANTYPE 2DEC70 *****
C   COMMON/PLANTYPE/INITSRK,CORMSL,CORBOMB
C   CORBOMB = THE DISTANCE(NON) FROM THE CORRIDOR ENTRY POINT
C   AT TIME = 0
C   PLANTYPE *****
C   BLOCK 16FEB71 *****
C   COMMON/BLOCK/ LOCK(320)
C   DIMENSION BLOCK(320)
C   EQUIVALENCE (LOCK, BLOCK)
C   BLOCK *****
C   TIMELINE 16FEB71 *****
C   COMMON/TIMELINE/ ITIMETYP(40), CORMSLX(40), FLTMIN(40)
C   1, INDEXFIX(1000), TIME(1000), TDATA(252), ZLAT(50,2), ZLON(50,2)
C   2, XC(50), YC(50), ZC(50), DL(50), TMLNCH(18), GOLD
C   3, NFIXWPS, NLEFT, NLINES, MSLFIL(5)
C   TYPE INTEGER GSAVE, GOLD
C   TYPE LOGICAL IFIXFLAG
C   EQUIVALENCE (GSAVE, MSLFIL(1)), (INDEXSAVE, MSLFIL(2))
C   EQUIVALENCE (TIME, MSLFIL(5))
C   DIMENSION ITDATA(252)
C   EQUIVALENCE (TDATA, ITDATA)
C   DATA (NLINES = 0), (CORCHK = 32400.), (GOLD = 0)
C   DATA (TWOP1 = 0.2831853070), (CR = 0.01745359252)
C   TIMELINE *****
C   TYPE LOGICAL IFIXFLAG
C
C   ITIMETYP = CORMSLX TYPE = 0 - PERCENT FLIGHT, = 1 - TIME ON LINE
C   CORMSLX = PERCENT FLIGHT COMPLETE AT T=0. OR TIME IN HOURS ON LINE
C   FLTMIN = MINIMUM FLIGHT TIME IN MINUTES
C   INDEXFIX = TARGET INDEXES FOR FIXED WEAPONS
C   TIME = ARRIVAL TIMES FOR FIXED WEAPONS
C   TDATA = TEMPORARY STORAGE FOR FLIGHT DATA
C   ZLAT = LATITUDE OF LINE SEGMENT ENDPOINTS
C   ZLON = LONGITUDE OF LINE SEGMENT ENDPOINTS
C   ZMLNCH = SPLIT LONGITUDE OF SEGMENT ENDPOINTS
C   TMLNCH = LAUNCH TIME
C   GOLD = GROUP NUMBER OF SAVED DATA PRESENTLY IN CORE
C   GSAVE = GROUP NUMBER OF NEXT SET OF DATA ON MSLTIME FILE
C   NFIXWPS = ORIGINAL NUMBER OF FIXED WEAPONS FROM GROUP GOLD
C   IFIXFLAG = 0 = NO FIXED WEAPONS THIS GROUP, = 1 - FIXED WEAPONS
C   NLEFT = NUMBER OF UNALLOCATED FIXED WEAPONS FROM GROUP GOLD
C   NLINES = NUMBER OF TIME COORDINATION LINES
C   MSLFIL = INPUT AREA FOR MSLTIME FILE
C   *****
C   TYPE REAL LATEST, LONTEST

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34000
35000
36000
37000
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89000

C      N = LOCK(118)
C      MISSEX = JSTART = IFIXAR = Q
C
C      MISSEX MISSILE INDEX CURRENTLY UNDER CONSIDERATION
C      JSTART LOCAL INDEX OF FIRST TARGET IN FOOTPRINT
C      IFIXAR = 0 = NO FIXED TARGET WITH TIME YET ON THIS MISSILE
C
      IFIXFLAG = 0
      IF (LOCK(3) .EQ. GOLD .AND. MLEFT .GT. 0) 10, 20
10     IFIXFLAG = 1
20     I1 = I1PEX(LOCK(3))
      DOATA(90+J) = 1, N
      TOATA(90+J) = MAX1F(TUATA(90+J), FLYMIN(IT))
      IF (TUATA(J) - MISSEX) 50, 30, 50
C
      LATER HV ON MISSILE NUMBER MISSEX, CHECK TO SEE IF THERE IS A
      FIXED TARGET WITH TIME ALREADY PROCESSED
C
30     ASSIGN 40 TO NEXTST
      IF (IFIXAR) 60, 60, 40
C
      ALREADY A FIX WITH TIME
C
      40 TMLNCH(J) = TMLNCH(JSTART)
      GC TO 9999
C
      NEW MISSILE INDEX
C
50     MISSEX = ITUATA(J)
      JSTART = J
      IFIXAR = 0
      ASSIGN 2050 TO NEXTST
      60 IF (IFIXFLAG) 1000, 2000
C
      THIS IS A POTENTIAL FIXED WEAPON
C
1000  DC 1100 K = 1, NFIXPS
      IF (ITUATA(36+J) .EQ. INDXFIX(K)) 1200, 1100
1100  CONTINUE
      GC TO 2000
1200  INDXFIX(K) = -1
      MLEFT = MLEFT - 1
1300  IF (TIME(K).LT. -10.E+3) 2000, 1300
      FT = TDATA(90+J)
      AT = TIME(K)/60.
      TMLNCH(J) = AT - FT
      TLNCH = TMLNCH(J)
      DC 1400 K = JSTART, J
1400  TMLNCH(K) = TLNCH
      IFIXAR = 1
      GC TO 9999
C
      NON-FIXED WEAPON
C
2000  GC TO NEXTST

```

2050 IF (INITSTRK.EV. 2 .OR. LOCK(12).EV. 2 .OR.

1 CORMSLX(IT).LT. -10.E+3) 2100, 2200

2100 TMLNCH(J) = WLOCK(4)

60 TO 9999

2200 IF (TIMETYP(IT)) 2300, 3000

C

C TIME ON LINE

C

C 2300 ALPHA2 = 1.0

C

C COMPUTE PERPENDICULAR TO PLANE OF FLIGHT PATH

C

AD1 = TWOP1 - CR * TDATA(126 * J)

AU2 = TWOP1 - CR * TDATA(162 * J)

OL1 = TDATA(108 * J) * CR

DL2 = TDATA(144 * J) * CR

CUS = CGSF(OL1)

R11 = CGSF(AD1) * CUS

R12 = SINF(AD1) * CUS

R13 = SINF(OL1)

CUS = CGSF(DL2)

R21 = CGSF(AU2) * CUS

R22 = SINF(AU2) * CUS

A23 = SINF(DL2)

XCF = R23 * R12 - R13 * R22

YCF = R21 * R13 - R11 * R23

ZCF = R11 * R22 - R12 * R21

C

C COMPUTE LINE OF INTERSECTION

C

DC 2500 L = 1, NLINES

XCR = ZCF * YC(L) - ZC(L) * YCF

YCR = XCF * ZC(L) - XC(L) * ZCF

ZCR = YCF * XC(L) - YC(L) * XCF

DENOM = XCR * XCR + YCR * YCR + ZCR * ZCR

UENOM = SORTF(UENOM)

XCR = XCR / DENOM

YCR = YCR / DENOM

ZCR = ZCR / DENOM

LATEST = ASINF(ZCR) / CR

LCNTEST = (TWOP1 - ATN2PI(YCR, XCR)) / CR

BETA = DISTF(ZLAT(L), ZLONG(L), LATEST, LCNTEST)

IF (BETA .LT. DL(L)) 2310, 2500

2310 BETA2 = DISTF(ZLAT(L), ZLONG(L), 21, LATEST, LCNTEST)

BETA = BETA * BETA2

DT = DL(L) * 1.

IF (BETA .LT. DT) 2320, 2500

2320 REACH = DISTF(TDATA(108 * J), TDATA(126 * J), TDATA(144 * J), TDATA(162 * J))

ALPHA1 = DISTF(TDATA(108 * J), TDATA(126 * J), LATEST, LCNTEST)

ALPHA = ALPHA1 / REACH

IF (ALPHA .LT. ALPHA2) 2330, 2500

2330 ALPHA2 = DISTF(TDATA(144 * J), TDATA(162 * J), LATEST, LCNTEST)

ALPHA1 = ALPHA1 + ALPHA2

REACH = REACH * 1.

IF (ALPHA1 .LT. REACH) 2400, 2500

C

90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
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122000
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126000
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141000
142000
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144000
145000

FTN5.5

11/24/71

PAGE NO.

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C LINE CROSSING CLOSER TO LAUNCH
C 2400 ALPHA = ALPHA
2500 CONTINUE
IF (ALPHA - 1.0) 2000, 2510
C NO LINE CROSSING
C 2510 TMLNCH(J) = -TDATA(90*J)
GC TO 9999
C LINE CROSSING
C 2600 TMLNCH(J) = CORMSLX(11) - (ALPHA * TDATA(90*J))
GC TO 9999
C CORMSLX IS PERCENT OF FLIGHT PATH COMPLETE AT T = 0.0
C 3000 TMLNCH(J) = -CORMSLX(11) * TDATA(90*J)
9999 CONTINUE
RETURN
END
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000

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5.4TS TIMELNCH

11/24/71

ED 0

PAGE NO.

6

P00543 AD1	00204	00227	00233	00245	00251	00254	00256	00250	00253	00257	00330
P00544 AD2	00212	00245	00251	00254	00256	00250	00253	00257	00330		
P00545 ALPHA	00235	00261	00264	00266	00268	00270	00272	00274	00276	00278	00280
P00546 ALPHA1	00234	00254	00256	00258	00260	00262	00264	00266	00268	00270	00272
P00547 ALPHA2	00253	00254	00256	00258	00260	00262	00264	00266	00268	00270	00272
P00550 ALPHAST	00177	00235	00236	00238	00240	00242	00244	00246	00248	00250	00252
P00551 ASINF	00336	00337	00338	00340	00342	00344	00346	00348	00350	00352	00354
P00552 AT	00136	00137	00138	00140	00142	00144	00146	00148	00150	00152	00154
P00553 AIN2PI	00341	00342	00343	00344	00345	00346	00347	00348	00349	00350	00351
P00557 BEGIN.	00330	00331	00332	00333	00334	00335	00336	00337	00338	00339	00340
P00552 BETA	00354	00355	00356	00357	00358	00359	00360	00361	00362	00363	00364
P00553 BETA2	00366	00367	00368	00369	00370	00371	00372	00373	00374	00375	00376
P00554 BLOCK	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00555 BLOCK	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00556 COR8CPB	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00557 CORCHK	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00558 CORMSL	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00559 CORMSLX	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00560 COSF	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00561 COSUN1.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00562 CR	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00563 CUS	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00564 DBLX	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00565 DENCW	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00566 DICT.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00567 DISTF	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00568 DL	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00569 DL1	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00570 DL2	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00571 DT	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00572 ENDING.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00573 EXIT.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00574 FLTAIA	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00575 FT	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00576 GLO	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00577 GSAVE	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00578 IF000C1.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00579 IF000C2.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00580 IF000C3.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00581 IFIXFLAG	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00582 IFIXFLAR	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00583 IMDXFIX	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00584 INITIAL.	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00585 INITSTRK	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00586 IT	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00587 ITDATA	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00588 ITIMEYTP	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00589 IYPEX	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00590 -1000	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00591 -10	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00592 -1100	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00593 -1200	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00594 -1300	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176
P00595 -1400	00166	00167	00168	00169	00170	00171	00172	00173	00174	00175	00176

2582

FTN5.5

11/24/71

PAGE NO.

2

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1010 IPRINT=40
1011 PRINT 1020
1020 FORMAT(1H1)
1025 DO 1025 I=1,NMAX
1025 PRINT 1006, (COST(I,J),J=21,IPRINT)
1030 PRINT 1031
1031 FORMAT(1H1)
1032 DO 1032 I=1,NMAX
1032 PRINT 1006, (COST(I,J),J=41,CMAX)
1033 ILMAX=MPAX
1033 IF (CMAX.GT.NMAX) 1040,1041
1040 ILMAX=CMAX
1041 PRINT 1042
1042 FORMAT(1H1)
1042 DO 1050 I=1,ILMAX
1043 PRINT 1043,I
1043 FORMAT(1H1,1043M I=,I5)
1043 IF (I.LE.NMAX) 1044,1047
1044 PRINT 1045,SOURCE(I)
1045 FORMAT(1H1,23X,11H SOURCE(11=,I5)
1047 IF (I.LE.CMAX) 1048,1050
1048 PRINT 1049,SINK(I)
1049 FORMAT(1H1,23X,9H SINK(11=,I5)
1050 CONTINUE
C GET ROW PENALTIES, SAVE LOCATION OF SMALLEST COST IN ROW
700 IUCV=4HUCTH
NROW=MAX=1HCU1F
NCOL=CMAX
7 IF (IUCV.NE.3HRCW.CH.IUCV.EQ.4HUCTH) 8,35
8 DO 33 I=1,NMAX
ACRDER(1)=RCVDER(2)=1000000
IF (IRCMK(1).EQ.1) 33,9
9 DO 32 J=1,CMAX
IF (ICCHK(J).EQ.1) 32,9000
9000 IF (NCOL.EQ.1) 9001,900
9001 RPENAL(1)=COST(1,J)
IRCM(1,1)=J
IRCM(1,2)=1
60 TC 33
900 IF (RCRDER(1)=COST(1,J)) 130,20,10
10 RCRDER(2)=RCRDER(1)
RCRDER(1)=COST(1,J)
IRCM(1,2)=IRCM(1,1)
IRCM(1,1)=J
60 TC 32
20 RCRDER(2)=COST(1,J)
IRCM(1,2)=J
60 TC 32
30 IF (COST(1,J).LT.RCRDER(2)) 31,32
31 RCRDER(2)=COST(1,J)
IRCM(1,2)=J
32 CONTINUE
RPENAL(1)=RCRDER(2)=RCRDER(1)
33 CONTINUE
C GET COLUMN PENALTIES, SAVE LOCATION OF SMALLEST COST IN COLUMN

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11/24/71

FIN5.5

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35 IF (IDCCVR.EQ.6)COLUMNS=OR.IDCCVR.EQ.4)MGTHTH)36,69
36 DO 63 J=1,CMAX
   CORDER(1)=CORDER(2)=1000000
   IF (ICCHK(J).EQ.1)63,37
37 DO 62 I=1,RMAX
   IF (IRCHK(I).EQ.1)62,3800
3800 IF (NRCH(EQ.1)3801,38
3801 RMAX=J
   RPENAL(K)=COST(I,J)
   ICCL(J,1)=I
   ICCL(J,2)=--1
62 TO 63
38 IF (CORDER(1) = COST(I,J))60,50,40
40 CORDER(2) = CORDER(1)
   CORDER(1) = COST(I,J)
   ICCL(J,2) = ICCL(J,1)
   ICCL(J,1) = I
60 TO 62
50 CORDER(2) = COST(I,J)
   ICCL(J,2) = I
60 TO 62
60 IF (COST(I,J).I.CORDER(2))61,62
61 CORDER(2) = COST(I,J)
   ICCL(J,2) = I
62 CONTINUE
   K = RMAX+J
   RPENAL(K) = CORDER(2) = CORDER(1)
63 CONTINUE
   C FIND LARGEST OF ROW AND COLUMN PENALTIES
69 PENMAX=0
   INDEX=0
   IALL=RMAX+CMAX
   DO 90 I=1,IALL
     KL=I-RMAX
     IF (KL.GT.0)69,695
690 IF (ICCHK(KL).EQ.1)90,75
695 IF (IRCHK(I).EQ.1)90,75
75 IF (PENMAX = RPENAL(I))70,80,90
70 PENMAX = RPENAL(I)
   INDEX=I
   PENTIE(I) = I
60 TO 90
80 INDEX = INDEX+1
   PENTIE(INDEX) = I
90 CONTINUE
   IF (INDEX.GT.1)200,100
100 IF (PENTIE(1).GT.RMAX)110,130
110 COL = PENTIE(1)-RMAX
   ROW = ICCL(COL,1)
60 TO 139
130 ROW = PENTIE(1)
   COL=ROW(PENTIE(1), 1)
139 IBASIS = IBASIS+1
   RBASISLOC(IBASIS) = ROW
   CBASISLOC(IBASIS) = COL
   IF (SOURCE(ROW) = SINK(COL))160,140,140

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11/24/71

FTNS.5

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C 140 SATISFY COLUMN
      IDCOVER = 3*RCW
      ISCL(IBASIS) = SINK(COL)
      SOURCE(RC) = SOURCE(RCW) - SINK(COL)
      SINK(COL) = 0
      ELIMINATE COLUMN FROM FURTHER COMPUTATIONS
      NCCL=NCCL-1
      ICCHK(COL) = 1
      GO TO 170
C 160 SATISFY ROW
      IDCOVER = 6*NCCL
      ISCL(IBASIS) = SOURCE(RCW)
      SINK(COL) = SINK(COL) - SOURCE(RCW)
      SOURCE(RCW) = 0
      ELIMINATE ROW FROM FURTHER COMPUTATIONS
      RCW=RCW-1
      IRCHK(RCW) = 1
      IF (IBASIS.EQ.RMAX.CMAX-1-1)GO TO 130,7
      2 OR MORE PENALTIES ARE TIED
C 200 002601=1,INDEX
      IF (PENTIE(I).GT.RMAX)251,201
      RCW IN TIE
C 201 IF (COST(ICOL(RCW(PENTIE(I)-1)),IRCW(PENTIE(I),1)).EQ.
      *COST(PENTIE(I),IRCW(PENTIE(I),1)))202,260
C 202 RCW = PENTIE(I)
      COL = IRCW(PENTIE(I),1)
      GO TO 139
C 251 MPENT=PENTIE(I)-RMAX
      IF (COST(ICOL(MPENT,1),IRCW(ICOL(MPENT,1),1)).EQ.
      *COST(ICOL(MPENT,1),MPENT))252,260
C 252 COL=MPENT
      RCW=ICOL(MPENT,1)
      GO TO 139
C 260 CONTINUE
      TIE NOT YET BROKEN
      IF (PENTIE(I).GT.RMAX)270,261
C 251 RCW = PENTIE(I)
      COL = IRCW(PENTIE(I),1)
      GO TO 139
C 270 COL = PENTIE(I)-RMAX
      RCW=ICOL(COL,1)
      GO TO 139
C 300 PRINT 400
      400 FORMAT(///,13H VAN SOLUTION,/)
      NSCL = RMAX.CMAX-1-IDCOVER
      ITCOST=C
      DC402I=1,NSCL
      ITCOST=ITCOST+ISCL(I)*COST(RBASLCC(I),CBASLCC(I))
      402 PRINT 401,RBASLCC(I),CBASLCC(I),ISCL(I)
      401 FORMAT(3H X(12,14,12,4H) = ,13)
      403 PRINT 403,ITCOST
      403 FORMAT(14H TOTAL COST = ,110)
      404 RETURN
      END

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SATS

VAP

IDENT VAM

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

02337
01116

VAM

ANTIME
9

04 97
07466

EXTERNAL SYMBOLS

Q3010040
THEND.
Q3000040
Q800101.
STR.
QNSINGL.

5.ATS

VAM

11/24/71

ED

0

PAGE NO.

6

C00000 ARTIME
 C00227 ARVLS
 P02303 BEGIN.
 C06320 CBASLCC
 C06500 CMX

 P02253 CNVRT1.
 P02247 CCL

 P00425 CORDER
 C00000 CCST

 P02320 COUNT.
 P00763 CRFMT.
 P00001 DICT.

 C06504 DISTREF
 P02305 ENDING.
 P00000 EXT.
 C06566 FILLR
 P00753 FORMAT.
 P01205 G000000.
 P01241 G000001.
 P01264 G000002.
 P01311 G000003.
 P01325 G000004.
 P01332 G000005.
 P01373 G000006.
 P01407 G000007.
 P01423 G000010.
 P01436 G000011.
 P02171 G000012.
 P02230 G000013.
 P02244 G000014.
 P02321 I

P02322 IALL
 C00227 IARVLS
 P02323 IBASIS
 P00065 ICCMR
 P00017 ICCL

 P02324 IDCCVR
 P01452 IF00001.
 P01556 IF00002.
 P02325 ILMAX

02304
 01760 02202 02202 02202 02224
 01154 01171 01171 01171 01172
 01245 01247 01251 01251 01251
 01363 01424 01424 01446 01446
 02172
 01302 01343 01404 01420
 01741 01752 01752 01763
 02161
 01565 01617 01623 01624
 01231 01301 01301 01342
 01516 01524 01531 01531
 01625 01633 01633 01640
 02074 02127 02131 02131
 01143 01144 01156 01157
 01205 01245 01264 01325
 01120 01201 01204 01222
 01333 01351 01367 01372
 02170 02217 02227 02236

 01121 02244 02303 02304
 02306
 01442 01450 01554 01766 02005
 01177
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 01650
 02106
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 01123
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 01364 01440

 01126 01137 01144 01152 01157 01215 01241 01265 01311 01326
 01374 01403 01407 01416 01423 01432 01436 01455 01462 01504
 01526 01537 01546 01550 01574 01577 01613 01630 01635 01646
 01671 01675 01676 01721 01725 01730 02032 02035 02044 02076
 02137 02176 02201 02221 02230 02262

 01753 01754 01755 01770 02010 02024
 01475 01570 01705 02003
 01615 01627 01630 01631
 02135 02161 01452 01554 01767 02006
 01450 01452 01556 01767 02006

 01753 01754 01755 01770 02010 02024
 01475 01570 01705 02003
 01615 01627 01630 01631
 02135 02161 01452 01554 01767 02006
 01450 01452 01556 01767 02006

S-ITS	YAM	11/24/71	ED	0	PAGE NO.	7
P02254	IN000C3.	01230	01300	01502	01511	01515
P03326	INDEX	01624	01632	01637	01643	01643
P03303	INITIAL.	01666	01721	01723	01724	01724
P02327	IPRINT	01121	01213	01235	01246	01255
C05503	IRCDIF	01206	02027	02173	02023	02023
C05501	IRCHK	01444	01601	01711	01521	01521
P00427	IRCW	01506	01507	01520	01521	01521
C05764	ISCL	02104	02116	02154	02011	02011
P02330	ITCOST	01771	01771	02011	02011	02011
P01514	.10	02175	02213	02214	02210	02210
P01734	.100	01732	01733			
P01212	.1001					
P01214	.1002	01210	01211			
P01420	.1005					
P01251	.1009					
P01254	.1010					
P01256	.1011	01252	01253			
P01270	.1025					
P01317	.1030					
P01331	.1032					
P01356	.1033	01250	01250	01316	01316	01316
P01363	.1040					
P01365	.1041	01361	01362			
P01412	.1044	01411				
P01423	.1047	01411				
P01426	.1048	01425				
P01436	.1050	01425				
P01737	.110					
P01744	.130	01736	01736	02136	02155	02162
P01753	.139	01743	02105			
P01766	.140	01764	01765			
P02005	.160	01765				
P02024	.170	02004				
P01523	.20	01512				
P02031	.200	01733				
P02041	.201	02037	02040			
P02076	.202					
P02106	.251	02040				
P02133	.252					
P02137	.260	02075	02132			
P02146	.261	02144	02145			
P02156	.270	02145				
P01530	.30	01513				
P02163	.300	02030				
P01534	.31					
P01541	.32	01477	01522	01527	01533	01533
P01550	.33	01466	01507			
P01554	.35	01453				
P01560	.36	01555				
P01573	.37	01571				
P01604	.3800	01602				
P01617	.38	01605				

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33

11/24/71

03 0

PAGE NO.

P01606	.3801	
P01623	.40	
P01166	.402	
P02215	.404	
P02244	.45	
P01145	.50	
P01632	.501	
P01131	.503	
P01171	.504	
P01177	.60	
P01637	.6	
P01160	.61	
P01643	.62	
P01650	.621	
P01660	.63	
P01664	.639	
P01703	.690	
P01710	.695	
P01450	.7	
P01442	.700	
P01717	.75	
P01714	.75	
P01454	.8	
P01723	.80	
P01467	.9	
P01510	.900	
P01500	.9000	
P01727	.90	
P01502	.9001	
P02315	.ERASER.	
P01057	.100000	
P00763	.1000	
P00060	.100001	
P01061	.100002	
P01062	.100003	
P01063	.100004	
P01064	.100005	
P01065	.100006	
P01003	.1006	
P01010	.1020	
P01014	.1031	
P01020	.1042	
P01024	.1043	
P01035	.1045	
P01046	.1049	
P01066	.1400	
P01075	.1401	
P01110	.1403	
P02307	.NSTIFF.	
P02331	J	

01164
01165
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02005
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01431
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02220
02237
01751
02071
02153
01525

U1631 U1636 01642 U1642

01713	01716	01722
01747	02042	02043
02101	02102	02112
02205		

02052	02055	02056	02062	02063	02066
02117	02120	02123	02124	02150	02151

Q1751	Q2045	Q2046	Q2047	Q2053	Q2054	Q2057	Q2060	Q2064	Q2065
Q2071	Q2073	Q2103	Q2104	Q2115	Q2116	Q2122	Q2126	Q2126	Q2130
Q2153	Q2207	Q2211							
Q1253	Q1275	Q1303	Q1336	Q1344	Q1470	Q1473	Q1505	Q1521	Q1526

5-015

YAM

11/24/71

ED 0

PAGE NO.

9

P02332 K	01537	01541	01561	01566	01607	01614	01627	01635	01646	01655	01660
P02333 KL	02275	01612	01655	01657							
P02334 MPENT	01610	01701	01703								
C00063 MBCHREF	02111	02114	02122	02132	02134						
C00062 MBUDREF	01127	01127									
P02335 NCOL	01447	01500	01777	02000							
P02336 NROW	01445	01604	02017	02020							
C06476 NSOL	02173	02232	02232								
C00145 NTANKREF	02257										
P02255 P00000.0	02272										
P02267 P00001.0	01665										
P02251 PENMAX	01722	01720	01734	01737	01744	01750	02036	02044	02052	02063	02070
P00247 PENTIE	02077	02102	02107	02143	02146	02152	02156				
X00063 Q3000040	01463	01474	01567	01600	01704	01710					
X00001 C3310040	01132	02002	02022								
X00004 Q8Q01CT.	00000	01117									
X00006 QNSINGL.	02252										
C06142 RBASLOC	01756	01756	02205	02206	02222	02222					
C06477 RMAX	01756	01141	01243	01243	01313	01313	01354	01354	01356	01356	01361
	01410	01410	01443	01444	01552	01552	01506	01506	01552	01552	01554
	01666	01667	01677	01677	01735	01735	01740	01740	02025	02025	02036
	02037	02107	02110	02143	02144	02157	02157	02171	02171	02171	01546
P00067 RORDER	01461	01461	01510	01514	01515	01517	01525	01532	01536	01545	
P02250 RCM	01743	01745	01755	01761	01772	02006	02077	02135	02147	02162	
P00071 RPENAL	01505	01547	01613	01657	01715	01717					
P00003 SINK	01130	01161	01176	01433	01764	01770	01774	01777	02013	02015	02007
C05670 SOURCE	01146	01146	01417	01417	01762	01762	01773	01773	01775	01775	
	02007	02013	02014	02016	02016						
X00005 STM.	01200	01221	01257	01271	01320	01332	01366	01400	01413	01427	02164
	02216	02235									
X00002 THENU.	01203	01237	01262	01307	01323	01350	01371	01405	01421	01434	02167
	02226	02242									
P01151 TS00002.	01142										
P01163 TS00003.	01155										
P01243 TS00004.	01217										
P01235 TS00005.	01227										
P01313 TS00006.	01267										
P01305 TS00007.	01277										
P01354 TS00010.	01330										
P01346 TS00011.	01340										
P01440 TS00012.	01376										
P01552 TS00013.	01457										
P01543 TS00014.	01472										
P01662 TS00015.	01563										
P01652 TS00016.	01576										
P01731 TS00017.	01674										
P02141 TS00020.	02034										
P02232 TS00021.	02200	01160	01161	01167	01174						
P02245 TSINK	01136	01145	01147	01163	01166	01173	01312	01327	01353	01375	01437
P02246 TSRC	01136	01140	01153	01216	01242	01266					
P02261 UP000000.	01125										

5.4TS	VAM	11/24/71	ED	9	PAGE NO.	10
P02274	UP000001.	01575	01651	02033	02140	02177
P01116	VAM	02266	02266	01337	01471	01542
P01127	WS000001.	02276	02277	01345	01562	01661
P01145	WS000002.					02270
P01160	WS000003.					
P01220	WS000004.					
P01230	WS000005.					
P01270	WS000006.					
P01300	WS000007.					
P01331	WS000010.					
P01341	WS000011.					
P01377	WS000012.					
P01460	WS000013.					
P01473	WS000014.					
P01564	WS000015.					
P01577	WS000016.					
P01676	WS000017.					
P02035	WS000020.					
P02201	WS000021.					
	00316 SYMSCLS					

11/24/71

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SUBROUTINE ZONECRGS
  CSUBR      ZONECRGS  ZDEC70
  C  ZONECRGS FINDS ALL ZONE CROSSINGS BETWEEN
  C  TWO POINTS IN ORDER AND POSTS THEM
  CUSE      BOUND  BOUND/X1,Y1,X2,Y2,IZN,XR,YR,NLN,IZIT
  CEND      BOUND  *****
  CUSE      CONTROL  ZDEC70 *****
  C  COMMON/CONTROL/ICE,LSIDE,NPLCT,ISZE,SCALE
  C  CONTROL *****
  C  DINDATA  ZDEC70 *****
  C  COMMON/DINDATA/HUT(90),KPL(90),JTP(90),MLA(90),MLS(90),TZT(90),
  C  ITZN(90),PA(90),MHT,MPL
  C  DINDATA *****
  C  EVENTS  ZDEC70 *****
  C  COMMON/EVENTS/LAUNCH,LAUNCH,LEFUEL,INSECTOR,LOCCLATR,LAUNCHM
  C  *LAUNCH,CCY,LAUNCH, LCH,MISSATN,LEGDS,LABORT,LENTREF,LEAVEREF
  C  *IGHCH,IGCLG *****
  C  EVENTS *****
  C  FINDZONE  ZDEC70 *****
  C  COMMON/FINDZONE/FINDLAT,FINDLON,IFGOUNDZ
  C  FINDZONE *****
  C  IFLEDPEN  ZDEC70 *****
  C  COMMON/IFLEDPEN/IFLEDPEN,LOWZONE,ICIFLW
  C  IFLEDPEN *****
  C  DIMENSION IJUP(10),ITLA(10),ITLC(10),ITPL(10)
  C  TYPE REAL IJLA, ITLC
  C  IF(IZN)1*8
  C  1 CALL BOUNDARY
  C  IF(IZIT.EQ.0)16*2
  C  2 IF(INZN.EQ.0)3*4
  C  3 IF(IFLEDPEN)17
  C  7 LEZONE=LSIDE
  C  IFLEDPEN*2
  C  ASSIGN 6 TO I6G
  C  GO TO 5
  C  LEZONE=NZN
  C  ASSIGN 1 TO I6G
  C  5 MHT=MHT+1
  C  MLC(MHT)=YR
  C  JTP(MHT)=INSECTOR
  C  KPL(MHT)=LEZONE
  C  IZMZN $ XI=XH $ YI=YR
  C  GO TO I6G
  C  *NUMBER HAS DEGENERATED OR NOT YET ENTERED A ZONE
  C  8 IF(IFLEDPEN)17
  C  C  REVERSE VECTOR TO FIND POSSIBLE INSECTORS
  C  17 FINDLAT=X2
  C  FINDLON=Y2
  C  CALL FINDZONE
  C  IZN=IFOUNZ
  C  IF(IZN)16*20
  C  C  LOWZONE SET TO 1 AT CALCULATED GO LOW
  C  C  LOWZONE SET TO 2 IF GO LOW PRECEDES FIRST INSECTOR
  C  C  LOWZONE SET TO 3 TO MOVE GO LOW POSTING TO SUBR ZONECRGS

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FTNS.5

11/24/71

PAGE NO.

2

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20 IF(LONZONE.EQ.3)21,22
22 LONZONE=2
21 RETURN
16 X2=X1
Y2=Y1
A1=FINULAT
V1=FINULON
I=0
11 CALL BOUNDARY
I=I+1
IF(I.GT.10)14,15
14 PRINT 15
15 FORMAT(38HMORE THAN 10 ZONES FOUND AFTER ZONE U)
I=10
GO TO 13
15 IILA(I) = XX
IILG(I)=YH
IIPLI(I)=IZN
XI=XR
YI=YH
IF(NZN.EQ.0)9,10
10 IZN=NZN
GO TO 11
9 IZN=IFOUNZLN
X2=FINULAT
Y2=FINULON
IF(LONZONE.EQ.3)25,26
25 LONZONE = 0
MHT=MHT+1
JTP(MHT) = INSECTOR
MLA(MHT) = A = IILA(I)
MLC(MHT) = B = IILG(I)
KPL(MHT) = IPL(I)
CALL POST17(A,B,0)
CALL POSTLAUN(2,MHT,1)
I = I+1
26 IF (I)13,6
13 IF (IC1FLG)18,19
C POST POSSIBLE DECOY LAUNCH AT FIRST CORRIDOR 1 INSECTOR
18 LMT=MHT+1
CALL POSTLAUN(5,LMT,1)
IC1FLG=C
C POST INSECTOR EVENTS
19 DO 12 J=1,I
K=I-J+1
MHT=MHT+1
JIP(MHT) = INSECTOR
MLA(MHT)=IILA(K)
MLC(MHT)=IILG(K)
KPL(MHT)=IPL(K)
12 6 RETURN
END

```

IDENT ZONECROS

00343
00063
00011
00005
01322
00020
00003
00003

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

ZONECROS

BOUND
CONTROL
DIRDATA
EVENTS
FINDZONE
IFLGUPEN
THEND.
UNGDICT.
BOUNDARY
FINDZONE
POST17
POSTLAUN
SIM.

EXTERNAL SYMBOLS

SATS ZONECROS

	11/24/71	ED	0	PAGE NO.
P00332 A	00236	00247		
P00333 B	00241	00247		
P00332 BEGIN.	00323			
P00333 BOUNDARY	00071	00164		
P00334 COUNT.	00277	00277		
P00353 CREMT.	00200			
P00301 DICT.	00065	00072		
P00324 ENDING.	00066	00153		
P00000 EXIT.	00325			
C00000 FINDLAT	00137	00156		
C00001 FINDLON	00141	00161		
X00004 FINDZONE	00142	00223		
P00053 FORMAT.				
P00200 G000000.	00172			
C00000 MOT				
C00016 MLA	00117	00237		
C00550 HLO	00120	00241		
P00335 I	00163	00166		
	00300			
C00002 ICIFLG	00261	00272		
C00000 ICE				
C00000 IFLGDEM	00100	00100		
C00002 IFGURDZM	00144	00217		
P00336 IGO	00106	00112		
C00016 IGCHI				
C00017 IGLCH				
P00322 INITIAL.	00066			
C00003 INSECTOR	00121	00122		
C00003 ISZE				
P00003 ITJP				
P00015 ITLA	00204	00236		
P00027 ITLO	00206	00240		
P00041 ITPL	00210	00243		
C00010 IZIT	00073	00073		
C00004 IZN	00067	00126		
P00071 .1	00070	00067		
P00215 .10	00214	00112		
P00164 .11	00216			
P00314 .12				
P00261 .13	00201	00260		
P00172 .14				
P00202 .15	00171	00171		
P00154 .16	00145			
P00136 .17	00101			
P00263 .18	00262			
P00274 .19	00262			
P00076 .2	00074			
P00146 .20				
P00153 .21	00150			
P00151 .22	00147			
P00227 .25				
P00257 .26	00226			
P00100 .3				
P00110 .4	00077			

5.4TS ZONECROS

11/24/71

ED 0

PAGE NO.

