

**NATIONAL
MILITARY
COMMAND
SYSTEM
SUPPORT
CENTER**



**DEFENSE
COMMUNICATIONS
AGENCY**

THIS DOCUMENT HAS BEEN
APPROVED FOR PUBLIC
RELEASE; DISTRIBUTION
UNLIMITED.

282252 DV

COMPUTER SYSTEM MANUAL
CSM PSM 9A-67
VOLUME II, PART C
29 FEBRUARY 1972

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

PLAN GENERATION SUBSYSTEM

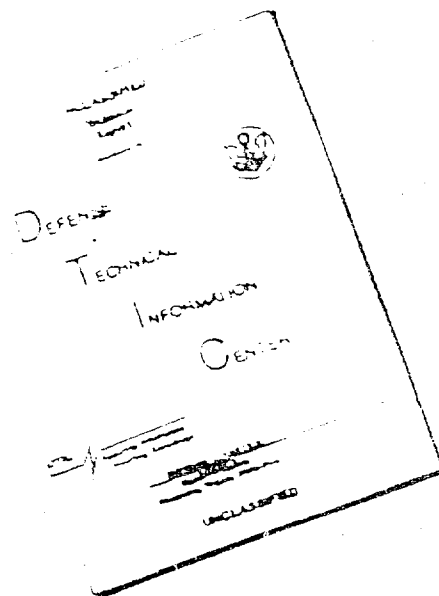
PROGRAMMING SPECIFICATIONS
MANUAL

VOL. II R B D D C
AD742286
RECEIVED
JUN 2 1972
RECEIVED
B

Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
Springfield, Va. 22161

301

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST
QUALITY AVAILABLE. THE COPY
FURNISHED TO DTIC CONTAINED
A SIGNIFICANT NUMBER OF
PAGES WHICH DO NOT
REPRODUCE LEGIBLY.

THIS DOCUMENT CONTAINED
BLANK PAGES THAT HAVE
BEEN DELETED

REPRODUCED FROM
BEST AVAILABLE COPY

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) National Military Command System Support Center (NMCSSC) Defense Communications Agency (DCA) The Pentagon Washington, DC 20301		2a. REPORT SECURITY CLASSIFICATION	
		2b. GROUP	
3. REPORT TITLE The NMCSSC Quick-Reacting General War Gaming System (QUICK) Programming Specifications Manual, Volume II, Plan Generation Subsystem			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) N/A			
5. AUTHOR(S) (First name, middle initial, last name) NMCSSC: Robert R. Hardiman Yvonne Mapily Donald F. Webb Lambda Corp: Paul D. Flanagan Patricia M. Parish Jack A. Sassoon			
6. REPORT DATE 29 February 1972		7a. TOTAL NO. OF PAGES 1420	7b. NO. OF REFS 4
8a. CONTRACT OR GRANT NO. DCA 100-70-C-0065		9a. ORIGINATOR'S REPORT NUMBER(S) NMCSSC COMPUTER SYSTEM MANUAL CSM PSM 9A-67	
b. PROJECT NO. NMCSSC Project 631		9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
c.		None	
d.			
10. DISTRIBUTION STATEMENT This document is approved for public release; its distribution is unlimited.			
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY National Military Command System Support Center/Defense Communications Agency The Pentagon, Washington, DC 20301	
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.			

DD FORM 1473
1 NOV 65REPLACES DD FORM 1473, 1 JAN 64, WHICH IS
OBSOLETE FOR ARMY USE.

1413

Security Classification

Security Classification

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT

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 C

REVIEWED BY:

R. E. Harshbarger

R. E. HARSHBARGER
Technical Director
NMCSSC

Submitted by:

Donald F. Webb

DONALD F. WEBB
Major, USAF
Project Officer

APPROVED BY:

Bruce Merritt

BRUCE MERRITT
Colonel, USA
Commander, NMCSSC

Copies of this document may be obtained from the Defense Documentation Center, Cameron Station, Alexandria, Virginia 22314.

This document has been approved for public release and sale; distribution unlimited.

ACKNOWLEDGMENT

This document was prepared under the direction of the Chief for Development and Analysis, NMCSSC, in response to a requirement of the Studies, Analysis and Gaming Agency (SAGA), Organization of the Joint Chiefs of Staff. Technical support was provided by Lambda Corporation under Contract Number DCA 100-70-C-0065.

CONTENTS

Part A

<u>Chapter</u>		<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 FOOTPRINT	453
7	Program POSTALOC	666
8	Program PLNTPLAN	780
9	Program EVALALOC	982
10	Program INTRFACE	1036
11	Program TABLE	1084

Part C

<u>Program/Subroutine</u>	<u>Page</u>
ACKNOWLEDGMENT	ii
ABSTRACT	vi
PLANSET	1119
AROVREFLW	1174
CALCOMP	1178
DBLCALC	1188

Program/Subroutine

Page

PLANSET (cont.)	
GRPSORT	1192
INITBLAS	1200
SHUFFLE	1212
TGTSORT	1224
VLRADP	1241
WRITER	1247
WRMULT	1250
PREPALOC	
BASWRIT	1253
CHKCHG	1269
FIXWEAP	1282
MAKECHG	1289
NORMALZ	1304
PRINTDAT	1316
RDPRCMP	1325
ROUTING	1337
SETFILE	1348
TGTPREP	1364
VALUMOD	1377
WEAPPREP	1389
	1596
DISTRIBUTION	1412
DD Form 1473	1413
<u>Part D</u>	
Program ALOC	1415
Program ALOCOUT	1720

Part E

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

Part F

Program PLNTPLAN	2347
Program EVALALOC	2597
Program INTRFACE	2701
Program TABLE	2782

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 5800 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

```

PROGRAM PLANST
PLANDATA 18AUG71 *****
TDRSP 11NOV70 *****
COMMON/TDRSP/TTORR,IT,INDP
EQUIVALENCE (TTORR,IT,INDP)
TDRSP *****
ITP 11NOV70 *****
COMMON/ITP/ITP *****
ITP *****
NOPRINT 11NOV70 *****
COMMON/NOPRINT/NOPRINT *****
NOPRINT *****
MYIDENT 11NOV70 *****
COMMON/MYIDENT/MYIDENT *****
MYIDENT *****
TPELAREL 12JUN71 *****
COMMON /FILABEL/ IDENT, INHURD, INDATE, INFUMS, INSECH,
.
.
.
INTIME, INLNATH, INCOMM(5)
.
TPELAREL *****
TAPES 25JAN71 *****
COMMON /TAPES/ LTW, LTT, LTTG, LTGRP, LTCHLS, I, L, S, A, T, H
.
.
TAPES *****
WT 11NOV70 *****
COMMON/NAT, INATE, T, E, A, T, M, O, L, S, T, E, M, R, I, P, T, N, C, U, M, N, P, E, N, N, P, R, E, C, V, E, D,
* REF, * M, A, J, O, R, * TYPE, * G, R, O, U, P, * N, O, I, S, E, * P, A, Y, L, O, A, D, * N, A, S, * T, Y, P, E,
* N, A, M, * T, Y, P, E, * N, A, M, * A, S, * N, C, O, M, P, L, E, X, * N, C, L, A, S, S, * A, L, E, R, T, * I, N, C, O, U, N, T, *
* I, * T, A, P, E, (22)
EQUIVALENCE (IN,TAPE,WT)
AT *****
MISC 25JAN71 *****
COMMON /MISC/ IN(5), FI(5), ITTAPE(5)
EQUIVALENCE (FI,FIIN), (MIGTS,ITTAPE(5))
*TSC *****
CLASSNAME 10JUN71 *****
COMMON /CLASSNAME/ CLASSNAME(15), CLASSVAL(15), CUMVAL(15), VOLFAC(15)
TYPE INTEGER CLASSNAME
CLASSNAME,CLASSVAL,CUMVAL,VOLFAC(*TARGETCLS) *HERE
*TARGETCLS = MAXIMUM NUMBER OF TARGET CLASSES
CLASSNAME *****
DATA (CLASSNAME = 7,M,ISSILF,6,RO,RE,K,8,HT,AN,KE,8,MT,DEF,CONTR,
* IN,T,CH,T,IN,3,MC/C,7,M,U,C,S,T,OP,8,PA,I,R,F,E,L,6,NA,VAL,4,M,T,R,O,O,P,S,
* AN,COM,M,U,N,6,MT,S,C,3,M,U,I,6,HA,R,M,UE,7,MC,L,ASS,1,5 )
.
COMMON /Z/ 30NOV70 *****
*DR,PL(10,40),I,PH(3,95),ADM(15,20),IAS,I(15,20),
*PL(10,40),PLP(10,40),RGR(20),4FP(20,40),ITP(20,80)
EQUIVALENCE (MO,I,AMO), (ASM,I,ASM1), (MTP,I,JP), (PLD,I,PL)
*DR,I,MO,(I,AS,MO,TYPE),*MO,MT,PE,MAX NUM WARHEAD TYPES
*ASM,TE,ASM(15),MAS,TYPE,MAX NUM AS TYPES
*PLD,I,PL(10),MO,AY,LOA,MPAY,ONE MAX NUM PAYLOAD TYPES
*RGR,(C,CC,REG), *CC,REG,MAX NUM COMMON/CONTOL
*ITP,I,ITP(20),M,TYPE,TYPE = MAX NUM REFPOD TYPES
.
COMMON /Z/ 15DECT70 *****
COMMON /Z/ LTP,PK(1),T,AN,CL(12),GRPA(6),IGRPIX(6)
EQUIVALENCE (T,AN,CL,GRPA,IGRPIX)
.
CE (1)
CE (2)
CE (3)

```

```

CUSE I 30NOV70 *****
COMMON /I/ MAXICOMP,NCPX(2500)
C NCPX(INTERVAL) WHERE INTERVAL = MAX NUM TGT COMPLETES,VAL GT 0
CEND I *****
CUSE GROUP 15DEC70 *****
COMMON /GROUP/ GRP(1,210),IGRP(1,210),INIGRP(210),NWSGRP,
* JGT(2500)
EQUIVALENCE (GRP,IGRP,JGT)
C GRP,IGRP(1),MGROUP(10), AND INIGRP(MGROUP+10) WHERE
C MGROUP = MAX NUMBER OF MGROUP GROUPS
C JGT IS USED ONLY IN TGSORT, AND IS JGT(INTERVAL)
CEND GROUP *****
CUSE MLX 30NOV70 *****
COMMON /MLX/ MLT(31),MLTX(R,5),FMLTX(B,5),NMLT
EQUIVALENCE(MLTX,FMLTX)
CEND MLTX *****
CUSE PRCNTL 12MAY71 *****
COMMON /PRCNTL/ JJJGTGS,JJJGP,JJJCPX
PRCNTL *****
CEND TO 30NOV70 *****
COMMON /T/ T(31),TID(31)
EQUIVALENCE(T,TID)
CEND T *****
CUSE DPOOL 19JAN71 *****
C THIS BLOCK CONTAINS THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
C /CHECK/,/CORR/,/DEFFN/,/KORTYP/,/LFG/,/NAVALX/,/POI-T/,
C /RADATA/,/RHCOR/,/RHF/,/AND /TYPENAME/,
C IT IS REUSED DURING TATSORT AS ITEM,
C AND DURING GRSORT AS IANK AND JTANK
C
C COMMON /DPOOL/ IS(200),LINKR(200),ZONER(200),EXTR(200),
* ICHKFL(20),ICHECK(20),IC(30),LINKC(30),ZONEC(30),ITY(30),
* IU(50),LI(40),KMSY(5),MILDAT(5),DEFM(5),ATTR(5),
* ATTFC(5),IL(200),LTKL(200),AHL(200),TKAS(10,10),
* DMLAS(10,10),TTVES(10),TIMESTY(200),WALLJM(200),
* PLAT(200),LONS(200),PLAT(200),MLONS(200),LINKR(200),
* RECLAT(200),MELON(200),IPECPTY(200),TIMMFC(200),
* FLAT(200),MFLONG(20),CUMFOT(15),ATYPES(15),INOCLAS(15),
* IANEG(250),TYPENAME(250),NTYPS,CHK(250),
* PG(12),APA(12),AG(4),QA(8),
* IT(4P(5000)),ITANK(1P,200),JTANK(12,200)
C TYPE INTEGER ZONE,ZONEC
C TYPE INTEGER TYPENAME,CHK
C TYPE INTEGER EXMNO
EQUIVALENCE (I,ITEM,P,ITANK)
EQUIVALENCE (ITEMP(241),JTANK)
CEND DPOOL *****
CUSE LCPX 19JAN71 *****
COMMON /LCPX/ LCPX(2500),ICMUP(125),ICPNT(125),ICNDX(125),
* LTYPE(250)
EQUIVALENCE (LCPX,ICMUP), (LCPX(126),ICPNT)
EQUIVALENCE (LCPX(251),ICNDX), (LCPX(376),LTYPE)
C LTYPE USED ONLY IN PLANSET
C LCPX(K) IS TGSORT POINTS TO ICPLX ARRAY FOR COMPLEX NUM K
C ICNDX(K) IS ICPNT(MCOMP),MHCUMPE/2 MCOMP=1/2 SIZE OF CPLX

```

```

C          USED TO SORT PRINTOUT BY ICOMPLEX
CE#D      LCPX
CUSE      MAX          3000070
          COMMON /MAX/  *ALRDEZ, *ALERT, *MASHYTP, *MENDRY, *MCCREGN,
          1 MCLASS, *MCONTRYS, *M CORR, *MASHYTP, *MENDRY, *MCCREGN,
          2 MDEPNLG, *MGROUP, *MPAYLOD, *MRECOVR,
          3 MRECVLG, *MREF, *MRTLEG, *MRTPT,
          4 *MSPERT, *MANKRS, *MARCCLS, *MARCCL, *MARCPCX,
          5 *MTARERS, *MTARGET, *MTARIND, *MTARSEC, *MTARTEI,
          6 *MTARTYP, *MTARVAL, *MTOTRAS,
          7 *MTYPE, *MULN, *MNEARPG, *MMDTPE, *MZONEPT,
          H *MZONES, *MSTARPC
          CE#D      MAX          9000
          CUSE      RETARG 25JAN71
          CE#D      COMMON /RETARG/ REDUCE(40), RML(40)
          RETARG *****
          EQUIVALENCE(MINCOM,NOTCOM)
          DIMENSION NPI4VBSI(40)
          DATA (MIRVHS) = 40(1)
          DIMENSION NDEXAMPL(15)
          DIMENSION REGN(8)
          TYPE INTEGER REGN
          DATA (MAXGRP) = 210
          DATA (LSHIFT) = 100000000
          DATA (MIDPHASE) = 6
          DIMENSION EAREVAL(15)
          DATA (EAREVAL) = 15(0,1)
          CAUTION--SEQUENCE NUMBER 37000 IS A COECLAREX CARD. DO NOT USE.
          C          CUECLAREX
          COMMON /PROCESS/NI, NV, NC, INTIE(100), VALUE(500), DEF(500), L(600), L(500)
          TYPE INTEGER VALUE
          TYPE LOGICAL DEF, L(600)
          COMMON /EDITER/ I, S, W, T, E, R, M
          COMMON /BITABE/INTP, NOJUT, ITOUT(10), JOUT
          EQUIVALENCE(CLASS, *VALUE( 1))
          TYPE INTEGER CLASS
          EQUIVALENCE(TYPE, *VALUE( 2))
          TYPE INTEGER TYPE
          EQUIVALENCE(SIDE, *VALUE( 3))
          TYPE INTEGER SIDE
          EQUIVALENCE(C-TRYON, *VALUE( 4))
          TYPE INTEGER C-TRYON
          EQUIVALENCE(C-TRYLOC, *VALUE( 5))
          TYPE INTEGER C-TRYLOC
          EQUIVALENCE(FUNCTION, *VALUE( 6))
          TYPE INTEGER FUNCTION
          EQUIVALENCE(SITEMO, *VALUE( 7))
          TYPE INTEGER SITEMO
          EQUIVALENCE(MAWE, *VALUE( 8))
          TYPE INTERSEF MAWE
          EQUIVALENCE(SUNO, *VALUE( 9))
          TYPE INTEGER SUNO
          EQUIVALENCE(FLNO, *VALUE(10))
          TYPE INTEGER FLNO
          EQUIVALENCE(MFNO, *VALUE(11))
          TYPE INTERSEF MFNO

```

Reproduced from
best available copy.

EQUIVALENCE(VULN *VALUE(12))
 TYPE INTEGER VULN
 EQUIVALENCE(HI *VALUE(13))
 TYPE INTEGER HI
 EQUIVALENCE(M2 *VALUE(14))
 TYPE INTEGER M2
 EQUIVALENCE(MACH *VALUE(15))
 TYPE INTEGER MACH
 EQUIVALENCE(CATCODE *VALUE(16))
 TYPE INTEGER CATCODE
 EQUIVALENCE(MAJOR *VALUE(17))
 TYPE INTEGER MAJOR
 EQUIVALENCE(MINOR *VALUE(18))
 TYPE INTEGER MINOR
 EQUIVALENCE(RESIG *VALUE(19))
 TYPE INTEGER RESIG
 EQUIVALENCE(TASK *VALUE(20))
 TYPE INTEGER TASK
 EQUIVALENCE(POSTURE *VALUE(21))
 TYPE INTEGER POSTURE
 EQUIVALENCE(INDEXNO *VALUE(22))
 TYPE INTEGER INDEXNO
 EQUIVALENCE(MPERSON *VALUE(23))
 TYPE INTEGER MPERSON
 EQUIVALENCE(MPSITE *VALUE(24))
 TYPE INTEGER MPSITE
 EQUIVALENCE(MPSITE *VALUE(25))
 TYPE INTEGER MPSITE
 EQUIVALENCE(MOALERT *VALUE(26))
 TYPE INTEGER MOALERT
 EQUIVALENCE(MOINCOM *VALUE(26))
 TYPE INTEGER MOINCOM
 EQUIVALENCE(LINK *VALUE(27))
 TYPE INTEGER LINK
 EQUIVALENCE(ZONE *VALUE(28))
 TYPE INTEGER ZONE
 EQUIVALENCE(AREA *VALUE(29))
 TYPE REAL AREA
 EQUIVALENCE(LAT *VALUE(30))
 TYPE REAL LAT
 EQUIVALENCE(LONG *VALUE(31))
 TYPE REAL LONG
 EQUIVALENCE(LEGNO *VALUE(32))
 TYPE INTEGER LEGNO
 EQUIVALENCE(RESERVE *VALUE(33))
 TYPE INTEGER RESERVE
 EQUIVALENCE(LEGNO *VALUE(34))
 TYPE INTEGER LEGNO
 EQUIVALENCE(NEXTZONE *VALUE(35))
 TYPE INTEGER NEXTZONE
 EQUIVALENCE(POINT *VALUE(36))
 TYPE INTEGER POINT
 EQUIVALENCE(DATEIN *VALUE(37))
 TYPE REAL DATEIN
 EQUIVALENCE(DATEOUT *VALUE(38))
 TYPE REAL DATEOUT
 EQUIVALENCE(POP *VALUE(39))
 TYPE REAL POP

EQUIVALENCE(IIGM	VALUE(40))
TYPE INTEGER IIGM	
EQUIVALENCE(MVA	VALUE(41))
TYPE INTEGER MVA	
EQUIVALENCE(RADIUS	VALUE(42))
TYPE REAL RADIUS	
EQUIVALENCE(VAL	VALUE(43))
TYPE REAL VAL	
EQUIVALENCE(VALU	VALUE(44))
TYPE REAL VALU	
EQUIVALENCE(MISDEF	VALUE(45))
TYPE INTEGER MISDEF	
EQUIVALENCE(LARDEF	VALUE(46))
TYPE INTEGER LARDEF	
EQUIVALENCE(LARDEFM1	VALUE(47))
TYPE INTEGER LARDEFM1	
EQUIVALENCE(LARDEFM2	VALUE(48))
TYPE INTEGER LARDEFM2	
EQUIVALENCE(ICLASS	VALUE(49))
TYPE INTEGER ICLASS	
EQUIVALENCE(ITYPE	VALUE(50))
TYPE INTEGER ITYPE	
EQUIVALENCE(IREG	VALUE(51))
TYPE INTEGER IREG	
EQUIVALENCE(IPEFUEL	VALUE(52))
TYPE INTEGER IPEFUEL	
EQUIVALENCE(IOTHER	VALUE(53))
TYPE INTEGER IOTHER	
EQUIVALENCE(LIGROUP	VALUE(54))
TYPE INTEGER LIGROUP	
EQUIVALENCE(ICOPLX	VALUE(55))
TYPE INTEGER ICOPLX	
EQUIVALENCE(ITST	VALUE(56))
TYPE INTEGER ITST	
EQUIVALENCE(ITGT	VALUE(57))
TYPE INTEGER ITGT	
EQUIVALENCE(JTYPE	VALUE(58))
TYPE INTEGER JTYPE	
EQUIVALENCE(MDTYPE	VALUE(59))
TYPE INTEGER MDTYPE	
EQUIVALENCE(AS4TYPE	VALUE(60))
TYPE INTEGER AS4TYPE	
EQUIVALENCE(MJECOYS	VALUE(61))
TYPE INTEGER MJECOYS	
EQUIVALENCE(FFRAC	VALUE(62))
TYPE REAL FFRAC	
EQUIVALENCE(DELTA	VALUE(63))
TYPE REAL DELTA	
EQUIVALENCE(FVALM1	VALUE(64))
TYPE REAL FVALM1	
EQUIVALENCE(FVALM2	VALUE(65))
TYPE REAL FVALM2	
EQUIVALENCE(FVALM3	VALUE(66))
TYPE REAL FVALM3	
EQUIVALENCE(FVALT1	VALUE(67))
TYPE REAL FVALT1	

EQUIVALENCE(FVALT? *VALUE(68))
 TYPE REAL FVALT?
 EQUIVALENCE(MINKILL *VALUE(69))
 TYPE REAL MINKILL
 EQUIVALENCE(MAKKILL *VALUE(70))
 TYPE REAL MAKKILL
 EQUIVALENCE(MAXFRACV*VALUE(71))
 TYPE REAL MAXFRACV
 EQUIVALENCE(MAXFACTV*VALUE(72))
 TYPE REAL MAXFACTV
 EQUIVALENCE(YIELD *VALUE(73))
 TYPE REAL YIELD
 EQUIVALENCE(NOMOMR1 *VALUE(74))
 TYPE INTEGER NOMOMR1
 EQUIVALENCE(NOMOMR2 *VALUE(75))
 TYPE INTEGER NOMOMR2
 EQUIVALENCE(NOBOMR2 *VALUE(76))
 TYPE INTEGER NOBOMR2
 EQUIVALENCE(NASMS *VALUE(77))
 TYPE INTEGER NASMS
 EQUIVALENCE(NCM *VALUE(78))
 TYPE INTEGER NCM
 EQUIVALENCE(PAYLOAD *VALUE(79))
 TYPE INTEGER PAYLOAD
 EQUIVALENCE(ISEP *VALUE(80))
 TYPE INTEGER ISEP
 EQUIVALENCE(IPNUD *VALUE(81))
 TYPE REAL IPNUD
 EQUIVALENCE(ICEP *VALUE(82))
 TYPE REAL ICEP
 EQUIVALENCE(MANAGE *VALUE(83))
 TYPE REAL MANAGE
 EQUIVALENCE(MANAGERFC*VALUE(84))
 TYPE REAL MANAGERFC
 EQUIVALENCE(RANGEBEF*VALUE(85))
 TYPE REAL RANGEBEF
 EQUIVALENCE(SPEED *VALUE(86))
 TYPE REAL SPEED
 EQUIVALENCE(SPOLN *VALUE(87))
 TYPE REAL SPOLN
 EQUIVALENCE(SPDASH *VALUE(88))
 TYPE REAL SPDASH
 EQUIVALENCE(MEL *VALUE(89))
 TYPE REAL MEL
 EQUIVALENCE(PEN *VALUE(90))
 TYPE REAL PEN
 EQUIVALENCE(ALERTINRL*VALUE(91))
 TYPE REAL ALERTINRL
 EQUIVALENCE(ALERTINRL*VALUE(92))
 TYPE REAL ALERTINRL
 EQUIVALENCE(ALERTINRL*VALUE(93))
 TYPE REAL ALERTINRL
 EQUIVALENCE(COMEL *VALUE(94))
 TYPE REAL COMEL
 EQUIVALENCE(TTMS *VALUE(95))
 TYPE REAL TTMS