5

PG0113 .5	00107					
PG0321 .6	00075	00135	00260			
PG0102 .7	00101					
PG0134 .8	00070					
PG0217 .9	00214					
PG0053 .15	00175					
PG0437 J	00275	00317				
PG0284 JTP	00123	00234	00306			
PG0340 K	00302	00314				
CG0132 KPL	00125	00243	00244	00316		
CG0013 LABCR						
CG0007 LANDHC						
CG0005 LAUNASH						
CG0001 LAUN3						
CG0006 LAUNDCOY						
CG0000 LAUNM						
CG0015 LEAVEREF						
CG0012 LEGOC6						
CG0014 LENTEREF						
CG0002 LEREFUEL						
PG0341 LEZONE	00103	00124				
PG0342 LHT	00265	00270				
CG0004 LCCLATTR						
CG0010 LCHI	00146	00151	00152	00225	00227	00230
CG0001 LCWZONE	00102					
CG0001 LSIDE	00113	00114	00116	00116	00231	00232
CG01320 MHT	00263	00302	00303	00304	00306	00315
CG0011 MISSATIR						00233
CG01321 NPL						00316
CG0002 NPLCT						
CG0007 N2N	00076	00110	00110	00125	00213	00215
CG0166 PA						00215
XG0005 PCST17	00245					
XG0006 PCSTLAUN	00251					
XG0002 QBODICT	00000	00266				
CG0004 SCALE		00064				
XG0007 SK.	00173					
XG0001 TMEND.	00176					
PG0321 TS00001.	00276					
CG0034 TZN						
CG0702 TZT						
PG0300 WS00001.	00320					
CG0000 X1	00127	00154	00157	00160	00211	
CG0002 X2	00136	00155	00222	00222		
CG0005 XR	00115	00127	00202	00202	00210	00211
CG0001 Y1	00130	00155	00161	00162		
CG0003 Y2	00140	00156	00224	00224		
CG0006 YR	00117	00130	00204	00205	00212	
PG0063 ZONECROS	00063					
00146 STABCLS						

11/26/71

```

PROGRAM EVALALOC
EVALALOC 15JUN71 *****
C
C IF THE TARGET AND
C WEAPON MODIFIER SUBROUTINES ARE NOT USED, 3 INPUT CARDS CONTAIN
C THE FOLLOWING DATA ARE REQUIRED.
C CARD ONE
C ITGTMAX THE NUMBER OF TARGETS TO HAVE DETAILED PRINTS
C PREFABRT PROBABILITY OF A REFUELING ABORT (POST-PLNTPLAN OPER)
C JOPT LOGICAL ARRAY CONTROLLING PROGRAM OPERATION AND PRINTS
C JOPT(1) PRE-ALOCUT OR POST-PLNTPLAN RUN INDICATOR
C          0 = PRE-ALOCUT
C          1 = POST-PLNTPLAN
C JOPT(3) DEBUG PRINT INDICATOR
C          0 = NORMAL PRINTS
C          1 = DEBUG PRINTS
C PKTX KILL PROBABILITY OF TERMINAL BALLISTIC MISSILE INTERCEPT
C LAW DAMAGE ASSESSMENT LAW TO BE USED (SQUAREROOT OR EXPONENT)
C CARD TWO
C PUT THE WORD #RETURNS IN COLS. 1-8
C CARD THREE
C TO TERMINATE RUN PUT NEG INTEGER IN COLS. 1-8. TO CONT RUN WITH NEW
C TARGET OR WEAPON PARAMETERS, SEE TGTMODIF OR WPMODIF.
CUSE FILHANDR 15JUN71 *****
C
C FILEHANDLER COMMON BLOCKS
C
C COMMON/FILABEL/INIDENT,INRUNNO,INDATE,INFORM,INSECR,
C 1 INTIME,INLNSTH,INCOX(5)
C COMMON/ITP/ITP
C COMMON/MIYIDENT/MIYIDENT
C COMMON/MYLABEL/MYFORMAT,MYSECR,MYLNSTH,MYCOM(3)
C COMMON/NOPRINT/NOPRINT
C COMMON/TWORD/TWORD
C EQUIVALENCE (TWORD,TWORD)
C
C FILHANDR *****
C FILES 10MAY71 *****
C
C COMMON/FILES/TGTFILE(2),BASFILE(2),MSLTIME(2),ALOCAR(2),
C 1 TMAPLOC(2),ALOCBP(2),STKRFIL(2),EVENTAPE,PLANTAPE
C TYPE INTEGER TGTFILE, BASFILE, MSLTIME, ALOCAR, TMAPLOC,
C 1 ALOCBP, STKRFIL, EVENTAPE, PLANTAPE, SCRATCH
C EQUIVALENCE (SCRATCH,STKRFIL)
C
C FILES *****
C 22 00CT71 *****
C
C COMMON/2/LINK,ILINK(12000)
C DIMENSION JLINK(4000),KLINK(4000),LLINK(4000)
C EQUIVALENCE (JLINK,ILINK), (KLINK,ILINK(4001)), (LLINK,ILINK(8001))
C
C 22 *****
C TGTMOD 24JUN71 *****
C
C DATA FROM ALOCAR FILE

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2598

FTNS.5

11/24/71

PAGE NO. 3

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13 CONTINUE
11 FORMAT(//10X,42N THE TERMINAL MISSILE INTERCEPTORS HAVE PK#,F10.6)
C
  CALL PAGESKP
  INITIALIZE FILEHANDLER
  MYIDENT=8HEVALALOC
  NOPRINT=1
  CALL INITAPE
  BASFILE(1)=8
  ITP = BASFILE(1)
  MYIDENT=7MBASFILE
  CALL SETREAD
C
  IS BASFILE VERSION THE EXPECTED ONE
  ITSTBSFL=8HMOV TO
  IF(INFORM.NE.ITSTBSFL)15,17
15 PRINT 16,ITSTBSFL,INFORM
16 FORMAT(//1X,15(IN),5X,33H WRONG BASFILE FORMAT. REQUESTED ,A6,
  1 5H GOT ,A6)
  STOP
C
C INPUT NEEDED DATA FROM BASFILE
C
17 CALL ROARRAY(IDUM,23)
  NTYPES=IDUM(11)
  CALL SKIP(545)
  CALL ROARRAY(TOTFILE,16)
  SCRATCH=5
  IF(JOYT(1))C,7
  READ MORE ARRAYS FROM BASFILE IF PROG IN POST-PLATPLAN MORE
C
  6 CALL STIP(2104)
  CALL ROARRAY(REL,80)
  CALL SKIP(1320)
  CALL ROARRAY(ITYPE,206)
  CALL SKIP(7067)
  CALL ROARRAY(DBL,200)
  CALL TERMTAPE
  CALL PACK
  GO TO 5
  7 CALL TERMTAPE
  5 CALL EVAL2
  GO TO 1
  END

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S-4TS EVALALOC

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

11/26/71 ED 0 PAGE NO. 4

IDENT EVALALOC

EVALALOC	00403
	00141
FILABEL	00014
ITP	00001
MYIDENT	00001
MYLABEL	00010
NOPRINT	00001
TDORD	00001
FILES	00020
2	27341
TGTMOD	00346
WPNMOD	01442
MIS	00122
OPT	00004
LAW	00002

EXTERNAL SYMBOLS

Q00ENTRY
THEND.
Q00STOPS
Q000040
Q00DICT.
VEVALALOC
STORAGE
PAGESKP
INITAPE
SETREAD
RDARRAY
SKIP
TERMTAPE
PACK
EVAL2
TSH.
SYH.
SLI4.
SLO.
SLI.
ONSINGL.

5.4TS EVALALOC

11/24/71 ED 0 PAGE NO. 5

C00012	ALCGRP	00262	00263	00166	00222	00241	00302	00304			
C00006	ALCTAR			00168	00237	00225					
C00002	BA5FILE			00176		00353					
C00001	CEP			00143	00145	00147	00151	00154	00164	00172	00175
P00367	CHVRT1.	00156		00224	00227	00233	00236	00244	00251	00253	00212
P00032	CRFMT.	00176		00311	00313	00320	00323	00333	00336	00341	00214
C01131	DBL	00353		00357	00362	00364				00347	00352
C00245	DE			00212						00347	00355
P00001	DICT.			00363							
				00141							
P00370	ENDING.			00370	00201	00203	50254	00265	00271		
X00017	EVALZ			00176							
P00141	EVALALOC										
C00016	EVENTAPE										
P00000	EXIT.										
P00032	FORMAT.										
C00501	FUNC										
C00010	FVAL										
P00176	GG00000.	00152									
P00225	GG00001.	00215									
P00237	GG00002.	00225									
P00252	GG00003.	00242									
P00307	GG00004.	00275									
C00003	H										
C00345	ISGINDX										
C00121	ICLASS										
P00003	IDUM	00314	00315								
C00017	IG										
C00001	ILINK										
C00007	INCOMM										
C00002	INDATE										
C00000	INDEXNO										
C00342	INDTYPE										
C00003	INFORM	00272	00273	00303	00303						
C00000	INIDENT										
X00011	INITAPE	00260									
C00006	INLN6TH										
C00001	INRUNNO										
C00004	INSECR										
C00005	INTIME										
C00344	ITGINDX										
C00001	ITGMAX	00157	00157	00205	00205						
C00000	ITP	00263	00264								
P00442	ITST8SFL	00272	00274	00301							
C00000	ITW0R0										
C00021	ITYPE	00345									
P00152	.1	00365									
P00242	.12										
P00252	.13										
P00275	.15	00241	00241								
P00312	.17	00274									
P00225	.2016										

P00210 .3	00206						
P00213 .4	00206	00237					
P00363 .5	00360						
P00332 .6	00331						
P00361 .7	00331						
P00201 .8	00200						
P00205 .9	00200						
P00042 ..10	00177						
P00045 ..10	00220						
P00043 ..100001	00201						
P00044 ..100002	00201						
P00113 ..100003	00234						
P00114 ..100004	00285						
P00115 ..100005	00271						
P00077 ..11	00245						
P00062 ..14	00230						
P00116 ..16	00300						
P00032 ..2	00195						
C00001 JLINK							
C00000 JOPT	00165	00330					
C00003 JSKIP							
C07641 KLINK							
C00055 KRR							
C00000 LAW							
C00000 LINK	00173	00176	00176	00202	00202	00204	00204 00234
C17501 LLINK							
C00002 M							
C00120 MISDEF							
C00004 MSLTIME							
C00003 MYCOMM							
C00000 MYFORMT							
C00000 MYINENT							
C00002 MYLWGT							
C00001 MYSECP	00255	00255	00266	00266			
C00361 NAMEWPN							
C00050 NDECOYS							
C00007 NK							
C00000 NPRINT	00256	00257					
C01441 NPASS							
C00341 NTYPE							
C00000 NTYPES	00316	00316					
C00016 NUM							
C00000 NWIND							
X00016 PACK	00356						
X00010 PAGESKP	00213	00252					
C00151 PEN							
C00121 PKTX	00167	00167	00237	00246	00246	00246	
C00017 PLANTAPE							
C00002 PREFABRT	00161	00221	00221				
X00004 Q000040	00327						
X00005 Q00005	00000	00142					
X00001 Q00001	00144						
X00003 Q00003	00211	00310					
X00025 Q00025	00366						

5.4TS EVALALOC

X00013	RDARRAY	00312	00322	00335	00343	00351
C00241	REL	00337				
C00113	RVAL		00326			
C00014	SCRATCH	00325				
X00012	SETREAD	00267				
X00014	SKIP	00317	00332	00340	00346	
X00022	SLI.	00163				
X00024	SLI.	00171				
X00023	SLO.	00232				
X00021	STM.	00216	00226	00243	00276	
X00007	STORAGE	00150				
C00014	STRKFL					
C00013	TAU					
X00015	TERMTAPE	00354	00361			
C00000	TGFILE	00324				
X00002	THERD.	00174	00223	00235	00250	00305
C00303	TIMEVAL					
C00010	TMPALOC					
C00207	TOA					
X00020	TSH.	00153				
C00000	TWORD					
X00006	VEVALALO	00146				
C00005	VO					
C00001	VTO					
C00343	VTDC					
	00202 SYMBOLS					

```

SUBROUTINE BOMRPAKR(LL,K)
  CSUBR      BOMRPAKR 30JUNE71 *****
  CUSE      OPT      20APR71 *****
  C          USER PRINT AND OPERATION OPTIONS
  C          COMMON/OPT/JOPT(20),IT6*MAX,PREFABRT,JSKIP
  C          TYPE LOGICAL JOPT
  C          OPT      *****
  C          CUSE      1      3JUNE71 *****
  C          PLAN AND TARGET INFO BLOCK DATA FROM PLANTAPE
  C          COMMON/1/LGRP,KORD,TMLAUN,HOT(90),KPL(90),JTP(90),HLA(90),HLO(90),
  C          1      TZT(90),TZN(90),IMH(90),PA(90),ICMT(90),IT6TX(90)
  C          DIMENSION CMT(90)
  C          EQUIVALENCE(CMT,ICMT)
  C          C          *****
  C          CUSE      1      *****
  C          CUSE      22     60CT71 *****
  C          COMMON/2/LINK,ILINK(12000)
  C          DIMENSION JLINK(4000),KLINK(4000),LLINK(4000)
  C          EQUIVALENCE(JLINK,ILINK), (KLINK,ILINK(4001)), (LLINK,ILINK(8001))
  C          C          *****
  C          CUSE      22     *****
  C          NMAX=7500
  C          LINK=LINK+3
  C          I=LINK/3
  C          J=LL
  C          INDX=KPL(J)
  C          CALL SEARCH(INDX,IT6T)
  C          JLINK(I)=IT6T*10000000000008*INDX*1000008*LGRP*1008*KORD
  C          IPEN=PA(J)+4096
  C          TIME=CMT(J)
  C          ITIME=10000*CMT(J)
  C          ITIME=ITIME*AND.7777777777B
  C          KLINK(I)=IPEN*1000000000008*ITIME
  C          IF(JOPT(3))1,4
  C          1 IF(LINK.LE.NMAX)2,4
  C          2 PRINT 3,KLINK(I),I,INDX,LGRP,KORD,TIME,PA(J)
  C          3 FORMAT(1X,43H80MRPAKR,KLINK,LINK,INDX,GRP,KORD,TIME,PEM,016,410
  C          1,2F10.4)
  C          4 CONTINUE
  C          BPLAT=(HLA(J)+TZT(J))*10000.
  C          LAT=BPLAT
  C          LAT=LAT*1000000000B
  C          LAT=LAT*AND.77777777770000000008
  C          BPLON=(HLO(J)+TZN(J))*10000.
  C          LON=BPLON
  C          LON=LON*AND.777777777B
  C          BLAT=BPLAT/10000 36LON=BPLON/10000
  C          LLINK(I)=LAT*LON
  C          IF(JOPT(3))5,8
  C          5 IF(LINK.LE.NMAX)6,8

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PTNS.5

11/24/71

PAGE NO.

2

34000
35000
36000
37000

6 PRINT 7,ITGT,INDX,GLAT,GLON,LLINK(I)
7 FORMAT(1X,25HTGT INDX GLAT GLON LLINK ,2X,218,2F10.4,2X,016)
8 RETURN
END

5.4TS BOMRPAKR

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

BOMRPAKR

OPT
1
2

EXTERNAL SYMBOLS

G1010100
G3000040
THEND.
QBDDICT.
SEARCH
STH.
GMSINGL.

IDEXT

00276
00035

00024
01741
27341

BOMRPAKR

11/26/71

ED

0

PAGE NO.

3

2606

5.4TS BOMRPAKR

PAGE NO. 4

EO 0

11/24/71

P00213 BEGIN.	00227	00235	00241						
P00035 BOMRPAKR	00035								
P00260 BPLAT	00143	00157							
P00261 BPLON	00153	00161							
C01455 CMT	00074	00076	00077						
P00212 CNVRT1.	00123	00125	00130	00131	00133	00135	00200	00201	00202 00203
	00205								
P00003 CREFMT.	00140	00210							
P00001 DICT.	00037	00055	00117	00137	00175	00207	00216		00217
P00230 ENDING.	00040	00210	00213	00214	00214	00215	00215		
P00000 EXIT.	00233								
P00003 FORMAT.									
P00047 FPO0001.	00225	00226							
P00244 GETPL.	00220								
P00234 GETPU.	00223	00240							
P00140 G000000.	00115								
P00210 G000001.	00173								
P00262 SLAT	00160	00202							
P00263 GLON	00162	00203							
C00003 MDT									
C00421 HLA	00141	00141							
C00553 HLO	00150	00151							
P00264 I	00046	00066	00121	00124	00163	00204			
C01455 ICMT									
C00001 ILINK									
P00265 INDX	00053	00056	00060	00126	00201				
P00213 INITIAL.	00040								
P00266 IPEN	00073	00104							
P00267 ITGT	00056	00057	00177						
C00001 ITGTMAX									
C01407 ITGTX									
P00270 ITIME	00101	00103	00105						
C01171 IWH									
P00112 .1	00111								
P00115 .2	00114								
P00140 .4	00111	00114							
P00170 .5	00167								
P00173 .6	00172								
P00210 .8	00167	00172							
P00245 -ERASER.	00060	00061	00062	00064					
P00003 .3	00120								
P00020 .7	00176								
P00271 J	00050								
C00001 JLINK	00067	00067	00134	00140					
C00000 JOPT	00110	00166							
C00003 JSKIP									
C00267 JTP									
P00003 K									
C07641 KLINK	00105	00106	00122	00122					
C00007 KORD	00065	00065	00131						
C00135 KPL	00051	00052							
P00272 LAT	00145	00146	00150	00162					
C00000 LGRP	00062	00063	00127	00127					
C00000 LINK	00042	00043	00044	00112	00170	00170	00170		

5.475 BOMPAKR

11/24/71 EO 0 PAGE NO. 5

C17501	LLINK	00164	00204	00205
P00003	LLL	00047		
P00272	LON	00155	00163	
P00274	NMAX	00042	00171	
C01323	PA	00070	00134	00135
P00227	PF00002.	00224		
C00002	PREFABRT			
X00001	Q1010100	00072	00144	00154
X00002	Q3000040	00107		
X00004	Q80010.	00000		
X00007	QNSINGL.	00211		
X00005	SEARCH	00054		
X00006	STM.	00116		
X00003	THEND.	00130		
P00275	TIME	00075		
C00002	TMLAUN			
C01337	TZN	00151		
C00705	TZT	00142		
	00107 SYMBOLS			

FTNS.2

11/24/71

PAGE NO.

1

CSUBR
FUNCTION DIST(TL1,TLON1,TL12,TLON2)
DIST 28AUG70 *****
DELLAT = (TL1-TL12)
DELLON = TLON1-TLON2
DIST = (DELLAT**2+DELLON**2)*3600.
END

1000
7000
2000
3000
4000
5000

5.4TS DIST

PROGRAM LENGTH
ENTRY POINTS DIST
EXTERNAL SYMBOLS Q800ICT.

IDENT 00076
00003

DIST

11/24/71

ED

0

PAGE NO.

2

2610

5.4TS DIST

11/24/71 ED 0 PAGE NO. 3

P00023 BEGIN.
P00074 DELAY
P00075 BELLOW
P00001 OICT.
P00003 DIST.
P00054 ENDING.
P00000 EXIT.
P00007 P00001.
P00010 P00002.
P00012 P00003.
P00013 P00004.
P00071 GETPL.
P00061 GETPU.
P00023 INITIAL.
P00072 .EPASER.
P00037 P00002.
P00043 P00003.
P00047 P00004.
P00053 P00005.
X00001 ODDICT.
P00003 TLOM1
P00003 TLOM2
P00003 TLT1
P00003 TLT2
P00022 VALUE.
00031 SYMBOLES

00053
00011
00014
00005
00003
00006
00060
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00041
00051
00030
00033
00006
00016
00034
00040
00044
00050
00006
00012
00013
00007
00010
00020

00062
00015
00016
00026
00021
00023
00036
00046
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00052
00037
00043
00017
00004
00057

00024 00024 00025 00025

11/24/71

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SUBROUTINE EVALPLAN
  EVALPLAN 30JUNE71 *****
  C
  C EVALPLAN CALCULATES HOW MUCH VALUE ESCAPES DURING THE ATTACK FOR
  C THE DESTROYED TARGET AND HOW MUCH VALUE REMAINS AFTER THE ATTACK.
  C IT ALSO CLASSIFIES WPNS AS ALERT OR NON-ALERT BOMBERS. TACTICAL
  C BOMBERS, ICBMS, SUB-LAUNCHED BMS, OR MED RANGE BMS. RTAC=MRBMAC TO
  C ELIMINATE TAC AND MRBM CATEGORIES.
  C
  CUSE OPT 20APR71 *****
  C
  C USER PRINT AND OPERATION OPTIONS
  C
  C COMMON/OPT/JOPT(20),ITGTMAX,PREFABRT,JSKIP
  C TYPE LOGICAL JOPT
  C
  CEND OPT *****
  CUSE WPNMOD 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  C COMMON/WPNMOD/NTYPES,CEP(80),ICLASS(80),REL(80),NAMEWPN(80),
  C IFUNC(80),ITYPE(200),DBL(200),NPASS
  C
  CEND WPNMOD *****
  CUSE TYPE INTEGER FUNC
  C TGTMOD 24JUNE71 *****
  C
  C DATA FROM ALOCTAR FILE
  C
  C COMMON/TGTMOD/INDEXNO,VTG,M(2),VO(2),NK,FVAL(3),TAU(3),NUM,
  C I16(30),KORR(30),RVAL(30),PEN(30),YOA(30),OE(30),TIMEVAL(30),
  C ZMTYPE,INDTYPE,VTGC,ITGTINDX,I8GINDX
  C
  CEND TGTMOD *****
  CUSE LATLON 20APR71 *****
  C
  C COMMON/LATLON/BLAT(30),BLON(30),TGTLAT,TGTLOX
  C
  CEND LATLON *****
  CUSE MIS 20APR71 *****
  C
  C COMMON/MIS/MISMODS(40),NOECOYS(40),MISDEF,PCTX
  C
  CEND MIS *****
  CUSE 2 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  C COMMON/2/CCREL(20),IREG(200),IALERT(200),IPAY(200),YIELD(200),
  C ICLASTYPE(200),NALLTYPE(7,200),SKOWTYP(7,200),DELMPTYP(7,200),
  C ZALLTYPE(7,200),NALLCLAS(7,50),SKOWPCL(7,50),DELMPC(7,50),
  C ZALLCLAS(7,50)
  C TYPE INTEGER CLASTYPE
  C TYPE REAL NALLTYPE,NALLCLAS
  C

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11/24/71

FTNS.5

```

CEND 2 *****
CUSE 20APR71 *****
C     DATA FROM VAL2 *****
C     COMMON/LITTLE/INDCLAS,SURV,IGTRAD,TMULT,VALDES,VALESC,CTMULT,
C     1PLANYLD,DELYLD,NOMPNS,VALFAC *****
C     LITTLE *****
CEND  DIMENSION PROSS(2),VTBEF(2),VTAFT(2),CUMESC(2),CUMDES(2)
      VTAFT(1) = V0(1)
      VTAFT(2) = V0(2)
      FVALOLD = 1.
      CUMESC(1) = CUMESC(2) = CUMDES(1) = CUMDES(2) = 0.
      VALDES = VALESC = SURV = 0.
      PROSS(1) = PROSS(2) = 1.
      PLANYLD = DELYLD = 0.
      IF (NK-3) 376,376,377
377 PRINT 396,INDEXNO
396 FORMAT(2X,15HEVALPLAN PRINTS,110,2X,20RT00-MANY VALUE COMPS)
616 PRINT 397,NK
397 FORMAT(2X,20HON THIS TARGET NK IS,016)
      RETURN
376 CONTINUE
      IF (PKTX.GT.0.1) 2
      1 IF (JSKIP) 3, 3, 4
      4 IF (JOPT(1)) OR, NPASS .EQ. 1) 2, 3
      3 TINT = ABSF(MISOEF) * PKTX
      IF (TINT .EQ. 0.) 2, 2200
2200 CONTINUE
      HERE COMPUTE RELIABLE INTERCEPTORS, TOTAL OBJECTS
      TORJ = 0.
      PKTXIN = 1. / (1. - PKTX)
      IF (JOPT(1)) 30, 35
      WHEN RUN AFTER PLNTPLAN, PEN DOES NOT INCLUDE PKTX
      30 PKTXIN = 1.
      35 DO 20 I = 1, NUM
      NUP = 1
      J = IG(1)
      SK = ITYPE(J)
      SL = IPAY(J)
      IF (ICLASS(K).EQ.1) 5, 20
      5 IF (KORR(I)) .LT. 0) 6, 42
      6 NUP = KORR(I)
      42 TORJ = TORJ + NUP * (NMHOS(L) * CCREL(I,REG(J)) * PEN(I) * DBL(J) *
      1 REL(K) * PKTXIN
      20 CONTINUE
      RT = TINT / TORJ
      PK = MINIF(PKTX, RT)
      DO 25 I = 1, NUM
      J = IG(I)
      SK = ITYPE(J)
      IF (ICLASS(K).EQ.1) 24, 25
      24 PEN(I) = PEN(I) * (1. - PK) * PKTXIN
      25 CONTINUE
      2 CONTINUE
      CALL INITPROB(PK, PK, PK)
      DO 90 I = 1, NUM
      J = IG(I)