EQUIVALENCE(T*DEL *VALUE(96))
 TYPE REAL T*DEL
 EQUIVALENCE(TV*IL *VALUE(97))
 TYPE REAL TV*IL
 EQUIVALENCE(T*ETARG *VALUE(98))
 TYPE REAL T*ETARG
 EQUIVALENCE(PL*UNT *VALUE(99))
 TYPE REAL PL*UNT
 EQUIVALENCE(A*DATE *VALUE(100))
 TYPE REAL A*DATE
 EQUIVALENCE(PS*BY *VALUE(101))
 TYPE REAL PS*BY
 EQUIVALENCE(P*IC *VALUE(102))
 TYPE REAL P*IC
 EQUIVALENCE(P*ES *VALUE(103))
 TYPE REAL P*ES
 EQUIVALENCE(P*PF *VALUE(104))
 TYPE REAL P*PF
 EQUIVALENCE(P*MS *VALUE(105))
 TYPE REAL P*MS
 EQUIVALENCE(AT*TR*LEG *VALUE(106))
 TYPE REAL AT*TR*LEG
 EQUIVALENCE(AT*TR*CORR *VALUE(107))
 TYPE REAL AT*TR*CORR
 EQUIVALENCE(K*O*ST*YL*F *VALUE(108))
 TYPE INTEGER K*O*ST*YL*F
 EQUIVALENCE(U*F*FR*ANG*E *VALUE(109))
 TYPE REAL U*F*FR*ANG*E
 EQUIVALENCE(M*LO*AT*TH *VALUE(110))
 TYPE REAL M*LO*AT*TH
 EQUIVALENCE(AT*TR*SUPP *VALUE(111))
 TYPE REAL AT*TR*SUPP
 EQUIVALENCE(I*TY*P *VALUE(112))
 TYPE INTEGER I*TY*P
 EQUIVALENCE(E*F*F*ECT*NE*S *VALUE(113))
 TYPE REAL E*F*F*ECT*NE*S
 EQUIVALENCE(I*SITE *VALUE(114))
 TYPE INTEGER I*SITE
 EQUIVALENCE(I*V*OL*U*M *VALUE(115))
 TYPE INTEGER I*V*OL*U*M
 EQUIVALENCE(A*DM*LI *VALUE(116))
 TYPE REAL A*DM*LI
 EQUIVALENCE(A*DM*BL *VALUE(117))
 TYPE REAL A*DM*BL
 EQUIVALENCE(A*DM*LI *VALUE(118))
 TYPE REAL A*DM*LI
 EQUIVALENCE(IN*P*E*AD*E*C *VALUE(119))
 TYPE INTEGER IN*P*E*AD*E*C
 EQUIVALENCE(IN*P*U*S *VALUE(120))
 TYPE INTEGER IN*P*U*S
 EQUIVALENCE(IN*TI*NT *VALUE(121))
 TYPE INTEGER IN*TI*NT
 EQUIVALENCE(A*DM*BL *VALUE(122))
 TYPE REAL A*DM*BL
 EQUIVALENCE(T*IM*EN *VALUE(123))
 TYPE REAL T*IM*EN

Reprinted from copy.
 best available

EQUIVALENCE(TIME) *VALUE(124))
 TYPE REAL TIME
 EQUIVALENCE(DELAY) *VALUE(125))
 TYPE REAL DELAY
 EQUIVALENCE(IALERT) *VALUF(126))
 TYPE INTEGER IALERT
 EQUIVALENCE(NALERT) *VALUE(127))
 TYPE INTEGER NALERT
 EQUIVALENCE(IIDUV) *VALUF(128))
 TYPE INTEGER IIDUV
 EQUIVALENCE(IINTAR) *VALUE(129))
 TYPE INTEGER IINTAR
 EQUIVALENCE(EVENT) *VALUE(130))
 TYPE INTEGER EVENT
 EQUIVALENCE(EVENTM) *VALUE(131))
 TYPE INTEGER EVENTM
 EQUIVALENCE(PLACE) *VALUE(132))
 TYPE INTEGER PLACE
 EQUIVALENCE(PLACEN) *VALUE(133))
 TYPE INTEGER PLACEN
 EQUIVALENCE(IALT) *VALUE(134))
 TYPE INTEGER IALT
 EQUIVALENCE(NPPNS) *VALUE(135))
 TYPE INTEGER NPPNS
 EQUIVALENCE(NTARG) *VALUE(136))
 TYPE INTEGER NTARG
 EQUIVALENCE(MCODE) *VALUE(137))
 TYPE INTEGER MCODE
 EQUIVALENCE(CODE) *VALUE(138))
 TYPE INTEGER CODE
 EQUIVALENCE(BCODE) *VALUE(139))
 TYPE INTEGER BCODE
 EQUIVALENCE(HCODE) *VALUE(140))
 TYPE INTEGER HCODE
 EQUIVALENCE(IDUD) *VALUE(141))
 TYPE INTEGER IDUD
 EQUIVALENCE(LAG) *VALUE(142))
 TYPE INTEGER LAG
 EQUIVALENCE(AGY) *VALUE(143))
 TYPE INTEGER AGY
 EQUIVALENCE(OSK) *VALUE(144))
 TYPE INTEGER OSK
 EQUIVALENCE(DGY) *VALUE(145))
 TYPE INTEGER DGY
 EQUIVALENCE(DSY) *VALUE(146))
 TYPE INTEGER DSY
 EQUIVALENCE(AMCB) *VALUE(147))
 TYPE INTEGER AMCB
 EQUIVALENCE(DHOR) *VALUE(148))
 TYPE INTEGER DHOR
 EQUIVALENCE(WHDTPEN) *VALUE(149))
 TYPE INTEGER WHDTPEN
 EQUIVALENCE(PRIMETAR) *VALUE(150))
 TYPE INTEGER PRIMETAR
 EQUIVALENCE(ICLASST) *VALUE(151))
 TYPE INTEGER ICLASST
 EQUIVALENCE(ITYPET) *VALUE(152))
 TYPE INTEGER ITYPET
 EQUIVALENCE(JTYPET) *VALUE(153))
 TYPE INTEGER JTYPET

EQUIVALENCE(TYPET ,VALUE(152))
 TYPE INTEGER TYBET
 EQUIVALENCE(CLASST ,VALUE(153))
 TYPE INTEGER CLASST
 EQUIVALENCE(CNTYOWMT,VALUE(154))
 TYPE INTEGER CNTYOWMT
 EQUIVALENCE(CNTYLOCT,VALUE(155))
 TYPE INTEGER CNTYLOCT
 EQUIVALENCE(IPENMODE,VALUE(156))
 TYPE INTEGER IPENMODE
 EQUIVALENCE(IKCODE,VALUE(157))
 TYPE INTEGER IKCODE
 EQUIVALENCE(IATTACK ,VALUE(158))
 TYPE INTEGER IATTACK
 EQUIVALENCE(NAL ,VALUE(159))
 TYPE INTEGER NAL
 EQUIVALENCE(TAM ,VALUE(160))
 TYPE INTEGER TAM
 EQUIVALENCE(MHMD5 ,VALUE(161))
 TYPE INTEGER MHMD5
 EQUIVALENCE(MHMD5 ,VALUE(162))
 TYPE INTEGER MHMD5
 EQUIVALENCE(MDET ,VALUE(163))
 TYPE INTEGER MDET
 EQUIVALENCE(PARRIVE ,VALUE(164))
 TYPE REAL PARRIVE
 EQUIVALENCE(ADEFZON ,VALUE(165))
 TYPE INTEGER ADEFZON
 EQUIVALENCE(ADEFZON ,VALUE(166))
 TYPE INTEGER ADEFZON
 EQUIVALENCE(MAINT ,VALUE(167))
 TYPE INTEGER MAINT
 EQUIVALENCE(AZON1 ,VALUE(168))
 TYPE INTEGER AZON1
 EQUIVALENCE(AZON2 ,VALUE(169))
 TYPE INTEGER AZON2
 EQUIVALENCE(AZON3 ,VALUE(170))
 TYPE INTEGER AZON3
 EQUIVALENCE(CPACTY ,VALUE(171))
 TYPE INTEGER CPACTY
 EQUIVALENCE(ICORR ,VALUE(172))
 TYPE INTEGER ICORR
 EQUIVALENCE(IMIRV ,VALUE(173))
 TYPE INTEGER IMIRV
 EQUIVALENCE(IORL ,VALUE(174))
 TYPE INTEGER IORL
 EQUIVALENCE(PKNAV ,VALUE(175))
 TYPE REAL PKNAV
 EQUIVALENCE(ITIME ,VALUE(176))
 TYPE INTEGER ITIME
 EQUIVALENCE(PSASH ,VALUE(177))
 TYPE REAL PSASH
 EQUIVALENCE(TPASH ,VALUE(178))
 TYPE REAL TPASH
 EQUIVALENCE(TGTSTAT ,VALUE(179))
 TYPE INTEGER TGTSTAT

```

EQUIVALENCE(FLAG ,VALUE ( 180))
TYPE INTEGER FLAG
EQUIVALENCE(NUMBERS01,VALUE ( 181))
TYPE INTEGER NUMBERS01
EQUIVALENCE(NUMBERS02,VALUE ( 182))
TYPE INTEGER NUMBERS02
EQUIVALENCE(NUMBERS03,VALUE ( 183))
TYPE INTEGER NUMBERS03
EQUIVALENCE(NUMBER ,VALUE ( 184))
TYPE INTEGER NUMBER
EQUIVALENCE(FEFCNES1,VALUE ( 185))
TYPE REAL FEFCNES1
EQUIVALENCE(FEFCNES2,VALUE ( 186))
TYPE REAL FEFCNES2
EQUIVALENCE(VAL1 ,VALUE ( 187))
TYPE REAL VAL1
EQUIVALENCE(VAL2 ,VALUE ( 188))
TYPE REAL VAL2
EQUIVALENCE(TYPE1 ,VALUE ( 189))
TYPE INTEGER TYPE1
EQUIVALENCE(TYPE2 ,VALUE ( 190))
TYPE INTEGER TYPE2
CALL STORAGE
DESIGNS=AA999
NOPRINT=1
MYIDENT=BMPLA1SKY
CALL VPLASSET
CALL ALCOPI
CALL INITAPE
CALL INITALKS
ITP=LIDR
MYIDENT=7HOR11EX
CALL SETREAD
NOPRINT=0
IDATE=INDATE
IDENTNO=INTIME
53 CALL SKIPFILE (ITP)
54 CONTINUE
165 IF (UNIT,ITP) 165,166,1652,1654
1652 PRINT 1653
1653 FORMAT (15H EOF ON INDEXD4 )
GO TO 1656
1654 PRINT 1655
1655 FORMAT (22H PARITY ERR ON INDEXD4 )
1656 CALL AHOPT
166 CALL TECHTAPE
ITP = LYDR
NTYPS=CUMMO(3)
PRINT 101
101 FORMAT (8H1PLA1SET//)
PALERT=2
READ 99,(PG(I),I=1,8)
READ 98,(PG(I),I=9,12)
READ 99,(PA(I),I=1,8)
READ 98,(PA(I),I=9,12)

```

```

38000
39000
40000
41000
41500
41800
42000
77000
80000
81000
82000
82500
83000
84000
91000
92000
93000
94000
94100
94200
94300
94400
94500
94600
95000
96000
97000
98000
99000
101000
102000
103000
104000
105000

```

```

175 READ 170,(REGN(I),I=1,8)
170 FORMAT(R(A8,2X))
      DO 171 I=1,8
        J=I*N
        IF(REGN(I).EQ.4H )172,173
173 DECODE(R,174,REGN(I))174,(J)
174 FORMAT(FR.6)
171 CONTINUE
      KKK=8
      GO TO 175
172 CONTINUE
168 IRETARG = 0
169 CONTINUE
105 FORMAT (AR)
149 IF (IIR .EQ. R-RETARGET) 180, 182
149 IRETARG = 1
      PRINT 181
181 FORMAT(70M0METARGETING MODE=NUM, MISSILES DERIVED FROM *PERSON,NO
      IALEXT + NOINCOM IGNORE: )
      GO TO 169
182 CONTINUE
184 IF (IIR.EQ.3HHEU .OR. I.R.EQ.6HMLUE) 106,107
      RANGE=0B=15
      LSIDE=IIR
      GO TO 113
107 DECODE(R,108,I,R) RANGE=0B
108 FORMAT (FR.4)
      READ 105,LSIDE
113 CONTINUE
      PRINT 102,RANGE=0B
102 FORMAT(10M0MAYSEMON=7.3)
      PRINT 100,LSIDE
100 FORMAT(1X,8(44,2X))
      READ WEAPON LIST
109 READ 100,(IN(I),I=1,4)
110 PRINT 100,(IN(I), I = 1, 4)
110 FORMAT (S(44,2X))
111 DO 115 I=1,4
      IF (IN(I).EQ.4H )120,111
112 DO 114 K=1,NTYPS
      IF(IN(I).EQ.4H )113,112
114 CONTINUE
      IF((IN(I).EQ.TYPERAME(K))116,114
115 CONTINUE
      PRINT 115,IN(I)
115 FORMAT(44H0EROM,2X,4H,1X,17HNOT A WEAPON, TYPE )
      GO TO 118
116 CHK(K)=1
114 CONTINUE
      GO TO 109
120 CONTINUE

```

106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
121500
121700
122000
123000
123100
123200
123300
123400
123500
123600
123700
124000
125000
126000
127000
128000
129000
130000
131000
132000
135400
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000

```

C
READ 99, DMAXOBL
DMAXOBL = MAX1F(DMAXOBL, .000001)
PRINT 97, DMAXOBL
97 FORMAT(24H0MAXIMUM SPREAD IN OBL =F10.6)

C
READ LIST OF TARGET CLASSES AND VALUES
NCLASSES=0
PRINT 125
FORMAT(75H ICLASS TARGET NAME DESIG VALUE CLASSNAME)
125 READ 127,(IN(1),I=1,3),FIN(4),IN(5)
127 FORMAT(4X,I2,2(4X,2X),F10.0,4X)
122 IF (I=3).EQ.00 ) 140,1220
1220 ICLSNO=IN(1)
IF ((ICLSNO-1)*(NTARCL=ICLSNO)) 127,1240,1240
1240 IF (IN(5).NE.00 ) CLASSNAME(ICLSNO)=IN(5)
PRINT 128, ICLSNO, IN(2), I=1,3),FIN(4),CLASSNAME(ICLSNO)
128 FORMAT(2X,I5,6X,4X,4X,4X,2X,F7.3,2X,4X)
130 CLASSVAL(ICLSNO)=+1.0
NDEXMPLR(ICLSNO)=IN(3)
EXEMVAL(ICLSNO)=FIN(4)
GO TO 121
127 PRINT 129, IN(1)
129 FORMAT(6HERROR,2X,I2,14,11HNOT A CLASS )
GO TO 121
140 CONTINUE
NTPS=CUMNO(2)
DO 150 I=1,NTPS
IF (CHK(I).EQ.0) 149,149
149 NTYPE=NTYPE+1
LTYPE(I)=NTYPE
GO TO 150
149 LTYPE(I)=0
150 CONTINUE

C
CALL SHUFFLE
READ 155, JJJTGTIS, JJJG0, JJJCPX
FORMAT (4X,2X,4X,2X,4X)
ITP=LTRT
MYIDENT=MSKATCH
CALL SETDATE
MYIDENT=MSKRAICH
ITP=LTRMP 3 CALL SETDATE
MYIDENT=RW
MULTI=0 5 MAXICOMP=0
NTANK=0
NROM=NTANK*0
INITIAL FOR POINT DATA
5,100 NQPT=0
NCORR = 2
NOPEN=0
NRECOVER=0
NREF=0
NVDY=0
NCORTYPE=0
IF (LSIDE .EQ. 4) VALUE 5002,5001

```

```

5001 MSUR1=0
    MSUR2=0
    GO TO 5003
5002 MSUR1=100
    MSUR2=200
5003 CONTINUE
    CALL INITEDII(LTOR)
    CALL IMPITEM
    BEGIN D.R. PASS
C 200 CONTINUE
CHECK IF TARGET IS A BOMBER RECOVERY BASE
IF(CPACTY.GT.0)899,201
899 IF(SIDE.EQ.LSIDE)901,201
901 NRECOVER=NRECOVER+1
902 ICHKFLG(8)=RMHCV BASE
    ICHKNUM(8)=NRECOVER
    GO TO 201
503 LINKR(NRECOVER)=LINK
    RECLAT(NRECOVER)=LAT
    RECLON(NRECOVER)=LONG
    IRECPCTY(NRECOVER)=CPACTY
    INPREC(NRECOVER)=INDEXNO
201 IF(ICLASS.EQ.0)1001,219
219 IF(SIDE.EQ.LSIDE)303,220
220 IF(CLASSVAL(ICLASS).EQ.0)371,225
C HERE FOR TARGETS
C ADD RELATIVE VALUES
225 CONTINUE
    CUMVAL(ICLASS)=CUMVAL(ICLASS)+VAL
    IF INDEXAMPL(ICLASS).EQ. DESIG) 226,227
226 PRINT 228,CLAS,AME(ICLASS),NAME,DESIG,EXEMVAL(ICLASS)
228 FORMAT 1/21M EXEMPLAR TARGET FOR *AB,10M CLASS IS *AB,14M - DESIG
    *NO * *AS, RM VALUE *07.3)
    VALFAC(ICLASS)=EXEMVAL(ICLASS)/VAL
227 CONTINUE
    IF(ICLASS.GT.1)260,230
C HERE FOR MISSILES--MARK UP MULTIPLE TARGETS
230 IF((COMPLEX.EQ.0)240,231
231 IF(MULT.FQ.0)270,232
C 232 TERMINATE MULT.TGT.BECAUSE MISSILE IS IN COMPLEX
    ITP=LTGT
    CALL WPMULT
    GO TO 270
240 NSITES=NOPERSON/NMPSITE
    IF(NSITES.EQ.1)260,241
241 IF(MULT.GT.0)245,242
C BEGIN NEW MULT.TGT.
242 IS=1
    GO TO 1020
243 DO 244 K=1,31
244 MULT(K)=ITD(K)
    NTAR=NTAR+1
    NTGTS=NTGTS+1
C HERE TO CONTINUE MULT. TGT.
245 MULT=NMULT+1

```

```

224000
225000
226000
227000
228000
229000
230000
231000
232000
233000
234000
235000
236000
237000
238000
239000
240000
241000
242000
243000
244000
245000
246000
247000
248000
249000
250000
251000
252000
253000
254000
255000
256000
257000
258000
259000
260000
261000
262000
263000
264000
265000
266000
267000
268000
269000
270000
271000
272000
273000
274000
275000
276000
277000
278000
279000

```

```

MLTX(1, NMULT)=NAME
MLTX(2, NMULT)=INDEXNO
MLTX(3, NMULT)=DESIG
MLTX(4, NMULT)=TASK
MLTX(5, NMULT)=CENTRYLOC
MLTX(6, NMULT)=FLAG
MLTX(7, NMULT)=LAT
MLTX(8, NMULT)=LONG
IF(IISITE.LT. SITES) .A. ID. (NMULT.LI. 5) 371, 250
C 250 ITP=LTGT
CALL WRMULT
GO TO 371
C NON-MISSILES HERE
260 IF(NMULT.EQ.0) 265, 261
261 ITP=LTGT
CALL WRMULT
265 IF(ICOPLX.GT.0) 270, 266
HERE FOR INDIVIDUAL TARGETS
C 266 NTGTS=NTGTS+1
NTARGET=NTGTS+1
IS=2 $ GO TO 1020
268 ITP=LTGT
CALL WRARRAY(ITD, 31)
GO TO 371
C COLLECT COMPLEX TGT. DATA
270 K=ICOPLX
NCPX(K)=NCPX(K)+1
IF(K.LE.MAXICOMP) 272, 271
271 MAXICOMP=K
272 IS=2 $ GO TO 1020
273 ITD(30)=2
IF(NCPX(K).GT.1) 280, 275
275 ITD(30)=1
NCOMPLEX=NCOMPLEX+1
NTGTS=NTGTS+1
NTARGET=NTGTS+1
ITD(7)=K
ITP=LTGT
CALL WRARRAY(ITD, 31)
GO TO 371
1020 ITD(1)=NAME
ITD(2)=INDEXNO
ITD(3)=DESIG
ITD(4)=TASK
ITD(5)=CENTRYLOC
ITD(6)=FLAG
ITD(7)=1
ITD(8)=LAT
ITD(9)=LONG
ITD(10)=RADIUS
ITD(11)=VAL
ITD(12)=1
IF(FVAL#1.EQ.1.0) 1024, 1022
1022 ITD(12)=2
ITD(14)=VLRADP(1, H2, R, FN)

```

```

280000
281000
281200
281300
281400
281500
282000
283000
284000
286000
287600
289000
289000
290000
291000
292000
293000
294000
295000
296000
297000
299000
299000
300000
301000
302000
303000
304000
305000
306000
307000
308000
309000
310000
311000
312000
313000
314000
315000
316000
317000
318000
318500
318600
318700
318800
319000
320000
321000
322000
323000
324000
325000
326000
327000

```

```

1:24 TD(13)=VLHARDP(1.0,MI.0.0,FFI)
TD(15)=EVALMI
TD(16)=1
IF(FVALTI.EQ. 1.0)1032,1024
1:24 IF(FVALTI.EQ. 1.0)1032,1024
1:24 IF((FVALTI +FVALT2).EQ. 1.0) 1030,1024
1:24 TD(16)=3
TD(21)=Y3
1:30 TD(20)=Y2
1:32 TD(18)=EVALT2
TD(19)=Y1
TD(17)=FVALTI
TD(22)=CLASMC(E(TCLASS))
TD(23)=ICLASS
TD(24)=ITYPE
TD(25)=STARDEF 41
TD(26)=NTINT
TD(27)=RINKILL
TD(28)=MAXKILL
TD(29)=MAXFRACY
CSUHR - PLANDATI 15SEP71 *****
TD(30)=0
TD(31)=0
GO TO (243+26*273)IS*
C MAKE UP WEAPONS
C 303 IF(SITE.GI.1)371,304
C SLECT SPECIFIED WEAPONS
304 IF(CMK(ITYPE).EQ.0)371,306
306 CONTINUE
IF(ICLASS.EQ.3)369,307
307 CONTINUE
IF(CMK(ITYPE).GT.1)120*,1201
1201 CMK(ITYPE)=2
REDUCE(ITYPE) = 1.
1309 IF (LINEYARG) 1300, 1320
1301 CONTINUE
CHANGE REL
MC= RA
CALL CHANGE
GO TO (1302, 1303, 1304, 1305, 1306) INEP
C
C NO REPROGRAMMT*6
C
1302 REDUCE(ITYPE) = 1.
RDL(ITYPE) = ALERDHL
REL = PINC * (1. - PLABT) * (1. - PFFF)
GO TO 1320
C
C REPROGRAMMING FOR IN COMMISSION
C
1303 REDUCE(ITYPE) = PINC
RDL(ITYPE) = ALERDHL
REL = (1. - PLABT) * (1. - PFFF)
GO TO 1320

```

328000
329000
330000
331000
332000
333000
334000
335000
336000
337000
338000
339000
339500
340000
3-1000
342000
343000
344000
345000
1000
30000
2000
3000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
16010
15020
16030
16040
16050

16060
16070
16080
16090
16100
16110
16120
16130
16140
16150
16160
16170
16180
16190
16200

12/10/71

```

C
C REPROGRAMMING FOR DESTRUCTION BEFORE LAUNCH
C
1304 IF (FUNCTION.EQ.4HSLBM) 1303, 1310
1310 REDUCE(ITYPE) = PINC * (1. - ALERTOBL)
RDBL(ITYPE) = 0.
REL = (1. - PLABT) * (1. - PFPF)
GO TO 1320
C
C REPROGRAMMING THROUGH LAUNCH
C
1305 IF (FUNCTION.EQ.4HSLBM) 1311, 1312
1311 REDUCE(ITYPE) = PINC * (1. - PLABT)
RDBL(ITYPE) = ALERTOBL
GO TO 1313
1312 REDUCE(ITYPE) = PINC * (1. - PLABT) * (1. - ALERTOBL)
1313 REL = 1. - PFPF
GO TO 1320
C
C REPROGRAMMING THROUGH POWERED FLIGHT
C
1306 IF (FUNCTION.EQ.4HSLBM) 1314, 1315
1314 REDUCE(ITYPE) = PINC * (1. - PLABT) * (1. - PFPF)
RDBL(ITYPE) = ALERTOBL
GO TO 1316
1315 REDUCE(ITYPE) = PINC * (1. - ALERTOBL) * (1. - PLABT) * (1. - PFPF)
1316 REL = 1.
1320 CONTINUE
C
GET TYPE DATA
I=ITYPE(ITYPE)
WTP(1, I) = ITYPE
WTP(2, I) = RANGE
WTP(3, I) = CEP
WTP(4, I) = SPEED
WTP(5, I) = ALERTOLY
WTP(6, I) = ALRTOLY
WTP(7, I) = RANGEDEC
WTP(8, I) = ICLASS
IF( ICLASS.GT.111204, 1203
I=IWP(9, I) = WPERSON * REDUCE(ITYPE)
I=IWP(10, I) = ITYPE
GO TO 1205
1204 I=IWP(9, I) = INTCUM
I=IWP(10, I) = ITYPE - CUMNO(I)
1205 CONTINUE
WTP(10, I) = IWP(4, I)
WTP(11, I) = SPOLO
WTP(12, I) = SPWASH
WTP(13, I) = RANGEREFL
WTP(14, I) = MEL
WTP(15, I) = NKPOSITE
I=IWP(16, I) = IREP
I=IWP(17, I) = IPECMODE
IF ((RFUEL.NE.-3)1207, 1206