```



```

1091 CONTINUE
IF(JG.GT.200)90,1091
IF(KORR(I).LT.0)3000,3001
300 NWP=KORR(I) 5 GO TO 3002
300 NWP=1
3002 CONTINUE
SAVE = CTMULT
IF (JOST(1)) 2000, 2001
2000 CTMULT = 1.
2001 REL = CCREL(IREG(JG)) * REL(ITYPE(JG)) * DBL(JG) * PEN(I)
2002 CONTINUE
IF(INPASS.EQ.1)86,109
86 IWEAP=0
IF(FUNC(ITYPE(JG)).EQ.3MLRA)IWEAP=1
IF(FUNC(ITYPE(JG)).EQ.3MLRA.AND.IALERT(JG).NE.1)IWEAP=2
IF(FUNC(ITYPE(JG)).EQ.4MSLRM)IWEAP=3
IF(FUNC(ITYPE(JG)).EQ.4MSLRM)IWEAP=4
IF(FUNC(ITYPE(JG)).EQ.4MSLRM)IWEAP=5
IF(FUNC(ITYPE(JG)).EQ.4MSLRM)IWEAP=6
IF(FUNC(ITYPE(JG)).EQ.4MSLRM)IWEAP=7
IF(IWEAP.EQ.0.AND.ICLAS(ITYPE(JG)).EQ.1)GO TO 107
IF(IWEAP.EQ.0.AND.ICLAS(ITYPE(JG)).EQ.2)GO TO 108
GO TO 111
107 IWEAP=4 5 IF=4MICBM 5 PRINT 112,FUNC(ITYPE(JG)),II 5 GO TO 111
108 IWEAP=1 5 IF=3MLRA 5 PRINT 112,FUNC(ITYPE(JG)),II
112 FORMAT(1M1, 32H*** UNEXPECTED FUNCTION CODE IS 1A8,39H, EVALALOC H
113 AS ASSUMED DEFAULT VALUE OF .AB/)
111 INDCLAS=CLAS(ITYPE(JG))
NALLCLAS(IWEAP,INDCLAS)=NALLCLAS(IWEAP,INDCLAS) * CTMULT*VALFAC
10NWP
NALLTYPE(IWEAP,INDTYPE)=NALLTYPE(IWEAP,INDTYPE) * CTMULT*VALFAC
10NWP
ALLTYPE(IWEAP,INDTYPE)=ALLTYPE(IWEAP,INDTYPE) * CTMULT*REL*VALFAC
10NWP
ALLCLAS(IWEAP,INDCLAS)=ALLCLAS(IWEAP,INDCLAS) * CTMULT*REL*VALFAC
10NWP
SKONPCL(IWEAP,INDCLAS)=SKONPCL(IWEAP,INDCLAS) * YIELD(JG) * CTMULT
10NWP
DELWPCL(IWEAP,INDCLAS)=DELWPCL(IWEAP,INDCLAS) * YIELD(JG) * REL *
1 CTMULT*VALFAC*10NWP
SKONPTY(IWEAP,INDTYPE)=SKONPTY(IWEAP,INDTYPE) * YIELD(JG) * CTMULT
10NWP
DELWPPTY(IWEAP,INDTYPE)=DELWPPTY(IWEAP,INDTYPE) * YIELD(JG) * REL *
1 CTMULT*VALFAC*10NWP
DELYLD=DELYLD * REL * YIELD(JG) * CTMULT*VALFAC
10NWP
PLANLYLD=PLANLYLD * YIELD(JG) * CTMULT*VALFAC
10NWP
CTMULT = SAVE
FVALTOA = 0.
DO 91 K = 1,NK
TEMP = TOA(I)/TAU(K)
IF(TEMP-2000.)356,356,357
357 TEMP=2001.
80 TO 71

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FTN5.5

11/24/71

PAGE NO. 4

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356 IF (TEMP) 256, 256, 71
71 CONTINUE
91 FVALTOA = FVALTOA + FVAL(K1)/(1. + TEMP**4.)
GO TO 121
256 FVALTOA = 1.0
121 DO 95 J = 1, M
IF (H(J)) 236, 236, 237
236 H(J) = 0.001
237 IF (YIELD(JG)) 55, 65, 238
65 PRINT 66, JG, INDEXNO
66 FORMAT (2X, 21H RAD YIELD ON GROUP NO, C16, 14H ON TOT INDEXED, I10)
CALL ABORT
RETURN
238 VARF=YIELD(JG)**(1./3.)
SK=54*(H(J)+H(J)*VARF+VARF
IF (H(J)) 81, 1, 3, 92, 93
92 FN = 3.0
GO TO 94
93 FN = 6.0
94 SIG2 = (CEP(ITYPE(JG))/1.1772)**2*(T6TRAD/2.4477)**2
SD = FN*SIG2
IF (JOPT(1)) 2003, 2004
2003 SIG = SQRT(SIG2) $ MOD = FN $ A = SQRT(2.*SK)
R2 = DIST(TGTLAT, T6TLO, BLAT(I), BLON(I))
STK = SSKPC(MOD, A, SIG, R2)
GO TO 2006
2004 CONTINUE
STK = 1.0 - (SD/(SD+SK))**FN
SSK = STK*RELT
SSS = 1.0 - SSK
CALL SSSPCALC( SSS, NRP, J)
SSK1 = SSS
VTBEF(J) = VTAF(J)*FVALTOA/FVALOLD
CUMESC(J) = CUMESC(J) + VTAF(J) - VTBEF(J)
CUMDES(J) = CUMDES(J) + VTBEF(J) * SSK
PRODS(J) = PRODS(J) * SSS
VTAF(I) = VTBEF(J) * SSS
95 CONTINUE
FVALOLD = FVALTOA
SUUVL = 0. $ SUVTIM = 0.
IF (VTO.LT.1.E-8) 130, 131
130 DO 132 ID=1, M
132 SUUVL = SUUVL + PRODS(ID)
DE(I) = 100.* (1. - SUUVL) $ TIMEVAL(I) = 0. $ GO TO 90
131 CONTINUE
DO 117 ID=1, M
SUVTIM = SUVTIM + CUMDES(ID)
SUUVL = SUUVL + PRODS(ID) * VO(ID)
DE(I) = (1. - SUUVL/VTO)*100.
TIMEVAL(I) = SUVTIM*100./VTO
90 CONTINUE
SURV = 0.
IF (VTO.LT.1.E-8) 135, 136
135 SURV = SUUVL $ VALDES = VALESC = 0. $ GO TO 140
136 CONTINUE
DO 110 J=1, M

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FTN5.5

VALDES = VALDES + CUMDES(J)
VALESC = VALESC + CUMESC(J)
110 SURV = SURV + PRODS(J)*VO(J)
140 SURV=SURV/VO
END

11/24/71

PAGE NO.

5

176000
177000
178000
179000
180000
181000

5.4TS EVALPLAN

EVALPLAN

IDENT

01407
00110
00004
01442
00346
00076
00122
17524
00013

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES
EVALPLAN
OPT
WPNMOD
T63MOD
LATLON
MIS
2
LITTLE

EXTERNAL SYMBOLS

THEND.
Q3000040
Q1004100
Q2007111
Q1010100
QAGDICT.
INITPROB
ABORT
DIST
SSRPC
SSSPCALC
SCRTF
MINIF
STM.
QNSINGL.

[illegible]

5.475 EVALPLAN

11/26/71 ED 0 PAGE NO. 9

P01040 .2003	01037				
P01067 .2004	01037				
P01101 .2006	01066				
P00202 .2200	00201				
P00750 .236	00746	00746			
P00753 .237	00747				
P00772 .238	00756				
P00312 .24					
P00317 .25	00311				
P00740 .256	00722				
P00213 .30	00212				
P00341 .3000					
P00171 .3	00162	00167			
P00345 .3001	00357	00340			
P00347 .3002	00344				
P00215 .35	00212				
P00721 .356	00715	00716			
P00717 .357					
P00156 .374	00133	00134			
P00135 .377					
P00163 .4	00237	00240			
P00243 .42					
P00236 .5					
P00241 .6					
P00143 .618	00755	00755			
P00757 .65	00720				
P00723 .71					
P00375 .86	00334	01154			
P01202 .90					
P00723 .91					
P01014 .92	01013	01013			
P01016 .93	01015				
P01020 .94					
P01125 .95					
P01316 .ERASER.	00176	00205	00254	00730	00732
	01031	01032	01047	01070	01071
	00405				
P00041 ..10000					
P00042 ..100001	C0416				
P00043 ..100002	00432				
P00044 ..100003	00444				
P00045 ..100004	00456				
P00046 ..100005	00470				
P00047 ..100006	00502				
P00050 ..100007	00535				
P00051 ..100008	00557				
P00052 ..112	00544	00566			
P00015 ..396	00140				
P00031 ..397	00150				
P00074 ..66	00762				
P01314 .NSTIFF.	00245				
	00430				
	00523				
P01057 .200001.	01053				
P01356 J	00226				
	00243	00304	00305	00743	00744
	00361	00364	00366	00402	00403
	00442	00454	00456	00466	00467
	00540	00545	00562	00567	01023
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	00243	00304	00305	00743	00744
	00361	00364	00366	00402	00403
	00442	00454	00456	00466	00467
	00540	00545	00562	00567	01023
	01054	01054	01054	01054	01054
	00226	00226	00226	00226	00226
	00243	00304	00305	00743	00744
	00361	00			

11/24/71 ED 0 PAGE NO. 10

2621

ScATS EVALPLAN

11/24/71 00 PAGE NO. 11

P01377	SSS	01104	01107	01112	01122	01124			
X00013	SSSPCALC	01105							
X00016	SYH	00136	00146	00542	00564	00760			
P01400	STK	01066	01120	01101					
C00001	SURV	00124	00124	01205	01206	01213	01234	01235	01237
		01241	01241						
P01A01	SWTIM	01133	01163	01164	01177				
P01A02	SWVL	01132	01145	01146	01151	01167	01172	01212	
C00013	YAU	00713	00713						
P01A03	TEMP	00714	00720	00721	00725				
C00074	TGFLAT	01057							
C00075	TGYLON	01057							
C00002	TOTRAD	01027	01039						
X00001	THEMO.	00143		00551	00573	00767			
C00303	TINZVAL	01154	01201						
P01A04	TINT	00260	00270						
C00003	THULT								
C00207	TOA	00711	00711						
P01A05	TOSJ	00203	00265	00266	00271				
P00270	TS00001.	00226							
P00320	TS00002.	00300							
P01203	TS00003.	00326							
P00735	TS00004.	00707							
P01124	TS00005.	00743							
P01150	TS00006.	01142							
P01172	TS00007.	01160							
P01237	TS00010.	01321							
P01254	UP00005.	01350							
P01265	UP00005.	00377	00410	00524	00536	00550	00562	00584	00596
		01267	01270	01273	01273				
P01275	UP00007.	00600	01247	01277	01300	01301	01303	01304	
C00604	VADLEC	00125	01215	01224	01224	01226	01226		
C00005	VALESC	00125	00125	01231	01230	01231			
C00012	VALFAC	00601	00607	00616	00617	00625	00626	00634	00651
		00677							
C00005	VO	00114	00114	00116	00116	01166	01233	01233	
P00007	VTAFT	00115	00117	01114	01116	01124			
P00005	VTEBF	01115	01117	01120	01123				
C00001	VTO	01133	01134	01173	01173	01200	01201	01206	01240
C00343	VTCO								
P00223	W000001.	00267							
P00303	W000002.	00317							
P00327	W000003.	01204	01204						
P00710	W000004.	00736	00736						
P00744	W000005.	01127	01127						
P01145	W000006.	01147							
P01163	W000007.	01171							
P01224	W000010.	01236							
P01A06	YARF	01004							
C01154	YELO	00633	00634	00641	00650	00656	00667	00670	00675
		01002							00754
	00371 SYM00LS								

2623

2624

11/24/71

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C      CALL RDARRAY(NDECOYS,40)
      /PAYLOAD/
C      CALL SKIP(423)
      /MPNREG/
C      CALL RDARRAY(CCREL,NREGMX)
      CALL SKIP(80)
      /MPNTYPE/
C      CALL RDARRAY(CEP,NMPTYPMX)
      CALL SKIP(320)
      CALL RDARRAY(ICLASS,NMPTYPMX)
      CALL SKIP(80)
      CALL RDARRAY(REL,NMPTYPMX)
      CALL SKIP(160)
      CALL RDARRAY(NAMEUPN,NMPTYPMX)
      CALL RDARRAY(PUNC,NMPTYPMX)
      CALL SKIP(800)
      /MPNGRP/
C      CALL RDARRAY(IRES,NGRPPIX)
      CALL RDARRAY(IITYPE,NGRPPIX)
      CALL RDARRAY(IJALET,NGRPPIX)
      CALL RDARRAY(OBL,NGRPPIX)
      CALL RDAREAY(IPAY,NGRPPIX)
      CALL RDAREAY(YIELD,NGRPPIX)
      CALL SKIP(6287)
      /EXCESS/
C      CALL RDARRAY(VOTYPE,NGRPPIX) & CALL SKIP(551)
      CALL ROWORD
      IF (ITWORD.NE.8HRRRRRRRR) 7100,7102
7100 PRINT 7104
7104 FORMAT(1H0,10X,2HWRONG POSTDATA END SENTINEL)
      STOP
7102 IF(JOBT(1))7101,7021
7101 DO 7103 I = 1,NGRPPIX
7103 OBL(I) = VOTYPE(I)
7021 CONTINUE
C      INITIALIZE ARRAYS TO ZERO
      DO 10 I=1, NTGTPMX
      NAMETYPE(I)=NOFTYPE(I)=CLASYPE(I)=VDESTYPE(I)=VOTYPE(I)=0
      VESCTYPE(I)=VRETYPE(I)=SURTYPE(I)=SKEDTYPE(I)=DELTYPE(I)=0
      DESTNO(I)=CDEST(I)=NSUMTYPE(I)=SUMTYPE(I)=0
      KTYPSNGL(I)=KTYPCOMP(I)=0
      DO 10 I=1,NMPPNS
      MPNTYP(I)=NMPTYP(I)=SKEDALL(I)=DELALL(I)=0
      SKONMPTYP(I)=IT)=DELMPTYP(I)=ALLTYPE(I)=ALLTYPE(I)=0
      DO 15 I=1, NCLSHX
      NAMECLAS(I)=NOFCLAS(I)=VOCLAS(I)=VDESCLAS(I)=VESCCLAS(I)=0
      KCLSNGL(I)=KCLSCOMP(I)=0
      VREMLAS(I)=SURVCLAS(I)=SKEDCLAS(I)=DELCLAS(I)=0
      PCDESTCL(I)=DESTNOCL(I)=NSUMCLAS(I)=SUMCLAS(I)=0
      DO 15 I=1,NMPPNS
      SKDMPCL(I)=IC)=DELMPCL(I)=IC)=ALLCLAS(I)=IC)=ALLCLAS(I)=0
      NMNTARC(J)=NMNTARC(I)=IT)=NMNTARC(I)=NMNTARC(I)=NMNTARC(I)=0
      SKEDTOT=DELTOT+VOTOT+DESTTOT+VDESTTOT+VESCCTOT+VRENTTOT+SUMVOTOT=0.
      IF (NTPYES.8T,NMPTYPMX) 1020, 1021
1020 NINDIC=6HNTYPES
      GO TO 1099

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```

1021 CONTINUE
1048 IF(JOPT(1))2048,2049
2048 ITP=SCRATCH $ MYIDENT=THSCRATCH
    CALL SETREAD
    GO TO 2050
2049 ITP=SCRATCH $ MYIDENT=THSCRATCH
    IF(INPASS-1)2051,2052
2052 CALL SETWRITE
    GO TO 2053
2051 CALL SETREAD
2053 ITP=ALOC(1)
    MYIDENT=THALOC(1)
    CALL SETREAD
2050 CALL PAGESKP
    IF(ITGTMAX)4,4,3
    3 PRINT I
    1 FORMAT(/40X,21MSAMPLE OF TARGET LIST/40X,21(1H*))
    4 CONTINUE
    IF(INPASS.EQ.1) 44,43
    43 CALL WPMODIF
    IF(JSKIP.EQ.6)RETURN:100,44
    44 ITP = ALOC(1)
    IF(JOPT(1).EQ.1)ITP=SCRATCH
    VALFAC=1.
    ICK=1H
    JSKIP=0
1350 CONTINUE
    READ ALOC(1) DATA BLOCK
    CALL RDARRAY(NT,45)
    IF(NT(2).EQ.3)EOT(1)22,45
    45 NAME=NT(1) $ INDEX=NT(2) $ NDESIG=NT(3)
    TMULT=NT(7) $ TGLAT=NT(8) $ TGLONG=NT(9) $ TGTAD=NT(10)
    VTO=NT(11) $ M=NT(12) $ N(1)=NT(13) $ N(2)=NT(14)
    VO(1)=NT(15) $ VO(2)=NT(16) $ NK=NT(17)
    FVAL(1)=NT(18) $ FVAL(2)=NT(19) $ FVAL(3)=NT(20)
    TAU(1)=NT(21) $ TAU(2)=NT(22) $ TAU(3)=NT(23)
    NCLASS=NT(24) $ NTYPE=NT(26)
    MISDEF=NT(31) $ CTMULT=NT(32) $ CMULSV=CTMULT
    NUN=NT(45)
    VTO=VTO+1.E-10
    VTCC=0
    CALL RDARRAY(IG,NUM)
    CALL RDARRAY(KORR,NUM)
    CALL RDARRAY(RVAL,NUM)
    CALL RDARRAY(PEN,NUM)
    CALL RDARRAY(TOA,NUM)
    IF(JOPT(1).EQ.0)GO TO 6200
    CALL RDARRAY(RLAT,NUM)
    CALL RDARRAY(BLON,NUM)
    6200 IF(NCLASS.EQ.7)HCOMPLEX,OR,NCLASS.EQ.8)HCOMPLEX)6201,6202
    6202 CONTINUE
    ASSIGN 455 TO NEXWD
    IF (N-2)456,456,457
    457 PRINT 496, INDEX, ICK
    496 FORMAT (2X,150N TARGET INDEX,110A1,1X,23MTOO MANY HARDNESS COMPS
    1)

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11/24/71

PTNS.5

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617 PRINT 497,NAME,M
497 FORMAT(2X,14HTARGET NAME IS,IX,AB,IX,4HM IS,016)
M=2
GO TO NEXHRD
456 CONTINUE
ASSIGN 6201 TO NEXVAL
IF(NK=3)6201,6201,377
377 PRINT 396, INDEXNO, ICK
396 FORMAT(2X,15HON TARGET INDEX,110,A1,IX,20HTOO MANY VALUE COMPS)
618 PRINT 397,NAME,NK
397 FORMAT(2X,14HTARGET NAME IS,IX,AB,IX,SHNK IS,016)
NK=3
GO TO NEXVAL
6201 CONTINUE
IF(NUM.EQ.0)1044,1045
1044 NMBRE=NMBRE+CTMULTY
1045 JTGTS=JTGTS+CTMULTY
ITGTPRT=ITGTPRT+1
IF (NUM.GT.NASGNMX) 1040, 1041
1040 NINDIC=3HNUM
NUM=0
GO TO 1199
1041 CONTINUE
IF(JOPT(1),EQ.1)GO TO 185
IF(NPASS.EQ.1)185,186
185 IF(NUM.EQ.0)2185,2186
2186 CALL ORDER(TOA,IX,NUM)
2185 IF(JOPT(1),2210,2217
2217 CALL REORDER(IX,NUM,4,TOA,IG,PEN,KORR,0,0,0)
ITP = SCRATCH
IF(INCLASS.EQ.7HCOMPLEX.OR.NCLASS.EQ.8HCOMPLEX)213,214
213 IF (NTYPE - 30) 1211, 1211, 1210
1210 PRINT 1212,INDEXNO,ICK,NAME
1212 FORMAT(//2X,4HTHERE ARE TOO MANY COMPONENTS ON TARGET NUMBER,
1110,A2,IX,7HNAMED *AB)
NTYPE=30
1211 CONTINUE
DO 215 I=1,NTYPE
ITWORD=INDEXNO
CALL WRWORD
CALL WRARRAY(TOA,NUM)
CALL WRARRAY(IG,NUM)
CALL WRARRAY(PEN,NUM)
CALL WRARRAY(KORR,NUM)
215 CONTINUE
GO TO 156
214 ITWORD=INDEXNO
CALL WRWORD
CALL WRARRAY(TOA,NUM)
CALL WRARRAY(IG,NUM)
CALL WRARRAY(PEN,NUM)
CALL WRARRAY(KORR,NUM)
GO TO 186
2210 CALL REORDER(IX,NUM,6,TOA,IG,PEN,KORR,RLAT,BLON,0)
186 IF(TMULT .LT. 2.52*51
51 ITP=BASFILE(1)

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IF(JOPT(1))2151,2152
C      WHEN EVALALOC IS RUN PRE-ALOCOUT, SKIP THE MULTIPLE TGT RECORDS
2152 IC=CTMULT $ CALL SKIP(IC) $ ASSIGN 44 TO NEXT
      GO TO 50
C      WHEN EVALALOC IS RUN POST-PLNTPLAN, READ THE MULTIPLE TGT RECORDS
2151 CALL RDARRAY(NWT,8)
      NAME=NWT(1)
      INDEXNO=NWT(2)
      NDESIG=NWT(3)
      TGLAT=NWT(7)
      TGLON=NWT(8)
      CMULSVD=CMULSVD-1
      IF(CMULSVD.LT.1.)2167,2168
2168 ASSIGN 2151 TO NEXT
      GO TO 50
2167 ASSIGN 44 TO NEXT
      GO TO 50
52 IF(INCLASS.EQ.7)HCOMPLEX.OR.NCLASS.EQ.8)HCOMPLEXD)53,54
54 ASSIGN 44 TO NEXT $ GO TO 50
53 NUNTARC=NTYPE $ VTOC=VTO $ ASSIGN 200 TO NEXT
      JSKIP=0
      ISVDD=INDEXNO
      DO 200 IC=1,NUNTARC
      ITP=8$FILE(1)
      CALL RDARRAY(NG,29)
      NAME=NC(1) $ INDC=NC(2) $ NDESIG=NC(3) $ CTMULT=C(7)
      TGLAT=C(8) $ TGLON=C(9) $ TGTTRAD=C(10)
      VTOC(1) $ H=NC(12) $ H(1)=C(13) $ H(2)=C(14)
      IF(INDC=ISVDD)277,278,277
278 IC=2M=0 $ GO TO 279
277 IC=1M=0
279 INDEXNO = INDC
      ASSIGN 621 TO NEXT
      IF(M=2) 621, 621, 457
261 FVAL(1)=VTO $ FVAL(1) $ NK=NC(16)
      ASSIGN 624 TO NEXT
      IF(NK=3) 624, 624, 377
264 FVAL(1)=C(17) $ GO TO (202,203,204)NK
202 FVAL(2)=FVAL(3)=0 $ GO TO 205
203 FVAL(2)=1.-FVAL(1) $ FVAL(3)=0 $ GO TO 205
204 FVAL(2)=C(18) $ FVAL(3)=1.-FVAL(1)-FVAL(2)
205 TAU(1)=C(19) $ TAU(2)=C(20) $ TAU(3)=C(21)
      NCLASS=NC(22) $ NTYPE=NC(24) $ VALFAC=VT/VTOC
C      NAME(1)=NAME
C      TLN(1)=TGLAT
C      TLN(1)=TGLON
C      IF(JOPT(2))7200,7201
C7200 NUMX=NUM
C      CALL PLOT
C7201 CONTINUE
      GO TO 50
200 JSKIP=1
      NUNTARC=0
      GO TO 44
50 IF(NPASS.EQ.1)1215,1216

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2629

11/26/71

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M2 = TST1
M3 = 60.*(TST1-M2)
NLTD(I) = M1
NLTM(I) = M2
NLTS(I) = M3
M1 = BLON(I)
TST1 = 60.*(BLON(I)-M1)
M2 = TST1
M3 = 60.*(TST1-M2)
NLND(I) = M1
NLNM(I) = M2
NLNS(I) = M3
J = IG(I)
YY(I) = 1009.*YIELD(J)
3347 CONTINUE
3349 CONTINUE
72 FORMAT(/,3X,5HCLASS,5X,4HNTYPE,5X,4HNAME,9X,8HLATITUDE,3X,9HLONGITU
1DE,5X,6HTARGET,6X,36HVALUE INDEXNO VALUE OF TBT NO MULT/33X,
22(12H DEG MIN SEC),5X,4HCODE,24X,7HCOMPLEX)
MULT=CTMULT+.3
PRINT 67,KCLASS, NTTYPE,NAME,NTGLTD,NTGLTM,NTGLTS,NTGLND,NTGLNM,NTG
1LMS,NDESG,VTO,INDEXNO,ICK,VTOC,NT(44),MULT
67 FORMAT(3X,3(A6,2X),614,4X,A7,F10.4,I8,A2,F10.4,I7,I5)
IF (NUM.EQ.0) GO TO K9ADPRNT
PRINT 58
58 FORMAT(/,7X,6HNUMBER,5X,5HGROUP,2X,8HCORRIDOR,7X,3HPTP,3X,7HARRIVAL
1,2X,8HREAL EST,5X,5HVALUE,2X,8HLATITUDE,3X,9HLONGITUDE,7X,5HYIELD/
21X,2(4X,8HNUMBER),15X,5HTIMES,2(2X,8HDESTROYED),2(4X DEG,4H MIN,4H
3 SEC),2X,8HKILOTONS)
PRINT 69,I,I,IG(I),KORR(I),TOA(I),DE(I),TIMEVAL(I),NLTD(I),
1NLTM(I),NLTS(I),NLND(I),NLNM(I),NLNS(I),YY(I),Z,I,NUM)
69 FORMAT(2X,3I10,4F10.4,614,F16.2)
GO TO NBADPRNT
75 CONTINUE
IF (NUM.EQ.0) 700, 701
700 SURV= 1.0 $ VALDES=VALESC=PLANLYD=DELYD=0.
701 SAVE = CTMULT
2220 CTMULT = 1.
2221 CONTINUE
SURVTYPE(INDTYPE) = (SURVTYPE(INDTYPE)+(NOTYPE(INDTYPE)=CTMULT)
1+SURV*CTMULT)/NOTYPE(INDTYPE)
VDESTYPE(INDTYPE)=VDESTYPE(INDTYPE)+VALDES*CTMULT
VSCSTYPE(INDTYPE)=VSCSTYPE(INDTYPE)+VALESC*CTMULT
VHEMTYPE(INDTYPE)=VHEMTYPE(INDTYPE)+VTO*VALESC*VALESC*CTMULT
DESTNO(INDTYPE)=DESTNO(INDTYPE)+CTMULT*(1-SURV)*VTO
116 SKEDTYPE(INDTYPE)=SKEDTYPE(INDTYPE)+PLANLYD
DELYTE(INDTYPE)=DELYTE(INDTYPE)+DELYD
120 CTMULT =SAVE $ GO TO NEXT
122 IF(JOPT(I).EQ.1) GO TO 123
123 CALL TERMTAPE
CALL TERMTAPE
ITP=SCRATCH
CALL TERMTAPE
KKK =JTOTS-NMSRE

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11/26/71

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PRINT 777, JTOTS, KKK, NMBRE
777 FORMAT (//20X, 30(1H+), 5X, 9HTHERE ARE, 16, 17H TARGETS OF WHICH, 16, 25H
1 ARE ASSIGNED WEAPONS AND, 16, 15H ARE LEFT ALONE)
CALL PAGESKP
LNO=0
PRINT 130
LNO=LNO+2
130 FORMAT (/47X, 26HTARGET DESTRUCTION SUMMARY)
LNO=LNO+3
131 FORMAT (/26X, 49H1-----REAL ESTATE (NTS)-----I,
12X, 27HPERCENT OF QUICK VALUE (TS), 3X, 6HTARGET, 6X,
26HNO. OF 5X, 5HTOTAL, 5X, 5HVALUE, 6X, 7HPERCENT, 3X, 7HPERCENT, 3X,
3THOSTRYED, 3X, 7HESCAPED, 3X, 7HREMAINING, 2X, 8HMEGATONS, 3X, 8HMEGATONS,
43X, 5HCLASS, 6X, 4HTYPE, 7X, 7HTARGETS, 1X, 11HORTGNL VLUE, 1X,
5THOSTRYED, 3X, 7HDSYRED, 3X, 7HDSURVING, 32X, 8HSC DULED, 3X, 8HDELIVERD)
DO 140 L = 1, NUNTYPE
PCDEST(L) = 100. * DESTNO(L) / VOTYPE(L)
SURVTYPE(L) = 1. * PCDEST(L) / 100.
K=CLAS(TYPE(L))
NOFCLAS(K) = NOFCLAS(K) + NO(TYPE(L))
VOCLAS(K) = VOCLAS(K) + VOTYPE(L)
VDESCLAS(K) = VDESCLAS(K) + VDESTTYPE(L)
VESCLAS(K) = VESCLAS(K) + VESCTYPE(L)
VREMCLAS(K) = VREMCLAS(K) + VRENTYPE(L)
SKEDCLAS(K) = SKEDCLAS(K) + SKEDTYPE(L)
DELCCLAS(K) = DELCCLAS(K) + DELTYPE(L)
DESTNOCL(K) = DESTNOCL(K) + DESTNO(L)
KCLSNBL(K) = KCLSNBL(K) + KT/PSNBL(L)
KCLSCOMP(K) = KCLSCOMP(K) + KTYPCOMP(L)
140 CONTINUE
DO 160 K = 1, NUMCLAS
FOEST = 100. * VDESCLAS(K) / VOCLAS(K)
FESC = 100. * VESCLAS(K) / VOCLAS(K)
FREM = 100. * VREMCLAS(K) / VOCLAS(K)
IF (VOCLAS(K).LT.1.E-8) 3011, 3012
3011 FOEST=FESC=FREM=0.
3012 CONTINUE
PCDESTCL(K) = 100. * PCDESTNOCL(K) / VOCLAS(K)
SURVCLAS(K) = 100. * PCDESTCL(K)
PRINT 142, NAMECLAS(K), NOFCLAS(K), VOCLAS(K), DESTNOCL(K),
1PCDESTCL(K), SURVCLAS(K), FDEST, FESC, FREM, SKEDCLAS(K), DELCCLAS(K)
LNO=LNO+3
IF (LNO=56) 217, 218, 219
218 LNO=6 SCALL PAGESKP
PRINT 131 $ LNO=LNO+3
217 CONTINUE
142 FORMAT (/2X, 48, 2X, 3HALL, 6X, 18, 2X, 9(F10.2))
DO 156 LL=1, NUNTYPE
IF (CLAS(TYPE(LL)).EQ.K) 144, 156
144 FOEST = 100. * VDESTTYPE(LL) / VOTYPE(LL)
FESC = 100. * VESCTYPE(LL) / VOTYPE(LL)
FREM = 100. * VRENTYPE(LL) / VOTYPE(LL)
IF (VOTYPE(LL).LT.1.E-8) 3015, 3016
3015 FOEST=FESC=FREM=0.
3016 CONTINUE

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SURVTYPE(ILL) = 100.0 * SURVTYPE(ILL)
PRINT 145, NAME TYPE(ILL), NOFTYPE(ILL), VOTYPE(ILL), DESTNO(ILL),
1PCDEST(ILL), SURVTYPE(ILL), FDEST, FESC, FREM, SKEDTYPE(ILL), DELTYPE(ILL),
LNOLNO=2
IF (LNO=56) 219, 220, 222
220 LNO=0 SCALL PAGESKP
PRINT 131 $ LNO=LNO+3
219 CONTINUE
145 FORMAT (/12X, A1, 1X, I8, 2X, 9(F10.2))
156 CONTINUE
VOTOT = VOTOT + VOCLAS(K)
NOFTOT = NOFTOT + NOFCLAS(K)
VDESTOT = VDESTOT + VDESCLAS(K)
VESCOTOT = VESCOTOT + VESCCLAS(K)
VREMTOT = VREMTOT + VREMCLAS(K)
SURVTOT = SURVTOT + SURVCLAS(K)
DELTOT = DELTOT + DELCLAS(K)
SKEDTOT = SKEDTOT + SKEDCLAS(K)
DESTOT = DESTOT + DESTNOCL(K)
160 CONTINUE
FDEST = 100.0 * VDESTOT / VOTOT
FESC = 100.0 * VESCOTOT / VOTOT
FREM = 100.0 * VREMTOT / VOTOT
PCDESTOT = 100.0 * DESTOT / VOTOT
SURVTOT = 100.0 * PCDESTOT
PRINT 161, NOFTOT, VOTOT, DESTOT, PCDESTOT, SURVTOT, FDEST, FESC, FREM,
1SKEDTOT, DELTOT
161 FORMAT (22X, 9(2X, 8H-----), 3X, 8H-----/5X, 6HTOTALS, 10X,
119.2X, 9(F10.2))
IF (NPASS.EQ.1) 164, 182
164 CONTINUE
CALL PAGESKP
LNO=0
PRINT 165
165 FORMAT (/38X, 29HSCHEDULE OF WEAPONS ALLOCATED, /38X, 29(1H*))
LNOLNO=4
PRINT 501 $ LNO=LNO+4
500 FORMAT (/215X, 6HTARGET, 1X, 4X, 6HNUMBER, 5X, 5HALERT, 1X, 9HNON-ALERT,
16X, 4HSLPM, 6X, 4HICBM, 5X, 3HTAC, 8X, 4HMRBM, 6X, 4HIRBM, 4X, 6HHEAPON/6X,
25HCLASS, 7X, 4HTYPE, 16X, 3HLRA, 6X, 3HLRA, 26X, 7HROMBERS, 25X, 6HTOTALS)
399 FORMAT (/215X, 6HTARGET, 1X, 4X, 6HNUMBER, 6X, 5HALERT, 4X, 9HNON-ALERT,
16X, 4HSLPM, 8X, 4HICBM, 7X, 3HTAC, 10X, 4HMRBM, 6X, 4HIRBM,
26X, 5HCLASS, 7X, 4HTYPE, 20X, 3HLRA, 6X, 3HLRA, 32X, 7HROMBERS)
NTOTC=NTOTS=0
DO 175 IK=1, NUMCLAS
NTOTC=NTOTC+KCLSCOMP(IK) SNTOTS=SNTOTS+KCLSNGL(IK)
DO 410 IWP=1, NOWPNS
410 NSUMCLAS(IK)=NSUMCLAS(IK)+NALLCLAS(IWP, IK)
PRINT 169, NAMECLAS(IK), NOFCLAS(IK), KCLSNGL(IK), KCLSCOMP(IK),
1NALLCLAS(IW, IK), IW=1, NOWPNS), NSUMCLAS(IK)
LNOLNO=3
IF (LNO=56) 221, 222, 222
222 LNO=0 SCALL PAGESKP
PRINT 501 $ LNO=LNO+4
221 CONTINUE
169 FORMAT (/1X, A9, 2X, 3HALL, 7X, 318.8F9.2)

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DO 173 IL=1,NUMTYPE
  IF (CLAS(TL),EQ,IK) 170,173
170 DO 411 IWP=1,NOMPNS
411 NSUMTYPE(IL)=NSUMTYPE(IL)+NALLTYPE(IWP,IL)
  PRINT 171,NAME(TL),NOFTYPE(IL),KTPSNGL(IL),KTPCOMP(TL), (NALL
    TYPE(IL),IWP=1,NOMPNS),NSUMTYPE(IL)
  LNO=LNO+1
  IF (LNO=56) 223,223,224
224 LNO=0 $CALL PAGESKP
  PRINT 501 $ LNO=LNO+4
223 CONTINUE
171 FORMAT(11X,A9,2X,310,8F9.2)
173 CONTINUE
175 CONTINUE
  IWPNS=0
501 FORMAT(//1X,2(4X,6HTARGET),3X,5HTOTAL,1X,15HNUMBER ATTACKED,4X,5HA
  ILERT,1X,6HNONALERT,5X,4HSLSB,5X,4HICBM,1X,6HTACTICAL,5X,4HMRBM,
  2X,4HIRB,2X,6HWEAPON/6X,5HCLASS,6X,4HTYPE,2X,6HNUMBER,3X,5HSLONE,
  31X,7HCOMPLEX,2(6X,3MLRA),20X,7HROMBERS,21X,6HTOTALS)
  DO 176 IK=1,NUMCLAS
  NWPNTYP(IW)=NWPNTYP(IW)+NALLCLAS(IW,IK)
  IWPNS=IWPNS+NWPNTYP(IW)
176 CONTINUE
178 CONTINUE
177 FORMAT(15X,6HTOTALS,6X,2(2X,6H-----),8(2X,7H-----)/29X,210,
  18F9.2)
  CALL PAGESKP
  LNO=0
  PRINT 565
565 FORMAT(//30X,20HSCHEDULE OF WEAPONS DELIVERED,/30X,29(1H*))
  LNO=LNO+4
  PRINT 500
  LNO=LNO+4
  DO 575 IK=1,NUMCLAS
  DO 510 IWP=1,NOMPNS
510 SUMCLAS(IK)=SUMCLAS(IK)+ALLCLAS(IWP,IK)
  PRINT 569,NAMECLAS(IK),NOFTCLAS(IK), (ALLCLAS(IW,IK),IWP=1,NOMPNS),
    1SUMCLAS(IK)
  LNO=LNO+3
  IF (LNO=56) 225,225,226
226 LNO=0 $CALL PAGESKP
  PRINT 500 $ LNO=LNO+4
225 CONTINUE
569 FORMAT(//4X,A8,5X,3HALL,4X,110,8F10.2)
  DO 573 IL=1,NUMTYPE
  IF (CLAS(TL),EQ,IK) 570,573
570 DO 511 IWP=1,NOMPNS
511 SUMTYPE(IL)=SUMTYPE(IL)+ALLTYPE(IWP,IL)
  PRINT 571,NAME(TL),NOFTYPE(IL), (ALLTYPE(IW,IL),IWP=1,NOMPNS),
    1SUMTYPE(IL)
  LNO=LNO+1
  IF (LNO=56) 227,227,228
228 LNO=0 $CALL PAGESKP
  PRINT 500 $ LNO=LNO+4

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227 CONTINUE
571 FORMAT(16X,A8,I10,8F10.2)
573 CONTINUE
575 CONTINUE
      WPNS=0
      DO 576 IW=1,NOWPNS
        WPNTYP(IW)=WPNTYP(IW)+ALLCLAS(IW,IK)
576 CONTINUE
      WPNS=WPNS+WPNTYP(IW)
578 CONTINUE
577 PRINT 577,(WPNTYP(IW),IW=1,NOWPNS),WPNS
577 FORMAT(34X,6(4X,6H-----),/10X,18HWEAPON TYPE TOTALS,6X,8F10.2)
      CALL PAGESKP
      PRINT 485
485 FORMAT(10X,40HALLOWABLE WEAPON TYPE NAMES FOR WPWMODIF)
      PRINT 486,(NAMEWP(I),I=1,NTYPES)
486 FORMAT(10(2X,A8))
      CALL PAGESKP
      LNO=0
250 FORMAT(/,/41X,21HSCHEDULED MEGATONNAGE,/41X,25(1H*))
      LNO=LNO+4
      LNO=LNO+4
      DO 270 IW=1,NUMCLAS
        PRINT 251,NAMECLAS(IK),NOFCLAS(IK),(SKOWPCL(IW,IK),IW=1,NOWPNS)
        LNO=LNO+3
        IF(LNO=56)229,229,230
230 LNO=0 SCALL PAGESKP
      PRINT 399 $ LNO=LNO+4
229 CONTINUE
251 FORMAT(/,/4X,A8,5X,3HALL,4X,I11,7F12.2)
      DO 268 IL=1,NUMTYPE
        IF(ILASTYPE(IL),EQ,IK)256,268
256 PRINT 257,NAMEYPE(IL),NOFTYPE(IL),(SKOWPTYP(IW,IL),IW=1,NOWPNS)
        LNO=LNO+1
        IF(LNO=56)231,231,232
232 LNO=0 SCALL PAGESKP
      PRINT 399 $ LNO=LNO+4
231 CONTINUE
257 FORMAT(16X,A8,I11,7F12.2)
268 CONTINUE
270 CONTINUE
      DO 272 IW=1,NOWPNS
        DO 272 IK=1,NUMCLAS
          SKEDALL(IW)=SKEDALL(IW)+SKOWPCL(IW,IK)
272 CONTINUE
      PRINT 273,(SKEDALL(IW),IW=1,NOWPNS)
273 FORMAT(35X,7(6X,6H-----),/10X,18HMEGATONNAGE TOTALS,7X,7F12.2)
      CALL PAGESKP
      LNO=0
      PRINT 290
      LNO=LNO+2
290 FORMAT(/,/41X,21HDELIVERED MEGATONNAGE,/41X,21(1H*))

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```

PRINT 399
LNO=LNO+1
LNO=LNO+3
DO 370 IK=1,NUMCLAS
PRINT 351,NAMECLAS(IK),NOFCLAS(IK), (DELWPCL(IW,IK),IW=1,NOMPNS)
LNO=LNO+3
IF (LNO-56) 233,233,234
234 LNO=0 SCALL PAGESKP
PRINT 399 $ LNO=LNO+4
233 CONTINUE
351 FORMAT(//4X,A8,5X,3HALL,4X,I11,7F12.2)
DO 368 IL=1,NUMTYPE
IF (CLASTYPE(IL).EQ.IK) 356,368
356 PRINT 357,NAMETYPE(IL),NOFTYPE(IL), (DELPPTY(IW,IL),IW=1,NOMPNS)
LNO=LNO+1
IF (LNO-56) 235,235,236
236 LNO=0 SCALL PAGESKP
PRINT 399 $ LNO=LNO+4
235 CONTINUE
357 FORMAT(16X,A8,I11,7F12.2)
368 CONTINUE
370 CONTINUE
DO 372 IW=1,NOMPNS
DO 372 IK=1,NUMCLAS
DELALL(IW)=DELALL(IW)+DELWPCL(IW,IK)
372 CONTINUE
PRINT 373, (DELALL(IW),IW=1,NOMPNS)
373 FORMAT(35X,7(6X,6H-----),/10X,18HWEIGHT TONNAGE TOTALS,7X,7F12.2)
GO TO 182
1099 PRINT 1101,NINDIC
1101 FORMAT(//2X,18H THERE ARE TOO MANY,2X,A8)
GO TO 180
1199 PRINT 1201,NINDIC,INDEXNO,NAME
ASSIGN 180 TO NBRADPRINT
1201 FORMAT(//2X,18H WE HAVE OVERFLOWED,2X,A8,2X,16H ON TARGET NUMBER,110
1,2X,5H NAMED,2X,A8)
GO TO 66
182 NPASS=NPASS+1
ITGTINDX =0
GO TO 5
180 END

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5.4TS

EVAL2

11/24/71

ED

0

PAGE NO.

14

IDENT EVAL2

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

EVAL2	IDENT	EVAL2
FILAREL	06354	
ITP	02171	
MYIDENT	00014	
MYLAREL	00001	
NOPRINT	00010	
TWORN	00301	
FILES	00001	
ORT	00020	
WPNMOD	00004	
TGTMOD	01442	
LAYLON	00346	
LITTLE	00074	
MIS	00013	
PLOT	00122	
	00076	
	27026	

EXTERNAL SYMBOLS
2

THEND.
Q80STOPS
Q3000040
Q1010100
Q1003100
Q1005100
Q80DICT.
SETREAD
SKIP
RDARRAY
RDRORD
SETWRITE
PAGESKP
WPNMODIF
ORDER
REORDER
WRWORD
WRARRAY
TGTMOOIF
ITL
EVALPLAN
TERMTAPE
STM.
ONSINGL.

S.ATS

EVAL2

11/26/71

EO 0

PAGE NO.

15

C16766 ALLCLAS
C12144 ALLTYPE
C00012 ALOCGRP
C00006 ALOCTAR
C00002 BASFILE
P06207 BEGIN.
C00000 BLAT
C00035 BLON
P00450 C

C00000 CCREL
C00061 CEP
C01464 CLASTYPE

P06250 CMULSYD
P06061 CNVRT1.

P06251 COUNT.

P00505 CRFMT.

C00006 CTMULIT

C01131 DBL
C00245 DE
C21111 DELALL
C20344 DELCLAS
P06252 DELTOT
C20220 DELTYPE
C10230 DELWACL
C07354 DELWPTYP
C00010 DELYLD
C20530 DFSTMO
C20426 DESTMOCL
P06253 DESTOT
P00001 DICT.

02457	02460	05072	05111	05111	05263				
02417	02420	05165	05204	05204					
02534	02534	02564	02564	03301	03301	04143			
02210	02211	03213	03213						
06210									
02716	03205	03657	03657						
02721	03206	03702	03702						
03311	03313	03315	03317	03321	03325	03327	03363	03400	03495
03407	03411								
02240									
02246									
02373	02373	03467	04224	04345	04345	04657	04657	05151	05151
05452	05452	05677	05677						
02663	03246	03247							
02740	02742	02752	02754	02774	02776	03006	03116	03120	03121
03743	03745	03747	03750	03751	03752	03753	03754	03755	03760
03761	03763	03765	03767	03770	04015	04017	04020	04021	04022
04024	04026	04027	04030	04031	04032	04033	04034	04061	04062
04303	04304	04305	04306	04307	04310	04312	04313	04314	04317
04377	04400	04401	04402	04403	04404	04406	04407	04410	04412
04511	04512	04513	04514	04515	04516	04517	04520	04521	04522
04607	04610	04611	04620	04627	04703	04704	04705	04706	04724
05012	05013	05021	05027	05132	05132	05132	05175	05175	05205
05214	05307	05315	05342	05406	05416	05463	05464	05473	05565
05633	05634	05643	05710	05711	05720	06012	06027	06040	06044
02356	02357	02411	02413	02455	02456	03655	03656	04214	04372
04574	04667	04671	04676	04771	05066	05070	05161	05163	05261
05541	05543	05766	05770						
02345	02554	02745	02757	03001	03013	03124	03733	03773	04042
04166	04202	04212	04342	04436	04525	04541	04553	04553	04747
04760	05032	05044	05144	05237	05320	05330	05351	05363	05322
05574	05611	05672	05747	06021	06032	06051			
02662	02662	03025	03025	03034	03034	03221	03221	03312	03470
03470	03476	03476	03504	03504	03510	03510	03526	03537	03537
03543	03543	03733	03733	04054	04054	04062	04062	04070	04074
04102	04105	04111	04115	04131	04131				
02312	02361	02361							
04023									
02415	02415	05771	05771	05772	06011	06011			
02414	02437	04240	04317	04461	04461				
02443	04460	04462	04522						
02500	04460	04462	04522						
02375	04125	04126	04127	04240	04413				
02461	05642	05642	05772						
02421	05717	05717							
04051	04125	04126							
02402	04117	04117	04120	04217	04217	04241	04402		
02447	04241	04242	04272	04273	04306	04466			
02477	04465	04467	04501	04513					
02173	02216	02220	02223	02226	02231	02234	02237	02242	02245
02253	02256	02261	02264	02267	02272	02275	02300	02303	02306
02314	02317	02322	02325	02330	02330	02347	02347	02347	02350
02533	02541	02543	02550	02553	02550	02551	02572	02575	02580
02706	02715	02720	02735	02744	02747	02756	02771	03000	03012

5.ATS EVAL2

11/24/71 ED 0 PAGE NO. 16

P06211	ENDING.	03063	03072	03113	03123	03135	03137	03142	03145	03150	03162	03164
P02171	EVAL2	03167	03172	03175	03201	03226	03234	03304	03435	03437	03452	03573
X0C025	EVALPLAN	03601	03604	03741	03772	04002	04005	04010	04041	04142	04146	04152
C00016	EVENTAPE	04157	04165	04167	04174	04177	04204	04207	04301	04321	04331	04334
P00000	EXIT.	04337	04375	04415	04425	04430	04433	04507	04524	04530	04535	04540
P06254	FDEST	04545	04550	04602	04631	04641	04644	04647	04677	04726	04736	04741
P00505	FORMAT.	04744	05007	05031	05033	05040	05043	05050	05053	05076	05123	05133
P06256	FREM	05136	05141	05171	05216	05226	05231	05234	05277	05317	05321	05324
C00501	FUNC	05327	05332	05350	05352	05357	05362	05367	05372	05402	05424	05434
C00010	FVAL	05437	05442	05457	05501	05511	05514	05517	05555	05573	05575	05582
P06257	FVALM1	05604	05613	05616	05627	05651	05661	05664	05667	05704	05726	05736
P02345	G000000.	05741	05744	06002	06020	06024	06031	06035				
P02554	G000001.	06212	06217	06056	06207	06210						
P02745	G000002.	06254	06257									
P02757	G000003.	06257	06261	04311	04353	04367	04405	04474	04516	02575	02603	02722
P03001	G000004.	06267	06267	04314	04361	04366	04410	04500	04520	03564		
P03013	G000005.	06273	06273	04311	04353	04367	04405	04474	04516			
P03124	G000006.	06275	06275	04313	04356	04366	04407	04476	04517			
P03605	G000007.	06275	06275	04334	04505	04514	04523	04536	04551			
P03773	G000010.	06275	06275	04336	04533	04536	04515	04550	04570			
P04006	G000011.	06275	06275	04361	04561	04561	04561	04561	04561			
P04042	G000012.	06275	06275	04361	04561	04561	04561	04561	04561			
P04166	G000013.	06275	06275	04361	04561	04561	04561	04561	04561			
P04200	G000014.	06275	06275	04361	04561	04561	04561	04561	04561			
P04210	G000015.	06275	06275	04361	04561	04561	04561	04561	04561			
P04322	G000016.	06275	06275	04361	04561	04561	04561	04561	04561			
P04340	G000017.	06275	06275	04361	04561	04561	04561	04561	04561			
P04416	G000020.	06275	06275	04361	04561	04561	04561	04561	04561			
P04434	G000021.	06275	06275	04361	04561	04561	04561	04561	04561			
P04525	G000022.	06275	06275	04361	04561	04561	04561	04561	04561			
P04541	G000023.	06275	06275	04361	04561	04561	04561	04561	04561			
P04551	G000024.	06275	06275	04361	04561	04561	04561	04561	04561			
P04632	G000025.	06275	06275	04361	04561	04561	04561	04561	04561			
P04650	G000026.	06275	06275	04361	04561	04561	04561	04561	04561			
P04727	G000027.	06275	06275	04361	04561	04561	04561	04561	04561			
P04745	G000030.	06275	06275	04361	04561	04561	04561	04561	04561			
P05032	G000031.	06275	06275	04361	04561	04561	04561	04561	04561			
P05044	G000032.	06275	06275	04361	04561	04561	04561	04561	04561			
P05054	G000033.	06275	06275	04361	04561	04561	04561	04561	04561			

5.4TS

EVAL2

11/24/71

ED 0

PAGE NO.

-18

C00342	INDTYPE	03442	03442	03446	03447	03466	03477	03477	03521	03521
C00003	INFORM	03532	03532	03544	03552	03552	04063	04121	04121	04121
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P06207	INITIAL.									
C00006	INLNTH									
C00001	INRUNNO									
C00004	INSECR									
C00005	INTIME									
C00644	IPAY									
C00024	IREG									
P06267	ISVDD									
P06270	IT									
C00344	ITGTINDX									
C00001	ITGTMAX									
P06271	ITGTPT									
P06272	ITGTPT									
X00024	ITLF									
C00000	ITP									
C00000	ITVORO									
C00621	ITYPE									
P06273	IW									
P06274	IWP									
P06057	IWENS									
P00325	IX									
P02417	.10									
P02571	.100001									
P02573	.100002									
P02713	.100003									
P02714	.100004									
P03054	.100005									
P03055	.100006									
P03775	.100007									
P04000	.100008									
P04140	.100009									
P04141	.100010									
P02505	.1020									
P02507	.1021									
P03045	.1040									
P03051	.1041									
P03021	.1044									
P03030	.1045									
P03556	.1060									
P03560	.1061									
P03564	.1070									
P03566	.1071									
P03550	.1080									
P03552	.1081									
P06022	.1099									

S.ATS

EVAL2

11/24/71

ED

0

PAGE NO.

19

P04121 .116	03050	03551	03557	03565
P04133 .1199				
P04130 .120				
P03111 .1210				
P03126 .1211	03107	03110		
P03436 .1215	03433			
P03434 .1216	03432			
P04135 .122	02605			
P04143 .123	04140			
P02600 .1350				
P04246 .140				
P04350 .144				
P02457 .15	04347			
P04436 .156				
P04470 .160				
P04527 .164				
P04662 .170				
P04747 .173	04661			
P04753 .175				
P04774 .176				
P05001 .178				
P04056 .180	02563	06032	06047	
P06052 .182	04526	06021		
P03057 .185	03054			
P03207 .186	03056	03156	03177	
P03574 .187	03571			
P03421 .200	03270			
P03371 .202	03367			
P03374 .203	03367			
P03400 .204	03370			
P02512 .2048	02511			
P02521 .2049	02511			
P02542 .2050	02520			
P03405 .205	03373	03377		
P02532 .2051	02526			
P02527 .2052				
P02534 .2053	02531			
P03475 .2080	03474			
P03477 .2081	03103			
P03106 .213	03105			
P03157 .214				
P03152 .215	03217	03252		
P03233 .2151				
P03220 .2152				
P03254 .2167	03251			
P03252 .2168	03250	03251		
P04342 .217	04325			
P04326 .218	04324			
P03066 .2185	03061			
P03062 .2186	03060			
P04436 .219	04421			
P04422 .220	04420			
P03200 .2210	03070			
P04652 .221	04634	04635		

5.4TS

EVAL2

11/24/71

EO

0

PAGE NO.

20

P03071	.2217				
P04061	.2220	04060			
P04063	.2221	04060			
P04747	.223	04731	04732		
P04733	.224				
P05144	.225	05126	05127		
P05130	.226				
P05237	.227	05221	05222		
P05223	.228				
P05445	.229	05427	05430		
P05431	.230				
P05522	.231	05504	05505		
P05506	.232				
P05672	.233	05654	05655		
P05856	.234				
P05747	.235	05731	05732		
P05733	.236				
P05855	.256	05454			
P05522	.268				
P05526	.270				
P05546	.272				
P03336	.277	03333	03333		
P03334	.278	03332			
P03340	.279	03335			
P02546	.3				
P04286	.3011				
P04271	.3012	04265	04265		
P04365	.3015				
P04370	.3016	04364	04364		
P03732	.3347				
P03651	.3348				
P03733	.3344	03650			
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P05747	.368	05701			
P05753	.370				
P05773	.372				
P02767	.377	03362			
P02554	.4	02545	02545		
P04575	.410				
P04672	.411				
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P02564	.44	02556			
P02606	.45	02604			
P02763	.456	02727	02732	02732	
P02733	.457	03346			
P03431	.50	03232	03253	03255	03420
P02207	.5	06055			
P03213	.51	03211	03211		
P05071	.510				
P05164	.511				
P03256	.52	03212			
P03515	.525	03514			
P03521	.527	03516			

S-4TS

EVAL2

11/24/71

ED 0

PAGE NO.

21

P03532 .528 03520
P03542 .529 03514
P03265 .53 03257
P03263 .54 03261
P05154 .570 05153
P05237 .573
P05243 .575
P05264 .576
P05271 .576
P02745 .617
P03001 .618
P02722 .6200
P03017 .6201
P02727 .6202
P03347 .621
P03363 .624
P03577 .66
P04047 .700
P04054 .701
P02363 .7021
P02337 .7100
P02353 .7101
P02350 .7102
P02360 .7103
P04045 .75
P03444 .77
P03457 .78
P03465 .79
P03470 .80
P03572 .85
P06213 .ERASER.
P05505 ..100000
P05526 ..1
P00506 ..100001
P00507 ..100002
P00522 ..100003
P00523 ..100004
P00524 ..100005
P00525 ..100006
P00544 ..100007
P00545 ..100008
P00546 ..100009
P00547 ..100010
P00550 ..100011
P00633 ..100012
P00634 ..100013
P00635 ..100014
P00657 ..100015
P00660 ..100016
P00661 ..100017
P00662 ..100018
P00663 ..100019
P00664 ..100020
P00665 ..100021

03520
03514
03257
03261
05153

02713
02723
02725
03342
03356
06051

02726
02763
03345
03361
03361

02766
02766

03576
03576

04075

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P00667	..100023	03564
P02133	..1101	06025
P02145	..1201	06036
P00636	..1212	03114
P01121	..130	04175
P01132	..131	04205
P01256	..142	04302
P01274	..145	04376
P01307	..161	04510
P01334	..165	04536
P01525	..169	04603
P01540	..171	04700
P01652	..177	05010
P01775	..250	05360
P02013	..251	05303
P02026	..257	05460
P02034	..273	05556
P02054	..290	05603
P02072	..351	05630
P02105	..357	05705
P02113	..373	06003
P00602	..396	02772
P00617	..397	03004
P01443	..399	05370
P01756	..485	05325
P01767	..486	05333
P00551	..496	02736
P00566	..497	02750
P00593	..500	05051
P01547	..501	04546
P01676	..565	05041
P01715	..569	05077
P01730	..571	05172
P01736	..577	05300
P00762	..58	04003
P00742	..67	03742
P01056	..69	04011
P00510	..7104	02342
P00670	..72	03602
P01065	..777	04160
P06275	J	03726
G00003	J0PT	02351
C00003	JSKIP	02561
P06276	JT6TS	02472
P06277	K	04225
C21020	KCLSCOMP	02442
C20736	KCLSNGL	02442
P66300	KKK	04154
C00095	KORR	02676
C26500	KTYPCOMP	02403
C26170	KTYPSNGL	02403
P06301	L	04212
P06302	LL	04343

0.335 04431

05440 05515 05614 05665 05742

05137	05232
04645	06742

03727	02567	02711	03052	03067	03216	03473	04057	04136
02510	02577	02577	03272	03273	03421	03422	03647	03647
02561	02577	04153	04161					
03030	03036	04252	04272	04346	04441	04470		
04225	04250	04561	04562	04611				
04244	04245	04561	04562	04610				
04242	04243	04564	04564					
04162								
03076	03151	03176	03205	04320				
03522	03522	03930	03930	04244	04706			
03533	03533	03541	03541	04543	04705			
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04344	04351	04371	04436					

S.ATS EVAL2

ED 0 PAGE NO. 24

11/24/71

C00000	NOPRINT	04227	04400	04704	05176	05464	05711	04370	04570	04623	04665
C00011	NOPRNS	02204	02204	02407	02407	02453	02453	05024	05064	05115	05115
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		05157	05157	05210	05210	05273	05273	05446	05446	05776	05776
		05476	05551	05551	05570	05570	05570				
		06015	06015	06015	06015	06015	06015				
C01441	NPASS	04525	04525	04525	04525	04525	04525	03055	03055	03431	03431
		02201	02240	02446	02446	02446	02446				
P06325	NREOMX	02401	02401	02401	02401	02401	02401				
C20572	NSUMCLAS	02402	02402	02402	02402	02402	02402				
C25350	NSUMTYPE	02402	02402	02402	02402	02402	02402				
P00363	NT	03766	03766	03766	03766	03766	03766				
P06326	NTGLND	03631	03631	03631	03631	03631	03631				
P06327	NTGLNW	03640	03640	03640	03640	03640	03640				
P06330	NTGLNS	03646	03646	03646	03646	03646	03646				
P06331	NTGLTO	03611	03611	03611	03611	03611	03611				
P06332	NTGLTM	03620	03620	03620	03620	03620	03620				
P06333	NTGLTS	03626	03626	03626	03626	03626	03626				
P06334	NTGLTPHX	02176	02176	02176	02176	02176	02176				
P06335	NTOTC	04554	04554	04554	04554	04554	04554				
P06336	NTOTS	04553	04553	04553	04553	04553	04553				
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P06337	NUMCLAS	03041	03041	03041	03041	03041	03041				
		03151	03151	03151	03151	03151	03151				
		03453	03453	03453	03453	03453	03453				
		02470	02470	02470	02470	02470	02470				
C00050	NUMTARC	05755	05755	05755	05755	05755	05755				
P06340	NUMTYPE	02473	02473	02473	02473	02473	02473				
C00051	NUMX	02470	02470	02470	02470	02470	02470				
C00000	NNHDS	02224	02224	02224	02224	02224	02224				
C27010	NUPNTYP	02416	02416	02416	02416	02416	02416				
P06341	NUPTPHX	02177	02177	02177	02177	02177	02177				
P00440	NWT	03235	03235	03235	03235	03235	03235				
X00017	ORDER	03062	03062	03062	03062	03062	03062				
P06070	P00001-U	06073	06073	06073	06073	06073	06073				
P06104	P00002-U	06110	06110	06110	06110	06110	06110				
P06123	P00003-U	06126	06126	06126	06126	06126	06126				
P06137	P00007-U	06143	06143	06143	06143	06143	06143				
P06155	P00010-U	06160	06160	06160	06160	06160	06160				
P06171	P00011-U	06175	06175	06175	06175	06175	06175				
X00015	PAGESKP	02542	02542	02542	02542	02542	02542				
		05351	05351	05351	05351	05351	05351				
C25040	PCDEST	02401	02401	02401	02401	02401	02401				
C20510	PCDESTCL	02447	02447	02447	02447	02447	02447				
P06342	PCDESTOT	04502	04502	04502	04502	04502	04502				
C00151	PEN	02704	02704	02704	02704	02704	02704				
C00121	PKTX										
C00017	PLANTAPE										

5.4TS

EVAL2

11/24/71

ED

0

PAGE NO.

26

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C00624	TLN	04024							
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C00003	TMULT								
C00207	TOA								
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P02424	TS00003.								
P02465	TS00004.								
P02463	TS00005.								
P03154	TS00006.								
P03425	TS00007.								
P03733	TS00010.								
P04036	TS00011.								
P04247	TS00012.								
P04471	TS00013.								
P04437	TS00014.								
P04755	TS00015.								
P04600	TS00016.								
P04623	TS00017.								
P04753	TS00020.								
P04675	TS00021.								
P04720	TS00022.								
P05003	TS00023.								
P04775	TS00024.								
P05024	TS00025.								
P05245	TS00026.								
P05074	TS00027.								
P05115	TS00030.								
P05241	TS00031.								
P05167	TS00032.								
P05210	TS00033.								
P05273	TS00034.								
P05265	TS00035.								
P05312	TS00036.								
P05345	TS00037.								
P05530	TS00040.								
P05421	TS00041.								
P05524	TS00042.								
P05476	TS00043.								
P05551	TS00044.								
P05547	TS00045.								
P05570	TS00046.								
P05755	TS00047.								
P05646	TS00050.								
P05751	TS00051.								
P05723	TS00052.								
P05776	TS00053.								
P05774	TS00054.								
P06015	TS00055.								
P06346	TS11								
C00000	TWORO								

S.ATS	EVAL2	ED	0	PAGE NO.	27
P06075	UP00001.	02365	02425	05336	05344
P06112	UP00002.	02406	02452	03130	03153
		05023	05106	05114	05201
		05467	05475	05533	05550
P06130	UP00003.	05775	06006	06014	06106
		02431	02464	03224	03230
P06145	UP00007.	06136	06754	06765	06776
		04556	06141	06146	06154
P06162	UP00010.	04567	04664	05063	05156
P06177	UP00011.	04654	04750	05146	05240
		06202	06206	06206	06206
C00004	VADES	04053	04101	04110	04110
C00005	VALESC	04052	04104	04104	04111
C00012	VALFAC	02574	02574	03417	03417
C17752	VOESCLAS	02435	04231	04232	04232
P06347	VDESTOT	02476	04446	04450	04473
C02250	VDESTYPE	02371	04102	04103	04103
C20034	VESCLAS	02434	02435	04233	04234
P06350	VESCTOT	02476	04451	04453	04475
C22366	VESCTYPE	02377	04105	04106	04106
C00005	VO	02433	02433	02635	02635
C17670	VOGLAS	04236	04230	04231	04253
		04442			
P06351	VOTOT	02477	04441	04443	04474
C21740	VOTYPE	02376	02360	02360	02370
		04355	04360	04362	04362
C20116	VREMCLAS	02445	04234	04235	04261
P06352	VREMTOT	02475	04453	04455	04477
C23070	VREMTYPE	02377	04112	04113	04113
C00001	YTC	02423	02423	02665	02667
		03416	03507	03507	03757
C00343	YTOC	02470	03270	03416	03764
X00016	YPMNOOIF	02557			
P06353	YPMNS	05247	05265	05270	05314
C27017	YPMNTP	02416	05262	05262	05263
X00022	YPMRBY	03136	03141	03144	03147
Y00021	YPMORD	03134	03161		
P02360	Y500001.	02362			
P02367	Y500002.	02427	02427		
P02414	Y500003.	02423			
P02433	Y500004.	02466	02466		
P02457	Y500005.	02462			
P03132	Y500006.	03155	03155		
P031301	Y500007.	03426	03426		
P03657	Y500010.	03732			
P04014	Y500011.	04037	04037		
P04216	Y500012.	04246			
P04251	Y500013.	04472	04472		
P04344	Y500014.	04440	04440		
P04360	Y500015.	04756	04756		
P04375	Y500016.	04377			
P04656	Y500017.	04624	04624		
		04752	04752		

5.4TS

EVAL2

11/24/71

EB

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PAGE NO.

28

P04672	WS00021.	04674
P04713	WS00022.	04721
P04763	WS00023.	05004
P04772	WS00024.	04774
P05017	WS00025.	05025
P05061	WS00026.	05246
P05071	WS00027.	05073
P05110	WS00030.	05116
P05150	WS00031.	05242
P05164	WS00032.	05166
P05203	WS00033.	05211
P05253	WS00034.	05274
P05262	WS00035.	05264
P05305	WS00036.	05313
P05340	WS00037.	05346
PG3400	WS00040.	05531
P05414	WS00041.	05422
P05451	WS00042.	05525
PG4471	WS00043.	05477
P05535	WS00044.	05552
P05544	WS00045.	05546
P05563	WS00046.	05571
P05625	WS00047.	05756
P05641	WS00050.	05647
P05676	WS00051.	05752
P05716	WS00052.	05724
P05762	WS00053.	05777
P05771	WS00054.	05773
P06010	WS00055.	06016
P00440	WT	03242
C01154	YIELD	02320
P00003	YY	03730
		04034
		03730

01177 SYMBOLS

2650

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SUBROUTINE MISLPAKR(LLI)
  CSUBR   MISLPAKR 30JUNE71 *****
  CUSE    OPT      20APR71 *****
  C
  C      USER PRINT AND OPERATION OPTIONS
  C
  COMMON/OPT/JOPT(20),IT6TMAX,PREFABRY,JSKIP
  TYPE LOGICAL JOPT
  C
  CEND    OPT *****
  CUSE    1        3JUNE71 *****
  C
  C      PLAN AND TARGET INFO BLOCK DATA FROM PLANTAPE
  C
  COMMON/1/LGRP,KORD,TMLAUN,HDT(90),KPL(90),JTP(90),HLA(90),HLO(90),
  1  TZT(90),TZN(90),TMM(90),PA(90),ICMT(90),IT6TX(90),
  DIMENSION CMT(90)
  EQUIVALENCE(CMT,ICMT)
  C
  CEND    1 *****
  CUSE    22       60CT71 *****
  C
  COMMON/2/LLINK,ILINK(12000)
  DIMENSION JLINK(4000),KLINK(4000),LLINK(4000)
  EQUIVALENCE(JLINK,ILINK),(KLINK,ILINK(4001)),(LLINK,ILINK(8001))
  C
  CEND    22 *****
  NMAX=450
  LINK=LINK*3
  ILINK=ILINK/3
  J=LL
  IND=IT6TX(J)
  CALL SEARCH(INDX,ITGT)
  JLINK(I)=ITGT*10000000000008*INDX*10000008*LGRP*1008
  IPEN=PA(J)*.386
  TIME=TMLAUN-HDT(J)
  ITIME=TIME*10000
  ITIME=ITIME-AND.7777777778
  KLINK(I)=IPEN*10000000000008*ITIME
  IF(JOPT(3))1,4
  1 IF(LINK*GT.NMAX)2,4
  2 PRINT 3,KLINK(I),I,ITGTX(J),LGRP,KORD,TIME,PA(J)
  3 FORMAT(1X,43HMISLPAKR,KLINK,INDX,GRP,KORD,TIME,PEN,016,4IS,
  1 2FIG.4)
  4 CONTINUE
  LAT=HLA(J)*10000
  LAT=LAT*1000000008
  LAT=LAT-AND.7777777778*1000000008
  LON=HLO(J)*10000
  LON=LON-AND.7777777778
  GLAT=HLA(J) $ GLON=HLO(J)
  LLINK(I)=LAT*10000
  IF(JOPT(3))5,8
  5 IF(LINK*GT.NMAX)6,8
  6 PRINT 7,ITGT,INDX,GLAT,GLON,LLINK(I)
  7 FORMAT(1X,25HITGT INDX 6LAT 6LON LLINK 2X,2IS,2FIG.4,2X,016)

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FTNS.5

8 RETURN
END

11/24/71

PAGE NO. 2

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2652

11/24/71

5.4TS MISLPAKR

IDENT MISLPAKR

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES00270
00035

MISLPAKR

OPT

00004

1

01741

2

27341

EXTERNAL SYMBOLS

Q1 11.00

Q3L0040

THEND.

Q800ICT.

SEARCH

STH.

GNSINGL.

5.ATS MISLPAKR

11/24/71 EO 0 PAGE NO. 4

P00207 BEGIN.	00223	00231	00235						
C01455 CMT	00120	00122	00124	00125	00126	00130	00132	00174	00177
P00206 CNVRT1.	00201								
P00003 CRFMT.	00135	00204							
P00001 DICT.	00037	00055	00114	00134	00171	00203	00212	00213	
P00224 ENDING.	00040	00204	00207	00210	00210	00211	00211		
P00000 EXIT.	00227								
P00003 FORMAT.	00221	00222							
P00047 FP00001.	00214								
P00240 GETPL.	00217	00234							
P00230 GETPU.	00112								
P00135 GG00000.	00167								
P00204 GG00001.	00154	00176							
P00254 GLAT	00156	00177							
P00255 GLON	00074								
C00003 HDY	00136	00136	00152	00153					
C00421 HLA	00144	00145	00154	00155					
C00523 HLO	00046	00065	00116	00121	00157	00200			
P00256 I									
C01455 ICMT	00053	00056	00060	00175					
C00001 ILINK	00040								
P00257 INDX	00056								
P00207 INITIAL.	00072	00101							
P00260 IPEN	00056	00057	00173						
P00261 ITGT									
C00001 ITGTMAX	00051	00052	00123	00124					
C01607 ITGTX	00077	00101	00102						
P00262 ITIME	00106								
C01171 IWH	00106								
P00107 .1	00106	00111	00111						
P00112 .2	00106								
P00135 .4	00163								
P00164 .5									
P00167 .6	00163	00166	00166	00064					
P00204 .8	00060	00061	00062						
P00241 .ERASER.	00115								
P00003 .3	00172								
P00020 .7	00050	00051	00123	00135					
P00263 J	00065	00065							
C00001 JLINK	00105	00162							
C00000 JOPT									
C00003 JSKIP									
C00267 JTP	00103	00103	00117	00117					
C07641 KLINK	00126								
C00001 KORD									
C00135 KPL	00141	00142	00144	00156					
P00264 LAT	00062	00063	00125						
C00000 LGRD	00042	00043	00044	00107	00167	00164	00164		
C00000 LINK	00160	00160	00200	00201					
C17501 LLINK									
P00003 LLL	00047								
P00265 LON	00150	00152	00157						
P00035 MISLPAKR	00035								

5.ATS MISLPAKR

P00266 NMAX
 C01323 PA
 P00223 PF00002.
 C00002 PREFABRT
 X00001 Q1010100
 X00002 Q3000040
 X00004 Q00DICT.
 X00007 QMSINGL.
 X00005 SEARCH
 X00006 SYN.
 X00003 YNEND.
 P00267 TIME
 C00002 TMLAUN
 C01037 TZN
 C00705 TZI
 00104 SYMB0LS

00042 00110 00165 00131
 00066 00067 00131 00131
 00220
 00071 00076 00140 00147
 00104 00161 00036
 00006 00205 00054 00170
 00113 00133 00202
 00075 00127 00073 00073

11/24/71

PAGE NO.

5

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2655

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SUBROUTINE PACK
  CSUBR   PACK   60CT71 *****
  CUSE    FILMANDR 15JUNE71 *****
  C
  C FILEHANDLER COMMON BLOCKS
  C
  COMMON/FILABEL/INIDENT,INRUNNO,INDATE,INFORM,INSECR,
  1 COMMON/ITP/ITP INTIME,INLNGTH,INCOMM(5)
  COMMON/MYIDENT/MYIDENT
  COMMON/MYLABEL/MYFORMT,MYSECR,MVNLNGTH,MYCOMM(5)
  COMMON/NOPRINT/NOPRINT
  COMMON/TWORD/ITWORD
  EQUIVALENCE (ITWORD,ITWORD)
  C
  C FILMANDR *****
  CUSE    1 3JUNE71 *****
  C
  C PLAN AND TARGET INFO BLOCK DATA FROM PLANTAPE
  C
  COMMON/1/LGRP,KORG,TMLAUN,MDT(90),KPL(90),JTP(90),MLA(90),HLO(90),
  1 TZT(90),TZN(90),JMH(90),PA(90),ICNT(90),ITGTX(90)
  DIMENSION CMT(90)
  EQUIVALENCE(CMT,ICMT)
  C
  CEND    1 *****
  CUSE    22 60CT71 *****
  C
  COMMON/2/LINK,ILINK(12000)
  DIMENSION JLINK(4000),KLINK(4000),LLINK(4000)
  EQUIVALENCE(JLINK,ILINK),(KLINK,ILINK(4000)),(LLINK,ILINK(800))
  C
  CEND    22 *****
  CUSE    PLANREC 20APR71 *****
  C
  C FIRST 25 WORDS OF A PLANTAPE RECORD
  C
  COMMON/PLANREC/JSIDE,LGROUP,LPHN,JSORTIE,JUNIT,JVENTIC,LCLAS,
  1 JPMNTYPE,JREG,JALERT,JPAYLOAD,JDEPENLTOT,LPLAN,6(3),HLO(2)
  2 ,MHI(2),JHTYPE,JPTYPE,JFUNC,JLAST
  C
  CEND    PLANREC *****
  CUSE    DIMENSION T(25),NT(25)
  EQUIVALENCE (T,NT,JSIDE)
  C
  C FILES 10MAY71 *****
  C
  COMMON/FILES/TGTFILE(2),BASFILE(2),MSLTIME(2),ALOCSTAR(2),
  1 TMAPLOC(2),ALOCGRP(2),STKRFIL(2),EVENTAPE,PLANTAPE
  TYPE INTEGER TGTFILE, BASFILE, MSLTIME, ALOCSTAR, TMAPLOC,
  1 ALOCGRP, STKRFIL, EVENTAPE, PLANTAPE, SCRATCH
  EQUIVALENCE(SCRATCH,STKRFIL)
  C
  C FILES *****
  CUSE    TOTMOD 24JUNE71 *****
  C
  C DATA FROM ALOCSTAR FILE

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7 PRINT 8
8 FORMAT(//2X,32#H THERE ARE MORE THAN 5000 TARGETS)
6 ITP=ALOG(1) $ CALL TERMTAPE
CALL ORDER(JORDER,ISEQ,NMTGTS)
CALL REORDER(ISEQ,NMTGTS,1,JORDER,0.0,0.0,0.0,0.0)
REVIEW PLANTAPE
LINK=0
NPR=0
2003 IEXIT=0 $ IF(LINK.LT.LLIGO TO 2044
2001 LINK=LINK/3
NFILE=NFILE+1
JJ=LLC(NFILE-1)
IF(LINK.EQ.0) GO TO 2007
CALL ORDER(JLINK,ISEQ,LINK)
CALL REORDER(ISEQ,LINK,3,JLINK,KLINK,LLINK,0.0,0.0,0.0)
IF(LINK.LT.LLL.AND.NFILE.EQ.LLIGO TO 2007
I=1
ITP=INW $ MYIDEN=THSCRATCH
MYLNGTH=100000 $ CALL SETWRITE
IF(NFILE-1) 2042,2055
2042 ITP=IOLN $ MYIDEN=THSCRATCH
CALL RDWORD
DO 2040 J=1,LINK
2043 IF(LINK(J).LE.ITWORD) 2045,2047
2047 ITP=INW $ CALL WRWORD
ITP=IOLN $ CALL RDWORD
ITP=INW $ CALL WRWORD
ITP=IOLD $ CALL RDWORD
ITP=INW $ CALL WRWORD
IF(I.EQ.J) 2050
ITP=IOLD $ CALL RDWORD
I=I+1 $ GO TO 2043
ISWRD=ITWORD $ ITP=INW
ITWORD=JLINK(J) $ CALL WRWORD
ITWORD=KLINK(J) $ CALL WRWORD
ITWORD=LLINK(J) $ CALL WRWORD
ITWORD=ISWRD
2049 CONTINUE
IF(JJJ-I) 2057,2051,2051
2051 CONTINUE
DO 2052 J=1,JJJ
ITP=INW $ CALL WRWORD
ITP=IOLD $ CALL RDWORD
ITP=INW $ CALL WRWORD
ITP=IOLD $ CALL RDWORD
ITP=INW $ CALL WRWORD
ITP=IOLD $ CALL RDWORD
2052 CONTINUE
GO TO 2057
2050 I=J
2055 DO 2056 J=1,LINK
ITWORD=JLINK(J) $ CALL WRWORD
ITWORD=KLINK(J) $ CALL WRWORD
ITWORD=LLINK(J) $ CALL WRWORD
2056 CONTINUE
2057 ITP=INW $ CALL TERMTAPE $ CALL SETREAD

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ITP=IOLD
IF(INFILE.NE.1)CALL TERMtape
IOLD=INEN $ INEN=ITP
IF(LINK.LT.LLL)GO TO 2007
LINK=0
DO 2058 I=1,LL
2058 ILINK(I)=0
IF(IXIT.EQ.1)GO TO NEXT
2044 READ(PLANTAPE)NY
IF(JLAST.EQ.4HLAST)2081,2094
2004 LGRP=LGROU
KORD=LPEN
IF(LTOTLT.LPLAN.AND.LCLAS.NE.1)2264,2265
2264 PRINT 2266,LGRP,KORD
2266 FORMAT(5X,20HPLAN ,6F,LYOT,LGRP=,116,10H CORRIDOR=,116)
LPLAN=0
2265 CONTINUE
TMLAUNT(15)
GO TO(2010,2020,2030)LCLAS
TANKER REC. READ REST OF REC. IGNORE IT, AND RETURN TO 2003
2030 READ(PLANTAPE)(MOT(I),RPL(I),JTP(I),HLA(I),HLO(I),TZN(I),
C
GO TO 2003
C
PLANTAPE REC FOR BOMBER OR ASM
2020 READ(PLANTAPE)(MOT(I),RPL(I),JTP(I),HLA(I),HLO(I),TZN(I),
IIM(I),PA(I),CMY(I),I=1,LTOT)
JJ=0 $ K=0 $ IXIT=1 $ ASSIGN 2024 TO NEXT
DO 2054 J=1,LTOT
IF(JTP(J).EQ.0.OR.JTP(J).EQ.8)GO TO 2021
GO TO 2054
2021 JJ=JJ+1
IF(JGT.LPLAN.AND.K.EQ.0)K=JJ
READ(PLANTAPE)(TT(I),I=1,5)
2054 CONTINUE
IF(LPLAN.EQ.0)2060,2061
2060 LSTART=1
LEND=LTOT
L=0
GO TO 2064
C
THERE IS AN ALTERNATE PLAN. IS IT USED
2061 XX=XX+1
IF(XX.GT.PREFABRT)2062,2063
C
NO REFUELING ABORT. ALTERNATE PLAN NOT USED
2062 LSTART=1
L=0
LEND=PLAN $GO TO 2064
C
ALTERNATE PLAN IS USED
2063 LSTART=PLAN+1
LEND=LTOT
L=K-1
2064 DO 3451 JJ=LSTART,LEND
C
IS EVENT TYPE ASM ON TGT
IF(JTP(JJ).EQ.0)2022,2023
C
IS EVENT TYPE A BOMB IMPACT
2023 IF(JTP(JJ).EQ.8)2022,3451
2022 L=L+1
CALL BOMRPAKR(JJ,L)

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11/24/71

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IF (LINK.0E.LL) GO TO 2001
2024 CONTINUE
C WERE EXTRA DEBUG PRINTS DESIRED
IF (JOPT(3)) 2463,3451
2463 CONTINUE
IF (NPRT.LI.20) 3450,3451
3450 PRINT 3454,JJ
3452 PRINT 3452,(CRT(LM),LM=1,LTOT)
3452 FORMAT(1X,6TIMES,12F9.2)
3453 PRINT 3453,(PA(LM),LM=1,LTOT)
3453 FORMAT(1X,6HPENPROB,12F9.2)
3454 FORMAT(1X,10HJJ EQUALS,13)
NPRT = NPRT+1
3451 CONTINUE
GO TO 2003
C PLANTAPE REC FOR MISSILE
2010 IEXIT=1 S ASSIGN 2026 TO NEXT
DO 2011 K=1,PLAN
READ(PLANTAPE)HDT(K),KPL(K),JTP(K),HLA(K),HLO(K),T2T(K),T2N(K),
11H(K),PA(K),ITGTX(K),ADUM(K),BCUM(K),CDUM(K),DDUM(K),
KORD=0
CALL MISLPAKR(K)
IF (LINK.0E.LL) GO TO 2001
2026 CONTINUE
2011 CONTINUE
GO TO 2003
2007 RE-IND PLANTAPE
LINK=LINK*(NFILE-1)*LLL
SCRATCH=INEN
ITP=SCRATCH S MYIDEN=THSCRATCH S CALL SETWRITE
ITP=ALOCSTAR(1) S MYIDEN=THALOCSTAR S CALL SETREAD
NXTLNK=0
CALL RDARRAY(ADUM,45)
IF (IDUM(42).EQ.3HEOT) GO TO 95
ITGTSAV=0
80 ITMULT=ADUM(7)
ITGTINDX=IDUM(44)
IF (ITGTSAV-ITGTINDX) 85,84,85
84 *SAVE=0
GO TO 86
85 *SAVE=1
ITGTSAV=ITGTINDX
86 CONTINUE
IBGINDX=IDUM(2)
NUM=IDUM(45)
CALL RDARRAY(IG,NUM)
CALL RDARRAY(KORR,NUM)
CALL RDARRAY(RVAL,NUM)
CALL RDARRAY(PEN,NUM)
CALL RDARRAY(TOA,NUM)
CALL RDARRAY(NTT,45)
IF (NTT(42).EQ.3HEOT) IEND=1
IF (ISAVE.EQ.0) GO TO 87
82 NXTLNK=NXTLNK+1
CALL UNPACKER:NXTLNK,IOLD)
IDUM(45)=NUM

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FTNS.5

11/26/71

PAGE NO. 6

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ADUM(32)=1.
ITP=SCRATCH $ MYIDENT=THSCRATCH
CALL WRARRAY(ADUM,45)
IF(NUM.EQ.0)GO TO 90
CALL WRARRAY(IG,NUM)
CALL WRARRAY(KORR,NUM)
CALL WRARRAY(RVAL,NUM)
CALL WRARRAY(PEN,NUM)
CALL WRARRAY(TOA,NUM)
CALL WRARRAY(PLAT,NUM)
CALL WRARRAY(BLON,NUM)
90 CONTINUE
ITMULT=ITMULT-1.
IF(ITMULT.EQ.0.)GO TO 87
IAGINDX=IAGINDX+1
GO TO 82
87 CONTINUE
DO 91 I=1,45
IDUM(I)=INT(I)
91 IF(IEND.EQ.1)GO TO 95
ITP=ALOCTAR(I)
MYIDENT=THALOCTAR $ GO TO 80
95 ITP=SCRATCH $ CALL WRARRAY(ADUM,45)
CALL TERMTAPE
ITP=ALOCTAR(I) $ MYIDENT=THALOCTAR
CALL TERMTAPE
RETURN
END