```

16210

16220

16230

16240

16250

16260

16270

16280

16290

16300

16310

16320

16330

16340

16350

16360

16370

16380

16390

16400

16410

16420

16430

16440

16450

16460

16470

16480

16490

16500

17000

18000

19000

20000

21000

22000

23000

24000

25000

26000

27000

28000

29000

30000

31000

32000

33000

34000

35000

36000

37000

38000

39000

40000

41000

42000

```

1206 I*TP(17,I)=1
1207 CONTINUE
I*TP(20,I)=FUNCTION
C I*PENMODE HERE. EQUALS 1 FOR CORRIDOR, 0 FOR NON CORRIDOR
IF(FUNCTION.EQ.3)MTAC) 1210,1211
1210 I*TP(18,I)=0
GO TO 1208
1211 I*TP(19,I)=1
1208 CONTINUE
IF(RESERVE.EQ.0)371,304
374 CONTINUE
IF (IMETARG) 1321, 1323
1321 CONTINUE
IF (ICLASS .EQ. 1) 1322, 1323
1322 CONTINUE
CHANGE NOPERSON
NC= 23
CALL CHANGE
NOPERSON = REPUCE(I*TYPE) * NOPERSON
CHANGE NOALERT
NC= 25
CALL CHANGE
NOALERT = NOPERSON
CHANGE ALERTINBL
NC= 30
CALL CHANGE
ALERTINBL = ROHL(I*TYPE)
1323 CONTINUE
DLAT=RANGEMOD*RANGE/50.
DLONG=DLAT/COSF(LAT*.01745)
MTOTPRASF=MTOT+45F+1
W*MD=1000
IF (IMFFUEL.NE.-2)374,373
373 CONTINUE
CHANGE NOINCCM
NC= 26
CALL CHANGE
NINCCM=S*NINCCUM
CHANGE NOALERT
NC= 24
CALL CHANGE
NOALERT=S*NOALERT
374 CONTINUE
CO-PRITE YIELD AND NO. OF WEAPONS
IF (ICLASS.GT.1)313,310
310 CONTINUE
NINCCM=S*OPERSON
NRAB1
NRL=PLD(1,PAYLOAD)
MSUR = IPLD(2,PAYLOAD)
YLD = WPO(1,MSUR)
IF (IPLD(1),PAYLOAD)314,3103
3102 W*YLD=NRAB1
3103 IF (NHL.EQ.1)314,311
311 YLD=YLD*NHL*0.5

```

43000

44000

44500

45000

46000

47000

48000

49000

50000

51000

52000

52020

52040

52060

52080

52100

52120

52140

52160

52180

52200

52220

53000

54000

55000

56000

60000

61000

62000

63000

64000

65000

66000

67000

68000

69000

70000

71000

72000

73000

74000

75000

76000

77000

79000

80000

12/10/71

FTNS.5

```

GO TO 314
313 CONTINUE
IF (IMFUEL.EQ.4) 331H,331J
331H IF (IMFUEL.EQ.5) 332H,332I
331H NROH=NROH+MFINCOX
      GO TO 332I
332H NROH=NROH+2*OINCOX
332I CONTINUE
      YLD=0.
      NROH1=IPLD(1,PAYLOAD)
      NROH2=IPLD(3,PAYLOAD)
      NASM=IPLD(5,PAYLOAD)
      NRA=NROH1+NROH2+NASM
      IF (NROH1.EQ.0) 376,375
375 MSUR = IPLD(2,PAYLOAD)
      YLD = YLD + (1.*MSUR) * NROH1
376 IF (NROH2.EQ.0) 378,377
377 MSUR = IPLD(4,PAYLOAD)
      YLD = YLD + (1.*MSUR) * NROH2
378 IF (NASM.EQ.0) 380,379
379 MSUR = IPLD(6,PAYLOAD)
      MSUR = IASMT(1,MSUR)
      YLD = YLD + (1.*MSUR) * NASM
380 CONTINUE
314 CONTINUE
ISPLIT = NSPLIT = 0
IF (NOALERT.GT. 0) 325, 366
325 LSA=2
      IALERT=1
      ISTART=1
      NX=NOALERT
      IF (NOALERT.EQ.1) 330,328
328 LSA=1
      C
330 IF (NX.NHA) 621,621,320
      C
320 DO 350 L=1,MAXGRP
      IF (IGRP(6,L).NE.0) 360,331
331 IF (IGRP(6,L).NE.0) TYPE(350,332
332 IF (IGRP(7,L).NE.0) IALERT(350,333
333 IF (IGRP(5,L).NE.0) REF(150,304
      604 GO TO (A05,334),ICLASS
334 IF (IGRP(9,L).NE.0) PAYLOAD(350,335
334 IF (IGRP(9,L).NE.0) REFUEL(350,337
335 IF (IMFUEL.GT.0) 355,335
336 OX=MSF(LONG=GRP(3,L)),GT,DLA(350,336
      IF (OX.LE.180.) 385,384
384 OX=360.-OX
385 CONTINUE
350 CONTINUE
      IF (OX.LE.180) 355,350
351 PRINT 352
352 FORMAT(23H000 MANY WEAPON GROUPS )
      GO TO 371
      C
ADD TO GROUP L

```

```

355 NG=IGRP(12,L)
C  LIMIT NO. OF BASES TO 150 PER GROUP
   IF (NG.GE.150)350*610
610 CONTINUE
   NWDX=IGRP(1,L)*NX*NSA
   IF (NWDX.GT.M*HD)350*603
C
C  CHECK NAVAL PARAMETERS
C
603 IF (IDRL = IGRP(13,L)) 350, 630, 350
630 IF (ARSP(PKNAV - GRP(14,L)) .LT. .005) 640, 350
640 IF (ISPLIT) 642, 641
641 NOLD = NX
642 MLEFT = NX - NALLOW(L)
   ASSIGN 645 TO NEXTGRP
   ISPLIT = 0
   IF (NLEFT) 611, 611, 643
643 NX = NALLOW(L)
   NWDX = IGRP(1,L) * NX * WIA
   ISPLIT = 1
   NSPLIT = NSPLIT + NX
611 IGRP(14,L) = NWDX
   IGRP(2,L) = MAX = IGRP(2,L) + NX
   GRP(13,L) = (NG*GRP(3,L) + LAT) / (NG*1)
   TLONG = LONG
   GLONG = GRP(4,L)
   DX = GLONG - LONG
   IF (ABS(DX) .LT. 180.)389,388
386 IF (DX)387,388,388
387 TLONG = LONG - 360.
   GO TO 389
388 GLONG = LONG + 360.
389 GLONG = (NG*GLONG + TLONG) / (NG*1)
390 GRP(4,L) = GLONG + 360.
   GO TO 392
391 GRP(4,L) = GLONG
392 CONTINUE
   GRP(10,L) = GRP(10,L) + YLD*NX
   IGRP(12,L) = NG * 1
   IF (IDRL .GT. 0) 612, 365
612 ISTRY = NX * NX
   TT = TIMESTR(L) - DELTA
   SUMDRL = 0.0
   DO 613 J = 1, NX
   TT = TT + DELTA
613 SUMDBL = SUMDBL + DBL*CALC(TT, IDHL)
   GRP(8,L) = (ISTRY + GRP(8,L) + SUMDBL) / NX
   GO TO 365
C  FORM NEW GROUP
360 IGRP(1,L) = NX*NSA
   IGRP(2,L) = NX
   ASSIGN 647 TO NEXTGRP
   NALLOW(L) = 1000000
   IF (ISPLIT) 619, 618
618 NOLD = NX

```

143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
193000
194000
195000
196000
197000
198000

```

619 GRP(3,L) = LAT
   GRP(4,L) = LONG
   IGRP(5,L) = IREG
   IGRP(6,L) = IITYPE
   IGRP(7,L) = IALERT
   IF (IALERT.EQ.2) J=2,361
361 GRP(8,L) = ALERTDBL
   TIMESTRT(L) = ALERTDLY * NSPLIT * DELTA
   GO TO 363
362 GRP(8,L) = NALRTDBL
   TIMESTRT(L) = NALRTDLY * NSPLIT * DELTA
363 IF (GRP(8,L).EQ.0) 950,951
950 IF (FUNCTION.EQ.4) HSLRM:951,952
952 GRP(8,L) = .000001
951 CONTINUE

   IGRP(13,L) = IDBL
   GRP(14,L) = PKNAV
   NX = NX
   GO TO (606,607),ICLASS
606 IGRP(9,L) = PAYLOAD
   GO TO 60A
607 CONTINUE
608 CONTINUE
   GRP(10,L) = YLD * NX
   IGRP(11,L) = ISTART
   IGRP(12,L) = I
   NGROUP = NGROUP + 1
   IF (IDBL .GT. 9) 614, 365
614 ISPLIT = 0
   NST = DBLCALC(TIMESTRT(L), IDBL)
615 TIMEA = TIMESTRT(L) * (NX - 1) * DELTA
   DELDBL = DBLCALC(TIMEA, IDBL) - NST
616 NX = NX / 2 * 1
   ISPLIT = 1
   GO TO 615
617 NSPLIT = NSPLIT * NX
   IGRP(14,L) = NX * NBA
   IGRP(12,L) = NX
   NX = NX
   GRP(10,L) = YLD * NX
   NALLOW(L) = NX
   TT = TIMESTRT(L) - DELTA
   SUMDRL = 0 * 0
   DO 644 J = 1, NX
   TT = TT * DELTA
644 SUMDBL = SUMDBL + DBLCALC(TT, IDBL)
365 CONTINUE
   IGRPX(1) = L
   IGRPX(2) = INDEANO
   GRPX(3) = LAT
   GRPX(4) = LONG
   IGRPX(5) = PAYLOAD
   IGRPX(6) = ISTART * SHIFT * NX

```

```

199000
200000
201000
202000
203000
204000
205000
206000
207000
208000
209000
210000
211000
212000
213000
214000
215000
216000
217000
218000
219000
220000
221000
222000
223000
224000
225000
226000
227000
228000
229000
230000
231000
232000
233000
234000
235000
236000
237000
238000
239000
240000
241000
242000
243000
244000
245000
246000
247000
248000
249000
250000
251000
252000
253000
254000

```

```

ITP=LTGRP
CALL WRRARRAY(IGRPX,NWOBASE)
GO TO NEXTGRP
645 IF (NLEFT) 621, 621, 646
646 ISTART = ISTART + NX
NX = NLEFT
GO TO 350
647 IF (ISPLIT) 620, 621
620 ISTART = ISTART + NX
NX = NOLD - NSPLIT
L = L + 1
IF (L.GT. MAXNGRP) 351, 360
621 NSPLIT = 0
GO TO (366,371)LSW
366 IALERT=2
ISTART=NOALERT + 1
DLAT=2.*DLAT
DLONG=2.*DLONG
NX=MINCOM-NOALERT
LS=2
GO TO 330
369 CONTINUE
LTANK(1)=INDEXNO
TANK(2)=LAT
TANK(3)=LONG
LTANK(4)=IREFUEL
LTANK(5)=INCOM
LTANK(6)=NOALERT
TANK(7)=SPEED
TANK(8)=ALERTOLY
TANK(9)=NALRIDLY
TANK(10)=TTOS
LTANK(11)=ITYPE-CUMNO(2)
TANK(12)=RANGE
ITP=LTGRP
IF (IREFUEL.GT.0.100,801
801 IF (IREFUEL.LE.4)807,803
803 IF (IREFUEL.EQ.0)811,804
804 PRINT #06,LAT, LONG, IREFUEL
806 FORMAT(2#MODDATABSE ERR-TANKER AT ,F8.4,1X,F8.6,1X,#HIPREFUEL#13)
IF (IREFUEL.EQ.-3)907,371
807 CONTINUE
CHANGE IREFUEL
NC= 52
CALL CHANGE
IREFUEL=0
411 NTANKENTANK*NOINCOM
810 IT#ORDS--4
GO TO 809
800 CONTINUE
IT#ORDS--1
509 NTANKBAS=NTANKBAS+1
CALL WRRORD
CALL WRRARRAY(LTANK,12)
GO TO 371
1001 IF (CLASS.EQ. THWARHEAD)900,1002

```

```

255000
256000
257000
258000
259000
260000
261000
262000
263000
264000
265000
266000
267000
268000
269000
270000
271000
272000
273000
274000
275000
276000
277000
278000
279000
280000
281000
282000
283000
284000
285000
286000
287000
288000
289000
290000
291000
292000
293000
294000
295000
296000
297000
298000
299000
300000
301000
302000
303000
304000
305000
306000
307000
308000
309000

```

```

1002 IF(CLASS.EQ.3-ASM) 910,1003
1003 IF (CLASS.EQ.7HPAYLOAD) 520, 1004
1004 IF (CLASS.EQ.7HDBLDATA) 930, 4999
C
4999 CONTINUE
IF (SIDE.EQ. LSIDE) 5004,5101
5004 IF (CLASS.EQ.4MPOINT) 5007,5015
5101 IF (CLASS.EQ.5MPOINT) 5005,5011
5005 IF (TYPE.EQ.4-ZONE) 5006,5500
5006 I=IPOINT-NSUB1
700 IF (I.GT.MZONEPT) 700,701
700 ICHKFLG(1)=MZONE PTS
ICHKNUM(1)=XMAXOF(I,ICHKNUM(1))
GO TO 371
701 RFLAT(IPOINT-NSUB1)=LAT
RLONG(IPOINT-NSUB1)=LONG
GO TO 5500
5009 PRINT 5010,CLASS,TYPE
5010 FORMAT(6H CLASS,2X,4H,2X,4HTYPE,2X,AR,2X,7HUNK=0MM)
GO TO 5500
5011 IF (CLASS.EQ.4HBOUNDARY) 5012,5500
5012 IPLACE=RLEGNO-NSUR2
5050 NRNDRY=IPLACE
5051 CONTINUE
710 ICHKFLG(2)=8HBOUNDARYS
ICHKNUM(2)=XMAXOF(ICHKNUM(2),IPLACE)
GO TO 371
711 CONTINUE
I=(IPLACE)=IPOINT-NSUB1
LINKS(IPLACE)=LINK-NSUR2
ZONEB(IPLACE)=ZONE
NEXTZB(IPLACE)=NEXTZONE
GO TO 5500
5007 IF (TYPE.EQ.5HROUT)5008,5013
5008 IF (IPOINT.GT.MRPT) 720,721
CSUBR PLANDAT2 ICMAY71 *****
720 ICHKFLG(3)=7HPT PTS
ICHKNUM(3)=XMAXOF(IPOINT,ICHKNUM(3))
GO TO 371
721 RFLAT(IPOINT)=LAT
RLONG(IPOINT)=LONG
GO TO 5500
5013 IF (TYPE.EQ.6HREFUEL) 5014,5500
5014 IF (IREFUEL.GT.MREF) 730,731
730 ICHKFLG(4)=8HREF PTS
ICHKNUM(4)=XMAXOF(IREFUEL,ICHKNUM(4))
GO TO 371
731 RFLAT(IREFUEL)=LAT
RFLONG(IREFUEL)=LONG
IF(IREFUEL.GT.MREF) 5057,5500
5057 NREF=IREFUEL
GO TO 5500
5015 IF (CLASS.EQ.8HCORRIDOR)5016,5021
5016 IF (TYPE.EQ.6HLOWATT)5016,5017

```

```

310000
311000
312000
313000
314000
315000
316000
317000
318000
319000
320000
321000
322000
323000
324000
325000
326000
327000
328000
329000
330000
331000
332000
333000
334000
335000
336000
337000
338000
339000
340000
341000
342000
343000
344000
345000
1000
31000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000

```

5017 IF (TYPE.EQ.5MHATT) 5019,5040
 5040 IF (TYPE.EQ.7MVLONATT) 5041,5042
 5042 IF (TYPE.EQ.5HJUMAY) 5043, 5040
 5046 IF (TYPE.EQ.8MMAVALAIR) 5047, 5009
 5043 ITCORR=4
 NCR=1
 GO TO 5020
 5047 ITCORR = 5
 NCR = 2
 GO TO 5020
 5041 ITCORR=3
 GO TO 5020
 5018 ITCORR=1
 GO TO 5020
 5019 ITCORR=2
 5020 KORSTY(ITCORR)=KORSTYLE
 MLCAT(ITCORR)=MLOATTR
 DEFR(ITCORR)=DEFRANGE
 ATTRS(ITCORR)=ATTRSUPP
 ATTPC(ITCORR)=ATTRCORR
 IF (TYPE.EQ.5HJUMAY) .OR. (TYPE.EQ.8MMAVALAIR) 5044, 5045
 5045 NCCORR=NCCORR+1
 IF (NCCORR.GT. MNCORR) 740,741
 740 ICHKFLG(5)=8MNCORRIDRS
 ICHKNUM(5)=NCCORR
 GO TO 371
 741 CONTINUE
 5044 NCR=NCCORR
 IC(NCR)=IPOINT
 LINK(NCR)=LINK
 ZONE(NCR)=ZONE
 IY(NCR)=ITCORR
 GO TO 5500
 5021 IF (CLASS.EQ.4HLEGS) 5022,5500
 5023 IF (LEGN0.GT. MPTLEG) 750,751
 750 ICHKFLG(6)=8MPTIE LEGS
 ICHKNUM(6)=MAXOF (ICCHKNUM(6),LEGN0)
 GO TO 371
 751 IL(LEGN0)=IPOINT
 LINK(LEGN0)=LINK
 ATRL(LEGN0)=ATTRLFG
 IF (LEGN0.GT. MPTPT) 5058,5500
 5058 MPTPT=LEGN0
 GO TO 5500
 5022 IF (TYPE.EQ.5MHJUTIF) 5023,5024
 5024 IF (TYPE.EQ.5MCEPEN) 5025,5009
 5025 MNPEN=MNPEN+1
 760 IF (NDPEN.GT. MDEPNLG) 760,761
 ICHKFLG(7)=8MHPN LFGS
 ICHKNUM(7)=NDPEN
 GO TO 371
 761 CONTINUE
 IC(NDPEN)=IPOINT
 LINK(NDPEN)=LINK
 GO TO 5500
 5500 CONTINUE

20000
 21000
 22000
 23000
 24000
 25000
 26000
 27000
 28000
 29000
 30000
 31000
 32000
 33000
 34000
 35000
 36000
 37000
 38000
 39000
 40000
 41000
 42000
 43000
 44000
 45000
 46000
 47000
 48000
 49000
 50000
 51000
 52000
 53000
 54000
 55000
 56000
 57000
 58000
 59000
 60000
 61000
 62000
 63000
 64000
 65000
 66000
 67000
 68000
 69000
 70000
 71000
 72000
 73000
 74000
 75000

```

C
GO TO 371
WARHEAD DATA
900 WHO(1,WHOTYPE)=YIELD
    WHO(2,WHOTYPE)=POUD
    WHO(3,WHOTYPE)=FFRAC
    WHOTYPE=XMAXOF(WHOTYPE,WHOTYPE)
GO TO 371
C
ASM DATA
910 ASMT(1,ASMTYPE)=WHOTYPE
    ASMT(2,ASMTYPE)=RANGE
    ASMT(3,ASMTYPE)=REL
    ASMT(4,ASMTYPE)=CFP
    ASMT(5,ASMTYPE)=SPEED
    NASHTYPE=XMAXOF(NASHTYPE,ASMTYPE)
GO TO 371
C
PAYLOAD DATA
920 IF(SIDE=NEALSIDE)371,919
919 NPAYLOAD=PAYLOAD
    IF(MIRV)9190,9195
9190 M*IRVST(NPAYLOAD)=NOROMB1
    IPLD(1,NPAYLOAD)=XMAXOF(1,NMHJS)
GO TO 9210
9195 IPLD(10,NPAYLOAD)=0.
921 IF((NOROMB1.EQ.0).AND.(NOROMB2.EQ.0).AND.(NASMS.EQ.0))921,923
9210 PLO(1,NPAYLOAD)=XMAXOF(1,NMHOS)
9210 PLO(7,NPAYLOAD)=XDEG=1.0
GO TO 924
923 IPLD(1,NPAYLOAD)=NOROMB1
    IPLD(7,NPAYLOAD)=NCH
924 CONTINUE
    IPLD(12,NPAYLOAD)=WHOTYPE
    IPLD(13,NPAYLOAD)=NOROMB2
    IPLD(14,NPAYLOAD)=INTYP2
    IPLD(15,NPAYLOAD)=NASMS
    IPLD(16,NPAYLOAD)=ASMTYPE
    IPLD(18,NPAYLOAD)=NDECOYS
    IPLD(19,NPAYLOAD)=NAREADEC
GO TO 371
C
TIME DEPENDENT DBL DATA TABLES
C
930 TRASH(ITIME, IOBL) = TRASH
    DRASH(ITIME, IOBL) = PSASH
    NTIMES(IOBL) = NTIMES(IOBL) + 1
371 CONTINUE
    CALL NEXTITEM
400 CONTINUE
    GO TO (200,400)ISWTERM
C
END O.B. PASS
4423 FORMAT(9H0NBOMH,NTANK
4417 ILRTFLG=0
4436 DISTA=0*0
    JGRPSTOR=0

```

```

76000
77000
78000
79000
79500
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000

```

```

DO 4413 L=1,NGROUP
IF (IGRP(9,L).LE.-4)4415,4413
4415 IF (ILRTFLG)4431,4430
CHECK NOM=ALERT FIRST THEN ALERT
4430 IF (IGRP(7,L).EQ.2)4432,4413
4431 IF (IGRP(7,L).EQ.1)4432,4413
4432 ITP=LTYPE(IGRP(6,L))
RANGE=TP(2,ITP)
IF (RANGE.GT.DISTA)4414,4413
C FIND LARGEST RANGE
4414 DISTA=RNGE
JGRPSTOR=L
4413 CONTINUE
4433 IF (JGRPSTOR)4416,4433
4434 IF (ILRTFLG)4434,4435
4435 ILRTFLG=1
GO TO 4436
4434 PRINT 4437
4437 FORMAT(35H10 MORE BOMBERS FOR TANKER BALANCE)
GO TO 4418
4416 IF (IGRP(9,JGRPSTOR).EQ.-4)4419,4420
4419 N=IGRP(2,JGRPSTOR)
GO TO 4421
4420 N=2+IGRP(2,JGRPSTOR)
4421 NROMB=NROMB+N
4422 PRINT 4422,JGRPSTOR,IGRP(9,JGRPSTOR),NROMB,N,TANK
4422 FORMAT(11HOF GROUP ,I4,2H IREFUEL CHANGED FROM ,I2,
116H TO 0 NROMB = ,I4,9H NTANK = ,I4)
IGRP(9,JGRPSTOR)=0
GO TO 4417
4418 CONTINUE
C SET VALUE FACTORS
SUMVAL = 0.0
DO 401 I=1,MTARCLS
IF (VALFAC(I).EQ.0. .AND. EKEMVAL(I).NE.0.) 4001,4005
4001 PRINT 4003, I
4003 FORMAT(25H)EXEMPLAR TGT FOR CLASS,3X,I3,20HNOT FOUND ON INDEX08,
* 25H. CLASS VALUE SET TO ZERO//
4005 CUMVAL(I)=CUMVAL(I)+VALFAC(I)
4001 SUMVAL = SUMVAL + CUMVAL(I)
PRINT 403
403 FORMAT (19H)CLASSNAME CLASSVAL//)
DO 402 I=1,MTARCLS
CLASVAL(I) = CUMVAL(I) / SUMVAL
PRINT 404, CLASNAME(I), CLASVAL(I)
404 FORMAT (2X,AB,IX,F6.3)
402 VALFAC(I) = SUMVALX + VALFAC(I)
GRP(10,I)=GRP(10,I)/IGRP(6,I)
IGRP(6,I)=LTYPE(IGRP(6,I))
DO 405 I=2,NGROUP
GRP(10,I)=GRP(10,I)/IGRP(1,I)
IGRP(6,I)=LTYPE(IGRP(6,I))
405 CONTINUE
ITP=LITGT
ITD(2)=RXXXXXXX

```

131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000

```

C
CALL @ARRAY(ITD,31)
  ARRAY GRP(IGRP), SPILLED OUT TO PROVIDE SPACE FOR IGISORT
JUSTI=1+(MGRoup+1);
CALL @ARRAY(I:RP,JUSTI)
CALL TERMTAPE
ITP=LIGH
IT*ORU=@HENDG@JUP
CALL @WORD
CALL TERMTAPE
INTAPE(1)=7MKI@FILE
NREG=3
MCLASS=2
DO 415 I=1,MAXICOMP
  IF (MCPX(I),NE.1)5,414
  *COMPLEX=COMPLEX-1
  *14
  *15
  *CONTINUE
  *COURTYPF = 5
  *TAPE(1)=NTGTS
  PRINT 5102,LSI@E
  PRINT 5101
  DO 5036 I = 1, NCORTYPE
    PRINT 5100,I,@RSTY(I),@ILOAT(I),@EFF@ (I) , @TMS(I),@ATTR@ (I)
    PRINT 5103,NCORR
  DO 5028 I=1,NCORR
    I=IC(I)
    PRINT 5106,I,@LINK(I),@PLAT(II),@PLUNG(II),@ZOMEC(I),@ITY(I)
    PRINT 5105,MRTPY
  DO 5020 I=1,@MTP
    I=IL(I)
    PRINT 5106,I,@LINK(I),@PLAT(II),@PLUNG(II),@ATPL(I)
    PRINT 5107,MRP@N
  DO 5030 I=1,@MPEN
    I=IP(I)
    PRINT 5104,I,@LINK(I),@PLAT(II),@PLUNG(II),@PLUNG(II)
    PRINT 5104,MR@COVER
  DO 5031 I=1,MR@COVER
    PRINT 5104,I,@LINK(I),@DECLAT(I),@RECL@ (I),@RECLO@ (I),@HECPCY(I),@IN@REC(I)
  DO 5032 I=1,@M@FF
    PRINT 5110,I,@FLAT(II),@FLONG(II)
    PRINT 5111,@M@RY
  DO 5033 I=1,@M@V@RY
    I=IR(I)
    PRINT 5104,I,@LINK(I),@LAT(II),@HLUNG(II),@ZOMEC(II),@NEXTZ@ (I)
  C*****TERMINATE PUT T DATA *****
  5102 FORMAT(//7TH SIDE =,2X,@R//)
  5101 FORMAT(4X,1H,2X,@RKURSTYLE,2X,8H@ILOATR,2X,8H@UEFR@NGE,2X,
    18H@TRS@P,2X,8H@ATTR@C@P
  5100 FORMAT(15,110,4F10.4)
  5103 FORMAT(//110,2X,@MCO@P@IDORS/4X,1H,6X,4HLINK,7X,3HLAT,6X,4HLONG,
    16X,4HZONE,7X,3MITY)
  5104 FORMAT(15,110,2 F10.4,2I10)
  5105 FORMAT(//110,2X,12HROUTE POINTS/9X,1H,6X,4HLINK,7X,3HLAT,
    16X,4HLONG,3X,7H@TR@LEG )
  5106 FORMAT(15,110,3F10.4)
  5107 FORMAT(//110,2X,5HREPEN/4X,1H,6X,4HLINK,7X,3HLAT,6X,4HLONG )