```

21300
21400
21500
21600
21700
21800
21900
22000
22100
22200
22300
22400
22500
22600
22700
22800
22900
23000
23100
23200
23300
23400
23500
23600
23700
23800
23900
24000

IDENT

PACK

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IDENT	PACK
12046	
10506	
00014	
00001	
00001	
00010	
00001	
00001	
01741	
27341	
00031	
00020	
00346	
00076	
00004	
14005	

EXTERNAL SYMBOLS

THENO.
 Q300040
 Q80010
 SETREAD
 HDARRAY
 TERTAPE
 ORDER
 REORDER
 SETWRITE
 RDWORD
 WRWORD
 BOMPAKR
 MISLPKR
 UNPACKER
 WRARRAY
 RANF
 REN.
 TSB.
 STH.
 SLI.
 QNSINGL.

5.475 PACK 11/24/71 ED 0 PAGE NO. A

P07643 ADUM	11535	11611	11617	11700	11707	11770	11757	11757	11773	11773	
C00012 ALOCGRP											
C00002 ALOCIBR	10540	10540	10526	10626	11577	11577	11757	11757	11773	11773	
C00002 BASFILE	11537										
P07775 SDUM	12005										
P12004 BEGIN.	11734										
C00000 BLAT	11737										
C00036 FLOW	11421										
X00014 BOMREAR	11540										
P11127 CDUM	11301	11455	11455	11455	11244	11245	11246	11247	11265	11270	11271
C01455 CNT	11250	11217	11240	11240	11276	11277	11300	11344	11443	11456	11473
P12002 CNVRTL.	11272	11273	11274	11275	11526	11527	11530	11531	11532	11533	11534
	11520	11523	11524	11525							
	11534	11537	11540								
P12022 COUNT.	10515	10516	10525	10526	11151	11152					
P10422 CRFMT.	10626	11222	11464	11502	11582						
P10261 ODUM	11561										
C00245 DE											
P00001 DICT.	10510	10545	10552	10552	10565	10570	10573	10576	10622	10625	10631
	10633	10637	10647	10676	10702	10726	10737	10752	10756	10762	10766
	10772	11015	11025	11025	11025	11043	11047	11053	11057	11063	11067
	11104	11111	11115	11124	11126	11134	11166	11171	11174	11221	11221
	11234	11259	11262	11366	11341	11351	11367	11422	11440	11445	11450
	11463	11466	11501	11517	11543	11547	11563	11576	11604	11618	11641
	11644	11647	11652	11655	11660	11674	11706	11714	11717	11722	11725
	11730	11733	11736	11767	11772	12600					
	10511	12001	12004								
P12006 ENDING.											
C00016 EVENTAPE	12007	10721	10734	11175	11175	11573	11601	11612	11662	11703	11761
P00000 EXIT.	10542										
P10422 FORMAT.	11775	10554									
C00010 FVAL											
C00016 G	10620										
P10626 G000000.	11164										
P11175 G000001.	11211										
P11222 G000002.	11233										
P11256 G000003.	11260										
P11307 G000004.	11337										
P11352 G000005.	11436										
P11446 G000006.	11464										
P11464 G000007.	11464										
P11502 G000010.	11515										
P11544 G000011.											
C00003 H	11242	11267	11267	11522	11522	11522					
C00003 HDT	11246	11273	11526								
C00421 MIA	11247	11274	11527								
C00553 MLC	10513	10515	10523	10525	10533	10533	10717	10773	11002	11003	11034
P12023 I	11036	11075	11076	11147	11152	11237	11261	11251	11264	11266	11302
	11343	11345	11346	11750	11750						
	11635	11635	11744	11744	11745						
C00345 I001NMX											
C01455 ICMT	11612	11620	11634	11636	11677	11753					
P07643 IOUN											

5.4TS

PACK

11/24/71

ED 0

PAGE NO.

9

P10415	IENU	11665	11754	11312	11511				
P12024	EXIT	10654	11150						
P10713	IF00001.								
P11207	IF00002.								
P11320	IF00003.								
P11332	IF00004.								
C00017	IG	10563	11642	11715					
P12025	IGOTO.	11227	10530	11153	11154				
C00001	ILINK								
C00007	INCOMM								
P07776	IND	10612							
C00002	INDATE								
C00000	INDEXNO								
C00342	INOTYPE								
P10417	INER	10717	10747	10757	10767	11067	11040	11050	11121 11135 11140
		11570							
C00003	INFORM								
C00900	INIDENT								
P12004	INITIAL.	10511							
C00006	INLENGTH								
C00001	INRUNNO								
C00004	INSECR								
C00003	INT								
C00005	INTIME								
P10420	IOLU	10732	10752	10763	10774	11044	11054	11064	11127 11136 11675
P12026	ISAVE	11627	11631	11666					
P00003	ISEO	10520	10634	10640	10677	10703			
P12027	ISWRD	11006	11026						
P10050	IT61	10601	10603	10614					
C00344	IT61INDEX	11621	11621	11623	11623	11631	11632		
C00001	IT61MAX								
P12030	IT61SAV	10530	10600	10604	11616	11622	11633		
C01607	IT61X	11534							
C00000	ITP	10541	10541	10627	10627	10720	10733	10750	10754
		10754	10760	10760	10764	10770	10777	10777	11010
		11041	11041	11045	11045	11051	11051	11051	11055
		11065	11122	11122	11130	11136	11137	11152	11600
		11702	11702	11760	11760	11765	11774		
		10744	10744	11005	11005	11012	11017	11023	11027
		11027	11102	11102	11107	11113	11113		
		11277	11532						
C00000	ITWORD								
C01171	IWM								
P10517	.1								
P10607	.100001								
P10610	.100002								
P10660	.100003								
P10661	.100004								
P10674	.100005								
P10675	.100006								
P10715	.100007								
P10716	.100008								
P10775	.100009								
P10776	.100010								
P11133	.100011								
P11135	.100012								

SATS

PACK

11/24/71

ED

0

PAGE NO.

10

P11144	.100013	11142	11143	
P11145	.100014			
P11146	.100015			
P11147	.100016	11157		
P11148	.100017	11317		
P11149	.100018	11322		
P11150	.100019			
P11151	.100020	11330	11331	11333
P11152	.100021	11426		
P11153	.100022	11426		
P11154	.100023	11553		
P11155	.100024	11553		
P11156	.100025			
P11157	.100026	11613		
P11158	.100027			
P11159	.100028	11663		
P11160	.100029			
P11161	.100030	11667		
P11162	.100031	11711		
P11163	.100032			
P11164	.100033	11742		
P11165	.100034			
P11166	.100035	11755		
P11167	.100036			
P11168	.2001	11177	11427	11554
P11169	.2002	11256	11507	11560
P11170	.2003	11177		
P11171	.2004	10674	10715	11144
P11172	.2005	11230		
P11173	.2006			
P11174	.2007	11231		
P11175	.2008	11323		
P11176	.2009	11413		
P11177	.2010	11412		
P11178	.2011	11312		
P11179	.2012	11511		
P11180	.2013			
P11181	.2014	10730		
P11182	.2015	11004		
P11183	.2016	10660		
P11184	.2017	10745	10746	
P11185	.2018	10745		
P11186	.2019			
P11187	.2020	10775		
P11188	.2021	11034		
P11189	.2022			
P11190	.2023	11324		
P11191	.2024	10731		
P11192	.2025			
P11193	.2026	11035	11073	
P11194	.2027			
P11195	.2028			
P11196	.2029			
P11197	.2030			
P11198	.2031			
P11199	.2032			
P11200	.2033			
P11201	.2034			
P11202	.2035			
P11203	.2036			
P11204	.2037			
P11205	.2038			
P11206	.2039			
P11207	.2040			
P11208	.2041			
P11209	.2042			
P11210	.2043			
P11211	.2044			
P11212	.2045			
P11213	.2046			
P11214	.2047			
P11215	.2048			
P11216	.2049			
P11217	.2050			
P11218	.2051			
P11219	.2052			
P11220	.2053			
P11221	.2054			
P11222	.2055			
P11223	.2056			
P11224	.2057			
P11225	.2058			
P11226	.2059			
P11227	.2060			
P11228	.2061			

5-ATS	PACK	JPTYPE	11245	11272	11316	11321	11321	11411	11411	11415	11415	11525
C00026	JPTYPE											
C00001	JREAD											
C00010	JREG											
C00009	JSIDE											
C00003	JSKIP											
C00003	JSORTIE											
C00267	JTP											
C00004	JUNIT											
C00005	JVEHIC											
C00007	JWPNTYPE											
P12034	K											
C07641	KLINK											
C00001	KORD											
C00055	KORR											
C00135	KPL											
P12035	L											
C00006	LCLAS											
P12036	LEND											
C00001	LGROUP											
C00000	LGRP											
C00000	LINK											
P10413	LL											
C17501	LLINK											
P10416	LLL											
P12037	LM											
C00002	LREN											
C00015	LPLAN											
P12040	LSTART											
C00014	LTOT											
C00022	M											
C00023	MHI											
X00015	MISLPAKR											
C00021	MLO											
C00004	MSLTIME											
P10414	MKTGTS											
C00003	MYCONH											
C00000	MYFORMT											
C00000	MYIDENT											
C00002	MYLNOTH											
C00001	MYSECR											
P12041	NEXT											
P10421	NFILE											
C00007	NK											
C00002	NLOG											
C00000	NMTGTS											
C00000	NOPRINT											
C00004	NOW											
P12042	NPRT											
C00000	NT											

5.4TS	PAGE NO.	ED	0	11/24/71	11661	10557	10554	10553	10550	10549	10548	10547	10546	10545	10544	10543	10542	10541	10540	10539	10538	10537	10536	10535	10534	10533	10532	10531	10530	10529	10528	10527	10526	10525	10524	10523	10522	10521	10520	10519	10518	10517	10516	10515	10514	10513	10512	10511	10510	10509	10508	10507	10506	10505	10504	10503	10502	10501	10500	10499	10498	10497	10496	10495	10494	10493	10492	10491	10490	10489	10488	10487	10486	10485	10484	10483	10482	10481	10480	10479	10478	10477	10476	10475	10474	10473	10472	10471	10470	10469	10468	10467	10466	10465	10464	10463	10462	10461	10460	10459	10458	10457	10456	10455	10454	10453	10452	10451	10450	10449	10448	10447	10446	10445	10444	10443	10442	10441	10440	10439	10438	10437	10436	10435	10434	10433	10432	10431	10430	10429	10428	10427	10426	10425	10424	10423	10422	10421	10420	10419	10418	10417	10416	10415	10414	10413	10412	10411	10410	10409	10408	10407	10406	10405	10404	10403	10402	10401	10400	10399	10398	10397	10396	10395	10394	10393	10392	10391	10390	10389	10388	10387	10386	10385	10384	10383	10382	10381	10380	10379	10378	10377	10376	10375	10374	10373	10372	10371	10370	10369	10368	10367	10366	10365	10364	10363	10362	10361	10360	10359	10358	10357	10356	10355	10354	10353	10352	10351	10350	10349	10348	10347	10346	10345	10344	10343	10342	10341	10340	10339	10338	10337	10336	10335	10334	10333	10332	10331	10330	10329	10328	10327	10326	10325	10324	10323	10322	10321	10320	10319	10318	10317	10316	10315	10314	10313	10312	10311	10310	10309	10308	10307	10306	10305	10304	10303	10302	10301	10300	10299	10298	10297	10296	10295	10294	10293	10292	10291	10290	10289	10288	10287	10286	10285	10284	10283	10282	10281	10280	10279	10278	10277	10276	10275	10274	10273	10272	10271	10270	10269	10268	10267	10266	10265	10264	10263	10262	10261	10260	10259	10258	10257	10256	10255	10254	10253	10252	10251	10250	10249	10248	10247	10246	10245	10244	10243	10242	10241	10240	10239	10238	10237	10236	10235	10234	10233	10232	10231	10230	10229	10228	10227	10226	10225	10224	10223	10222	10221	10220	10219	10218	10217	10216	10215	10214	10213	10212	10211	10210	10209	10208	10207	10206	10205	10204	10203	10202	10201	10200	10199	10198	10197	10196	10195	10194	10193	10192	10191	10190	10189	10188	10187	10186	10185	10184	10183	10182	10181	10180	10179	10178	10177	10176	10175	10174	10173	10172	10171	10170	10169	10168	10167	10166	10165	10164	10163	10162	10161	10160	10159	10158	10157	10156	10155	10154	10153	10152	10151	1

5.4YS

PACK

11/24/71

ED 0

PAGE NO.

14

X00022 TSB.
 P07775 TT
 P12044 TIMULT
 C00000 TWORS
 C01037 TZM
 C00705 TZT
 X00016 UNPACKER
 C00005 VO
 C00001 VTO
 C00343 VTOC
 X00017 WHARRAY
 X00013 WRWORD
 P10517 W500001.
 P10527 W500002.
 P10535 W500003.
 P10742 W500004.
 P11040 W500005.
 P11100 W500006.
 P11153 W500007.
 P11240 W500010.
 P11265 W500011.
 P11315 W500012.
 P11344 W500013.
 P11410 W500014.
 P11454 W500015.
 P11472 W500016.
 P11514 W500017.
 P11752 W500020.
 P12045 XX
 G0504 SYMBOLS

1165 11234 11261 11340 11516
 11346
 11620 11746 11741
 11276 11531
 11275 11530
 11673
 11705 11713 11716 11721 11724 11727 11732 11735 11766
 10751 10761 10771 11014 11020 11024 11042 11052 11062 11103 11110
 11114
 10521
 10531
 10537
 11032
 11072
 11120 11120
 11155
 11253
 11304
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 11347
 11506
 11461
 11477
 11557
 11754
 11370
 11370

FTNS.5

11/24/71

PAGE NO.

1

```

SUBROUTINE SEARCH(INDEXNO,ITST)
  CSUBR  SEARCH  2THAY71 *****
  CUSE   BINSCH  2THAY71 *****
  C      COMMON/BINSCH/NMTGTS,JREAD,NLOG,INT,NOW,JORDER(6144)
  CEND   BINSCH *****

  DATA(JREAD=0)
  IF(JREAD)4,1
  1 JREAD=1
  ITST=NMTGTS/2+1
  INT=2
  NLOG=1
  2 IF(INT.GE.ITST)80 TO 3
  INT=INT+2
  NLOG=NLOG+1
  80 TO 2
  3 NOW=INT
  4 INT=INT+5 NNOW=NOW
  DO 7 I=1,NLOG
  INT=INT+1/2
  INDEX=JORDER(NNOW)/1000000000000B
  IF(INDEX-INDEXNO)5,10,6
  5 NNOW=NNOW+INT1
  80 TO 7
  6 NNOW=NNOW-INT1
  7 CONTINUE
  INDEX=JORDER(NNOW)/1000000000000B
  IF(INDEX-INDEXNO)10,10,9
  9 NNOW=NNOW-1
  10 ITST=JORDER(NNOW)/1000000B
  ITST=ITST.AND.0000000000007777B
  RETURN
END

```

1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000
28000
29000

2670

5.ATS

SEARCH

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES
EXTERNAL SYMBOLS

SEARCH
BINSCH
QBONICT.

IDENY

00160
00003
14005

SEARCH

11/24/71

ED

0

PAGE NO.