```

```

5108 FORMAT(//I10,2X,7HRECOVER/4X,1HI,6X,4HLINK,7X,3MLAT,6X,4HLONG,
      *2X,8MCAPACITY,3X,7HINDEXNO)
5109 FORMAT(//I10,2X,13HREFUEL POINTS/4X,1HI,7X,3MLAT,6X,4HLONG )
5110 FORMAT(I5,2F10,4)
5111 FORMAT(//I10,2X,10HBOUNDARIES/4X,1HI,6X,4HLINK,7X,3MLAT,6X,
      14HLONG,6X,4HZONE,2X,8HNEATZONE)
      PRINT 3030
3030 FORMAT(14H1MARHEAD TABLE//9H      YIELD,5X,6HPDUD,5X,5HFFPAC/)
      PRINT 3031,(14MD(I,J),I=1,3),J=1,NHMDTYPE)
3031 FORMAT (2X,F8.4,2X,F8.6,2X,F8.6)
      PRINT 3035
3035 FORMAT(10H1ASMT TABLE//10H      NPNTYPE,5X,5HFRANGE,7X,3HREL,7X,
      13HCEP,5X,5HSPSPEED/)
      PRINT 3036,(14SMT(I,J),I=2,5),J=1,NASMTYPE)
3036 FORMAT(I10,2X,F8.1,2X,F8.5,2X,F8.4,2X,F8.1)
      PRINT 3040
3040 FORMAT(14H1PAYLOAD TABLE//3X,7HNOBOMB,4X,6HITYPE,3X,7HNOBOMB2,
      14X,6HITYPE2,5X,5HNASMS,3X,7HASMTYPE,7X,3HRCM,6X,4HXOEG,3X,
      27HNDECOYS,2X,6HNADECOYS,6X,4HMIRV/)
      DO 3R J=1,NPAYLOAD
      IF (PLD(I,J)-1.0) 32,34,32
32 PRINT 33, (IPLD(I,J),I=1,10)
33 FORMAT (7I10,10X,3I10)
      GO TO 36
34 PRINT 35, (IPLD(I,J), J=1,10)
35 FORMAT (6I10,15X,F5.3,3I10)
36 CONTINUE
      PRINT 3045
3045 FORMAT(13H1REGION TABLE//5X,5HCCREL/)
3046 FORMAT(2X,F8.4)
      PRINT 3050
3050 FORMAT(17H1WEAPON TYPE DATA//)
      NL=INTYPE*9/10
      DO 3055 M=1,NL
      L=4-9
      PRINT 3051,(I=1,L,M)
      PRINT 3052, ((INTP(J,I),I=L,M), I=10)
3052 FORMAT(10H TYPE      ,10(2X,AR)/
      110H RANGE      ,10(2X,F8.1)/
      210H CEP        ,10(2X,F8.4)/
      310H SPEED     ,10(2X,F8.1)/
      410H ALERTDLY ,10(2X,F8.4)/
      110H MALRTDLY ,10(2X,F8.4)/
      610H RANGEDEC ,10(2X,F8.4)/
      *10H ICLASS  ,10(2X,I8)/
      910H NOPERSON ,10(2X,I8)/
      910H SPDHT   ,10(2X,F8.1)/
      110H SPDLO   ,10(2X,F8.1)/
      210H SPDASH  ,10(2X,F8.1)/
      310H RANGREF ,10(2X,F8.1)/
      410H REL     ,10(2X,F8.6)/
      510H NMSITE  ,10(2X,I8)/
      110H INEP    ,10(2X,I8)/

```

```

*104 IRECMODE ,10(2X,IR)/
*104 IPECMODE ,10(2X,IR)/
*104 ITYPE ,10(2X,IR)/
*104 FUNCTION ,10(2X,AB)
3055 CONTINUE
    DO 3021 I=1,NGROUP
3021 CHK(I)=I*TP(1),IGRP(6,I)
    PRINT 3003
3003 FORMAT(18MINEAPON GROUP DATA//)
    NS=(NGROUP+9)/10
    DO 3020 M=1,N
    NEMT=10
    LEM=9
    PRINT 3004,(I,I=L,M)
3004 FORMAT(10M1IGHQUP ,10(I10)
    PRINT 3022,(CHK(I),I=L,M)
3022 FORMAT(10X,10(2X,AR))
    PRINT 3005,(IGRP(1,I),I=L,M)
3005 FORMAT(10M NEMNS ,10(I10))
    PRINT 3006,(IGRP(2,I),I=L,M)
3006 FORMAT(10M NVEGGRP ,10(I10))
    PRINT 3007,(GWP(3,I),I=L,M)
3007 FORMAT(10M WLAT ,10(F10.4))
    PRINT 3008,(GRP(4,I),I=L,M)
3008 FORMAT (10M WLONG ,10(F10.4))
    PRINT 3009,(IGRP(5,I),I=L,M)
3009 FORMAT(10M IREC ,10(I10))
    PRINT 3010,(IGRP(6,I),I=L,M)
3010 FORMAT(10M LTYPE ,10(I10)
    PRINT 3011,(IGRP(7,I),I=L,M)
3011 FORMAT(10M IALFRT ,10(I10))
    PRINT 3012,(GRP(8,I),I=L,M)
3012 FORMAT(10M DBL ,10(F10.6))
    PRINT 3013,(IGRP(9,I),I=L,M)
3013 FORMAT(10M IREFUEL ,10(I10))
    PRINT 3014,(GRP(10,I),I=L,M)
3014 FORMAT(10M YIELD ,10(F10.4))
    PRINT 3015,(IGRP(11,I),I=L,M)
3015 FORMAT(10M ISVART ,10(I10))
    PRINT 3016,(IGRP(12,I),I=L,M)
3016 FORMAT(10M NBASE ,10(I10))
    PRINT 3017,(IGRP(13,I),I=L,M)
3017 FORMAT(10M IDBL ,10(I10)
    PRINT 3018,(GRP(14,I),I=L,M)
3018 FORMAT(10M PKNAV ,10(F10.6))
    PRINT 3019,(TIMESTRT(I),I=L,M)
3019 FORMAT(10M TIMELAUN ,10(F10.6))
3020 CONTINUE
    CALL AROVRFLY
    CALL SHUFFLI
    WRITE(44,999)
999 FORMAT (41H ***** PROCESSOR PLANSET COMPLETED ***** )
    END

```

294000
295000
296000
296500
297000
298000
299000
300000
301000
302000
303000
304000
305000
306000
307000
308000
309000
310000
311000
312000
313000
314000
315000
316000
317000
318000
319000
320000
321000
322000
323000
324000
325000
326000
327000
328000
329000
330000
331000
332000
333000
334000
335000
336000
337000
338000
339000
340000
341000
342000
343000
344000
345000

IDENT PLANSET

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	PLANSET	IDENT	PLANSET
	PLANSET	10770	
		01775	
TNORU		00001	
IIP		00001	
NOBPRINT		00001	
MYIDENT		00001	
FILABEL		00014	
TAPES		00007	
WT		00026	
MISC		00012	
CLASNAME		00074	
2		04336	
3		00014	
1		04705	
GROUP		06117	
MLTX		00110	
PRCNTL		00003	
TD		00037	
DP00L		11610	
LCPA		04704	
MAX		00047	
RETARG		00120	
PROCESS		01173	
EDITERM		00001	
EDITAPE		00015	

EXTERNAL SYMBOLS

QBENTRY
 TRENDA
 01010100
 01004100
 02007101
 01005100
 000PCT.
 STORAGE
 VPLANSET
 ALOCOR
 INITAPE
 INITRLKS
 SETHEAD
 SKIPFILE
 ABORT
 TEMTAPE
 SHUFFLE
 SETWRITE
 INITEDIT
 INPITEM
 WRMULT
 WRARRAY
 VLRAOP
 CHANGE
 DBLCALC
 WRNORD
 NEXTITEM
 AROVRELA

5.415 PLANSET

12/10/71

ED

0

PAGE NO.

30

SHUFFL
XMAXOF
MAXIF
COSF
QAGIFUNI
TSH.
DEC.
HFI.
SIH.
QNSINGL.

1148

X00017	AROH	02100											
C00312	ABRATE		03466	03502	03503	03520	03520	03542	03542	03551	03574		
C00334	ADRLI		03600	03600	03756	03767	04572						
C00340	ADRLR		03632	04602	05072	05072							
C00414	ADEFAMP												
C00413	ADEFZON												
C00363	AGX												
C00364	AGY												
C00367	AHOB												
C00300	ALERTOBL		03466	03502	03503	03520	03520	03542	03542	03551	03574		
			03574										
			03632										
C00302	ALERTOLY												
X00012	ALOCOPR												
P02312	AN0A013		02017										
			02306										
C00203	AREA												
X00034	AROVREFL		07623										
C00226	ASMT		05575	05577	05577	05601	05601	05603	05603	06705	06705		
C00241	ASMTYPE		05675	10043	10043	10043							
C02715	ATRL		05517	06423									
C02070	ATTAC		05440	06320									
C00321	ATTROPR		05437										
C00320	ATRLFG		05516										
C02063	ATIPS		05436	06317									
C00325	ATTASUPF		05435										
C00416	AZON1												
C00417	AZON2												
C00420	AZON3												
C00361	RCODE												
C00161	RENO												
X00044	RFI		02053										
C00367	RLAT		05235	06614	06610								
C00210	RLEOMO		05262										
C00477	RLOMG		05243										
C10066	RYPES												
C00164	CATCODE												
C00304	CCHEL		03626	05600	05600								
C00267	CEP		03453	03755	03762	04012	04024	05136	05136	03441	07136		
X00030	CHANGE		02517	02673	02673	03425	03425	03434	03434	03440	03441		
C11111	CHK		07137	07211	07211								
C00009	CLASSNAME		00121	02623	02637	03064	03064	03064	03064	03373	06137		
C00147	CLASS		05163	05166	05166	05171	05171	05174	05174	05202	05205		
			05205	05251	05257	05257	05370	05370	05475	05475			
C00377	CLASST												
C00017	CLASVAL		02644	03045	03045	03045	03045	03045	03045	03045			
C00153	CATRYLOC		03157	03306	03306								
C00152	CATRYDMA												
C00401	CATRYLOC												
C02400	CATRYDMT												
P07441	CNVRTL		02150	02167	02206	02225	02244	02265	02313	02333	02366	02374	
			02407	02431	02452	02512	02531	02545	02567	02575	02577	02631	
			02633	02634	02640	02640	02714	02716	02717	03065	03067	03070	
			03072	05126	05127	05252	05253	05272	05730	06045	06045	06047	
			04050	04076	06137	06160	06312	06314	06315	06316	06317	06320	

CODE	06352	06354	06357	06360	06361	06362	06375	06414	06416	06421
C00360	06352	06354	06357	06360	06361	06362	06375	06414	06416	06421
X00040	06422	06423	06455	06457	06462	06463	06476	06512	06514	06515
P00164	06516	06520	06533	06547	06551	06552	06565	06604	06606	06611
C00421	06612	06613	06614	06646	06700	06706	06767	07021	07050	07104
P00124	07171	07212	07233	07254	07316	07317	07360	07461	07422	07443
	07464	07505	07526	07547	07611					
	07776	02672	04513	04514	04747	04750	05751	06167	06170	06250
	06251	07125	03003	03032						
	02071	02100	02120	02254	02274	02320	02337	02351	02372	02412
	02422	02450	02515	02550	02603	02643	02662	02723	02725	02821
	06523	06423	06423	06423	06423	06423	06423	06623	06623	06623
	06866	06720	06726	06755	06775	06787	07036	07067	07116	07147
	07200	07221	07242	07263	07304	07325	07346	07410	07431	07452
	07473	07514	07535	07556	07577	07620	07637			
	02055	02110	02110	02663	02663	02663	03645	05101	05106	06130
	03051	02051	03053	03053	03053	03053	03053	05106	05106	06130
	05710	05710	04707	04754						
	04520	04672								
	02310	02363								
	05434	05434								
	05433	05433								
	04712	04713								
	04504	04505								
	04741	04752								
	02007	02007								
	01777	02001	02004	02015	02020	02023	02035	02046	02054	02060
	02065	02070	02074	02077	02101	02104	02114	02124	02140	02143
	02157	02162	02176	02201	02215	02220	02234	02253	02260	02273
	02311	02317	02331	02339	02345	02350	02364	02374	02401	02404
	02411	02414	02421	02424	02440	02443	02457	02514	02527	02534
	02536	02543	02547	02554	02557	02562	02602	02642	02654	02661
	02704	02712	02722	02730	02737	02775	03001	03074	03114	03200
	03211	03227	03272	03332	03337	03454	03743	03774	03777	04013
	04024	04067	04315	04320	04321	04473	04710	04755	05004	05122
	04137	05154	05157	05225	05247	05255	05330	05352	05507	05585
	05605	05630	05647	05715	05724	05815	06020	06041	06052	06073
	06100	06117	06122	06135	06142	06207	06217	06232	06232	06266
	06272	06275	06300	06307	06322	06331	06347	06364	06373	06377
	06411	06425	06434	06440	06452	06465	06474	06507	06522	06531
	06535	06544	06554	06563	06567	06601	06610	06625	06633	06657
	06662	06665	06670	06717	06722	06740	06740	06754	06774	07003
	07006	07011	07027	07032	07035	07052	07060	07071	07115	07146
	07163	07177	07202	07220	07223	07241	07244	07265	07303	07306