2

11/24/71

```

SUBROUTINE SSSPCALC(SSS, NWP, J)
  SSSPCALC 20APR71 *****
C
C SSSPCALC COMPUTES TARGET SURV PROB FOR MULTIPLE WPN ATTACKS
C SSS = SINGLE SHOT SURVIVAL PROBABILITY
C NWP = NUMBER OF WEAPONS IN THIS CALCULATION
C J = TARGET HARDNESS COMPONENT INDEX
C
CUSE LAW 20APR71 *****
C
C DAMAGE ASSESSMENT LAW - SQUARE ROOT OR EXPONENTIAL
C
C COMMON/LAW/LAW(2)
C
CEND LAW *****
CUSE LITTLE 20APR71 *****
C
C DATA FROM EVAL2
C
COMMON/LITTLE/INDCLAS,SURV,TOTRAD,TMULT,VALESC,CTMULT,
1PLANLYD,DELYD,NOMPNS,VALFAC
C
C LITTLE *****
C DIMENSION CUMKILL(2), SUMSK(2)
C DATA (EPS) = .000001
C
C IF (LAW(1) .EQ. 2MSQUARERO .AND. TOTRAD .GT. 0.0) 2. 1
C
C POWER LAW
C
C 1 SSS = SSS ** NWP
C RETURN
C
C SQUARE ROOT LAW
C
C 2 X = 1.
C 10 SS = EXPF(-X) * (1. + X)
C ERR = (SS - SSS) / SS
C IF (ABS(ERR) - EPS) 30, 30, 20
C 20 X = X + (1. + X) / X * ERR
C GO TO 10
C 30 SK = X * X
C SUMSK(J) = SUMSK(J) + SK * NWP
C SS = SORTF(SUMSK(J))
C TCUMKILL = EXPF(-SS) * (1. + SS)
C SSS = TCUMKILL / CUMKILL(J)
C CUMKILL(J) = TCUMKILL
C RETURN
C
C ENTRY INITPROB
C CUMKILL(1) = CUMKILL(2) = 1.0
C SUMSK(1) = SUMSK(2) = 0.0
C RETURN
C END

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11/24/71

5.4TS SSSPCALC

SSSPCALC

IDENT

00171
00077
00011PROGRAM LENGTH
ENTRY POINTS
SSSPCALC

BLOCK NAMES

LAN
LITTLE
00002
00013

EXTERNAL SYMBOLS

Q2007110
Q1004100
Q000100
Q000100
SORTF
EXPF

S-475 55SPCALC

11/24/71

ED

0

PAGE NO.

3

P00107 BEGIN.	00143	00151	00155						
C00006 CTMULT	00073	00076	00104	00104					
P00003 CUMKILL									
C00010 DELYLD	00013	00025	00037	00064	00078	00101	00112	00113	00111
P00001 DICT.	00014	00031	00076	00102	00106	00107	00110	00111	00111
P00144 ENDING.	00046								
P00007 EPS	00044								
P00164 ERR	00147								
P00050 EXIT.	00036								
X00005 EXPF	00015								
P00010 FORMAT.	00121								
P00026 FP00001.	00133								
P00027 FP00002.	00123								
P00030 FP00003.	00127								
P00042 FP00004.	00135								
P00057 FP00005.	00141								
P00050 FP00006.	00125								
P00074 FP00007.	00114								
P00160 GETPL.	00117								
P00150 GETPU.			00154						
P00020 IF00001.									
C00000 INDCLAS	00014	00102							
P00107 INITIAL.	00077								
P00077 INITPROB	00053								
P00034 .10	00017	00022	00022						
P00024 .1	00023								
P00032 .2									
P00050 .20									
P00054 .30	00046	00047							
P00161 .ERASER.	00035	00040							
P00010 .100000	00016								
P00010 J	00060								
C00000 LAW	00015	00015							
C00011 NOWPNS									
P00010 NWP	00027	00057							
P00131 PF00002.	00120								
P00137 PF00003.	00132								
P00143 PF00004.	00140								
C00007 PLANYLD									
X00002 Q1004100	00056								
X00001 Q2007110	00024								
X00003 Q8001CT.	00000		00100						
P00165 SK	00055								
X00004 SGRIF	00063								
P00166 SS	00042	00044	00065	00072					
P00010 SSS	00026	00030	00043	00074					
P00011 55SPCALC	00011								
P00005 SUMSK	00061	00062	00105	00106					
C00001 SURV									
P00167 TCMKILL	00073	00075							
C00002 T6TRAD	00020	00020							
C00003 TMULT									
C00004 VALDES									
C00005 VALESC									

5.475 SSSPCALC

C00012 VALFAC
P00170 X

00070 SYMBOLS

11/24/71

ED 0

PAGE NO.

4

00055

00054

00053

00052

00051

00051

00041

00034

00033

2676


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C
C      USER PRINT AND OPERATION OPTIONS
C
COMMON/OPT/JOPT(20),ITGTMAX,PREFABRT,JSKIP
TYPE LOGICAL JCPT
C
CEND
      OPT *****
      DIMENSION NAMEATT(5),NTGTTYPE(50),NTGTATT(50),XTGTATT(50),
      INVTYPX(50,8)
      DATA(NAMEATT(1),I=1,5),SHVO(1),6HTAU(1),6HH(1),7MPVAL(1),
      13HPEN)
      IF(JOPT(1))19,20
20  ITP=SCRATCH
699 CALL RDWORD
      NTGT=ITWORD
710 CALL RDARRAY(TOJ,NUM)
      CALL RDARRAY(IJ,NUM)
      CALL RDARRAY(PEN,NUM)
      CALL RDARRAY(KORR,NUM)
10  IF(IITGTINDX.EQ.0)720,770
720 IND=1
730 READ 74,NTGTTYPE(IND),NTGTATT(IND),XTGTATT(IND),
      1(NMPTYPX(IND,IJ),I=1,4)
740 FORMAT (2(A8,2X),F10.4,4(I8,2X))
      IF (NTGTTYPE(IND).EQ.4)STOP741,742
741 STOP
742 CONTINUE
743 IF(NTGTTYPE(IND).EQ.1H)760,765
755 IND=IND+1
      GO TO 730
760 NUMMODS = IND-1
      IF(NUMMODS.EQ.0)761,763
761 PRINT 762,NPASS
762 FORMAT(//4SHNO TARGET MODIFICATIONS ON THIS PASS,NPASS IS,2X,I10)
      GO TO 770
763 PRINT 764,NPASS
764 FORMAT (5X,5NPASS,5X,I10,//40X,35HTARGET MODIFICATIONS ON THIS
      1PASS//2X,7NTGTTYPE,1X,9HTATTRIBUTE,2X,9HCHANGED BY,2X,34X,3APON TYPE
      2S FOR WHICH PENETRATION/2X,7HCHANGED,2X,7HCHANGED,3X,9HFACTOR OF
      3,2X,33HPROBABILTY WAS CHANGED BY FACTOR)
      PRINT 765, (NTGTTYPE(IC),NTGTATT(IC),XTGTATT(IC),NMPTYPX(IC,IJ),
      1(IJ=1,4),IC=1,NUMMODS)
765 FORMAT(2(2X,A8),F10.4,4(2X,A8))
      IF NUMMODS =0,THIS DO LOOP PROVIDES FAST EXIT
C
770 DO 850 IC=1,NUMMODS
      IF(NTGTTYPE(IC).EQ.7)ALLTGT(790,780
780 IF(NTGTTYPE(IC).EQ.NTGTTYPE(IC))790,850
790 INDEXATT = ITC(NTGTATT(IC),NAMEATT(5)) + 1
      GO TO (791,792,793,794,795,796)INDEXATT
791 IF(IITGTINDX.EQ.0)781,820
781 PRINT 800
800 FORMAT(2X,52HERROR,TARGET ATTRIBUTE TO BE CHANGED IS NOT ON LIST
      1//1X,9HTATTRIBUTE,5X,28HLIST OF ALLOWABLE ATTRIBUTES)
      PRINT 801,NTGTATT(IC)
801 FORMAT(2X,A8,6X,SHVO(1),6X,6HTAU(1),6X,6HH(1),6X,7MPVAL(1),6X,
      13HPEN)

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21/25/71

FTMS.5

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GO TO 850
792 IF(M.EQ.1)728,789
788 VO(1) = VTO = VTO * XTGTATT
GO TO 856
789 VO(1)=VO(1)*XTGTATT
VO(2)=VTO *VO(1)
IF(VO(2).802.802,804
802 VO(1)=VTO
VO(2) =0.
804 GO TO 850
793 TAU(1) = TAU(1)*XTGTATT(IC)
GO TO 850
794 M(1)=M(1)*XTGTATT(IC)
GO TO 850
795 GO TO (805,806,815)MK
805 FVAL(1)=1.0
GO TO 850
806 FVAL(1)=FVAL(1)*XTGTATT(IC)
IF(FVAL(1).GT.1.0)807,808
807 FVAL(1)=1.0
FVAL(2)=0.
GO TO 850
808 FVAL(2)= 1.0 -FVAL(1)
GO TO 850
810 FVAL(1)=FVAL(1)*XTGTATT(IC)
IF(FVAL(1).GT.1.0)811,812
811 FVAL(1)= 1.0
FVAL(2)=FVAL(3)=0
GO TO 850
812 RAT =FVAL(2)/(FVAL(2)+FVAL(3))
FVAL(2)= RAT*(1.0-FVAL(1))
FVAL(3)= 1.0 -FVAL(1)-FVAL(2)
GO TO 850
796 IF(NHPTYPX(IC,1).EQ.7)HALLWMS)815,820
815 DO 816 IVP =1,NUM
PEN(IMP)=PEN(IMP)*XTGTATT(IC)
IF(PEN(IMP).GT.1.0)817,818
817 PEN(IMP) =1.0
818 CONTINUE
GO TO 850
820 IF(NHPTYPX(IC,1).EQ.7)HOMBERS)825,830
825 DO 829 IVP =1,NUM
J6 =16(IMP)
IF(ICLASS(I)TYPE(J6)).EQ.2)826,829
826 PEN(IMP)=PEN(IMP)*XTGTATT(IC)
IF(PEN(IMP).GT.1.0)827,829
827 PEN(IMP) =1.0
829 CONTINUE
GO TO 850
830 IF(NHPTYPX(IC,1).EQ.8)HMISSILES)831,836
831 DO 835 IVP =1,NUM
J6 = 16(IMP)
IF(ICLASS(I)TYPE(J6)).EQ.1)833,835
833 PEN(IMP)=PEN(IMP)*XTGTATT(IC)
IF(PEN(IMP).GT.1.0)834,835
834 PEN(IMP) =1.0

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FTMS.5

11/26/71

PAGE NO. 4

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835 CONTINUE
86 TO 850
836 DO 847 I=1,4
      IF(NUPTYPX(IC,IJ).EQ.1H) 250,837
837 DO 846 IMP=1,NUM
      JB=IG(IMP)
      IF(NAMEPKN(ITYPE(JB)).EQ.NUPTYPX(IC,IJ)) 840,846
840 PEN(IMP)=PEN(IMP)+ITGTATT(IC)
841 PEN(IMP)=1.0/841,846
846 CONTINUE
847 CONTINUE
850 CONTINUE
      IYETINDX = ITGTINDX +1
      END
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11/24/71

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5.4TS TGTMODIF

TGTMODIF

IDENT

02064	TGTMODIF
01264	
00014	FILABEL
00001	ITP
00001	MYIDENT
00010	MYLABEL
00001	NOBPRINT
00001	TWCOD
01442	WPNMOD
00346	TGTMOD
00020	FILES
00004	OPT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

EXTERNAL SYMBOLS

03000040
THEND.
000STOPS
000DICT.
RDWORD
RDARRAY
TITLE
TSH.
STH.
ONSINGL.

S-ATS YSTMODIF

11/24/71

EO 0

PAGE NO.

6

C00012 ALOCGRP									
C00006 ALOCTAR									
C00002 BASEFILE									
P02034 BEGIN.									
C00001 CEP									
P01772 CNVRT1.									
P02051 COUNT.									
P01056 CRFMT.									
C01131 DBL									
C00245 DE									
P00001 DICT.									
P02060 ENDING.									
C00016 EVENTAPE									
P00000 EXIT.									
P01056 FORMAT.									
C00501 FUNC									
C00010 FVAL									
P01344 G600000.									
P01374 G600001.									
P01405 G600002.									
P01436 G600003.									
P01475 G600004.									
P01505 G600005.									
C00003 H									
C00345 IGINOX									
P02052 IC									
C00121 ICLASS									
C00017 IG									
P02053 IGOTO.									
P02054 IJ									
P02055 IMD									
P01773 IN00002.									
P01774 IN00004.									
C00007 INCOMM									
C00002 INDATE									
P02056 INDEXATT									
C00000 INDEXNO									
C00342 INDTYPE									
C00003 INFORM									
C00000 INIDENT									
P02051 INITIAL.									
C00000 INLNTH									
C00001 INRUNNO									
C00004 INSECR									
C00005 INTIME									
C00344 ITGTINDX									
C00001 ITGTMAX									
X00007 ITLE									
C00000 ITP									

2682

S.4TS TGTW001F

PAGE NO.

ED 0

11/26/71

7

CO0000 ITW0RD
CO0621 ITYPE
PO3557 IMP
PO1215 .10
PO1273 .20
PO1275 .689
PO1301 .710
PO1317 .720
PO1322 .730
PO1347 .741
PO1352 .742
PO1355 .755
PO1361 .760
PO1364 .761
PO1375 .76-
PO1436 .770
PO1445 .780
PO1467 .781
PO1510 .788
PO1514 .789
PO1450 .790
PO1465 .791
PO1506 .792
PO1526 .793
PO1532 .794
PO1536 .795
PO1610 .796
PO1522 .802
PO1525 .804
PO1542 .805
PO1545 .806
PO1553 .807
PO1557 .808
PO1562 .810
PO1570 .811
PO1574 .812
PO1613 .815
PO1627 .817
PO1633 .820
PO1636 .825
PO1654 .826
PO1662 .827
PO1664 .829
PO1666 .830
PO1671 .831
PO1707 .833
PO1715 .834
PO1717 .835
PO1721 .836
PO1727 .837
PO1746 .840
PO1754 .841
PO1756 .846

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01646 01647
01614 01617
01272

01701 01702 01740 01741
01637 01642 01672 01675
01730 01733

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01706 01713 01714
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SATS TOTMODIF

11/24/71

ED 0

PAGE NO.

8

P01757 .847	01447	01466	01505	01513	01525	01531	01535	01544	01556	01561	01573
P01762 .850	01607	01632	01665	01720	01726						
	01456	01576	01600								
P02045 .ERASER.											
P01071 ..100000	01345										
P01072 ..100001	01353										
P01206 ..100002	01443										
P01260 ..100003	01611										
P01261 ..100004	01634										
P01262 ..100005	01667										
P01263 ..100006	01725										
P01056 ..740	01325										
P01073 ..762	01367										
P01107 ..764	01400										
P01173 ..765	01410										
P01207 ..800	01472										
P01235 ..801	01500										
P02044 .NSTIFF.	01650										
P01454 .Z00001.	01451										
P02060 JG	01645										
C00000 JOPT	01271										
C00003 JSKIP											
C00005 KORR	01314										
C00002 M	01506										
C00004 MSLTIME											
C00003 MYCOMH											
C00000 MYFORINT											
C00000 MYIDENT											
C00002 MYLNGTH											
C00001 MYSECR											
P00003 NAMEATT	01056	01454									
C00361 NAMEWPN	01743	01744									
C00007 NK	01536	01536									
C00000 NOPRINT											
C01441 NPASS	01370	01376	01401	01461							
P02061 NTGT	01306										
P00072 NTGTATT	01331	01417	01451	01454	01502						
P00010 NTGTTYPE	01330	01345	01353	01416	01443	01447					
C00341 NTTYPE	01445	01445									
C00000 NTYPES											
C00016 NUM	01303	01306	01311	01314	01614	01615	01637	01640	01672	01673	01736
P02062 NUMKODS	01731										
P00236 NWPTYPX	01362	01432	01764								
P01775 P00000.U	01337	01424	01611	01634	01667	01725	01745				
P02013 P00001.U	02001										
C00151 PEN	02015										
	01211	01621	01621	01623	01623	01624	01630	01630	01654	01654	01656
	01656	01657	01663	01663	01707	01707	01711	01711	01712	01716	01716
	01746	01746	01750	01750	01751	01755	01755				
C00017 PLANTAPE											
C00002 PREFABRY											
X00001 Q3000040	01270										
X00004 Q8001CT.	00000	01265									
X00003 Q800STOPS	01350										

2696

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999 IF(LINK.LT.LLL)GO TO 10
1000 IF(LINK.LE.MAXLNK)10,1006
1006 LNKST=NFIL+LLL
      ITP=IUNIT $ MYIDENT=7HSCATCH
      IF(MAXLNK.GT.0.AND.MAXLNK.LT.LLL)GO TO 102
      MAXLNK=LLL
      IF(LNKST.GT.LINK)MAXLNK=LINK-(NFIL-E-I)*MAXLNK
      IF(MAXLNK.EQ.0)GO TO 102
DO 1004 I=1,MAXLNK
  CALL RDWORD $ JLINK(I)=ITWORD
  CALL RDWORD $ KLINK(I)=ITWORD
  CALL RDWORD $ LLINK(I)=ITWORD
1004 CONTINUE
      LNK=1 $ MFILE=NFIL+1
10 CONTINUE
      IF(LNK.GT.LINK)GO TO 102
      INDEXNO=JLINK(LNK).AND.0000077777000008
      INDEXNO=INDEXNO/1000008
      ITGTX=JLINK(LNK)/100000000008
      IF(ITGTX-ITGTINDEX)103,2,102
2 CONTINUE
      IF(INDEXNO-IBINDEX)103,4,102
4 MFPN=MFPN+1
      IF(MFPN-30)6,6,11
6 KG=JLINK(LNK).AND.00000000000777008
      IG(MFPN)=KG/1008
      IP=IP/1000000000008
      PEN(MFPN)=IP/4096.
      JG=IG(MFPN)
      PEN(MFPN)=PEN(MFPN)/(06L(JG)*REL(ITYPE(JG)))
      KG=JLINK(LNK).AND.000000000000000778
      KORR(MFPN)=KG
      IT=JLINK(LNK).AND.77777777777777778
      TOA(MFPN)=IT/10000.
      ITL=JLINK(LNK).AND.7777777777000000008
      ITL=ITL/1000000008
      BLAT(MFPN)=ITL/10000.
      ITL=JLINK(LNK).AND.7777777778
      BLON(MFPN)=ITL/10000.
9 IF(JOPT(3))5,8
5 IF(LNK.LT.NMAX)GO TO 8
      PRINT 7,ITGTX,INDEXNO,MFPN,IG(MFPN)*KORR(MFPN)*PEN(MFPN).
      ITOA(MFPN),BLAT(MFPN),BLON(MFPN)
7 FORMAT(IX,45HTGTNO INDEXNO MFPNO IG KORR PEN TOA BLAT BLON ,5IG,
1 4F10.4)
8 LNK=LNK+1
      GO TO 999
11 NT=MFPN-1
      IHERE=0
DO 15 I=1,NT
  IF(IG(I))15,15,12
12 ITEST=IG(I)
      IG(I)=0
      IG(IHERE)=ITEST

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KORR(IHERE)=XMINOF(-1,KORR(I))
F=-KORR(IHERE)
TOASUM=TOA(I)*F
BLATSUM=BLAT(I)*F
BLONSUM=BLON(I)*F
PEN(IHERE)=PEN(I)
IX=I+1
DO 14 J=IX,NT
  IF(I8(J)-IYES)14,13,14
13 16(J)=0
  KORR(IHERE)=KORR(IHERE)-1
  TOASUM=TOASUM+TOA(J)
  BLATSUM=BLATSUM+BLAT(J)
  BLONSUM=BLONSUM+BLON(J)
14 CONTINUE
F=-1./KORR(IHERE)
TOA(IHERE)=TOASUM*F
BLAT(IHERE)=BLATSUM*F
BLON(IHERE)=BLONSUM*F
15 CONTINUE
IHERE=IHERE+1
DO 16 I=IHERE,NT
  18(I)=KORR(I)=0
  16 TOA(I)=BLAT(I)=BLON(I)=PEN(I)=0.
  IF(MNP(IHERE)=17,17,19
17 PRINT 18,INDEXNO
18 FORMAT(//I,IS(IH),61H UNPACKER UNABLE TO REDUCE NUMBER OF WEAPD
  IN GROUPS ON TARGET ,I6,SH - ABORT)
  CALL ABORT
19 MNP=IHERE
  GO TO 6
102 MNP=MNP
  LNK=LNK+1
  RETURN
103 PRINT 104,UNIT,ITGTX,INDEXNO,ITGTINX,ISGINOX
104 FORMAT(21HOPACKED SCRATCH FILE I6,42H OUT OF SYNCH WITH ALOCTAR FI
  LE ON TARGET I6,16H HAVING INDEXNO I7,20H ALOCTAR TARGET IS I6,
  2 I7H AND HAS INDEXNO I7)
  CALL ABORT
  RETURN
  END

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5.4TS UNPACKER

11/24/71

ED 0

PAGE NO.

4

IDENT UNPACKER

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IDENT	UNPACKER
00713	
00105	
00004	OPT
00014	FILABEL
00001	ITP
00001	MYIDENT
00010	MYLABEL
00001	NORPRINT
00001	TWORD
01442	WPNMOD
00346	TGTMOD
00076	LATLOW
27341	

EXTERNAL SYMBOLS

2
Q3000046
THEND.
Q1005100
Q800100
Q800100
RDWORD
ABORT
XMINOF
STM.
QMSINGL.

5.4TS UNPACKER

11/24/71 ED 0 PAGE NO. 5

X00006 ABORT	00526	00555	00640	00354	00422	00422	00451	00452	00467	00510
P00562 BEGIN.	00626	00634	00354	00466	00425	00454	00471	00472	00507	00510
C00000 BLAT	00314	00315	00451	00356	00470					
P00066 BLATSUM	00424	00451	00453	00455						
C00036 BLON	00324	00325	00356	00470						
P00667 BLONSUM	00426	00453	00455	00470						
C00001 CEP	00342	00344	00346	00350	00351	00352	00353	00355	00356	00544
P00561 CNVRT1.	00546	00550	00551	00552						
P00070 COUNT.	00435	00436	00502	00503						
P00006 CRAFT.	00361	00526	00555							
C01131 DBL	00261	00261								
C00245 DE										
P00001 DICT.	00107	00160	00165	00171	00337	00360	00410	00520	00525	00541
P00627 ENDING.	00554	00556	00565	00566						
P00000 EXIT.	00110	00536	00557	00562	00563	00563	00564	00564		
P00571 F	00632									
P00006 FORMAT.	00417	00421	00423	00426	00463	00464	00466	00471		
P00120 FP00001.	00130									
P00126 FP00002.	00574	00575								
P00177 FP00003.	00622	00623								
P00203 FP00004.	00612	00613								
P00207 FP00005.	00600	00601								
P00234 FP00006.	00602	00603								
P00331 FP00007.	00604	00605								
P00361 FP00010.	00606	00607								
P00362 FP00011.	00610	00611								
P00534 FP00012.	00614	00615								
P00535 FP00013.	00576	00577								
C00543 FP00014.	00616	00617								
C00501 FUNC	00624	00625								
C00010 FVAL										
P00643 GETPL.	00567	00620								
P00633 GETPU.	00572	00637								
P00361 G000000.	00335									
P00526 G000001.	00516									
P00555 G000002.	00537									
C00003 H										
P00672 I	00156	00162	00174	00367	00371	00376	00431	00473	00500	00502
C00345 I00INDEX	00226	00552								
C00121 ICLASS										
C00017 I0	00242	00242	00254	00347	00350	00372	00372	00376	00377	00401
P00673 IHERE	00403	00404	00437	00437	00443	00444	00444	00477	00477	00501
C00001 ILINK	00366	00374	00375	00403	00436	00440	00476	00477	00477	00514
C00007 INCOMM										
C00002 INDATE										
C00000 INDEXNO	00212	00213	00215	00216	00225	00225	00343	00343	00522	00547
C00342 INDTYPE	00547									
C00003 INFORM										

5.4TS UNPACKER

11/26/71

ED 0

PAGE NO. 6

C00000	INIDENT						
P00562	INITIAL.	00110					
C00006	INLNQTH						
C00001	INRUNNO						
C00004	INSECR						
C00005	INTIME						
P00674	IP	00245	00247	00250			
P00675	IT	00276	00277				
P00676	ITEST	00400	00402	00440			
C00344	ITGTINX	00222	00222	00551			
C00001	ITGTMAX						
P00677	ITGTX	00221	00341	00545			
C00700	ITL	00306	00310	00310	00320	00320	
C00000	ITP	00127	00127				
C00000	ITWORD	00161	00161	00166	00166	00172	00172
C00621	ITYPE	00256	00257				
P00006	IUNIT	00126	00543				
P00701	IX	00432	00432	00434			
P00120	.1000						
P00203	.10	00117	00122	00123			
P00117	.100001						
P00120	.100002	00116	00116				
P00140	.100003						
P00141	.100004	00133	00134	00136	00137		
P00145	.100005						
P00152	.100006	00144	00144				
P00154	.100007						
P00155	.100008	00153					
P00206	.100009						
P00267	.100010	00205	00205				
P00334	.100011						
P00335	.100012	00333	00333				
P00174	.1004						
P00124	.1006	00122					
P00532	.102	00140	00154	00206	00224	00227	
P00537	.103	00223	00227				
P00364	.11	00233					
P00374	.12						
P00443	.13	00441					
P00456	.14	00441	00442				
P00473	.15	00373	00373				
P00506	.16						
P00516	.17	00514	00515				
P00530	.19	00515					
P00225	.2	00223					
P00230	.4	00226					
P00331	.5	00330					
P00234	.6	00232	00233	00531			
P00361	.8	00330	00334				
P00326	.9						
P00114	.99	00363					
P00645	.ERASER.	00147	00264	00266	00405	00411	
P00006	.100000	00146					
P00047	.104	00542					

5.475 UNPACKER

11/24/71 ED 0 PAGE NO. 7

P00023	..10	00521					
P00007	..7	00360					
P00644	INSTIFF.	00260					
P00411	Z00001.	00406	00262				
P00702	J	00433	00435				
P00703	J6	00255	00256				
C00001	JLINK	00163	00163	00210	00210	00216	00217
C00000	JOPT	00327				00235	00235
C00003	JSKIP						
P00704	KG	00237					
C07641	KLINK	00167	00167	00243	00243	00274	00274
P00705	KO	00272					
C00035	KORR	00273	00273	00351	00351	00412	00412
		00462	00504	00505	00505	00444	00444
C00000	LINK	00114	00114	00143	00143	00204	00204
C17501	LLINK	00173	00173	00303	00303	00264	00264
P00005	LLL	00115	00125	00136	00136		
P00006	LNK	00120	00200	00203	00203	00361	00361
P00706	LNKST	00125	00142			00534	00534
C00002	M	00121	00132	00135	00142	00147	00151
P00003	MAXLNK					00152	00175
C00003	MYCONM						
C00000	MYFORMT						
C00000	MYIDENT	00131	00131				
C00002	MYLNKTH						
C00001	MYSECR						
C00331	NAMEPN						
P00004	WFILE	00124	00145	00201	00202		
C00007	NK	00112	00332				
P00707	NMAX						
C00000	NOPRINT						
C01441	NPASS						
P00710	NT	00365	00433	00474	00500		
C00341	NTYPE						
C00000	NTYPES						
C00016	NUN	00533	00533				
P00711	NUPN	00113	00230	00231	00241	00345	00347
C00151	PEN	00253	00254	00265	00265	00352	00352
		00507				00531	00532
P00620	PF00002.	00573				00427	00430
P00626	PF00003.	00621					
C00002	PREFABRT						
X00003	Q1005100	00461					
X00001	Q3000040	00326					
X00004	Q8001CT.	00000	00106				
X00011	QMSINBL.	00560					
X00005	ROWORD	00157	00164	00170			
C00241	REL	00263	00263				
C00113	RVAL						
X00010	STH.	00336	00517	00540			
C00013	TAU						
C00074	T6TLAT						
C00075	T6TLOW						
X00002	TREND.	00357	00524	00553			

5.ATS UNPACKER

11/24/71 EO 0 PAGE NO. 8

C00303 TIMEVAL	00302	00303	00353	00417	00420	00447	00464	00465	00511	00511
C00207 TOA	00421	00446	00450	00463						
P00712 TOASUM	00156									
P00175 TS00001.	00370									
P00474 TS00002.	00434									
P00457 TS00003.	00501									
P00513 TS00004.										
C00000 TWORO										
P00105 UNPACKER	00105									
C00005 VC										
C00001 WTO										
C00343 VTOC										
P00157 WS00001.	00176									
P00371 WS00002.	00475									
P00437 WS00003.	00456									
P00504 WS00004.	00512									
X00007 XMINOF	00407									
00254 SYMBOLS										


```

SUBROUTINE WPMWODIF
  WPMWODIF 11AUG71
  *****
  THIS SUBROUTINE MODIFIES VALUES OF CEP,REL, OR DBL FOR ALL WEAPONS
  .FOR BOMBERS ONLY, FOR MISSILES ONLY, OR FOR SPECIFIC WEAPON
  TYPES WHICH CAN BE CALLED FOR BY NAME. NOTIFICATIONS ARE ENTERED
  ON CARDS, THE FIRST WORD BEING WEAPON TYPE, THE SECOND EITHER CEP
  OR REL AND THE THIRD BEING A MULTIPLICATIVE FACTOR
  CUSE OPT 20APR71 *****
  C
  C USER PRINT AND OPERATION OPTIONS
  C
  COMMON/OPT/JOPT(20),ITGTHAX,PREFABRT,JSKIP
  TYPE LOGICAL JOPT
  C
  CEND OPT *****
  CUSE WPMWOD 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  COMMON/WPMWOD/NTYPES,CEP(80),ICLASS(80),REL(80),NAMEWPN(80),
  IFUNC(80),ITYPE(200),DBL(200),NPASS
  C
  CEND WPMWOD *****
  CUSE 2 20APR71 *****
  C
  C DATA FROM BASFILE
  C
  COMMON/2/CCREL(20),IREG(200),IALERT(200),IPAY(200),YIELD(200),
  ICLAS(200),NALLTYPE(7,200),SKDNP(7,200),DELWPTYP(7,200),
  ZALLTYPE(7,200),NALLCLAS(7,50),SKDNPCL(7,50),DELWPC(7,50),
  3ALLCLAS(7,50)
  TYPE INTEGER CLASYPE
  TYPE REAL NALLTYPE,NALLCLAS
  C
  CEND 2 *****
  CALL PAGESKP
  PRINT 490,NPASS
  490 FORMAT(10X,5HPASS,5X,110)
  PRINT 500
  500 FORMAT(10X,49HWEAPON TYPES AND ATTRIBUTES MODIFIED ON THIS PASS
  1/2X,7HPNTYPE,2X,9HATTRIBUTE,2X,13HATTRB CHANGED/1X,8HMODIFIED,
  2X,9HMODIFIED,3X,12HBY FACTOR OF)
  510 READ 520, IWPNTYPE, IWPNTYPE, IWPNTYPE, IWPNTYPE, IWPNTYPE
  520 FORMAT (2 (A8.2X), F10.4, I10)
  525 IF (IWPNTYPE.EQ.1H 1595,525)
  526 JSKIP = IWPNTYPE
  RETURN
  529 PRINT 530, IWPNTYPE, IGROUP, IWPNTYPE, IWPNTYPE
  530 FORMAT ( 3X, A3, 13, 3X, A8, 3X, 10.4)
  IF ( IWPNTYPE .EQ. 5HGROUP) 600, 540
  600 IF (IWPNTYPE.EQ.3HDBL) 531, 535
  531 DBL(IGROUP)=DBL(IGROUP)*IWPNTYPE
  GO TO 510
  535 YIELD(IGROUP)=YIELD(IGROUP)*IWPNTYPE
  GO TO 510

```

FTNS.5

11/24/71

PAGE NO. 2

```

540 IF (IMPNTYPE.EQ.7)HALFWPNS)550,560-
    CEP.REL. OR DRL IF MODIFIED FOR ALL WEAPONS
550 IF (IMPNTATT.EQ.3)REL)556,556
554 DO 555 IT =1,NTYPES
    REL(IT)=REL(IT)*XMPNATT
    IF (REL(IT).GT.1.0)557,555
557 REL(IT)=1.0
555 CONTINUE
    GO TO 510
556 IF (IMPNTATT.EQ.3)HCEP)559,510
559 DO 558 IT =1,NTYPES
    CEP(IT)=CEP(IT)*XMPNATT
558 CONTINUE
    GO TO 510
560 IF (IMPNTYPE.EQ.7)BOMBERS)562,570
562 IF (IMPNTATT.EQ.3)MREL)563,567
563 DO 566 IT=1,NTYPES
    IF (ICLASS(IT).EQ.2)564,566
564 REL(IT)=REL(IT)*XMPNATT
565 IF (REL(IT).GT.1.0)565,566
565 REL(IT)=1.0
566 CONTINUE
    GO TO 510
567 IF (IMPNTATT.EQ.3)HCEP)561,510
561 DO 569 IT =1,NTYPES
    IF (ICLASS(IT).EQ.2)568,569
568 CEP(IT)= CEP(IT)*XMPNATT
569 CONTINUE
    GO TO 510
570 IF (IMPNTYPE.EQ.8)MISSILES)572,580
572 IF (IMPNTATT.EQ.3)HREL)573,576
573 DO 575 IT =1,NTYPES
    IF (ICLASS(IT).EQ.1)574,575
574 REL(IT)=REL(IT)*XMPNATT
575 IF (REL(IT).GT.1.0)579,575
579 REL(IT)=1.0
575 CONTINUE
    GO TO 510
576 IF (IMPNTATT.EQ.3)HCEP)571,510
571 DO 578 IT =1,NTYPES
    IF (ICLASS(IT).EQ.1)577,578
577 CEP(IT)=CEP(IT)*XMPNATT
578 CONTINUE
    GO TO 510
580 DO 586 IT=1,NTYPES
    IF (NAMEPNTATT.EQ.IMPNTYPE)581,586
581 IF (IMPNTATT.EQ.3)HREL)582,584
582 REL(IT)=REL(IT)*XMPNATT
    IF (REL(IT).GT.1.0)REL(IT)=1.0
    GO TO 586
584 IF (IMPNTATT.EQ.3)HCEP)583,510
583 CEP(IT)= CEP(IT) * KUPNATT
586 CONTINUE
    GO TO 510
595 PRINT 596
596 FORMAT(/'2X,93)ALL MODIFICATIONS MADE. IF THE ABOVE TABLE IS EMPTY

```

31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
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43000
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73000
74000
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76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000

FTN5.5

1. NO WEAPON CHANGES WERE MADE ON THIS PASS)
END

11/24/71

PAGE NO. 3

87000
98000

2696

5.4TS WPNMODIF

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

WPNMODIF

OPT

WPNMOD

2

EXTERNAL SYMBOLS

THEND.

ORDDICT.

PAGESXP

TSH.

STM.

ONSINGL.

IDENT

00477

00136

00004

01442

17524

WPNMODIF

11/26/71

ED

0

PAGE NO.

4

5.4TS WPMNMODIF

11/24/71 EC 0 PAGE NO. 5

C18766 ALLCLAS	00465	00275	00275	00277	00277	00343	00343	00345	00411	00411	00413
C12144 ALLTYPE	00413	00444	00444	00446	00446	00446	00446				
P00464 BEGIN.	00151	00166	00170	00171	00171	00213	00213	00215	00216		
C00000 CCREL	00251	00252	00273	00274	00274	00313	00313	00340	00361	00362	00405
C00001 CEP	00406										
C01464 CLASTYPE	00154	00162	00176	00221	00221	00461	00461				
P00463 CHWRT1.	00227	00227	00231	00231	00231						
P00471 COUNT.											
P00003 CREMT.											
C01131 DBL											
C16230 DELWPCL											
C07354 DELWPTYP											
P00001 DICT.	00140	00143	00146	00153	00153	00156	00161	00175	00210	00220	00455
P00466 ENDING.	00460										
P00000 EXIT.	00141	00205	00461	00464	00464						
P00003 FORMAT.	00176	00201	00221	00224	00224	00240	00243	00265	00302	00331	00350
C00501 FUNC	00353	00377	00416								
P00154 GG00000.	00144										
P00162 GG00001.	00154										
P00176 GG00002.	00162										
P00221 GG00003.	00206										
P00461 GG00004.	00453										
C00334 IALERT											
C00121 ICLASS	00315	00341	00341	00341	00341	00363	00363	00407	00407		
P00472 IGROUP	00173	00214	00226	00233	00233						
P00464 INITIAL.	00141										
C00644 IPAY											
C00024 IREG	00246	00251	00270	00273	00273	00310	00313	00334	00356	00361	00402
P00473 IT	00405	00417	00420	00426	00426	00436	00443	00447			
C00001 ITGTMAX											
C00621 ITYPE											
P00474 IPNATT	00171	00215	00224	00243	00243	00245	00305	00331	00377	00424	00441
P00475 IMPNTYPE	00167	00176	00201	00201	00203	00212	00221	00240	00302	00350	
P00435 .100001											
P00440 .100002	00433	00434	00237	00234	00266	00301	00330	00332	00347	00400	00415
P00162 .510	00232	00237									
P00201 .525	00442	00452									
P00203 .526	00177										
P00206 .529	00202										
P00226 .531											
P00233 .535	00225										
P00240 .540	00222										
P00243 .550	00242										
P00245 .554											
P00263 .555	00257	00260									
P00265 .556	00244										
P00261 .557											
P00300 .558											

E-ATS VPMNODIF

ED 0 PAGE NO. 6

P00267 .559			
P00302 .580	00241		
P00333 .561			
P00305 .562	00304		
P00307 .563			
P00317 .564			
P00325 .565			
P00327 .566			
P00331 .567	00316 00323 00324		
P00343 .568	00306		
P00346 .569			
P00350 .570	00342		
P00401 .571	00303		
P00353 .572			
P00355 .573	00352		
P00365 .574			
P00375 .575	00364 00371 00372		
P00377 .576	00354		
P00411 .577			
P00414 .578	00410		
P00373 .579	00351		
P00416 .580			
P00424 .581			
P00426 .582			
P00443 .583			
P00441 .584	00425		
P00447 .586	00423		
P00453 .595	00200		
P00424 .600	00223		
P00665 .100000	00177		
P00066 .100001	00202		
P00100 .100002	00222		
P00101 .100003	00225		
P00102 .100004	00241		
P00103 .100005	00244		
P00104 .100006	00266		
P00105 .100007	00303		
P00106 .100008	00366		
P00107 .100009	00332		
P00110 .100010	00351		
P00111 .100011	00354		
P00112 .100012	00400		
P00113 .100013	00425		
P00114 .100014	00442		
P00003 .490	00147		
P00012 .500	00157		
P0005F .520	00165		
P00067 .530	00211		
P00115 .596	00456		
C00000 JOPY			
C00003 JSKIP	00204		
C14734 NALLCLAS			
C01774 NALLTYPE			
C00361 NAMEWPN	00421 00421		

5.475 WPNMODIF

11/24/71 ED 0 PAGE NO. 7

C01441 NPASS	00150	00270	00271	00310	00311	00334	00335	00350	00357	00402
C00000 MYPES	00266	00450								
X00003 PAGESKP	00193									
C00002 PREFABRT	00142									
X00002 Q000ICT.	00000									
X00009 Q000INL.	00482									
C00241 REL	00253	00255	00255	00256	00262	00262	00317	00317	00321	00321
	00322	00326	00365	00365	00367	00367	00376	00374	00374	00427
	00427	00431	00432	00436	00437					
C15472 SKDWPCL										
C04564 SKDWPYP										
X00005 STM.	00145	00207	00454							
X00001 TMRND.	00152	00174	00217	00457						
P00264 TS00001.	00250									
P00301 TS00002.	00272									
P00330 TS00003.	00312									
P00347 TS00004.	00336									
P00376 TS00005.	00360									
P00415 TS00006.	00404									
P00450 TS00007.	00417									
X00004 TSH.	00163									
P00136 WPNMODIF	00136									
P00253 WS00001.	00263									
P00275 WS00002.	00300									
P00319 WS00003.	00327									
P00341 WS00004.	00346									
P00363 WS00005.	00375									
P00407 WS00006.	00414									
P00420 WS00007.	00451									
P00476 XMPNATT	00172	00230	00235	00254	00276	00320	00344	00366	00412	00430
	00445									
C01154 YIELD	00234	00236	00236							
00203 SYM00LS										

12/17/71

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PROGRAM INTRFACE
  INTRFACE 18NOV71 *****
  C READS BASFILZ, THEN PROCESSES PLANTAPE *****
  C TO PRODUCE BOTH STRIKE TAPE(PTAPE) AND ABTAPE FOR MEMO. *****
  CUSE BURST IMART1 *****
  COMMON/BURST/LDESIG(3),INDEX(3),LWPN(50),ITGT(50),
  11ICROFLI,NWPN,NTGT *****
  CEND BURST *****
  C
  C LDESIG NUMER PART OF DESIG CODE FOR TARGET REQ GROUND BURST
  C INDEX ENDING NUMBER FOR SPECIFIC HIGHT OF BURST (HGB)
  C IMPNG WARHEAD TYPES WHICH REQUIRE GROUND BURST
  C ITGT ALPHA PART OF DESIG CODE FOR TARGET REQ GROUND BURST
  C ICROFLI DEFAULT MODE FOR HGB, A = AIR BURST, G = GROUND BURST
  C NWPN THE NUMBER OF WEAPONS REQUIRING GROUND BURST
  C NTGT THE NUMBER OF TARGETS REQUIRING GROUND BURST
  C
  C USED BY INTRFACE, IGETHOB
  C
  C CUMNO IMART1 *****
  COMMON/CUMNO/ICUMNO(15) *****
  CEND CUMNO *****
  C
  C ICUMNO CUMULATIVE NUMBER OF TYPES IN EACH CLASS (BKPT TABLES)
  C
  C USED BY INTRFACE, NPLNETYP
  C
  C DATE IMART1 *****
  COMMON/DATE/TOTIME,DAHOMINO,YEAR *****
  CEND DATE *****
  C
  C TOTIME TIME IN HOURS SINCE BEG OF GAME FOR TARGET HIT
  C DAHOMINO BCD CODED - DAY, HOUR, MINUTE, AND MONTH OF TARGET HIT
  C YEAR BCD CODED - YEAR OF TARGET HIT
  C
  C USED BY INTRFACE, FINOTIME
  C
  C DINDATA 22MART1 *****
  COMMON/DINDATA/HDT(90),KPL(90),JTF(90),HLA(90),HLC(90),TZT(90),
  1TZM(90),IWH(90),PA(90),CHT(90),IND(90),DES(90),TSK(90),CLC(90),
  2FLG(90) *****
  CEND DINDATA *****
  C
  C DIMENSION ICHT(90)
  C EQUIVALENCE(ICHT,ICHT)
  C TYPE INTEGER DES,TSK,CLC,FLG
  C
  C HGT FLIGHT TIME
  C KPL SITE INDEX
  C JTP MISSILE INDEX
  C HLA TARGET LATITUDE
  C HLC TARGET LONGITUDE
  C TZT WEAPON SITE LATITUDE
  C TZM WEAPON SITE LONGITUDE
  C IWH WEAPON TYPE
  C PA RELIABILITY

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CMT      WARHEAD INDEX
IND      TARGET INDEX NUMBER
DES      TARGET DESIGNATOR CODE
TSK      TARGET TASK CODE
CLC      COUNTRY LOCATION CODE
FLS      TARGET FLAG CODE
USED BY INTRFACE

COMMON/FILABEL/INIDENT,INRUNNG,INDATE,
1  INFORM,INSECR,INTIME,INLGTH,INCOM(5)
C
C  FILABEL IS A FILEHANDLER COMMON BLOCK
C
C  FRACYLD 25AUG71 *****
COMMON/FRACYLD/YIELD(50),FISFRAC(50),YIELD(50),NMPN
TYPE INTEGER YIELD,FISFRAC
FRACYLD *****
DIMENSION FY(50),FF(50)
EQUIVALENCE (FY,YIELD),(FF,FISFRAC)
DATA (NMPN = 50)

C  YIELD  WEAPON YIELD
C  FISFRAC  FISSION FRACTION FOR WEAPON
C  NMPN  NUMB OF WEAPONS
C
C  USED BY INTRFACE, YLDIFRAC
C
C  GAMETIME IMAR71 *****
COMMON/GAMETIME/KDAY,KMON,KYEAR
GAMETIME *****

C  KDAY  DAY OF GAME
C  KMON  MONTH OF GAME
C  KYEAR  YEAR OF GAME
C
C  USED BY INTRFACE, FINOTIME
C
C  IFUNC  IMAR71 *****
COMMON/IFUNC/IFUNC(80),JFUNC(20),INDFUNC(20)
IFUNC *****

IFUNC(I)  FUNCTION OR COMMAND TO WHICH QUICK PLANE TYPE I BELONGS
JFUNC(I+1) IS HOLLERITH NAME FOR JFUNC(I) - (I+1) IS EVEN
INDFUNC(I) = JFUNC(I) = FUNCTION OR COMMAND CODE WHERE I IS 999
C
C  USED BY INTRFACE
C
C  INMCH  IMAR71 *****
COMMON/INMCH/INMCH(3)
INMCH *****

INMCH(I) = 1 IF AIR BURST OVER REGION I, = 0 IF GROUND BURST
C
C  USED BY INTRFACE, IGETHOB
C

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12/17/71

FTN5.5

```

CUSE      IPRT      IMART1 *****
COMMON/IPRT/IPRT *****
CEND
C          = 1 FOR PRINT OF WPI AND VEHIC TABLE
C          = 2 FOR NO PRINT OF TABLE
C
C        USED BY INTRFACE
C
CUSE      ISOUTH  20 OCT70 *****
COMMON/ISOUTH/ISOUTH *****
CEND
C          =IMS IF SOUTHERN LATITUDE, =IM OTHERWISE
C
C        USED BY INTRFACE, LATBT
C
CUSE      ITP      IMART1 *****
COMMON/ITP/ITP *****
CEND
C          UNIT CURRENTLY BEING USED - NEEDED BY FILEHANDLER
C
C        ITP
C
C        USED BY INTRFACE
C
CUSE      MASTER  20 OCT70 *****
COMMON/MASTER/IMDATE,IDENTNO,ISIDE,IRPT,ICORR,NDOPEN,NRECCOVER
1,NREF,INBDRT,NREGENTYPE,NGROUP,NTOTBASE,NPAYLOAD,NASMTYPE,NMWDTYPE
2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE
MASTER *****
CEND
C          MASTER IS THE FIRST COMMON BLOCK ON BASFILE
C
C        USED BY INTRFACE, NOFFSYS
C
CUSE      MODE     20 OCT70 *****
COMMON/MODE/MODE *****
CEND
C          =1 FOR HIGH ALTITUDE, =4 FOR LOW ALTITUDE
C
C        USED BY INTRFACE, NOP
C
CCOMMON/MSLBMB/IPLTYP(40),DLWIS(40),NDWSS,JPLTYP(40),DLBMB(40),
1,NDBMB
C          IPLTYP(1) A MISSILE PLANE TYPE NUMBER
C          DLWIS(1) TIME INTERVAL IN HOURS BETWEEN LAUNCHES OF MISSILES OF
C          SAME TYPE FROM SAME BASE.
C          NDWSS NUMBER OF PLANE TYPES FOR WHICH DLWIS IS SPECIFIED
C          JPLTYP(1) A BOMBER PLANE TYPE NUMBER
C          DLBMB(1) TIME INTERVAL IN HOUR BETWEEN TAKEOFFS OF BOMBERS OF
C          TYPE JPLTYP(1) FROM THE SAME BASE
C          NDBMB NUMBER OF PLANE TYPES FOR WHICH DLBMB IS SPECIFIED
C
CUSE      MYIDENT  IMART1 *****

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12/17/71

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CUSE      STUB      INHART1 *****
COMMON/STUB/LHTYPE,LCLASS,LSIDE,MLOW(2),MHI(2),G1,G2,G3,LPAYLOAD
1,LPGTYPE,LBASEID,LFUNC *****
CEND      STUB *****
C          VARIABLES ARE CONTAINED ON FIRST PART OF EACH PLANTAPE RECORD
C          USED BY INTRFACE, NPLNETYP, NOFFSYS, YLDERAC
C          USED BY INTRFACE, NOP
C          TAB      20 OCT70 *****
COMMON/TAR/ITAB(21),NOPSHOT *****
CEND      TAB *****
C          ITAB      TABLE OF POSSIBLE OPERATION CODES
C          NOPSHOT DOBLEG NUMBER FOR DOG LEGS 3 OR 4 - 0 OTHERWISE
C          USED BY INTRFACE, NOP
C          FILES      3MAY71 *****
CUSE      COMMON/FILES/IGTFILE(2),BASFILE(2),IDUM(11),PLANTAPE
          TYPE INTEGER BASFILE,PLANTAPE
C          FILES *****
C          PLANTAPE CONTAINS DETAILED DATA ABOUT MISSILE, BOMBER, AND
C          TANKER EVENTS FROM QUICK SYSTEM PLAN GENERATOR
C          BASFILE CONTAINS DATA FOR COMMON BLOCKS MASTER, PAYLOAD, PROBI,
C          PUT OUT BY PREPALOC IN PLAN GENERATOR
C          ABTAPE TAPE OUTPUT BY INTRFACE, CONTAINS INPUT FOR MHCSSC
C          DAMAGE ASSESSMENT MODELS - REST, SIDAC, AND OTHERS.
C          PTAPE STRIKE TAPE PUT OUT BY INTRFACE FOR SAME USE AS ABTAPE
C          USED BY INTRFACE
C          VEHIC      INHART1 *****
COMMON/VEHIC/CEP1(80),NVHC *****
CUSE      TYPE INTEGER CEP1
          DIMENSION FC(80)
          EQUIVALENCE(FC,CEP1)
          DATA (NVHC = 80)
          VEHIC *****
C          CEP1      WEAPON CEP
C          NVHC      NUMBER OF WEAPON VEHICLES
C          USED BY INTRFACE
C          MHOUR      REFERENCE HOUR FROM WHICH BEGINNING OF GAME IS COMPUTED
C          DIMENSION JWPYS(9)
          DATA(JWPYS=3)H1C,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R,3H1R
          DATA(MHOUR=10)
          DATA(IIMREF=1)
          DATA(IIZERO=0),(IIBLANK=1H )
          TYPE INTEGER ABTAPE,PTAPE,STAPE
          DATA (BASFILE=8),(ABTAPE=6),(PTAPE=4),(STAPE=7)

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12/17/71

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DATA(LOCATTR=8),(INSECTOR=5)
DATA(LASHTGT=0),(LAUNASH=14)
DATA(IUNIT=0),(ISORTIE=0)
DIMENSION IDS(1)
DATA(NPSTRKE=0),(NPAAB=0),(LINEA=0)
DIMENSION INX(90)
DIMENSION KP(18)
DIMENSION IOPTS(5)
TYPE REAL LA, L
C
  INITIAL TAPES
  CALL VINIT
  CALL SINIT
  CALL TAPPE(=1)
  PRINT 849
  DC 1 I=1,100
  1 ICOUNT(I)=0
  422 FORMAT(6(A9,2X))
C
  READ PRINT AND TAPE OUTPUT OPTIONS
  READ 422,(IOPTS(I),I=1,5)
  PRINT 280,(IOPTS(I),I=1,5)
  280 FORMAT(10X,6(A9,2X))
  L1 = L2 = L3 = L4 = L5 = 0
  C
  L1 = 1 IF STRIKE TAPE TO BE PRODUCED, 0 IF NOT
  C
  L2 = 1 IF STRIKE TAPE TO BE PRINTED, 0 IF NOT
  C
  L3 = 1 IF ABTAPE TO BE PRODUCED, 0 IF NOT
  C
  L4 = 1 IF ABTAPE TO BE PRINTED, 0 IF NOT
  C
  L5 = 0 IF PRINT STRIKE TAPE AND ABTAPE TOGETHER = 1 IF SEP
  C
  IOPT = 1 IF L2 = L4 = 1 AND L5 = 0, 0 OTHERWISE
  IF(IOPTS(1) .EQ. 1H) 8696,8695
  8695 L1 = 1
  IF(IOPTS(2) .EQ. 1H) 8696, 8697
  8697 L2 = 1
  8696 IF(IOPTS(3) .EQ. 1H) 8700,8699
  8699 L3 = 1
  IF (IOPTS(4).EQ.1H) 8700,8701
  8701 L4 = 1
  8700 IF(IOPTS(5) .EQ. 1H) 8710,8711
  8711 L5 = 1
  8710 CONTINUE
  IOPT = L2 + L4 + (1 - L5)
  L6 = L1 + L3
  IF(L6)200,800
  200 CONTINUE
  200 PRINT 21
C
  21 FORMAT(4X,6HREGION,5X,11HLOWER SOUND,4X,11HUPPER SOUND,10X,3HHOB)
  C
  11 READ 31,(DESIG(I),INDESIG(I),INHOB(I)
  3 FORMAT(6I10)
  22 FORMAT(7X,11,11X,13,12X,13,15X,11)
  PRINT 22,1,DESIG(1),INDESIG(1),INHOB(1)
  IF(I)11,12
  12 J = 0
  C
  READ REQUIRED GROUND BURST WEAPONS- COMMON/BURST/
  12 J = 0
  PRINT 23
  23 FORMAT(30HREQUIRED GROUND BURST WEAPONS )
  16 I8E6IN = J + 1

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12/17/71

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IEND = J * 8
READ 3, (IWPNG(I), I) = IBEGIN * IEND)
PRINT, (IWPNG(I), I) = IBEGIN * IEND)
DC 13 K=1,8
IF (IWPNG(J*K)) 13, 15
13 CONTINUE
J = J + 8
GO TO 16
15 NWPNG = J * K - 1
J = 0
C READ REQUIRED GROUND BURST TARGETS- COMMON/BURST/
PRINT 24
24 FORMAT(30HREQUIRED GROUND BURST TARGETS)
8 FORMAT(8(X,A2))
17 IBEGIN = J * 1
IEND = J * 8
READ 8, (ITGTG(I), I) = IBEGIN, IEND)
PRINT 8, (ITGTG(I), I) = IBEGIN, IEND)
DC 18 K=1,8
IF (ITGTG(J*K), EQ, 24) 121, 18
18 CONTINUE
J = J + 8
GO TO 17
21 NTGTG = J * K - 1
C READ DEFAULT MODE FOR MOB- COMMON/BURST/
READ 9, INGBOFLT
9 FORMAT(8X,A1)
PRINT 25, INGBOFLT
25 FORMAT(20HOBG DEFAULT MODE = ,A1)
C READ DAY, MONTH, YEAR, AND BEG HOUR OF GAME- COMMON/GAMETIME/
C - AND PRINT OPTICH, IPRT, FOR WEAPON TABLE - COMMON/IPRT/
READ 2, KDAY, KMON, KYEAR, MHR, IPRT
2 FORMAT(310,F10.0,10X,I10)
PRINT 26, KDAY, KMON, KYEAR, MHR, IPRT
26 FORMAT(7HODAY = ,I2,9H MONTH = ,I2,8H YEAR = ,I2,7H MHR = ,F10.5,
18H IPRT = ,I1)
C DELBCHB TIME INTERVAL BETWEEN SUCCESSIVE BOMBER TAKEOFFS
C DELMIS TIME INTERVAL BETWEEN SUCCESSIVE MISSILE LAUNCHES
READ 4, DELBCHB, DELMIS
4 FORMAT(2F10.0)
PRINT 5, DELBCHB, DELMIS
5 FORMAT(11HDELBCHB = ,F10.5,9HDELMIS = ,F10.5)
DMISCB=DELMIS
SVDELBCHB=DELBCHB
C READ DELMIS BY PLANE TYPE NUMBER
PRINT 19
19 FORMAT(27HPLANE TYPE NUMBER---DELMIS/)
J=0
20 IBEGIN=J+1
IEND=J+8
READ 14, (IPLTYP(I), DELMIS(I), I=IBEGIN, IEND)
14 FORMAT(8(12,F8.0))
PRINT 6, (IPLTYP(I), DELMIS(I), I=IBEGIN, IEND)
6 FORMAT(8X,12,11X,F8.4)
DC 7 I=IBEGIN, IEND

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IF(IPLTYP(I).EQ.0)GO TO 31
7 CONTINUE
  J=J+8
  GO TO 20
31 NDMSS=1
  READ DELBOMB BY PLANE TYPE NUMBER
  PRINT 40
40 FORMAT(28HOPANE TYPE NUMBER---DELBOMB/)
  J=0
41 IBEGIN=J+1
  IEND=J+8
  READ 14*(JPLTYP(I),OLEMB(I),I=IBEGIN,IEND)
  PRINT 6*(JPLTYP(I),OLEMB(I),I=IBEGIN,IEND)
  DO 42 I=IBEGIN,IEND
    IF(JPLTYP(I).EQ.0)GO TO 43
42 CONTINUE
  J=J+8
  GO TO 41
43 NDMBS=1
  JFUNC(I) FUNCTION OR COMMAND CODE = INDFUNC(I)
  JFUNC(I+1) MOLLERITH NAME FOR JFUNC(I)
  IFUNC(I) FUNCTION OR COMMAND TO WHICH QUICK PLANE TYPE I BELONGS
  PRINT 2040
2040 FORMAT (///,10X,25HFUNCTION OR FUNCTION OR,/, 10X,23HCOMMAND CO
      *DE COMMAND)
  DO 2000 I=1,20*2
    READ 2010*(JFUNC(I),JFUNC(I+1))
2010 FORMAT (2(A8,2X))
    INDFUNC(I) = NUMGET(JFUNC(I),8)
    IF (INDFUNC(I).EQ.0) 2020,2060
2060 PRINT 2050,INDFUNC(I),JFUNC(I+1)
2050 FORMAT (15X,12(A8))
2060 CONTINUE
2020 READ 2030*(IFUNC(I),I=1,80)
2030 FORMAT (9CI)
    PRINT 2070
2070 FORMAT (///,10X,39HFUNCTION OR COMMAND CODE VS. PLANE TYPE,/)
2080 PRINT 2080*(JFUNC(I),I=1,80)
    IF (I(3) 27, 28
27 IAB = 8H WILL
    GO TO 29
28 IAB = 8H WILL NOT
29 PRINT 30,IAB
30 FORMAT(10H1AB CARDS ,A8,13H BE PROCESSED)
    MHCUR=MHCHR+MHR
    INITIALIZE FILEHANDLEK
    MIDENT = 8HINTRFACE
    CALL INITAPE
    READ BASFILE
    MIDENT = 7HBASFILE
    ITP = BASFILE $ CALL SETREAD
    ITESTRES = 8HNOV 75
    IF (INFORM .NE. ITESTRES) 620, 640
620 PRINT 630,ITESTRES,INFORM
630 FORMAT (///,15(2H *),5X,33H *RCNG BASFILE FORMAT. REQUESTED ,A8,

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12/17/71

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      *5H GGT (AR)
      STOP
      640 CONTINUE
      C INPUT COMMON/MASTER/ FROM BASFILE
      CALL RDARRAY(INDATE,22)
      C SKIP TO CUMNO ARRAY IN COMMON/BRKPT/ ON BASFILE
      CALL SKIP(501)
      C READ / CUMNO/ FROM BASFILE
      CALL RDARRAY(ICUMNO,15)
      C READ /FILES/ FROM BASFILE
      CALL SKIP(301)
      C CALL RDARRAY(IGTFILE,16)
      C SKIP /CORCHAR/ AND /ASMTABLE/ ON BASFILE
      CALL SKIP(701)
      C READ /PAYLOAD/ FROM BASFILE
      CALL RDARRAY(NOBOMB,400)
      C SKIP COMMON BLOCKS/OPENREF/, AND / PLANTYPE/ ON BASFILE
      CALL SKIP(193)
      C READ YIELD AND FISSION FRACTION FROM / WARHEAD/ INTO /FRACYLD/
      CALL RDARRAY(YIELD,NBPN)
      CALL SKIP(NBPN)
      C CALL RDARRAY(FISFRAC,NBPN)
      C SKIP /NPNEG/ AND RANGE ARRAY IN /NPNTYPE/ ON BASFILE
      CALL SKIP(100)
      C READ CEP ARRAY FROM BASFILE INTO / VEHIC/
      CALL RDARRA(ICEP1,NVHC)
      C SKIP TO REL ARRAY IN / NPNTYPE/ ON BASFILE
      CALL SKIP(460)
      C READ REL INTO / PROB1/ FROM BASFILE
      CALL RDARRAY(REL,80)
      C SKIP TO DBLREAL ARRAY IN / EXCESS/ ON BASFILE
      CALL SKIP(8527)
      C READ DBLX ARRAY FROM /EXCESS/ ON BASFILE INTO /PRC81/
      CALL RDARRAY(DBLX,200)
      C REWIND AND RELEASE BASFILE
      CALL TERMTEPE
      C CONVERT ALL CEPS TO ALPHANUMERICS
      DO 423 I = 1,NVHC
      FC(I) = FC(I) * 60.8
      IF(FC(I) .GT.999.) FC(I) = 999.
      CEPI(I) = FC(I)
      423 CONTINUE
      C CONVERT ALL YIELDS AND FISSION FRACTIONS TO ALPHANUMERICS
      DO 424 J = 1,NBPN
      YIELD(J) = FY(J) * 100.
      YIELD(J) = YIELD(J)
      YIELD(J) = KNOSBLANK(YIELD(J))
      ITEM = FF(J) * 100.
      ENCODE(3,425,ITEM)ITEM
      425 FORMAT(I3)
      424 FISFRAC(J) = NOSBLANK(ITEMP)
      424 CONTINUE
      C IF (IPRT .GE. 2) 160,432
      PRINT WEAPON AND VEHICLE TABLES FROM /FRACYLD/ AND /VEHIC/
      PRINT 175
      160 PRINT 166,(J,CEPI(J),J=1,NVHC)

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PRINT 176
PRINT 167,(J,YIELD(J),FISFRAC(J),JMI,NWPN)
167 FORMAT(//,10X,18,10X,A8,10X,A8)
176 FORMAT(1H1,/,15X,13HVEHICLE TABLE )
176 FORMAT(1H1,/,18X,12HWEAPON TABLE )
166 FORMAT (/,10X,18,10X,18)
432 CONTINUE
REWIND PTAPE
REWIND STAPE
REWIND ABTape
PRINT 849
CALL TIME1(1)
BEGIN MAIN LOOP
CALL TIME1(2)
ISVUNIT=IUNIT
ISVORTIE=ISORTIE
SVOMISS=MISS
READ HEADER BLOCK OF PLANTAPE RECORD (WORDS 1 - 25) - COMMON/STUB/
C READ (PLANTAPE) (LSIDE,LGROUP,LCORR,LSORTIE,LBASEID,LVEHID
1,LCCLASS,LTYPE,LREQ,LALERT,LPAYLOAD,LDPEN,LTOT,LPLAN
2,GI,G2,G3,MLOW(1),MLOW(2),MHI(1),MHI(2),LHTYPE,LPGTYPE,LFUNC,
3,LAST)
IF (LCCLASS.NE.3) GO TO 301
LHTYPE=ISLANK
LPGTYPE=0
301 CONTINUE
C PROCESS ELEMENTS WHICH ARE SAME FOR BOMBERS, MISSILES, TANKERS.
C DETERMINE PLANE TYPE CODE (IPLNETYP) COMMAND OR FUNCTION CODE
C (ICMO), AND CEP(KCEP) FOR STRIKE CARD.
310 IPLNETYP = NPLNETYP(LTYPE)
ISVPLNTYP=IPLNETYP
NCMD = IFUNC(IPLNETYP)
ICMO = KNOBLANK(NCMD)
IGFFSYS = NOFFSYS(IPLNETYP)
IPLNETYP = KNOBLANK(IPLNETYP)
KCEP=KNOBLANK(CEP1(LPGTYPE))
LPLAN IS 0 IF RECORD IS FOR TANKER
IF (LPLAN.EQ.0) 311,312
311 LPLAN=LTOT
312 CONTINUE
C MISSILES, BOMBERS OR TANKERS
C WHEN LCCLASS3, THE RECORD IS FOR A TANKER, PART 2 OF A TANKER
C RECORD DIFFERS FROM MISSILE AND BOMBER RECORDS, AND NG STRIKE
C CARDS ARE PRODUCED FOR TANKERS.
410 IF (LCCLASS.EQ.3) GO TO 410
NCHFLAG=NCM(LPAYLOAD)
IF (LCCLASS.EQ.1) GO TO 450
C READ TARGET INFORMATION BLOCK FOR MISSILE FROM PLANTAPE
500 DO 5010 I=1,LPLAN
READ (PLANTAPE) MDT(I),KPL(I),JTP(I),HLA(I),MLO(I),T2T(I),TZN(I),
11WH(I),PA(I),IND(I),DES(I),TSK(I),CLC(I),FLB(I)
5010 CONTINUE
IF (INDMSS.EQ.0) GO TO 33
DO 32 I=1,NDMSS
IF (IPLTYP(I).NE.ISVPLNTYP) GO TO 32

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12/17/71

PAGE NO. 11

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DELMIS=DELMIS(I)
GC TO 5011
32 CONTINUE
33 DELMIS=SVDELMIS
5011 CONTINUE
C PROCESS ALL STRIKE CARDS FOR MISSILES
IF(L1)501,3011
501 UNIT=ISVUNIT
ISCRITIE=ISVORTIE
DMISS=SVDMISS
DC 3010 IM = 1,PLAN
C DETERMINE UNIT AND SORTIE NUMBERS, QUICK TARGET INDEX NUMBER,
C AND TARGET DESIGNATOR AND TASK CODES FOR STRIKE CARD
KUNIT=IUNIT
KSCRTIE=ISORTIE
IUNIT = KNOBLANK(KPL(IM))
ISCRITIE = KNOBLANK(JTP(IM))
IF(KUNIT=IUNIT)3008,3005,3008
3005 IF(KSORTIE=ISCRITIE)3006,3008,3006
3006 DMISS=DMISS+DELMIS
GC TO 3009
3008 DMISS=0.
3009 TGTTIME=GL*HGT(IM)+HHOUR+DMISS
ICNTRY=CLC(IM)
INDEXT=IND(IM)
NOWDES = DES(IM)
NCWTSK=TSK(IM)
C DETERMINE TARGET HIT DATE AND TIME FOR STRIKE CARD
CALL FINDTIME
FSC = IM
ASSIGN 3010 TO IPROCSC
GC TO 590
3010 CONTINUE
3011 IF(L3)3020,300
C PROCESS ONE A-CARD FOR EACH MISSILE
3020 UNIT=ISVUNIT
ISCRITIE=ISVORTIE
DMISS=SVDMISS
DC 3025 IM=1,PLAN
KUNIT=IUNIT
KSCRTIE=ISORTIE
IUNIT=KNOBLANK(KPL(IM))
ISCRITIE=KNOBLANK(JTP(IM))
IF(KUNIT=IUNIT)3023,3021,3023
3021 IF(KSORTIE=ISORTIE)3022,3025,3022
3022 DMISS=DMISS+DELMIS
GC TO 3024
3023 DMISS=0.
3024 STIME=81+DMISS
ASSIGN 3025 TO IPROCA
GC TO 710
3025 CONTINUE
IUNIT=ISVUNIT
ISCRITIE=ISVORTIE
DMISS=SVDMISS
DC 3009 IM=1,PLAN

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12/17/71

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KUNIT=IUNIT
KSORIE=ISORTIE
IUNIT=KNORLANK(KPL(IM))
ISORTIE=KNORLANK(JTP(IM))
IF (KUNIT-IUNIT) 3033,3026,3033
3026 IF (KSORIE-ISORTIE) 3027,3028,3027
3027 DMISS=DMISS+DELMIS
GO TO 3034
3028 DMISS=0.
GO TO 3030
C PROCESS ONE B-CARD FOR EACH MISSILE LAUNCH
C DETERMINE LEG NUMBER, OPERATION CODE, LOCATION IDENTIFIER,
CSUBR INTRFACI 18NOV71 *****
C REGION CODE, TASK CODE, COUNTRY LOCATION CODE, LATITUDE AND
C LONGITUDE AT END OF LEG, TIME OF THE EVENT, WARHEAD TYPE, MODE,
C ECM, AND MOB FOR B-CARD
3033 DMISS=0.
3034 LEG=8H 00
TOP = 8H 01
IDES(1) = KNORLANK(KPL(IM))
IREGB=1H
ITASK=2H
ICNTRY=2H
LAT = LATRT(TTY(IM))
LON=LOMBT(TZN(IM))
ICUMTIME=TIME(81)HHOUR+DMISS
IPAR1 = KNORLANK(IG)
MODE = IECH = INHX = 0
ASSIGN 3031 TO IPROC8
GO TO 810
C PROCESS ONE B-CARD FOR EACH RV CORRESPONDING TO THAT RV ON
C TARGET. THE OP CODE FOR A MIRV ON TARGET IS 11-NOT 10 (SOURCE IS
C A.M. SCHROEDER ).
3031 LEG=0
TOP=8H 10
IF (IMIRV(LPAYLOAD) .GT.0) TOP = 8H 11
IBLANK = 1H
3030 LEG1=LEG1 + 1
LEG = KNORLANK(LEG1)
ICNTRY=CLC(IM)
ENCODE(8,541,JOESIG)IBLANK+DES(IM)
541 FORMAT(A3,A5)
IDES(1) = JOESIG
DECODE(8,153,DES(IM))IDUMY,INUM
IREGB=1H1
IF (INUM .LE. 499) GO TO 3035
IREGB=1H2
IF (INUM .LE. 799) GO TO 3035
IREGB=1H3
3035 ITASK = TASK(IM)
LAT = LATRT(MLA(IM))
LON = LONRT(MLG(IM))
TOTTIME=GL+HGT(IM)HHOUR+DMISS
ICUMTIME = NTIME(TGTTIME)
IPAR1 = KNORLANK(IINH(IM))
INHX = INX(IM)

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12/17/71

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DELMIS=DL*IS(I)
GO TO 5011
32 CONTINUE
33 DELMIS=SVDELMIS
5011 CONTINUE ALL STRIKE CARDS FOR MISSILES
C
  IF(L1)501,3011
  501 IUNIT=ISVUNIT
    ISORTIE=ISVORTIE
    DMIS=SVDMISS
    DC 3010 IM=I,PLAN
    DETERMINE UNIT AND SORTIE NUMBERS, QUICK TARGET INDEX NUMBER,
    AND TARGET DESIGNATOR AND TASK CODES FOR STRIKE CARD
    KUNIT=IUNIT
    KSORTIE=ISORTIE
    IUNIT=KNORLANK(RPL(IM))
    ISORTIE=KNORLANK(JTP(IM))
    IF(KUNIT=IUNIT)3008,3005,3008
    3005 IF(KSORTIE=ISORTIE)3006,3008,3006
    3006 DMIS=DMIS+DELMIS
    GO TO 3009
    3008 DMIS=0.
    3009 TGLTIME=GL*MDT(IM)+HHOUR+DMIS
    ICNTRY=CLC(IM)
    INDEX=ING(IM)
    NOWDES=DES(IM)
    NORTSK=TSK(IM)
    DETERMINE TARGET HIT DATE AND TIME FOR STRIKE CARD
    CALL FINDTIME
    ISC=IM
    ASSIGN 3010 TO IPROCSC
    GO TO 690
  3010 CONTINUE
  3011 IF(L3)3020,300
  C PROCESS ONE A-CARD FOR EACH MISSILE
  3020 IUNIT=ISVUNIT
    ISORTIE=ISVORTIE
    DMIS=SVDMISS
    DC 3025 IM=I,PLAN
    KUNIT=IUNIT
    KSORTIE=ISORTIE
    IUNIT=KNORLANK(RPL(IM))
    ISORTIE=KNORLANK(JTP(IM))
    IF(KUNIT=IUNIT)3023,3021,3023
    3021 IF(KSORTIE=ISORTIE)3022,3025,3022
    3022 DMIS=DMIS+DELMIS
    GO TO 3024
    3023 DMIS=0.
    3024 STIME=GL+DMIS
    ASSIGN 3025 TO IPROCA
    GO TO 710
  3025 CONTINUE
    IUNIT=ISVUNIT
    ISORTIE=ISVORTIE
    DMIS=SVDMISS
    DC 3000 IM=I,PLAN

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12/17/71

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        ASSIGN 3000 TO IPROC8
        GO TO 810
    3000 CONTINUE
        GO TO 300
    C    READ PLAN INFORMATION BLOCK FOR TANKER EVENTS FROM PLANTAPE
    600 READ(PLANTAPE)(HOT(I),KPL(I),JTP(I),HLA(I),HLC(I),CMT(I),I=1,LTGT)
    605 IF (L3) 605, 300
        NCMFLAG = 0
        IUNIT = KNOBLANK(LBASEID)
        DBCHMB = 0
        GO TO 705
    C    PROCESS STRIKE CARDS FOR BOMBERS
    650 IUNIT = KNOBLANK(LBASEID)
        ISORTIE = KNOBLANK(LVEMID)
        IF(NDBMB.EQ.0) GO TO 659
        DO 651 I=1,NDBMB
            IF(JPLTYP(I).NE.ISVPLNTP) GO TO 651
            DELCOMB=DLBMB(I)
            GO TO 660
        651 CONTINUE
        659 DELCOMB=SVDELROM
        660 CONTINUE
        DBCHMB=(LVEMID-1)*DELBOMB
    C    READ PLAN INFORMATION BLOCK FOR BOMBER EVENTS FROM PLANTAPE
        READ(PLANTAPE)(HOT(I),KPL(I),JTP(I),HLA(I),HLC(I),TZI(I),TZNI(I),
            I=1,IPA(I),CMT(I),I=1,LTGT)
    C    READ TARGET INFORMATION BLOCK FOR BOMBER FROM PLANTAPE
        KK = 0
        DO 510 I = 1,LTGT
            IF(JTPI(I).EQ.LOCLATTR.OR.JTP(I).EQ.LASMTGT) GO TO 509
            GO TO 510
        509 KK=KK+1
        510 CONTINUE
        KKS=KK
        IF(L1) 511,700
    511 CONTINUE
        DO 670 I=1,PLAN
            C    PROCESS BOMBER STRIKE CARD ONLY FOR AN EVENT WHICH IS AN ASM
            C    ON TARGET OR A BOMB IMPACT.
            JTP2=JTP(I)
            IF(JTPI.EQ.LOCLATTR) 680,671
            671 IF(JTPI.EQ.LAUNASM) 672,673
            673 IF(JTPI.EQ.LASMTGT) 674,670
            672 ISTIWH=IWH(I)
            IWH(I)=0
            GO TO 670
        674 IWH(I)=ISTIWH
        680 CONTINUE
            TGTIIME=CMT(I)+HHOUR*DBCHMB
            CALL FINDTIME
            KK=JITLE(KPL(I),IND,KKS)
            INDEXT=IND(KK)
            NCMDES = DES(KK)
            NCMTSK = TSK(KK)

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12/17/71

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ICNTRY=CLC(KK)
ISC = I
ASSIGN 670 TO IPROCSC
GO TO 690
670 CONTINUE
700 IF(13)705,300
C 690 FORMAT AND WRITE A STRIKE CARD ON THE STRIKE TAPE (PTAPE)
JDESIG=NOWDES
ITASK=NOWTSK
LA = HLA(ISC)
LC = LLO(ISC)
IF ( LCLASS.EQ. 2 ) 6911,6912
6911 LA = LA + TZT(ISC)
LC = LC + TZN(ISC)
6912 LATGT = LATS(LA)
LONTGT = LONS(LC)
IMPNTYPE = IWH(ISC)
CALL YLOFRAC(IMPNTYPE,YIELD,IFRAC,KYIELD)
PABORT = 1-PA(ISC)
IPABORT = IPRCB(PABORT)
DECODE DESIG TO OBTAIN QUICK REGION
153 FORMAT(A2,I3,3X)
IREG = 1
IF (INUM.LE. 499 ) GO TO 154
IREG = 2
IF (INUM .LE. 799 ) GO TO 154
IREG = 3
154 CONTINUE
PLS = DBLX(LGROUP)
WSR = REL(LPOTYPE)
PTP = PA(ISC)/PLS * WSR)
IPLS = IPRCB(PLS)
IPTP = IPRCB(PTP)
IWSR = IPRCB(WSR)
KNCHB=I8ETHOB(JDESIG,IMPNTYPE)
IMPNTYPE=KNCHB/LANK(IWH(ISC)
IF (KNCHB.EQ.1HA)692,693
692 IHX(ISC)=1
GO TO 694
693 IMX(ISC)=0
694 CONTINUE
NPSTRIKE = NPSTRIKE + 1
WRITE(PTAPE,691) ICMD, INDEX, DMOHIMO, YEAR, LATGT, LONTGT,
JDESIG,IPLS,IPTP,IWSR,IREG,IFRAC,YIELD,KHOB,KCEP,ITASK,
ICNTRY,IPABORT,IPLNETYP,IMPNTYPE,UNIT,ISORTIE
691 FORMAT(IHS,IHQ,I1,I5,AB,R2,R7,AB,AS,3R2,I1,A3,I,X,RS,A1,
12X,R3,I,X,2A2,I,X,R2,I,X,2R2,R4,R2,I,X)
JFRAC=IFRAC
IF (KYIELD.LT.100)JFRAC=3H
IMPNSYS=JMPNSYS(NCMD)
WRITE(STAPE,695)ICMD,INDEX,DMOHIMO,YEAR,LATGT,LONTGT,JDESIG,
IPLS,IPTP,IWSR,IREG,JFRAC,YIELD,KHOB,KCEP,ITASK,
ICNTRY,IPABORT,IMPNSYS,IPLNETYP,UNIT,ISORTIE
695 FORMAT(IHS,IHQ,I1,I5,AB,R2,R7,AB,AS,3R2,I1,A3,I,X,RS,A1,
12X,R3,I,X,2A2,I,X,R2,A3,R2,R4,R2,I,X)

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12/17/71

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IF (L2) 203, 7310
203 IF (IOPT) 260, 261
C PRINT THE STRIKE CARD
260 PRINT 262
262 FORMAT (1H0)
261 PRINT 204, ICHG, INDEX, DAHOMING, YEAR, LATTGT, LONTGT, JDESIG,
1PLS, IPTP, IHS, IREG, IFRAC, IYIELD, KHOB, KCEP, ITASK, ICNTRY,
2IPABORT, IPLNETYP, IMPNTYPE, IUNIT, ISORT, IE, IMPSTRIKE, IMPNSYS
204 FORMAT (10X, 1H0, 11, 15, A8, R2, R7, A8, A5, 3R2, 11, A3, 1X, R5, A1,
12X, R3, 1X, 2A2, 1X, R2, 1X, 2R2, R4, R2, 11X, 110, 5X, A3)
7310 GO TO IPROCSC
C CALCULATE STIME FOR BOMBER OR TANKER A-CARD
705 STIME=CHT(1)*DBOMB
ASSIGN 750 TO IPRCCA
C FORMAT AND WRITE AN A-CARD ON THE SORTIE SPECS. TAPE (ABTAPE).
710 IREFTIME=TIME(STIME*HOUR)
LINEA=LINEA+1
IF (LINEA.GE.1000) 711, 712
711 LINEA=0
712 LINEB1 = 0
LINEA=KNOBLANK(LINEA)
WRITE(ABTAPE, 715) LINEA, IUNIT, ISORTIE,
IPLNETYP, IREFTIME, ITIMREF
715 FORMAT (1HA, R3, R4, R2, 2X, R2, 1H0, 2X, 1H0, R4, 11, 7H0CJ0000, 50X)
IF (IOPT) 205, 7311
C PRINT THE A-CARD (TOGETHER WITH STRIKE CARD(S)).
205 NPAAB = NPAAB + 1
PRINT 206, LINEA, IUNIT, ISORTIE, IPLNETYP, IREFTIME, ITIMREF,
NPAAB
206 FORMAT (10X, 1HA, R3, R5, R2, 1X, R2, 1H0, R4, 11, 7(1HC), 50X, 110)
7311 GO TO IPRCCA
C PROCESS ONE B-CARD FOR EACH BOMBER OR TANKER EVENT.
750 IECM=0
MODE = 1
NCPSHOT = 3
LEGI = 0
DO 775 I=1, LPLAN
IMXX = 0
IDES(1) = 1H
ICNTRY=2H
ITASK=2H
IREG=1H
IF (1.EQ.MLOW(I)) 772, 774
772 NCPSHOT = 4
IF (NCHFLAG) 773, 774
773 IECM = 1
774 JTP1 = JTP(1)
IF (JTP1.EQ.INSPECTOR) 775, 771
IOP = NOP(JTP1)
771 NNIO=NUMGET(IOP, 8)
LA = HLA(7)
LC = HLC(1)
IF (JTP1.EQ.LOCLATTR) OR (JTP1.EQ.LASHTGT) 784, 785
784 LA = LA+ZT(1)
LC = LC+ZTN(1)
IMXX=IMXX+1

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12/17/71

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KK=TITLE(I,PL(I),IND,KKSV)
ENCODE(S,541,IDES(I))IBLANK,DES(KK)
IC*TR=CLC(KK)
ITASK=TSK(KK)
785 LAT = LATPT(LA)
LON = LONPT(LC)
IF(MN1OP.EQ.10.OR.MN1OP.EQ.7)7856,7857
7856 DECODE(8,153,DES(KK))IDUMY,INUM
IREGB=IH1
IF (INUM .LE. 499) GO TO 7855
IREGB=IH2
IF (INUM .LE. 799) GO TO 7855
IREGB=IH3
GO TO 7855
7857 IDES(I)=KNGBLANK(KPL(I))
7855 CONTINUE
ICUMTIME=TIME(CMT(I),HHOUR,DBOMB)
IPARI=KNGBLANK(IWH(I))
LEG = KNGBLANK(LEGI)
LEGI = LEGI+1
ASSIGN 775 TO IPROC8
GO TO 810
775 CONTINUE
GO TO 300
C
810 LINEB = LINEB+1
LINEB = KNGBLANK(LINEB)
WRITE(ABTAPE,911)(LINEB,IUNIT,ISORTIE,LEG,IOP
1,IDES(I),LAT,LON,MODE,IZERG,ICUMTIME,IZERG,ISOUTH,IZERG,IECM
2,IZERG,IPARI,IMX,IPLN,ETYP,ICNTRY,IREGB,ITASK)
811 FORMAT(1H,R3,R4,R32,R5,R6,A8, 211,R4,11,1X,A1,2X,11,4X,211,R2,
111,R4,A2,11,1X,A2,16X)
IF (IOPT) 207,7312
C PRINT THE 8-CARD (TOGETHER WITH STRIKE CARD(S))
207 NPAB = NPAB + 1
PRINT 208,LINEB,IUNIT,ISORTIE,LEG,IOP,IDES(I),LAT,LON,MODE,
ICUMTIME,IZERG,ISOUTH,IZERG,IECM,IPARI,IMX,IPLN,ETYP,ICNTRY,
IREGB,ITASK,NPAB
208 FORMAT(10X,1H8,R3,R5,3R2,R5,R6,A8,11,R4,11,1X,A1,2X,11,4X,11,R2,
11,R4,A2,11,1X,A2,16X,110)
731 GO TO IPROC8
C
800 REMIND PLANTAPE
END FILE ABTAPE
END FILE STAPE
END FILE STAPE
REWIND ABTAPE
REWIND STAPE
REWIND STAPE
PRINT 845
IF(L5)916,995
918 IF(IOPT)916,916
906 IF (LA) 905, 916
C IF A AND B CARDS ARE TO BE PRINTED SEPARATELY FROM STRIKE CARDS,
C ABTAPE IS NOW PRINTED AND THEN REWIND
905 READ (ABTAPE,910) INP(I),I = 1,10

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FTN5.5

12/17/71

PAGE NO. 17

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      NPAAB = NPAAB + 1
      910 FORMAT (10A8)
      IF (ECF,ABTAP) 9916,917
      917 DECODE (8,950,KP11) KP1
      950 FORMAT (A1,7X)
      IF (KP1.EQ.1NA) 218,219
      218 PRINT 262
      219 PRINT 220,(KP1(I),I = 1,10),NPAAB
      220 FORMAT (10X,10A8,110)
      GO TO 905
      9916 REWIND ABTAP
      C PRINT OFFENSIVE SYSTEMS TABLE
      916 CALL PRNTOFFS
      995 PRINT 849
      PRINT 850
      849 FORMAT(1H1)
      C PRINT TIMING INFORMATION
      850 FORMAT(//,30X,18HTIMING INFORMATION)
      CALL TIMEWE(2)
      CALL TIMEWE(0)
      WRITE (44,7777)
      PRINT 7777
      7777 FORMAT(414 //,6000 PROCESSOR INTERFACE COMPLETED //,61 )
      STOP
      END

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261000
262000
263000
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INTERFACE

IOENT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

INTERFACE

BURST 00155
CUMNO 00017
DATE 00003
DINDATA 02506
FILABEL 00014
FRACYLD 00227
GAMETIME 00003
IFUNC 00170
INHCS 00003
IPRT 00001
ISOUTH 00001
ITP 00001
MASTER 00026
MODE 00001
MSLBMB 00242
MYIDENT 00001
NPRINT 00001
OFFSYS 00621
PAYLOAD 00620
PAYLOAD2 00050
PROB1 00430
STUB 00016
TAB 00026
FILES 00020
VERIC 00121

EXTERNAL SYMBOLS

QBENTRY
THEND
QBSTOPPS
QIG10100
QBODICT
VINTRFAC
STORAGE
TZMEME
NUMGET
INITAPE
SETREAD
RDARRAY
SKIP
TERMTAPE
KNOBLANK
NOBLANK
NPLNETYP
NOFFSYS
FINOTIME
LATRY
LONRT
NTIME
ITLE
LATS
LONS
YLDFRAC

5.ATS INTERFACE

IPROB
IGETHOB
NOP
PRNTOFFS
QBQIFEOF
EFT.
REW.
TSH.
DEC.
TSB.
STH.
ENC.
ONSINGL.

12/17/71

ED

0

PAGE NO.

19

P00202	ABTAPE
P03223	AN00051*
P04324	AN00065*
C00002	BASFILE
C00000	CEPI
C02222	CLC
C01452	CMT
P04713	CNVRT1*

[illegible]

PC4751	COUNT.
PC0216	CRFMT.
1	1
2	2
3	3
4	4
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99	99
100	100

CO0001	DAHOMINGO
CO0120	DBLX
P04752	DBOMB
X00G43	GEC.
P04753	DELBOMB
P04754	DELMIS
CO1736	DES
PO0001	DICT.

12/17/71	ED	J	PAGE NO.	20
04535	04562	04600	04642	
02627	02633	03553	04300	
03470	03533	04356		
04111	04336	01405	01610	01437
01372	01403	01405	01622	01635
01616	01620	01621	01717	01741
01694	01695	01695	02121	02135
02073	02076	02120	02463	02526
02434	02436	02461	02545	02550
02540	02542	02544	02563	02565
02560	02561	02562	02566	02670
02663	02664	02665	03114	03317
03210	03212	03224	03423	03425
03420	03421	03422	03635	03733
03466	03467	03470	03746	03750
03743	03744	03745	03761	04001
03756	03757	03760	03762	04001
04011	04012	04013	04015	04016
04024	04025	04026	04027	04030
04052	04053	04054	04055	04057
04075	04076	04077	04100	04102
04166	04167	04168	04193	04195
04325	04327	04417	04420	04422
04432	04433	04434	04436	04441
04447	04450	04453	04454	04456
04476	04477	04481	04503	04505
04513	04510	04510	04533	
04513	04513	04513	01602	01630
01425	01513	01513	01612	02144
01750	01774	02065	02124	03642
02412	02472	02472	03215	04641
04173	04453	04516	04514	
04054				
03406	02761	03045	03110	04273
02726	03223	03466	03547	
03216				
01250	01253	01264	01300	01311
01412	01421	01424	01446	01451
01537	01552	01576	01601	01611
01657	01662	01670	01702	01713
02004	02021	02024	02040	02064
02131	02143	02145	02151	02064
02240	02243	02245	02253	02256
02300	02303	02306	02311	02317
02403	02405	02421	02424	02443
02477	02502	02505	02510	02515

2720

SATS INTERFACE

	12/17/71	ED	U	PAGE NO.	21
02525	02605	02614	02620	02624	02632
03004	03027	03072	03077	03123	03133
03206	03214	03221	03253	03260	03270
03343	03350	03354	03436	03461	03472
03617	03626	03633	03672	03676	03705
03777	04032	04041	04047	04105	04129
04172	04232	04236	04270	04276	04305
04362	04367	04373	04410	04415	04431
04534	04537	04542	04550	04553	04585
04620	04623	04626	04644	04646	04651
04667	04673	04676	04701	04704	04707
02014	02033	03372	03372	02761	02771
01723	01742	02717	02717	03113	03144
01672	02521	02734	02761	02764	02764
03052	03062	03107	03110	03115	03115
04525	04530	04533	02341	02346	02346
02376	02376	02376	02341	02342	02347
02243	02243	02243	02341	02342	02347
04714	04714	04714	02341	02342	02347
02337	02337	02337	02341	02342	02347
02371	02371	02371	02341	02342	02347
03003	03003	03003	02410	02410	02410
02304	02304	02304	02410	02410	02410
02676	02676	02676	01326	01337	01337
01316	01322	01322	01326	01337	01337
02601	03063	03063	03232	03244	03244
04614	04614	04614	02765	02765	02765
02356	02356	02356	02765	02765	02765
02555	02555	02555	02765	02765	02765
02557	02557	02557	02765	02765	02765
02560	02560	02560	02765	02765	02765
01246	01246	01246	02765	02765	02765
01242	01242	01242	02765	02765	02765
01276	01276	01276	02765	02765	02765
01353	01353	01353	02765	02765	02765
01361	01361	01361	02765	02765	02765
01376	01376	01376	02765	02765	02765
01376	01376	01376	02765	02765	02765
01413	01413	01413	02765	02765	02765
01425	01425	01425	02765	02765	02765
01447	01447	01447	02765	02765	02765
01447	01447	01447	02765	02765	02765
01505	01505	01505	02765	02765	02765
01517	01517	01517	02765	02765	02765
01535	01535	01535	02765	02765	02765
01535	01535	01535	02765	02765	02765
01572	01572	01572	02765	02765	02765
01602	01602	01602	02765	02765	02765
01612	01612	01612	02765	02765	02765
01630	01630	01630	02765	02765	02765
01646	01646	01646	02765	02765	02765
01660	01660	01660	02765	02765	02765
01671	01671	01671	02765	02765	02765
01703	01703	01703	02765	02765	02765
01731	01731	01731	02765	02765	02765
01750	01750	01750	02765	02765	02765
01774	01774	01774	02765	02765	02765
02022	02022	02022	02765	02765	02765

SATS INTRFACE

	12/17/71	ED	PAGE NO.	23
P04760 IAS	03416	03432	03441	03446
C00310 IASM	03536	03555	03560	03574
P04761 IBEGIN	04567	04571	04572	04574
P04762 IBLANK	02174	02176	02203	02203
P04763 ICMD	01426	01435	01453	01514
C001452 ICNTRY	02006	02026	02041	02041
C00454 ICOUNT	02576	03173	03210	04272
C00000 ICUMNC	02616	03733	04001	04051
P04764 ICUMTIME	02774	03130	03203	03554
C00001 IDENTNO	01257	01260		
P00014 IDES	02254	03272	04364	04475
C00004 IDUM	03125	03216	04210	04271
P04765 IDUMY	03225	03636	04326	
P04766 IECM	03156	04177	04223	04441
P04767 IEND	01430	01443	01461	01516
	02016	02035	02050	01531
P03446 IF00001.				01547
P04247 IF00002.				01710
P04315 IF00003.				01725
P04770 IFRAC	03621	03750	03765	04067
C00000 IFUNC	02137	02137	02161	02161
X00034 IGETHCB	03705			
C00000 INDAT	02246			
C00152 INGBDFLT	01577	01606	01606	
C00144 INTYP				
P00015 INX	03277	03721	03724	04257
P04771 INXX	03156	03300	04207	04257
P04772 IN	02735	02740	02766	03005
	03201	03216	03246	03302
	03165	03166		
C00550 IMIRV				
C00007 INCOMM	02672	02774	02775	03464
C01604 IND				03542
C00002 INDATE				03545
C00003 INDESIG	01372	01406		
P04773 INDEXT	02776	03546	0334	04002
C00144 INDFUNC	02107	02107	02117	02117
C00003 INFORM	02224	02225	02235	02235
C00000 INHQB	01373	01373	01407	01407
C00000 INIDENT				
X00012 INITAPE	02213			
C00006 INLENGTH				
C00001 INRUNNO				
C00004 INSECR				
P00206 INSECTOR	04227			
C00005 INTIME				
P01230 INTERFACE	01230	03233	03240	03637
P04774 INUM	03227			
P04775 IOFFSYS	02622			
P04776 IOP	03120	03164	03171	04234
				04237
				04457

5.4TS	INTRFACE	12/17/71	ED	0	PAGE NO.	24
P04777	IOPT	04556				
P04171	IOPTS	04553				
P05000	IPASORT	01326	01337			
P05001	IPARI	04075				
C00310	IPSTYP	04505				
P05002	IPNETYP	02626	03757	04076	04145	04445
P05003	IPIS					
C00000	IPITYP	01753	01753	02712		
X00033	IPROB					
P05004	IPROCA					
P05005	IPROC8					
P05006	IPROCS					
C00000	IPRT	02414	02414			
P05007	IPTP					
P05010	IREPTIME					
P05011	IREG	04015	04066			
P05012	IREGB	04213	04334			
P05013	ISC	03613	03665			
C00002	ISIDE					
P00012	ISORTIE	02752	03017	03023	03042	03066
C00000	ISOUTH	03762	04030	04101	04144	04465
P05014	ISIMH					
P05015	ISVORTIE					
P05016	ISVPLNTP					
P05017	ISVUNIT					
C00000	ITAB					
P05020	ITASK	03567	03754			
P05021	ITEMP	02400	02401			
P05022	ITESTRES	02224	02226			
C00070	ITGTG	01527	01544			
P00177	ITIMEREF	04147	04167			
X00027	ITLE	03540	04261			
C00000	ITP	02220	02220			
P00011	IUNIT	02517	02732			
C01106	IWH	03074	03102			
C00050	IWHD1	02670	03273			
C00170	IWHD2	03614	03710			
C00006	IWPNG					
P05023	IPNSYS	01441	01441			
P05024	IPNTYPE	03774	04025			
P05025	IMSR	03615	03707			
P05026	IYEL0	03704	03746			
P00200	IZERO	03620	03751			
P01257	.1	04431	04434			
P01755	.100001					
P01756	.100002					
P02046	.100003	01754				
P02047	.100004					
P02345	.100005	02045				
P02347	.100006	02343	02344			

P03302 .3000	03300	
P02755 .3005	02753	
P02760 .3006	02757	
P02763 .3008	02754	02754 02756
P02765 .3009	02762	
P02601 .301	02575	
P03010 .3010	03006	
P03013 .3011	02730	
P03015 .3020	03014	
P03041 .3021	03037	
P03044 .3022	03043	
P03047 .3023	03040	03040
P03051 .3024	03046	
P03055 .3025	03042	03053
P03104 .3026	03102	
P03107 .3027	03106	
P03112 .3028	03105	
P03174 .3030	03113	
P03162 .3031	03160	
P03114 .3033	03103	03103
P03116 .3034	03111	
P03246 .3035	03236	03243
P02604 .310	02602	
P01763 .31	01755	
P02636 .311	02635	
P02640 .312	02715	
P02722 .32	02706	
P02725 .33	02053	
P01776 .41	02641	
P02643 .410		
P02047 .42		
P02352 .423		
P02411 .424		
P02054 .43	02046	
P02472 .432	02416	
P02650 .500		
P02701 .5010		
P02731 .501	02730	
P02727 .5011	02721	
P03454 .509	03452	
P03474 .510	03453	
P03502 .511	03500	
P03306 .600	02642	
P03334 .605	03333	
P02227 .620		
P02244 .640	02226	
P03347 .650	02647	
P03375 .651	03370	
P03400 .659	03361	
P03402 .660	03374	
P03560 .670	03515	03523 03556
P03511 .671	03507	
P03517 .672	03513	
P03514 .673	03512	

5.4TS INTRFACE

P03524	.674	.03516
P03527	.680	.03510
P03528	.680	.03007
P03529	.6911	
P03536	.6912	.03575
P03604	.692	.03717
P03720	.692	.03722
P03723	.693	.03722
P03725	.694	.03501
P03503	.700	
P01756	.7	
P04111	.705	.03346
P04115	.710	.03054
P04126	.711	.04124
P04130	.712	.04124
P04106	.7310	.04034
P04173	.7311	.04153
P04516	.7312	.04454
P04176	.750	.04113
P04231	.771	.04227
P04216	.772	.04220
P04222	.773	.04215
P04224	.774	.04230
P04401	.775	.04246
P04251	.784	.04250
P04304	.785	.04337
P04335	.7855	.04314
P04317	.7856	.04316
P04347	.7857	.04352
P04521	.800	.04361
P04405	.810	.04317
P01320	.8695	.04325
P01326	.8696	.04325
P01354	.8697	.04330
P01331	.8699	.04330
P01337	.8700	.04334
P01335	.8701	.04340
P01342	.8710	.04360
P04502	.905	.04561
P04560	.906	.04557
P04635	.916	.04555
P04604	.917	.04555
P04556	.918	.04555
P04662	.9916	.04555
P04647	.995	.04555
P04716	ERASER.	.04555
P00233	.10000C	.04555
P00234	.100001	.04555
P00235	.100002	.04555
P00236	.100003	.04555
P00237	.100004	.04555
P00238	.100005	.04555
P00351	.100006	.04555
P00515	.100007	.04555

12/17/72

0304

PAGE NO.

27

2727

P00516	..100007	02175	
P00530	..100009	02211	
P00531	..100009	02215	
P00532	..100010	02223	
P00626	..100011	02602	
P00627	..100012	03116	
P00630	..100013	03117	
P00631	..100014	03125	
P00632	..100015	03126	
P00633	..100016	03127	
P00634	..100017	03163	
P00635	..100018	03170	
P00636	..100019	03172	
P00643	..100020	03232	
P00644	..100021	03237	
P00645	..100022	03244	
P00653	..100023	03716	
P00712	..100024	03771	
P01067	..100025	04207	
P01070	..100026	04210	
P01071	..100027	04211	
P01072	..100028	04212	
P01073	..100029	04333	
P01074	..100030	04340	
P01075	..100031	04345	
P01175	..100032	04615	
P00412	..14	01714	02005
P00646	..153	03223	03634 04324
P00615	..166	02430	
P00560	..167	02455	
P00573	..175	02422	
P00604	..176	02447	
P00402	..19	01700	
P00335	..2	01615	
P00455	..2010	02072	
P00471	..2030	02132	
P00436	..2040	02062	
P00755	..204	04050	
P00463	..2050	02115	
P01042	..206	04161	
P00474	..2070	02147	
P00507	..2080	02155	
P01131	..208	04462	
P00240	..21	01356	
P00263	..22	01401	
P01176	..220	04627	
P00275	..23	01422	
P00304	..24	01510	
P00326	..25	01605	
P00343	..26	01633	
P00751	..262	04042	
P00224	..280	01301	
P00517	..30	02202	
P00260	..3	01364	01434 01452
			04621

5.4TS INTERFACE

31

PAGE NO.

ED 0

12/17/71

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P05071 LREG 02545
 C00002 LSIDE 02527 02527
 P05072 LSORTIE 02534
 P05073 LTOT 02553
 P05074 LTYPE 02543
 P05075 LVEHID 02537
 C00000 MASK 03344
 C00000 MASKO 03353
 C00005 MZ 03402
 C00003 MLOW 02564
 C00000 MODE 02562
 C00000 MYIDENT 03157
 C00500 NADECOYS 02211
 C00023 NALERT 02212
 C00240 NASM 02216
 C00016 NASHTYPE 04214
 C00010 NENDRY 04200
 C00022 NCLASS 04200
 C00360 NCH 02644
 P05076 NCHO 03773
 P05077 NCMFLAG 02612
 C00021 NCOMPLEX 02645
 C00004 NCONR 03335
 C00025 NCORTYPE 02055
 C00241 NDBMB 02056
 C00430 NDECOYS 03356
 C00120 NDMS 02704
 C00005 NDPEN 02704
 C00013 NGROUP 01765
 P05100 NRIOP 04313
 X00020 NSBLANK 04315
 C00000 NSBOMB1 02404
 C00120 NSBOMB2 02270
 X00022 NOFFSYS 02617
 X00035 NOP 04231
 C00000 NOPRINT 00176
 C00025 NOPSHOT 04201
 P05101 NOWDES 03000
 P05102 NOWTSK 03002
 P00214 NPAA8 04154
 C00015 NPAYLOAD 04155
 X00021 NPLNETYP 02604
 P00213 NPSTRIME 03725
 C00006 NRECOVER 03726
 C00007 NREF 04102
 C00011 NREG 03726
 C00003 NRTPT 03726
 C00620 NT 03726
 C00020 NTANKBAS 01571
 C00154 NTGTG 01571
 C00024 NTGTS 03146
 X00026 NTIME 03267
 C00014 NTOTBASE 04117
 C00012 NTYPE 04361

03475

03433 03475

03326 03433 03402

02564 02562 03157 02212 02216

02563 02561 03157 02211 02212 02216

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5.4TS INTRFACE

12/17/71 ED 0 PAGE NO. 33

P02353	TS00023.	P2334							
P02412	TS00024.	P2354							
P02440	TS00025.	P2432							
P02466	TS00026.	P2457							
P02702	TS00027.	P2651							
P02723	TS00030.	P2710							
P03011	TS00031.	P2735							
P03056	TS00032.	P3021							
P03303	TS00033.	P3064							
P03326	TS00034.	P3313							
P03376	TS00035.	P3363							
P03433	TS00036.	P3414							
P03475	TS00037.	P3441							
P03561	TS00040.	P3503							
P04402	TS00041.	P4205							
X06044	TS0.	P2524							
X06042	TS0.	P1263							
		P4564							
C02070	TSK	P2674							
C01034	TSN	P2667							
C06702	TZI	P2666							
X00006	VINTFAC	P1235							
P01257	TS00001.	P1261							
P01270	TS00002.	P1273							
P01304	TS00003.	P1307							
P01437	TS00004.	P1444							
P01455	TS00005.	P1462							
P01467	TS00006.	P1475							
P01525	TS00007.	P1532							
P01543	TS00010.	P1550							
P01555	TS00011.	P1564							
P01717	TS00012.	P1726							
P01737	TS00013.	P1745							
P01752	TS00014.	P1760							
P02010	TS00015.	P2017							
P02030	TS00016.	P2036							
P02043	TS00017.	P2051							
P02067	TS00020.	P2126							
P02135	TS00021.	P2141							
P02160	TS00022.	P2166							
P02337	TS00023.	P2352							
P02355	TS00024.	P2413							
P02433	TS00025.	P2441							
P02460	TS00026.	P2467							
P02452	TS00027.	P2703							
P02711	TS00030.	P2724							
P02736	TS00031.	P3012							
P03022	TS00032.	P3057							
P03065	TS00033.	P3304							
P03314	TS00034.	P3327							
P03364	TS00035.	P3377							
P03415	TS00036.	P3434							
P03442	TS00037.	P3476							
P03504	TS00040.	P3562							

5.4TS INTERFACE

P04206 MSG0041.
P04570 MSG0042.
P04632 MSG0043.
P05112 WSR
C00002 YEAR
C00000 YIELD
X00032 YLDFRAC
01250 SYMBOLS

04403
045
04635
03663
03737
02276
03616

03664 03703
04005 04056
02361 02361

12/17/71 12/17/71 02307 02370 02370 02462 02463

PAGE NO.

0

ED

34

FTN5.5

12/17/71

PAGE NO. 1

```

SUBROUTINE FINDTIME
  CSUBR      FINDTIME 20 OCT70 *****
  CUSE      DATE      IMART1 *****
              COMMON/DATE/TGTIME,DAMCHING,YEAR *****
              TYPE INTEGER DAMCHING,YEAR *****
  CEND      -DATE *****
  CUSE      GANETIME IMART1 *****
              COMMON/GANETIME/KDAY,KMON,KYEAR *****
  CEND      GANETIME *****
              IDAY=KDAY
              IMON=KMON
              IYEAR=KYEAR
              HOUR = IHOUR = TGTIME
              MIN = (TGTIME-HOUR)*60*0.5
              IF(MIN.EQ.60)1,2
              1 MIN = 0
              2 IHOUR = IHOUR+1
              3 IF(IHOUR.GE.24)3,5
              4 IHOUR = IHOUR-24
              5 IDAY = IDAY+1
              6 GO TO 2
              7 IF(IDAY.GT.31)6,8
              8 IDAY = IDAY-31
              9 IMON = IMON+1
              10 GO TO 5
              11 IF(IMON.GT.12)9,11
              12 IMON = IMON-12
              13 IYEAR = IYEAR+1
              14 GO TO 8
              15 IF(IYEAR.GT.99)12,4
              16 PRINT 13
              17 FORMAT(33H01LEGAL DATE * * YEAR EXCEEDS 99)
              18 IYEAR = 99
              19 IDATE = IMON*100+MIN*10000+IHOUR*1000000+IDAY
              20 DAMCHING=KNOBLANK(IDATE)
              21 YEAR = KNOBLANK(IYEAR)
              22 RETURN
              23 END

```

IDENT FINDTIME

PROGRAM LENGTH 00144
ENTRY POINTS 00013
BLOCK NAMES 00003
00003

EXTERNAL SYMBOLS
DATE 01010100
GAMETIME
THEND.
Q89DICT.
KNORBLANK
STH.

12/17/71

5.4TS FINDTIME

P00124 BEGIN.
P00003 CRPMT.
P00001 DAHOMING
P00001 DICT.
P00125 ENDING.
P00000 EXIT.
P00013 FINDTIME
P00003 FCRNAT.
P00103 GGGG000.
P00135 HOUR
P00136 IDATE
P00137 IDAY
P00140 IMOUR
P00141 IMON
P00124 INITIAL.
P00142 IYEAR
P00042 .1
P00072 .11
P00075 .12
P00045 .2
P00050 .3
P00105 .4
P00054 .5
P00057 .6
P00063 .8
P00066 .9
P00126 .ERASER.
P00003 .13
P00000 KDAY
P00001 KMON
P00004 KNCBLANK
P00002 KYEAR
P00143 MIN
P00001 G1G10100
P00003 GBDICT.
P00005 STM.
P00000 TGTTIME
P00002 THEND.
P00002 YEAR
00047 SYMBOLS

00117
00077
00123

00035
00116
00052
00043
00061
00070
00065
00053
00074
00062
00056
00110
00017
00021
00120
00023
00043
00037
00014
00025
00106
00033
00034

00102 00115 00121

00053 00054 00057 00060 00112
00044 00045 00050 00051 00110
00062 00063 00066 00067 00106
00071 00072 00104 00122

12/17/71

```

C SUBR
C USE
      FUNCTION IGETHOB(KDSG,KWPN)
      IGETHOB = 3MAY71
      BURST = IMART1
      COMMON/BURST/LOESIG(3),INDESIG(3),IMPNG(50),ITGTG(50),
      1INCBDFLT,NWPN,NTGTG
      BURST = IMPNG
      INHOB = IMART1
      COMMON/INHOB/INHOB(3)
      INHOB = INHOB
      DECODE(8,2,KDSG)ITPART
      2 FORMAT(2X,13,2X)
      FIND TARGET REGION
      DO 3 I=1,3
      3 IF((ITPART.GE.LOESIG(I)).AND.(ITPART.LE.INDESIG(I)))5,3
      3 CONTINUE
      PRINT 4, KDSG
      4 FORMAT(8H,TARGET ,A5,23H IS IN UNDEFINED REGION )
      IGETHOB = IMORDFLT
      RETURN
      C
      5 IS REGION INDEFINITE
      5 IF(INHOB(I).EQ.0)6,7
      6 IGETHOB = IMG
      RETURN
      7 IF(INHOB(I).EQ.1)8,9
      8 IGETHOB = IMA
      RETURN
      9 CONTINUE
      INDEFINITE REGION - IS TGT INPUT AS G
      DECODE(6,30,KDSG)IPART
      30 FORMAT(A2,6X)
      DO 10 I=1,NTGTG
      10 IF(IPART.EQ.ITGTG(I))11,10
      10 CONTINUE
      10 GO TO 20
      11 IGETHOB = IMG
      RETURN
      C
      TGT NOT INPUT AS G - IS WHO TYPE INPUT AS G
      20 DO 21 I=1,IMPNG
      21 IF ( KWPN .EQ. IMPNG(I) ) 22, 21
      21 CONTINUE
      C
      WHO TYPE NOT INPUT AS G - RETURN DEFAULT VALUE
      IGETHOB = IMORDFLT
      RETURN
      22 IGETHOB = IMG
      RETURN
      END

```

1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
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40000

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PAGE NO.

0

ED

12/17/71

5.4TS IGETHOB

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

IGETHOB

00220
00031

BURST
INNOB

00155
00003

EXTERNAL SYMBOLS

THEND.
O88DICT.
DEC.
STM.
ONSINGL.

IDENT

IGETHOB

5.4TS IGETHOB

12/17/71 ED 0 PAGE NO. 3

PO0154 BEGIN.	00176	00205	00211				
PO0153 CNVRT1.	00041	00046	00114				
PO0003 CRFMT.	00045	00071	00120				
X00003 DEC.	00036	00111					
PO0001 DICT.	00033	00037	00044	00063	00070	00112	00190
PO0177 ENDING.	00034	00073	00101	00107	00133	00146	00154
	00156						00155
PO0000 EXIT.	00203						00156
PO0003 FORMAT.	00100	00106	00132	00147			
PO0040 FP00001.	00170						
PO0045 FP00002.	00166	00167					
PO0113 FP00003.	00171						
PO0136 FP00004.	00174	00175					
PO0214 GETPL.	00161	00172					
PO0204 GETPU.	00164	00210					
PO0045 G600000.	00035						
PO0071 G800001.	00061						
PO0120 G800002.	00110						
PO0215 I	00046	00050	00054	00057	00074	00102	00121
	00142	00122					00123
PO0216 IAPART	00115						00126
PO0053 IF00001.	00051						00135
PO0031 IGETHOB	00031						00137
CO0152 INCBDFLT	00071	00071	00145				
CO0003 INDESIG	00054	00055					
CO0000 INHOB	00075	00075	00103	00103			
PO0154 INITIAL.	00034						
CO0070 ITGT6	00123	00124					
PO0217 ITPART	00042	00047	00053				
CO0006 INPAG	00140	00140					
PO0126 .10	00124						
PO0132 .11	00125						
PO0134 .20	00131						
PO0142 .21	00141						
PO0147 .22	00141						
PO0057 .3	00052						
PO0074 .5	00055	00056					
PO0100 .6	00077	00056					
PO0102 .7	00076						
PO0106 .8	00105						
PO0110 .9	00104						
PO0021 ..100000	00100						
PO0022 ..100001	00106						
PO0027 ..100002	00132						
PO0030 ..100003	00147						
PO0003 ..2	00040						
PO0023 ..30	00113						
PO0010 ..4	00064						
PO0003 K050	00040	00065	00113				
PO0003 K050	00136						
CO0000 LDESIG	00050						
CO0154 NTGT6	00127						
CO0153 NHPNG	00143						
PO0172 PF00002.	00165						

5.4TS IGETH08

P00176 PF00003.
X00002 080000.
X00005 080000.
X00004 080000.
X00001 080000.
P00127 TS00002.
P00143 TS00003.
P00151 VALUE.
P00047 TS00001.
P00122 TS00002.
P00136 TS00003.
00077 SYMBCLS

00173
00000
00152
00062
00043
00121
00135
00072
00060
00130
00144

00032
00067
00116
00101
00130
00144

00107 00133 00146 00150 00202

12/17/71

ED

C

PAGE NO.

4

12/17/71

FTN5.5

```
CSUBR      FUNCTION IPRB(A)
            IA = IPRB 18MART1
            IF(IA.6E.100)6.8
            6 IA = 99
            8 IPRB=KNORLANK(IA)
            RETURN
            END
```

1000
29000
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3000
4000
5000
6000
7000

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PAGE NO.

0

ED

12/17/71

IPROB

IDENT

00064
00003

IPROB

PROGRAM LENGTH
ENTRY POINTS
EXTERNAL SYMBOLS

IPROB

01010100
00001010
KNORLANK

5.4TS

5.ATS

IPROB

P00003 A
P00026 BEGIN.
P00001 DICT.
P00043 ENDING.
P00000 EXIT.
P00007 FP00001.
P00050 GETPL.
P00050 GETPU.
P00053 IA
P00026 INITIAL.
P00003 IPROB
P00016 .6
P00020 .8
X00003 KNOBLANK
P00042 PF00002.
X00001 Q1010100
X00002 Q800100
P00025 VALUE.
00022 SYMBOLS

Q0007
Q0042
Q0005
Q0006
Q0047
Q0040
Q0033
Q0036
Q0013
Q0006
Q0003
Q0014
Q0015
Q0020
Q0037
Q0012
Q0000
Q0023

U0051
U0021
U0024
U0041
U0054
U0017

U0055
U0031
U0026
00022

00032
00027

00027 00030 00030

12/17/71

ED

PAGE NO.

3

2744

FTN5.5

PAGE NO. 1

12/17/71

CSUBR FUNCTION (NOBLANK(IN)
 KNBLANK 20 OCT70
 IT = IND
 ENCODE(18,9,IN)IT
 9 FORMAT(I8)
 KNBLANK = NOBLANK(IN)
 END

1000
30000
2000
3000
4000
5000
6000

.....

5.4TS KNOBLANK

PROGRAM LENGTH
ENTRY POINTS
EXTERNAL SYMBOLS
KNOBLANK
THEND.
Q00DICT.
KNOBLANK
ENC.
ONSINGL.

00070
00006

IDENT

KNOBLANK

12/17/71

ED

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PAGE NO.

2

2746

5.4TS

KNBLANK

12/17/71

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0

PAGE NO.

3

PC0033 BEGIN.
 PC0032 CNVRTI.
 PC0003 CRFMT.
 PC0001 DICT.
 X00004 ENC.
 PC0050 ENDING.
 PC0000 EXIT.
 PC0003 FORMAT.
 PC0012 FPU0001.
 PC0065 GETEL.
 PC0055 GETPU.
 PC0023 GGO0000.
 PC0066 IN
 PC0003 IND
 PC0033 INITIAL.
 PC0067 IT
 PC0003 ..9
 PC0006 KNBLANK
 X00003 NCBLANK
 PC0047 PFC0002.
 X00002 QSDICT.
 X00005 QNSINGL.
 X00001 TWEND.
 PC0030 VALUE.
 00030 SYMBCLS

00047
 00020
 00023
 00010
 00015
 00011
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 00014
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12/17/71

```

FUNCTION LAT9T (A)
  CSUBR  LAT9T  9DEC71 *****
  C      LAT9T IS A VARIANT OF LATCV *****
  C      CONVERTS A FLOATING POINT LAT OR LON TO THE FORM *****
  C      DDDMMSS OR DDMMSS FOR PRINTOUT IN A-FORMAT, WHERE *****
  C      DDD = DEGREES, MM = MINUTES, SS= SECONDS AND H=E/W/S/N *****
  C      DESIGNATES WHICH HEMISPHERE *****
  C      TYPE INTEGER SECPIX *****
  CUSE    ISOUTH  20 GC77C *****
  C      COMMON/ISOUTH/ISOUTH *****
  C      ISOUTH *****
  C      TYPE REAL LATFLT, LATFLT1, MINFLT, MINFLT1 *****
  C      ISOUTH = 1H *****
  C      IF (A.GT.90.)A=(90.-A)+90. *****
  C      IF (A.LT.-90.)A=(-90.-A)+90. *****
  C      LATFLT = A *****
  C      LHEM = C *****
  C      IF (LATFLT) 2, 7, 7 *****
  2  LATFLT = -LATFLT *****
  C      ISOUTH = 1HS *****
  7  LATFLT1 = LATFLT * LATFLT *****
  C      MINFLT1 = MINFLT * MINFLT *****
  C      SECPIX = (MINFLT - MINFLT1)*60. + 0.5 *****
  C      IF (SECPIX.EQ.60) 3,4 *****
  3  SECPIX = C $ MINFLT = MINFLT *1 *****
  4  IF (MINFLT.EQ.60) 5, 6 *****
  5  MINFLT = C $ LATFLT = LATFLT *1 *****
  6  LERESFIX=SECPIX*100+MINFLT*10000*LATFIX+10000000 *****
  C      ENCODE(8,10,LAT9T),LERESFIX *****
  10  FORMAT(18) *****
  12  LAT9T=LAT9T*64+LHEM *****
  1  RETURN *****
  ENTRY  _LON9T *****
  C      IF (A.GT.360.)A=A-360. *****
  C      LATFLT = A *****
  C      LHEM = 1R *****
  C      IF (LATFLT.GT.180.) 11,7 *****
  11  LHEM = 1RE *****
  C      LATFLT = 360. - LATFLT *****
  C      GO TO 7 *****
  C      END *****

```


5.4TS

LATBT

PROGRAM LENGTH
ENTRY POINTS

BLOCK NAMES

EXTERNAL SYMBOLS

LATBT
LONBT

ISOUTH

Q1010100

THEND.

Q000ICT.

ENC.

QNSINGL.

IDENT

LATBT

00255

00010

00124

00001

12/17/71

ED

PAGE NO.

2

2749

STATUS	LATBY	00016	00022	00024	00025	00031	00033	00034	00130	00133	00135	PAGE NO.	3
P00003	A	00016	00022	00024	00025	00031	00033	00034	00130	00133	00135	00136	
P00157	BEGIN.	00017	00026	00032									
P00156	CHVRT1.	00112											
P00003	CREHT.	00115											
P00001	DICT.	00012											
X00004	ENC.	00107											
P00220	ENDING.	00013											
P00000	EXIT.	00224											
P00003	FORMAT.	00043											
P00016	FP00001.	00171											
P00122	FP00002.	00173											
P00024	FP00003.	00175											
P00025	FP00004.	00177											
P00031	FP00005.	00201											
P00033	FP00006.	00203											
P00034	FP00007.	00205											
P00130	FP00010.	00207											
P00133	FP00011.	00211											
P00135	FP00012.	00213											
P00136	FP00013.	00215											
P00235	GETPL.	00164											
P00225	GETPU.	00167											
P00115	GG00000.	00106											
P00157	INITIAL.	00013											
C00000	ISOUTH	00015											
P00123	-1	00117											
P00021	.100001												
P00025	.100002												
P00030	.100003												
P00034	.100004												
P00133	.100005												
P00136	.100006												
P00143	.11												
P00120	.12												
P00041	.2												
P00071	.3												
P00074	.4												
P00076	.5												
P00101	.6												
P00045	.7												
P00236	.FRASER.												
P00005	.10												
P00003	.100000												
P00004	.100001												
P00010	LATBY												
P00251	LATFIX												
P00153	LATFLT												
P00152	LATFLY												
P00252	LESERFIX												
P00253	LHEM												
P00124	LNBY												
P00254	MINFIX												
P00151	MINFLT												
P00150	MINFLY												

P00217 PF00002. 00170
 X00001 Q1G1G100 00046
 X00003 Q8G0ICT. 00000
 X00005 QNSINGL. 00155
 P00154 SECFIX 00067
 X00002 THEND. 00113
 P00147 VALUE. 00111
 00075 SYMBOLS

00056 00066
 00011 00125
 00072 00102
 00120 00122 00223

12/17/71

```

      FUNCTION LATS(A)
      CSUBR      LATS      9DEC71 *****
      IF(A.GT.90.)A=(90.-A)+90.
      IF(A.LT.-90.)A=(-90.-A)+90.
      ALAT = A
      LHEM = 1RW
      IF(ALAT)1,2,2
      1 ALAT = -ALAT
      LHEM = 1RS
      2 DEG = LDEG = ALAT
      AMIN = MIN = AMIN=(ALAT=DEG)*60
      LSEC = (AMIN-AMIN)*60*0.5
      IF(LSEC.EQ.60)3,4
      3 LSEC = 0
      MIN = MIN+1
      4 IF(MIN.EQ.60)5,6
      5 MIN = 0
      LDEG = LDEG+1
      6 LAT = LSEC+100*MIN+10000*LDEG
      ENCODE (8,10,LATS) LAT,LHEM
      10 FORMAT (17,R1)
      LATS = NORLANK(LATS)
      RETURN
      ENTRY LONS
      IF(A.GT.360.)A=A-360.
      ALAT = A
      LHEM = 1RW
      IF(ALAT.GT.180.) 11,2
      11 LHEM = 1RE
      ALAT = 360.-ALAT
      GO TO 2
      END

```

1000
32000
4000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000
28000
29000
30000
31000

5.4TS

LATS

PROGRAM LENGTH

ENTRY POINTS

LATS

LONS

EXTERNAL SYMBOLS

IDENT

LATS

00246

00007

00117

01010100

THEND.

0800ICT.

080BLANK

ENC.

08SINGL.

12/17/71

EO

0

PAGE NO.

2

5.4TS	LATS	12/17/71	EO	PAGE NO.	3
P00003	A	00013	00017	00021	00022
P00235	ALAT	00032	00034	00036	00037
P00236	AMIN	00057	00060	00061	00062
P00237	AMIN1	00051	00057	00058	00059
P00145	BEIN.	00205	00214	00220	00221
P00144	CNVRT1.	00106	00107	00112	00113
P00003	CRFMT.	00112	00112	00112	00112
P00240	DEG	00047	00050	00111	00113
P00001	DICT.	00011	00104	00111	00113
X00005	ENC.	00103	00104	00111	00113
P00206	ENDING.	00012	00116	00122	00145
P00000	EXIT.	00212	00116	00122	00145
P00003	FORMAT.	00157	00160	00166	00167
P00013	FF00001.	00161	00162	00166	00167
P00017	FF00002.	00163	00164	00166	00167
P00021	FF00003.	00165	00166	00167	00167
P00022	FF00004.	00167	00170	00171	00172
P00026	FF00005.	00171	00172	00174	00174
P00030	FF00006.	00173	00174	00175	00176
P00031	FF00007.	00175	00176	00177	00200
P00123	FF00010.	00177	00200	00201	00202
P00126	FF00011.	00201	00202	00203	00204
P00130	FF00012.	00203	00204	00217	00217
P00131	FF00013.	00217	00217	00217	00217
P00223	GETPL.	00152	00217	00217	00217
P00213	GETPU.	00155	00217	00217	00217
P00112	GG00000.	00102	00217	00217	00217
P00145	INITIAL.	00012	00217	00217	00217
P00036	.1	00035	00035	00035	00035
P00016	.100001	00015	00015	00015	00015
P00022	.100002	00024	00024	00024	00024
P00025	.100003	00024	00024	00024	00024
P00031	.100004	00025	00025	00025	00025
P00126	.100005	00034	00035	00035	00035
P00131	.100006	00034	00035	00035	00035
P00136	.11	00064	00064	00064	00064
P00041	.2	00071	00071	00071	00071
P00065	.3	00105	00105	00105	00105
P00070	.4	00101	00101	00101	00101
P00072	.5	00007	00007	00007	00007
P00075	.6	00043	00043	00043	00043
P00224	ERASER.	00033	00033	00033	00033
P00003	.10	00117	00117	00117	00117
P00241	LAT	00063	00063	00063	00063
P00007	LATS	00053	00053	00053	00053
P00242	LES	00052	00052	00052	00052
P00243	LEH	00052	00052	00052	00052
P00117	LONS	00052	00052	00052	00052
P00244	LSEC	00052	00052	00052	00052
P00245	MIN	00052	00052	00052	00052
X00004	NOBLANK	00112	00112	00112	00112
P00205	PF00002.	00156	00156	00156	00156
X00001	Q1010100	00042	00042	00042	00042
X00003	Q800101.	00000	00000	00000	00000

5.4TS

LATS

X00006 QNSINGL.
X00002 THEND.
P00142 VALUE.
00071 SYMBOLS

00143
00110
00105

00114 00115 00211

12/17/71

ED

0

PAGE NO.

4

5.475 NOBLANK

12/17/71

ED

U

PAGE NO.

3

P00066 REGIN.	00110	00117	00123			
P00001 DICT.	00027	00071	00072			
P00111 ENDING.	00030	00064	00066	00067	00067	00070
P00000 EXIT.	00115					
P00024 FORMAT.	00036					
P00047 FP00001.	00100	00101				
P00054 FP00002.	00102	00103				
P00056 FP00003.	00106	00107				
P00062 FP00004.	00104	00105				
P00126 GETPL.	00073					
P00116 GETPU.	00076	00122				
P00127 I	00037	00040	00046	00050	00055	0006J
P00003 I8	00043	00052				
P00130 IBLANK	00036	00041				
P00023 IFIRST	00031	00035				
P00131 I6T0.	00032					
P00066 INITIAL.	00030					
P00132 ITEMP	00052					
P00044 .1						
P00054 .2						
P00060 .3						
P00034 .4	00033					
P00045 .5	00033					
P00062 .6	00053					
P00024 .100000	00036					
P00024 M	00047					
P00013 MASK	00023	00054	00057	00062		
P00025 NOBLANK	00025	00042	00051	00056		
P00110 PF00002.	00077					
X00001 Q80DICT.	00000	00026				
P00065 VALUE.	00063	00114				
P00041 *SU0001.	00044					
P00047 *SU0002.	00061					
00041 SYMBOLS						

12/17/71

FTNS.5

```

FUNCTION NOFFSYS(IT)
  CSUBR NOFFSYS 20 OCT70 *****
  C      IT IS PLANE TYPE *****
  CUSE MASTER 20 OCT70 *****
  COMMON/MASTER/IDATE,IDENTNO,ISIDE,NRPT,NCORR,NDPEN,NRECOVER,
  1,NREF,NBNDRY,NREG,NTYPE,NGROUP,INTOTBASE,NPAYLOAD,NASMTYPE,NMMDTYPE
  2,NTANKBAS,NCOMPLEX,NC,ASS,NALERT,NTGTS,NCORTYPE *****
  CEND MASTER *****
  CUSE OFFSYS 20 OCT70 *****
  COMMON/OFFSYS/MASKC(100),INTYP(100),IPOTYP(100),ICOUNT(100),NT *****
  CEND OFFSYS *****
  CUSE PAYLOAD 20 OCT70 *****
  COMMON/PAYLOAD/NOBOMB1(40),IWH01(40),NOBOMB2(40),IWH02(40)
  1,NASM(40),IASM(40),NCM(40),NDECCYS(40),NADCCYS(40),IMIRY(40) *****
  CEND PAYLOAD *****
  CUSE PAYLOAD2 20 OCT70 *****
  COMMON/PAYLOAD2/MASK(40) *****
  CEND PAYLOAD2 *****
  CUSE STUB 1MART1 *****
  COMMON/STUB/LHTYPE,LCCLASS,LSIDE,ML0W(2),MHI(2),G1,G2,G3,LPAYLOAD
  1,LPGTYPE,LBASEID,LFUNC *****
  CEND STUB *****
  DATA(IISHOT=1)
  IF(IISHOT)5,15
  5 ISHOT=0
  C      INITIALIZATION
  GO TO 1=1,NPAYLOAD
  10 MASK(I)=100000000*NOBOMB1(I)+1000000*IWH01(I)+100000*NOBOMB2(I)
  * 1000*IWH02(I)+100*NASM(I)+IASM(I)
  NT=0
  C      FORM FINAL MASK
  15 MSK = 100*MASK(LPAYLOAD)+IT
  C      LOCK FOR MATCH
  DO 20 J=1,NT
  IF(MSK.EQ.MASKC(J))60,20
  20 CONTINUE
  C      STEP COUNT
  NT=NT+1
  IF(NT.GT.100)40,30
  C      STORE MASK
  MASKC(NT)=MSK
  C      INTYP(NT)=LHTYPE
  IPGTY(NT)=LPGTYPE
  ICOUNT(NT)=ICOUNT(NT)+1
  NOFFSYS = NOBLANK(NT)
  RETURN
  40 PRINT 50
  50 FORMAT(IX,42HNO OF OFFENSIVE SYSTEMS EXCEEDS TABLE SIZE)
  NOFFSYS = 1H
  GO TO 70
  60 NOFFSYS = NOBLANK(J)
  ICOUNT(J)=ICOUNT(J)+1
  70 RETURN
  END

```

5.4TS NOFFSYS

12/17/71

ED

U

PAGE NO.

2

IDENT NOFFSYS

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00202
00017

NOFFSYS

MASTER
OFFSYS 00026
PAYLOAD 00621
PAYLOAD2 00620
STUB 00050
00016

EXTERNAL SYMBOLS

THEND.
CREDIT.
KNOBANK
STH.

2760

P00137 BEGIN.	00153	00162	00166				
P00176 COUNT.	00032	00033					
P00004 CRFMT.	00124						
P00001 DICT.	00021	00112	00120	00123	00127	00142	00143
P00154 ENDING.	00022	00115	00135	00137	00140	00140	00141
P00000 EXIT.	00160						
P00004 FORMAT.	00124						
P00062 FP00001.	00151	00152					
C00007 61							
C00010 62							
C00011 63							
P00171 GETPL.	00144						
P00161 GETPU.	00147	00165					
P00124 GGG0000.	00116						
P00177 I	00027	00032					
C00310 IASM	00052						
C00454 ICOUNT	00107	00132	00133	00134			
C00001 IDENTNG							
C00000 IMDATE							
C00144 INTYP	00104	00105					
C00550 IMIRV							
P00137 INITIAL.	00022						
C00310 IP6TYP	00106	00107					
P00003 ISHOT	00023	00026					
C00002 ISIDE							
P00004 IT	00063						
C00050 IWM01	00037	00040					
C00170 IWM02	00045	00046					
P00034 10							
P00060 15	00024						
P00072 20	00070						
P00101 30	00077	00100					
P00116 40	00100						
P00025 5	00024						
P00126 60	00071						
P00135 70	00125						
P00172 ERASER.	00036						
P00016 100000	00124						
P00004 550	00121						
P00200 J	00065	00072	00130	00132			
X00003 KNOBLANK	00111	00041	00041	00044	00047	00047	00052
C00014 LBASEID		00067	00126				
C00001 LCLASS							
C00015 LFUNC							
C00000 LHTYPE	00103	00104					
C00012 LPAYLCAO	00060	00061					
C00013 LPGTTYPE	00105	00106					
C00002 LSIDE							
C00000 MASK	00053	00054	00061	00062			
C00000 MASKO	00067	00070	00103				
C00005 MH1							
C00003 MLOW							
P00201 MSK	00064	00066	00101				
C00500 NADECOYS							

5.4TS NOFFSYS

12/17/71

ED

0

PAGE NO.

4

CO0023 NALERT
CO0240 NASH
CO0016 NASMTYPE
CO0010 NBNDK7
CO0022 NCLASS
CO0360 NCM
CO0021 NCOMPLEX
CO0004 NCJRR
CO0025 NCORTYPE
CO0430 NDECCYS
CO0005 NDREN
CO0013 NGRUP
CO0000 NC80MB1
CO0120 NC80MB2
CO0017 NFFSYS
CO0015 NPAYLOAD
CO0006 NRECOVER
CO0007 NREF
CO0011 NREG
CO0003 NRT2T
CO0620 NT
CO0020 NTANKBAS
CO0024 NTGTS
CO0014 NTOTBASE
CO0012 NTYPE
CO0017 NWHDTYPE
PO0153 PF00002.
X00002 Q800IC1.
X00004 STM.
X00001 THEND.
PO0056 TS00001.
PO0073 TS00002.
PO0136 VALUE.
PO0034 WS00001.
PO0066 WS00002.
00131 SYMBOLS

00050 00051

00035 00035
00042 00043
00017 00017
00027 00030

00056 00057 00073 00073 00075 00076 00076 00102 00102 00113

00150 00020
00000 00000
00117 00117
00122 00122
00031 00031
00065 00065
00114 00114
00055 00055
00074 00074

00125 00131 00157

12/17/71

```

CSUBR      FUNCTION NOP(I)
C          NOP      22MART1 *****
C          CUSE     FINDS OPERATION CODE ASSOCIATED WITH EVENT TYPE I *****
C          CUSE     TAB      20 OCT7C *****
C          CEND     COMMON/TAB/ITAB(21),NOPSHOT *****
C          C          TAB *****
C          C          NOPSHOT=3 FOR DOG LEG 3; NOPSHOT=4 FOR DOGLE6-4; OTHERWISE 2=RC
C          C          -DATA ITAB = 7,0,1,0,2,0,0,0,10,10,0,38,40,14,6,8,13,3,3,3,3
C          CUSE     MODE      20 OCT7J *****
C          C          COMMON/MODE/MODE *****
C          C          MODE *****
C          C          EVENTS 18-21 ARE DOGLE6-3 CHANGED TO DOGLE6-4,
C          C          AFTER CORRIDOR ORIGIN
C          C          IF(NOPSHOT)4,6
C          C          4 DO 5 J=18,21
C          C          5 ITAB(J)=NOPSHOT
C          C          NOPSHOT=0
C          C          6 CONTINUE
C          C          NC = ITAB(I+1)
C          C          NOP = KNCGLANK(NC)
C          C          IF(I.EQ.10)10,15
C          C          10 MODE = 4
C          C          15 RETURN
C          C          20 MODE = 1
C          C          25 RETURN
C          C          END

```

1000
35000
2000
3000
1000
3000
4000
5000
6000
1000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000

NOP

5.4TS

IDENT NOP

00102
00003
00026
00001

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES
TAB
MODE

EXTERNAL SYMBOLS
0865ICT.
KN09LANK

5.4TS

NOP

12/17/71

ED

PAGE NO.

3

P00041 BEGIN.
P00001 OIST.
P00062 ENDING.
P00000 EXIT.
P00020 P00001.
P00027 P00002.
P00033 P00003.
P00077 GETPL.
P00067 GETPU.
P00003 I
P00041 INITIAL.
C00000 IT48
P00031 .10
P00033 .15
P00035 .20
P00037 .25
P00011 .4
P00014 .5
P00020 .6
P00100 J
X00002 KNCBLANK
C00000 MODE
P00101 NO
P00003 NOP
C00025 NOPSHOT
P00061 P00002.
X00001 QSDICT.
P00040 VALUE.
P00014 W00001.
00035 SYMBOLS

00061
00005
00006
00056
00053
00055
00057
00046
00051
00020
00006
00003
00030
00034
00010
00010
00010
00012
00012
00023
00031
00032
00025
00003
00007
00052
00000
00026
00016

00070
00024
00032
00074
00044
00037
00045
00041
00037
00042
00042
00043
00043
00043
00054
00056
00060
00073
00027
00033
00015
00021
00021
00014
00014
00004
00065

J0017

FTN5.5

12/17/71

PAGE NO.

1

```

CSUBR      FUNCTION NPLNETYP(I)
C          NPLNETYP IMART1 *****
C          DETERMINES MISSILE, BOMBER, OR TANKER TYPE FOR LTYPE = I *****
CUSE       STUB IMART1 *****
C          COMMON/STUB/LHTYPE,LCCLASS,LSIDE,MLOW(2),MH1(2),G1,G2,G3,LPAYLOAD *****
C          1,LPGTYPE,LBASEID,LFUNC *****
CEND       STUB *****
CUSE       CUMNO IMART1 *****
C          COMMON/CUMNO/ICUMNO(15) *****
CEND       CUMNO *****
          J = LCLASS - 1
          IF(J) 10,10,20
          10 NPLNETYP = 1
          RETURN
          20 NPLNETYP = 1 + ICUMNO(J)
          RETURN
          END

```

1000
36000
2000
3000
1000
2000
3000
4000
1000
4000
5000
6000
7000
8000
9000
10000
11000

5.475 NPLNETYP

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

NPLNETYP

STUB

CUMNO

EXTERNAL SYMBOLS

088DICT.

IDENT

00062

00003

00016

00017

NPLNETYP

12/17/71

ED

0

PAGE NO.

2

2767

5.475 MPLNETYP

12/17/71

ED J

PAGE NO. 3

P00024 REGIN.	00042	00051	00055			
P00001 DICT.	00005	00027	00030			
P00043 ENDING.	00006	00015	00022	00024	00025	00026
P00000 EXIT.	00047					
P00013 P00001.	00036	00037				
P00016 P00002.	00040	00041				
C00007 G1						
C00010 G2						
C00011 G3						
P00060 GETPL.	00031					
P00050 GETPU.	00034	00054				
P00003 I	00013	00016				
C00000 ICUMNC	00020	00020				
P00024 INITIAL.	00006					
P00013 .10	00011	00012				
P00016 .20	00012					
P00061 J	00011	00017				
C00014 LBASEID						
C00001 LCLASS	00007	00007				
C00015 LFUNC						
C00000 LHTYPE						
C00012 LRAYLCAN						
C00013 LPBTTYPE						
C00002 LSIDE						
C00005 MHI						
C00003 MLOW						
P00003 MPLNETYP	00003					
P00042 PF00002.	00035					
X00001 QADDICT.	00000	00004				
P00023 VALUE.	00014	00021	00046			
00036 SYMBOLS						

12/17/71

FTNS.5

```

CSUBR      FUNCTION NTIME(T)
            NTIME 18MART1
            IHR = 7
            MINI=60*.1+.5
            MINI = MINI-60*IHR
            IF (MINI.EQ.60) 1,2
            MINI=0 5 IHR=IHR+1
            CONTINUE
            NT = 100*IHR*MINI
            NTIME=KNORLANK(NT)
            RETURN
            END
1
2

```

1000
37000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000

S.ATS

12/17/71

ED 0

PAGE NO. 2

NTIME

IDENT

00077
00003

PROGRAM LENGTH
ENTRY POINTS
EXTERNAL SYMBOLS

NTIME

Q1010100
G80DICT.
KNCBLANK

2770

5.4TS

NTIME

12/17/71

ED

0

PAGE NO.

3

P00035 BEGIN.
 P00031 DICT.
 P00054 ENDING.
 P00000 EXIT.
 P00007 FP00001.
 P00013 FP00002.
 P00071 GETPL.
 P00061 GETPU.
 P00074 IHR.
 P00035 INITIAL.
 P00022 .1
 P00025 .2
 X00003 KNOBLANK
 P00075 MINI
 P00076 NT
 P00003 NTIME
 P00053 PF00002.
 X00001 Q1Q1010C
 X00002 Q000010C
 P00003 T
 P00034 VALUE.
 00025 SYMBOLS

00053
 00005
 00006
 00060
 00047
 00051
 00042
 00045
 00011
 00006
 00021
 00030
 00016
 00027
 00003
 00046
 00010
 00000
 00007
 00033

00062
 00031
 00033
 00050
 00052
 00065
 00017
 00020
 00032
 00015
 00004
 00013
 00057

00066
 00040
 00035

00041
 00036

00036
 00037
 00037
 00037

12/17/71

```

SUBROUTINE PRNTOFFS
  CSUBR PRNTOFFS 20 OCT70 *****
  C PRINTS OFFENSIVE SYSTEM NUMBER TABLE *****
  CUSE OFFSYS 20 OCT70 *****
  COMMON/OFFSYS/MASKO(100),INTYP(100),IPGTP(100),ICOUNT(100),NT *****
  CEND OFFSYS *****
  DIMENSION ID(6),IR(6)
  DATA(ID=100000 00000,1000 00000,100 00000,100000,100000,100)
  PRINT 10
  10 FORMAT(1H1)
  PRINT 20
  20 FORMAT(45X,22HOFFENSIVE SYSTEM TABLE)
  PRINT 30
  30 FORMAT (//16X,8HPLAN GEN,4X,4HTYPE,4X,5HPLANE,3X
  1,42H-----PAYLOAD CONFIGURATION-----//16X
  2,2X,8HTYPE NO.,4X,4HNAME,5X,4HTYPE,3X,52HNSBOMB1 1WMD1 NSBOMB2
  3 1WMD2 NASH 1ASM NUMBER //)
  DO 60 I=1,NT
    IDIV=MASKO(I)
    IR(I)=IDIV/ID(J)
    DO 40 J = 1,6
  40 IDIV =XMODF(IDIV,IR(J))
  PRINT 50, IPGTP(I),INTYP(I),ZDIV,(IR(K),K=1,6),ICOUNT(I)
  50 FORMAT (17X,15,4X,AB,15,219,17,19,216,17)
  60 CONTINUE
  RETURN
  END

```


C

2

PAGE NO.

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ED

12/17/71

5.4TS PRNTOFFS

PRNTOFFS

IDENT

00225

00117

00621

PRNTOFFS

OFFSYS

PROGRAM LENGTH

ENTRY POINTS

BLOCK NAMES

EXTERNAL SYMBOLS

THEND.

Q8QDDICT.

XMODF

STH.

QNSINGL.

5-4TS PRNTOFFS

3

PAGE NO.

3

ED

12/17/71

P00215 BEGIN.
 P00214 CNVRT1.
 P00017 CREMT.
 P00001 DICT.
 P00217 ENDING.
 P00000 EXIT.
 P00017 FORMAT.
 P00131 G600000.
 P00137 G600001.
 P00145 G600002.
 P00207 G600003.
 P00221 I
 C00454 ICOUNT
 P00303 ID
 P00222 IDIV
 C00144 INITYP
 P00215 INITIAL.
 C00310 IPSTYP
 P00011 IR
 P00157 .40
 P00207 .60
 P00317 .10
 P00223 .20
 P00032 .30
 P00103 .50
 P00223 J
 P00224 K
 C00000 MASK0
 C00020 NT
 P00117 PRNTOFFS
 X00002 G60DICT.
 X00005 G60SINGL.
 X00004 STM.
 X00001 THEND.
 P00210 TS000001.
 P00147 WS000001.
 P00154 WS000002.
 P00177 WS000003.
 X00003 XN2DF
 00047 SYMBOLS

00216
 00172
 00131
 00121
 00122
 00220
 00123
 00131
 00137
 00145
 00165
 00146
 00147
 00203
 00117
 00151
 00154
 00173
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 00171
 00156
 00126
 00134
 00142
 00170
 00152
 00176
 00150
 00210
 00117
 00000
 00213
 00124
 00127
 00146
 00211
 00164
 00202
 00161

00173
 00137
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 00212
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 00215
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 00207
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 00202
 00160
 00157
 00163
 00174
 00153
 00177
 00201
 00150
 00210
 00120
 00132
 00135
 00140
 00143
 00166
 00205

00204
 00136
 00141
 00144
 00162
 00167
 00206

FTN5.5

12/17/71

PAGE NO.

1

```
SUBROUTINE VINTRFAC
COMMON /VERSION/ VERS
DATA (VERS = 849DEC71 )
ENTRY V9DEC71
ENTRY VER19DEC
ENTRY VER271
PRINT 1
1 FORMAT(1/41H  VERSION 9DEC71  OF PROGRAM INTRFACE //)
RETURN
END
```

5.4TS VINTRFAC

12/17/71

ED

0

PAGE NO.

2

PROGRAM LENGTH
ENTRY POINTS

V9DEC71
VER19DEC
VER271
VINTRFAC

00052
00023
00030
00035
00016

BLOCK NAMES

VERSION

00001

EXTERNAL SYMBOLS

THEND.
0800ICT.
STH.

IDENT

VINTRFAC

2776

5.4TS VINTREAC

3

PAGE NO.

0

ED

12/17/71

P00050 B-SIN.
P00003 CRFMT.
P00001 DICT.
P00051 ENDING.
P00000 EXIT.
P00003 FCRMAT.
P00047 G600000.
P00050 INITIAL.
P00003 .1
X00002 280DICT.
X00003 STM.
X00001 TMENG.
P00023 WDECTI
P00030 VER19DEC
P00035 VER271
C00000 VERS
P00016 VINTREAC
00021 SYMBOLS

00025 00032 00037 00043 00046
00026 00033 00040 00047

00026 00033 00040
00017 00024 00031 00036

12/17/71

```

SUBROUTINE YLDFRAC(IMH,IYLD,IFRAC,KYLD)
  CSUBR      YLDFRAC 25AUG71 *****
  CUSE      FRACYLD 25AUG71 *****
  COMMON/FRACYLD/YIELD(50),FISFRAC(50),JYIELD(50),NMPN
  TYPE INTEGER YIELD,FISFRAC
  FRACYLD *****
  PAYLOAD 20 OCT70 *****
  COMMON /PAYLOAD/NBOMB1(40),IMH1(40),NBOMB2(40),IMH2(40)
  1,NASM(40),IASM(40),NCM(40),NDECOYS(40),NADECOYS(40),IMIRV(40)
  PAYLOAD *****
  STUB      1MAR71 *****
  COMMON/STUB/LHTYPE,LCLASS,LSIDE,MLCH(2),MH1(2),G1,G2,G3,LPAYLOAD
  1,LPGTYPE,LBASEID,LFUNC
  STUB *****
  C      CREATE EQUIV YIELD IF WEAPON IS A MRV
  I = 1MH
  IF (LCLASS-1) 60,25,60
  25 IF (NBOMB1(LPAYLOAD),GT,1)5G,60
  50 FNB = NBOMB1(LPAYLOAD)
  C
  C      KYLD IS THE SCALED YIELD FOR MRV WEAPONS
  C      THE SCALED FISSION FRACTION FOR MRV WEAPONS IS DETERMINED AS
  C      FFR(SCALEN) = (YIELD OF SNGL *HD) / (FR OF SNGL *HD) (NO OF *HDS)
  C      SCALED YIELD FOR MRV (I.E. KYLD)
  C      (SOURCE = R. R. HARDIMAN NMCSSC 8221 WFR 13OCT70)
  C
  DECODE(8,40,YIELD(I))KYLD
  40 FORMAT(I8)
  KYLD = KYLD * FNB **1.5
  ENCODE(8,40,JYLD)KYLD
  IYLD=NCBLANK(JYLD)
  DECODE(3,40,FISFRAC(I)) ITEMP
  50 FOR J=1(I3)
  ITEMP = ITEMP / SQRT(FNB) * .5
  ENCODE(3,40,IFRAC) ITEMP
  IFRAC = ITEMP * BLANK(IFRAC)
  RETURN
  60 IYLD = YIELD(I)
  KYLD=JYIELD(I)
  IFRAC = FISFRAC(I)
  RETURN
  END

```

5.4TS YLDFRAC

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

YLDFRAC

FRACYLD
PAYLOAD
STUB

EXTERNAL SYMBOLS

THEND.
Q2007111
Q1004100
Q1010100
Q8001010
NOBLANK
SORTF
DEC.
ENC.
QNSINSL.

IDENT

00241
00011

00227
00620
00016

YLDFRAC

12/17/71

ED

0

PAGE NO.

2

2779

P00040	AN00000.	00034							
P00076	AN00002.	00072							
P00143	BEGIN.	00211							
P00142	CNVRT1.	00041							
P00003	CRFMT.	00045							
X00010	DEC.	00036							
P00001	DICT.	00013							
X00011	ENC.	00123							
P00212	ENDING.	00056							
P00000	EXIT.	00014							
C00052	FISFRAC	00215							
P00235	FNB	00071							
P00003	FORMAT.	00033							
P00015	FP00001.	00155							
P00042	FP00002.	00177							
P00052	FP00003.	00201							
P00054	FP00004.	00203							
P00061	FP00005.	00205							
P00070	FP00006.	00161							
P00120	FP00007.	00174							
P00126	FP00010.	00167							
P00127	FP00011.	00172							
P00133	FP00012.	00163							
P00135	FP00013.	00207							
P00137	FP00014.	00170							
C00007	G1								
C00010	G2								
C00011	G3								
P00226	GETPL.	00150							
P00216	GETPU.	00153							
P00045	GG00000.	00035							
P00065	GG00001.	00055							
FC0103	GG00002.	00073							
P00124	GG00003.	00115							
P00236	I	00016							
C00310	IASM								
P00003	IFRAC	00120							
C00350	IMRV								
P00143	INITIAL.	00014							
P00237	ITCMP	00100							
P00003	IWH	00015							
C00050	IWHD1								
C00170	IWHD2								
P00003	IYLD	00070							
P00022	.25	00020							
P00026	.50								
P00131	.60	00021							
P00227	PERASTER.	00106							
P00003	.40	00040							
P00006	.80	00076							
C00144	JYIELD	00134							
P00240	JYLD	00060							
P00003	KYLD	00042							
		00054							
		00052							
		00024							
		00025							
		00133							
		00127							
		00137							
		00114							
		00121							
		00131							
		00175							
		00222							
		00044							
		00046							
		00147							
		00140							
		00143							
		00136							
		00103							
		00076							
		00047							
		00156							
		00200							
		00202							
		00204							
		00206							
		00162							
		00173							
		00164							
		00210							
		00171							
		00126							
		00106							
		00114							
		00033							
		00127							
		00137							
		00054							
		00052							
		00024							
		00025							
		00133							
		00021							
		00112							
		00060							
		00120							
		00134							
		00067							
		00054							
		00052							
		00061							
		00135							

5.4TS

YLDFRAC

12/17/71

E9

J

PAGE NO.

C00014 LBASEID
 C00001 LCLASS
 C00015 LFUNC
 C00000 LTYPE
 C00012 LPAYLOAD
 C00013 LPOTYPE
 C00002 LSIDE
 C00005 MNT
 C00003 MLOW
 C00500 NADECOYS
 C00240 NASM
 C00360 NCM
 C00430 NDECOYS
 X00006 NOBLANK
 C00000 NOBOMB1
 C00120 NOBOMB2
 C00226 NMPN
 P00157 PF00002.
 P00165 PF00003.
 P00175 PF00004.
 P00211 PF00005.
 X00003 Q1004100
 X00004 Q1010100
 X00002 Q2907111
 X00005 Q800101.
 X00012 QMSINGL.
 X00007 SORTF
 X00001 THEND.
 C00000 YIELD
 P00011 YLDFRAC
 00123 SYMBOLS

00017 00017
 00022 00022 00026 00026
 00065 00124
 00023 00023 00027 00027
 00154 00160
 00166 00176
 00051 00053
 00045 00012
 00141 00104
 00043 00063 00101 00122
 00034 00040 00132 00132
 00011

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11/20/71

```

VALASH = 14/
MYEAPON = AMFL*EAPON
MYIDEUT = AMFL*ABLE
NORPRT = 1
CALL INITAPE
MYIDEUT = AMINDEXIS
CALL INITDEUT(1)
HEADS UTRECTRY
PRINT 27, ( ATINAME(1), I = 1, IDEF)
27 FORMAT(1H,1440)
CALL IMPITEA
DO 28 I = 1,400
28 IFH(I) = .FALSE.
ICLAS = ILE(5HCLASS,ATTNAME,IDEF)
IYPE = ILE(4HTYPE,ATTNAME,IDEF)
ISIDE = ILE(4HISIDE,ATTNAME,IDEF)
INDEX = ILE(7HINDEX,ATTNAME,IDEF)
ISISIG = ILE(5HISIG,ATTNAME,IDEF)
ILAT = ILE(3HILAT,ATTNAME,IDEF)
ICOM = ILE(4HCOM,ATTNAME,IDEF)
ICTRY = ILE(4HICTRY,ATTNAME,IDEF)
ISAME = ILE(4HSAME,ATTNAME,IDEF)
ICEP = ILE(3HCEP,ATTNAME,IDEF)
IVULN = ILE(4HVULN,ATTNAME,IDEF)
ISITENC = ILE(5HSITENC,ATTNAME,IDEF)
IFUNC = ILE(4HIFUNC,ATTNAME,IDEF)
IMPSITE = ILE(7HIMPSITE,ATTNAME,IDEF)
IMDT = ILE(7HIMDT,ATTNAME,IDEF)
IVLO = ILE(5HIVLO,ATTNAME,IDEF)
IYPT = ILE(3HIYPT,ATTNAME,IDEF)
ISYR = ILE(4HSYR,ATTNAME,IDEF)
ICALENT = ILE(7HICALENT,ATTNAME,IDEF)
ICAT = ILE(7HICATCODE,ATTNAME,IDEF)
ICAJ = ILE(5HICAJ,ATTNAME,IDEF)
ITASK = ILE(4HITASK,ATTNAME,IDEF)
ICOM = ILE(4HICOM,ATTNAME,IDEF)
IFFRAC = ILE(5HIFRAC,ATTNAME,IDEF)
ICALENT = ILE(7HICALENT,ATTNAME,IDEF)
ISIT = ILE(5HSIT,ATTNAME,IDEF)
ICLAS = ILE(5HICLAS,ATTNAME,IDEF)
ISAVTY = 0
NOMBAS = 0
NOMWEAP = 0
NOMVEH = 0
NOMTAPS = 0
NOMISSHS = 0
ITP = 0
MYIDEUT = AMSCATCH
CALL SETWRITE
ITP = 0
MYIDEUT = AMSCATCH
CALL SETWRITE
29 NAMESIDE = VALUE(ISIDE)
INDEXIS = VALUE(IDEISIG)
INDEXNUM = VALUE(INDEX)
ILAT = VALUE(ILAT)

```

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```

XLONG = VALU(XLONG)
NAMEST = VALUE(INAME)
NCTRYLOC = VALUE(ICTRY)
C
  CONVERT LAT AND LONG
  CALL HELP (ALAT,LAT,1)
  CALL HELP (ALONG,LON,2)
  IF ( NAMEST.EQ. SUE) GO, 30
C
  IS INDEXING SET, G
  30 IF (INDEXNUM.GT.0) 31,1,0
C
  ENTER DATA IN TABLE TARGET
  31 NMTARS = NMTARS + 1
  NCAT = VALUE(ICAT)
  MAJ = VALUE(IMAJ)
  TASK = VALUE(ITASK)
  NCOMPLEX = VALUE(ICOM)
C
  ENCODE AND OUTPUT FOR TABLE TARGET
  20 FORMAT (9M,10EN = ,110)
  34 EXCODE(1,32,TABTAR)NITARGET,NLUE,NMTARS,NDESIG,LAT,LONG,NAMESTGT
  1,NCAT, NCITLOC, MAJ, TASK,INDEXNUM, NCOMPLEX
  32 FORMAT (M8,A1,10,1X,M8,1X,M7,M8,1X,M2,A6,1X,A2,1X,
  115,1X,13)
C
  WRITE TARGET TABLE ENTRY ON TAPE
  40 IEOUTYPE, 33) TABTAR
  33 FORMAT (1,40)
  GO TO 100
C
  40 CONTINUE
C
  CLASS=CODEMISILE*ANHEAD*SM, OR TANKER
  41 NCLAS = VALUE(ICLAS)
  NAMESTPE = VALUE(IITYPE)
  ICLASS = VALUE(NICLAS)
  ISITE = VALUE(NSITE)
  I = VALUE(IITYPE)
C
  I IS SET EQUAL TO STEVES IITYPE
  70 IF (ICLAS = 1) 70, 42, 70
  70 IF (ICLAS = 2) 71, 72, 71
  72 IEOUTYPE = 1
  GO TO 54
  42 NUMISSRS = NUMISSRS + 1
  43 IF (ISITE = 1) 46, 43, 40
  43 ISAVTY = 1
  GO TO 47
  40 I = ISAVTY
  47 CONTINUE
  44 NMPSTGH = VALUE(INMPSTGH)
  401 NVULN = VALUE(IIVULN)
C
  ISALVDC=1
  DECODE( 8,47,NVULN) NVUL
  47 FORMAT(2)
  48 NVUL = IMS
  48 NALERT = VALUE(INALERT)
  50 IF (NALERT.EQ. NMPSTGH) 53, 50
  50 ISALVDC = 2
  GO TO 53

```

```

49 NVUL = 1MH
C  ENCODE AND PUT INTO TABLE MISSILE BASE AND WRITE ON SCRATCH TAPE
53 ENCODE(20,51,TABMIS)MINIBASE,MRED,NUMISSRS,INDEXNUM,LA, LONG,
  IICDTYPE, M1,MSLASH,MPSIGH,NVUL,ISALVO,NAMEIGT,NCTRYLOC
51 FORMAT(AB,A1,15,1X,15,1X,A7, AB,1X,3X,1X,12,2X,A1,A1,12,1X,
  1A1,1X,11,6X,A8,24,42)
C  WRITE MISSILE BASE TABLE ENTRY ON SCRATCH TAPE
  ITP = CUTAP2
  CALL WRARRAY(TABMIS,10)
C  CHECK TO SEE IF THIS MISSILE OR BOMBER IS IN VEHICLE TABLE
54 IF(1,GT,200) 45,540
540 IF(VEH(1)) 62, 55
55 VEH(1) = .TRUE.
C  ENCODE AND ENTER INTO VEHICLE TABLE
  CEP = VALU (ICEP) * 60.8
C  CONVERT CEP FROM NAUTICAL MILES TO HUNDREDS OF FEET, ACTUALLY 6076
  IF (CEP = 999.) 57, 57, 50
50 CEP = 999.
57 NCEP = CEP
  IPTT = NUMVEH * 10 + 1
  NUMVEH = NUMVEH + 1
  IF (NUMVEH .GT. 80) 520,522
520 PRINT 521
521 FORMAT(15H NUMVEH .GT. 80)
  GO TO 62
522 ENCODE(10,61,TABVEH(IPTT)) MVEHIC,MRED,NUMVEH,M1,IICDTYPE,NCEP,
  INCEP,NAMEIYPE
61 FORMAT (A4, A1, 15, A1, 15, 35X, 13, 3X, 13, 3X,A8)
  GO TO 62
C  ITYPE EXCEEDS 200 PRINT ERROR MESSAGE
45 PRINT 58,I
58 FORMAT(1H,23H,TYPE .GT.200, ITYPE = ,I8)
C  THIS MISSILE OR BOMBER ENTERED IN VEHICLE TABLE
62 TEST TO SEE IF IT SHOULD BE ENTERED IN BASE TABLE.
62 NTANK = 1H
61 NFUNC = VALUE(IFUNC)
65 IF(ICLASS = 1) 65, 140, 65
65 IF(NFUNC .EQ. MSLRM) 650, 651
650 NFUNC = 1
  GO TO 67
651 IF(NFUNC .EQ. JHLRA) 652, 653
652 NFUNC = 2
  GO TO 67
653 IF(NFUNC .EQ. JHTAC) 654, 655
654 NFUNC = 3
  GO TO 67
655 NFUNC = 7
C  ENCODE AND PUT INTO TABLE BASE
67 NUMBAS = NUMBAS + 1
675 ENCODE (8,66,TABBAS) MINIBASE,MRED,NUMBAS, INDEXNUM,LA, LONG,
  NFUNC,NXTANTANK,NAMEIGT,NCTRYLOC
68 FORMAT(AB,2X,A1,1X,14,1X,15,1X,A7,A8,1X,11,1X,A1,3X,A1,15X,A8
  1,2X,A8)
  ITP = CUTAP3
  CALL WRARRAY(TABBAS,10)

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FTNS.5

11/20/71

PAGE NO.

6

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122 IREG = (I-1) * 10 + 1
    IEND = IREG * 9
    WRITE(OUTAPE,33) (TABW(J), J = IREG, IEND)
120 CONTINUE
    ICHEK = 120
    PRINT 26, ICHEK
    WRITE TABLE MISSILE BASE ON OUTPUT TAPE
    C
131 CONTINUE
133 ITP = OUTAP2
    MYIDENT = BMSCKRATCH
    CALL SETREAU
    DO 133 I = 1, NUMMISSDS
    CALL ROARMAY(TABMIS, I)
    WRITE(OUTAPE,33) TABMIS
130 CONTINUE
    CALL TERMATAPE
    ICHEK = 130
    PRINT 26, ICHEK
    C 139 TABLE MISSILE BASE NOW ON OUTPUT TAPE
    C
    ITP = OUTAP3
    MYIDENT = BMSCKRATCH
    CALL SETREAU
    139 UC 15, I = 1, NUMBDS
    CALL ROARMAY(TABDAS, I)
    WRITE (OUTAPE,33) TABDAS
150 CONTINUE
    CALL TERMATAPE
    ICHEK = 150
    PRINT 26, ICHEK
154 END FILE OUTAPE
    REWIND OUTAPE
156 READ(OUTAPE,33) TABMIS
    IF (EOF, OUTAPE) GO TO 158
158 PRINT 159, (TABMIS(I), I = 1, 13)
159 FORMAT(1H 159)
    GO TO 156
160 REWIND OUTAPE
    RETURN
    END

```


SATS

TABLE

11/20/71

ED

G

PAGE NO.

8

PJ1344 ANOJ007.

PJ1353 ANOJ014.

PJ0604 ATTNAME

PJ2107 CEP

PJ2175 CNVRTI.

PJ3150 CMF41.

XJ0020 DEC.

CJ1133 DEF

CJ2740 DEFAULT

PJ0001 DICT.

XJ0023 EFT.

XJ0030 ENC.

PJ2070 ENDING.

PJ0000 EXIT.

PJ2110 FFRATIO

CJ3724 FN1

CJ4710 FN2

PJ0150 FORMAT.

PJ0525 G6000C0.

PJ0573 G6000C1.

PJ1133 G6000C2.

PJ1146 G6000C3.

PJ1225 G6000C4.

PJ1267 G6000C5.

PJ1335 G6000C6.

PJ1360 G6000C7.

PJ1371 G6000C8.

PJ1443 G6000C9.

PJ1515 G6000C10.

PJ1535 G6000C11.

PJ1576 G6000C12.

J1340

J1357

J0564

J0663

J0752

J1311

J0521

J1125

J1255

J1351

J1433

J1578

J1710

J0525

J1515

J1216

J0477

J0612

J0701

J0770

J1142

J1363

J1575

J1720

J2000

J2050

J2022

J1110

J2067

J2076

J1476

J0502

J0540

J0642

J0731

J1030

J1473

J0515

J0555

J1107

J1134

J1215

J1242

J1327

J1341

J1361

J1421

J1421

J1504

J1527

J1560

J0564

J0671

J0752

J1315

J0565

J1125

J1255

J1352

J1434

J1571

J1753

J0573

J1535

J0606

J0675

J0764

J1316

J1114

J1127

J1257

J1353

J1435

J1572

J1711

J2016

J1197

J1576

J0613

J0702

J0771

J1115

J1130

J1260

J1355

J1436

J1573

J1712

J2056

J1133

J1553

J0620

J0707

J0776

J1116

J1221

J1261

J1355

J1437

J1516

J1616

J0625

J0714

J1003

J1117

J1247

J1262

J1366

J1440

J1644

J0632

J0721

J1010

J1120

J1250

J1263

J1424

J1511

J1645

J0637

J0726

J1121

J1251

J1264

J1427

J1512

J1646

J0644

J0733

J1122

J1252

J1346

J1431

J1555

J1647

J0651

J0740

J1123

J1253

J1341

J1431

J1566

J1650

J0656

J0745

J1124

J1254

J1350

J1432

J1567

J1672

J1443

J0605

J0674

J0657

J0756

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 P00647 ..10448 J3643
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 P00687 ..10488 J3923
 P00688 ..10489 J3930
 P00689 ..10490 J3937
 P00690 ..10491 J3944
 P00691 ..10492 J3951
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 P00693 ..10494 J3965
 P00694 ..10495 J3972
 P00695 ..10496 J3979
 P00696 ..10497 J3986
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 P00698 ..10499 J4000
 P00699 ..10500 J4007
 P00700 ..10501 J4014
 P00701 ..10502 J4021
 P00702 ..10503 J4028
 P00703 ..10504 J4035
 P00704 ..10505 J4042
 P00705 ..10506 J4049
 P00706 ..10507 J4056
 P00707 ..10508 J4063
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 P00710 ..10511 J4084
 P00711 ..10512 J4091
 P00712 ..10513 J4098
 P00713 ..10514 J4105
 P00714 ..10515 J4112
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 P00716 ..10517 J4126
 P00717 ..10518 J4133
 P00718 ..10519 J4140
 P00719 ..10520 J4147
 P00720 ..10521 J4154
 P00721 ..10522 J4161
 P00722 ..10523 J4168
 P00723 ..10524 J4175
 P00724 ..10525 J4182
 P00725 ..10526 J4189
 P00726 ..10527 J4196
 P00727 ..10528 J4203
 P00728 ..10529 J4210
 P00729 ..10530 J4217
 P00730 ..10531 J4224
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 P00732 ..10533 J4238
 P00733 ..10534 J4245
 P00734 ..10535 J4252
 P00735 ..10536 J4259
 P00736 ..10537 J4266
 P00737 ..10538 J4273
 P00738 ..10539 J4280
 P00739 ..10540 J4287
 P00740 ..10541 J4294
 P00741 ..10542 J4301
 P00742 ..10543 J4308
 P00743 ..10544 J4315
 P00744 ..10545 J4322
 P00745 ..10546 J4329
 P00746 ..10547 J4336
 P00747 ..10548 J4343
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 P00749 ..10550 J4357
 P00750 ..10551 J4364
 P00751 ..10552 J4371
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 P00753 ..10554 J4385
 P00754 ..10555 J4392
 P00755 ..10556 J4399
 P00756 ..10557 J4406
 P00757 ..10558 J4413
 P00758 ..10559 J4420
 P00759 ..10560 J4427
 P00760 ..10561 J4434
 P00761 ..10562 J4441
 P00762 ..10563 J4448
 P00763 ..10564 J4455
 P00764 ..10565 J4462
 P00765 ..10566 J4469
 P00766 ..10567 J4476
 P00767 ..10568 J4483
 P00768 ..10569 J4490
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 P00770 ..10571 J4504
 P00771 ..10572 J4511
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 P00773 ..10574 J4525
 P00774 ..10575 J4532
 P00775 ..10576 J4539
 P00776 ..10577 J4546
 P00777 ..10578 J4553
 P00778 ..10579 J4560
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 P00780 ..10581 J4574
 P00781 ..10582 J4581
 P00782 ..10583 J4588
 P00783 ..10584 J4595
 P00784 ..10585 J4602
 P00785 ..10586 J4609
 P00786 ..10587 J4616
 P00787 ..10588 J4623
 P00788 ..10589 J4630
 P00789 ..10590 J4637
 P00790 ..10591 J4644
 P00791 ..10592 J4651
 P00792 ..10593 J4658
 P00793 ..10594 J4665
 P00794 ..10595 J4672
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 P00796 ..10597 J4686
 P00797 ..10598 J4693
 P00798 ..10599 J4700
 P00799 ..1

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5.4TS

TABLE

11/20/71 ED 0 PAGE NO. 14

P02.72 CUTAP2	00506	01020	01267	01627	01713	01726	01771	02024	02027	02042
P02.71 CUTAP3	00507	01026	01443	01633	01756					
P02.73 CUTAPE	00504	00512	01133	01605	01601					
	00504									
X00.05 01010100	01317	01500	01546							
X00.04 03020040	01300									
X00.03 03010040	00601	01305								
X00.06 08001000	00000	00476								
X00.01 08001000	00500									
X00.22 08010000	00503									
X00.33 08010000	00074									
X00.21 08010000	01723									
X00.24 REV.	00513		02065							
X00.20 SETREAD.	01717									
X00.13 SETWRITE	01024									
P02.70 SIDE	00522		01066							
X00.32 SLI.	02035									
X00.31 SL2.	01141		01777							
X00.27 STM.	00556		01330							
	01773		02047							
	01424		01770							
C01.64 TARRAS	00475									
P00.75 TABLE	01245		01725							
C00.12 TARRAS	01112		01736							
C00.24 TARRAS	01344									
C00.76 TARRAS	01557		01615							
X00.17 TARRAS	01631		01671							
X00.02 TEND.	00523		01744							
	01533		01131							
	02061		01622							
	00562		01574							
P00.567 TS00001.	00562									
P01.25 TS00003.	01603									
P01.20 TS00004.	01613									
P01.701 TS00005.	01654									
P01.674 TS00006.	01657									
P01.742 TS00007.	01722									
P02.005 TS00008.	01765									
X00.325 TSH.	00516									
C00.147 VALU	01044									
C00.147 VALU	01035									
	01076									
	01155									
	01232									
	00602									
	01271									
	00570									
P00.147 VEH	00603									
X00.15 WARRAY	01626									
P00.563 WS00001.	01621									
P00.600 WS00002.	01702									
P01.601 WS00003.	01675									
P01.614 WS00004.	01743									
P01.655 WS00005.	02006									
P01.670 WS00006.	02062									
P01.723 WS00007.										
P01.766 WS00008.										
P02.054 WS00009.										

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5.4TS

INDEX

P02230 ALAT
P02231 ALGNG
1.0520 SYMBOLS

01146
01150

01150
01154

11/29/71

ED 0

PAGE NO.

15

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S.4TS

5701

PROGRAM LENGTH
ENTRY POINTS
EXIT POINT SYMCL

53

[illegible]

100-47

1975
5471

575H

11/20/71

CE

PAGE NO.

2

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2798

P00037 ..1 ..165
 P00033 ..1J0000 J0103
 P00034 ..1J0001 J0105
 P00035 ..1J0002 J0112
 P00036 ..1J0003 J0117
 P00043 ..2 J0177
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 P00030 JF1MST J0057
 P00336 K0E5 J0123
 P00033 K0GNE J0165
 P00337 K0IN J0134
 P00340 KSEC J0144
 P00341 KTEMP J0155
 P00342 LDIR J0104
 P00033 LTEST J0072
 P00032 MCHANGE J0066
 P00343 MMASK J0063
 P00031 MTEST J0063
 P00021 NCHANGE J0070
 P00003 NMASK J0030
 P00344 NTEMP J0212
 P00012 NTEST J0065
 P00061 PFO0002. J0240
 P00273 PFO0003. J0262
 P00301 PFO0004. J0274
 X00001 Q1Q1C100 J0122
 X00003 Q8Q8DICT. J0100
 X00005 QNSINGL. J0225
 X00002 THERD. J0171
 P00062 W500001. J0071
 P00207 W500002. J0223
 J0125 SYMBCLS

J0060
 J0057
 J0123
 J0165
 J0134
 J0144
 J0155
 J0104
 J0072
 J0066
 J0063
 J0063
 J0070
 J0030
 J0212
 J0065
 J0240
 J0262
 J0274
 J0122
 J0100
 J0225
 J0171
 J0071
 J0223

J0207
 J0150
 J0155

J0221

J0153

J0200

J0113

J0120

J0170

J0202

J0067

J0216

J0217

J0210

J0212

J0143

J0050

J0003

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