5.ATS PLANSET

12/10/71 ED 0 PAGE NO. 33

P10146	DISTA	07324	07327	07345	07350	07366	07371	07407	07412	07430	07433	07451
P10167	DLAT	07454	07472	07475	07513	07518	07534	07537	07555	07560	07576	07601
P10170	DLONG	07617	07624	07627	07633	07636						
P10171	DMAXDHL	05741	05775	06000								
P10172	DST	03773	04000	04267	05045	05045						
P10173	DX	04001	04305	05046	05047							
C00437	EFECNES1	02532	02537	02540	02545	04713						
C00440	EFECNES2	04875	04712									
C00327	EFFECTNES	04277	04277	04303	04303	04304	04426	04433				
P10125	ENDING.											
C00350	EVENT	07637										
C00351	EVENTN											
P00102	EXEMVAL	00124	02551	03071	03075	04067						
P00000	EXIT.	10125										
C00243	FFRAC	05562										
C00000	FIN	02574	02574	02635	02647	02650						
C00432	FLAG	03161	03161	03310	03310							
C00160	FLTNO											
C00037	FMLTX	03164	03164	03166	03166							
P10174	FN	03334	03341									
P00124	FORMAT.	02006	02012	02032	02274	02337	02352	02460	02463	02603	02616	02725
		02732	02741	02763	03016	03514	03533	03561	03720	04624	05163	05166
		05171	05174	05202	05205	05210	05222	05257	05275	05316	05325	05340
		05347	05370	05373	05376	05401	05404	05407	05441	05444	05475	05504
		05527	05532	05542	06204	06227	06237					
		03514	03514	03533	03533	03561	03561	03715	03715	03720	03720	04824
		04624										
C00245	FVALH1	03324	03324	03343	03343							
C00251	FVALT1	03346	03346	03352	03353	03370	03370					
C00252	FVALT2	03353	03364	03364	03364							
P02071	GG00001.	02063										
P02100	GG00002.	02072										
P02120	GG00003.	02112										
P02141	GG00004.	02122										
P02160	GG00005.	02141										
P02177	GG00006.	02160										
P02216	GG00007.	02177										
P02235	GG00010.	02216										
P02254	GG00011.	02235										
P02274	GG00012.	02256										
P02320	GG00013.	02307										
P02337	GG00014.	02327										
P02351	GG00015.	02343										
P02372	GG00016.	02362										
P02402	GG00017.	02372										
P02412	GG00020.	02402										
P02422	GG00021.	02412										
P02441	GG00022.	02422										
P02460	GG00023.	02441										
P02515	GG00024.	02504										
P02535	GG00025.	02525										

P02550	GG00026.	02541
P02560	GG00027.	02552
P02603	GG00030.	02560
P02643	GG00031.	02624
P02662	GG00032.	02652
P02723	GG00033.	02710
P03075	GG00034.	03057
P04321	GG00035.	04313
P05132	GG00036.	05120
P05256	GG00037.	05245
P05733	GG00040.	05722
P06021	GG00041.	06013
P06053	GG00042.	06037
P06101	GG00043.	06071
P06123	GG00044.	06115
P06143	GG00045.	06133
P06273	GG00046.	06264
P06301	GG00047.	06273
P06323	GG00050.	06395
P06336	GG00051.	06327
P06365	GG00052.	06345
P06400	GG00053.	06371
P06426	GG00054.	06407
P06441	GG00055.	06432
P06466	GG00056.	06450
P06501	GG00057.	06472
P06523	GG00060.	06505
P06536	GG00061.	06527
P06555	GG00062.	06542
P06570	GG00063.	06561
P06617	GG00064.	06577
P06631	GG00065.	06623
P06660	GG00066.	06631
P06666	GG00067.	06660
P06720	GG00070.	06666
P06726	GG00071.	06720
P06755	GG00072.	06736
P06775	GG00073.	06756
P07007	GG00074.	07001
P07030	GG00075.	07007
P07036	GG00076.	07030
P07067	GG00077.	07050
P07116	GG00100.	07067
P07147	GG00101.	07141
P07200	GG00102.	07161
P07221	GG00103.	07200
P07242	GG00104.	07221
P07263	GG00105.	07242
P07304	GG00106.	07263
P07325	GG00107.	07304
P07346	GG00110.	07325
P07367	GG00111.	07346
P07410	GG00112.	07367
P07431	GG00113.	07410

P07452	GG00114.	07431	04447	04455	04460	04464	04407	04420	04422
P07473	GG00115.	07452	04274	04345	04407	04473	04473	04532	04536
P07514	GG00116.	07473	04462	04466	04472	04574	04607	04621	04621
P07535	GG00117.	07514	04556	04560	04574	04735	04735	04765	06152
P07556	GG00120.	07535	04630	04636	04656	06174	07315	07421	07421
P07577	GG00121.	07556	04441	04447	04460	04464			
P07620	GG00122.	07577	04264	04274	04345	04407			
P07637	GG00123.	07631	04462	04465	04472	04473			
PL1175	GLONG	04824	04556	04560	04574	04574			
C00000	GRP	04824	04630	04636	04656	06174			
C00163	MI	04773	04463	04567	06174	07274			
C00164	H2	04773	04775	04775	04775	04775			
C00201	MILOAT	05432	06315						
C00324	MILOATTR	05431	02134	02146	02151	02153	02170	02204	02207
PI0176	I	02127	02226	02230	02242	02245	02263	02267	02275
		02211	02302	02305	02427	02432	02446	02450	02464
		02466	02474	02510	02565	02570	02665	02672	02675
		05217	05226	06057	06066	06075	06105	06107	06127
		06144	06146	06163	06251	06302	06313	06323	06337
		06351	06353	06365	06401	06413	06426	06442	06454
		06456	06466	06502	06511	06523	06537	06550	06555
		06574	06603	06605	06617	06642	06707	06743	06751
		06770	07014	07017	07022	07054	07077	07105	07121
		07165	07170	07172	07205	07210	07234	07247	07270
		07276	07311	07317	07332	07340	07374	07402	07423
		07434	07444	07457	07465	07500	07527	07542	07563
		07571	07604	07607	07612	07707			
C00344	I ALERT	04203	04235	04235	04565	04567	05041	05042	
C00354	I ALT								
C00224	I ARDEF	04162	05573	05573	06677	06477			
C00226	I ASMT								
C00404	I ATTACK								
C00000	I R	05305	06575	06575	05276	05326	05350	05350	05455
C01510	I C	05465	06343	06343	05276	05326	05350	05350	05457
C01440	I CHKFLG	03017	05223	05223	05543	05543	05332	05354	
		05459	05505	05505	05301	05301			
C01464	I CHKNUM	03021	05226	05227	05301	05302			
		05457	05510	05545	05545	05545			
C00227	I CLASS	03036	03044	03044	03050	03063	03100	03100	03372
		03372	03375	03375	03430	03446	03640	03642	03642
		03736	03736	04034	04243	04243	04640	04641	
C00373	I CLASSST	02607	02612	02622	02636	02644			
PI0177	I CLSNO								
C00372	I CNDX								
C00000	I CNUM	03103	03103	03213	03213	03233			
C00235	I COMPLEX								
C00422	I CORR								

C01175	ICPNT	05551	06440	06446	04522	04632	04664	04665	04674	04711
C01700	ID	02041	04476	04477	04522	04632	04664	04665	04674	04711
C02001	IDATE	04336	04711	10075	19075					
C0424	IDBL	04756	05711	10075	19075					
		02043	02044							
C00002	IDENLNO	03416	04244	04642	05037	05720				
C00342	IDUO	04224	04230	04230	04234	04240	04240	04250	04250	04254
P03354	IF00001.	04254	04323	04331	04331	04340	04371	04371	04377	04400
P03172	IF00002.	04400	04402	04403	04476	04542	04544	04544	04562	04562
P05444	IF00003.	04564	04564	04566	04634	04646	04646	04652	04652	04660
P05642	IF00004.	04661	04662	04725	04727	04730	04752	04757	04757	04762
P05644	IF00005.	04762	04764	04764	04823	04826	04832	04844	04844	04845
P08066	IF00006.	04853	04854	04854	04855	04861	04861	04861	04861	04862
C00216	IG14	04862	04862	04862	04862	04862	04862	04862	04862	04862
P10200	IGOTO.	04862	04862	04862	04862	04862	04862	04862	04862	04862
C06234	IGROUP	04862	04862	04862	04862	04862	04862	04862	04862	04862
C00000	IGRP	04862	04862	04862	04862	04862	04862	04862	04862	04862
C00000	IGRPA	04862	04862	04862	04862	04862	04862	04862	04862	04862
P10201	II	04862	04862	04862	04862	04862	04862	04862	04862	04862
C07075	IL	04862	04862	04862	04862	04862	04862	04862	04862	04862
P10202	ILPTFLG	04862	04862	04862	04862	04862	04862	04862	04862	04862
C00423	IMPR	04862	04862	04862	04862	04862	04862	04862	04862	04862
C00000	IN	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07642	IN00007.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07643	IN00011.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07644	IN00012.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07645	IN00013.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07646	IN00015.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07647	IN00016.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07650	IN00027.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07651	IN00030.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07652	IN00031.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07653	IN00033.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07654	IN00034.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07655	IN00036.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07656	IN00037.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07657	IN00041.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07660	IN00042.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07661	IN00043.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07662	IN00044.	04862	04862	04862	04862	04862	04862	04862	04862	04862
P07663	IN00045.	04862	04862	04862	04862	04862	04862	04862	04862	04862

P07664	IN000AA.	07102	07702	07721	07737	07750			
C00007	INCUMM	02040	-02041						
C10124	INDMFG								
C10105	INCLAS	03034	03034	03151	03300	03300	04770	05054	05054
C05174	INDEXPO								
C05574	INDGRP	03035	03035	06520					
C07457	INDREC								
C03346	INDV								
C03003	INFORM								
C00000	INTDFT								
X00013	INTIAP	12022							
X00014	INITMLK	02025							
X00023	INTEDIT	02774							
C00003	INTEM								
C00006	INLNGTH								
X00024	INPITE	03000							
PI0203	INP	02334	02337	02352	02354	02357	02365		
C00001	INRUNNO								
C07004	INSECR	02042	02043						
C07347	INTAR								
C07005	INTIME								
C07000	INTP								
C00233	IOYHEW								
C00402	IPEMODE								
PI0204	IPLACE								
C03372	IPLU								
C00212	IPOINT	05204	05204	05207	05271	05301	05305	05303	05321
C00403	IPECMODE	04042	04043	04044	04045	04052	04053	04113	04115
C07157	IPECCCTY	04117	04126	04126	04142	04142	04157	04157	04157
C00232	IREFUEL	05637	05637	05652	05652	05661	05663	05663	05664
		05670	05672	05672	05674	05674	05676	05676	05676
		05746	05746	05766	05766	05766	05766	05766	05766
		05213	05213	05230	05230	05230	05230	05303	05321
		05334	05403	05443	05512	05512	05547	05547	05321
		03705	03704	06517	06517	06517	06517	06517	06517
C07157	IPECCCTY	03707	03710	04005	04006	04074	04077	04077	04255
C00232	IREFUEL	04257	04450	04650	04662	05062	05107	05112	05115
		05127	05132	05132	05141	05343	05353	05356	05362
		05365	04241	04551	04561	04561	04561	04561	04561
C00231	IREG	03456	03704	03704	03704	03704	03704	03704	04257
C00245	IREP	02324	02342	02342	03734	03734	03734	03734	04257
PI0205	IREFARG	03167	03167	03421	03421	03421	03421	03421	05115
C07330	ISITF	04175	04352	04363	04373	04373	04373	04373	05362
PI0206	ISPLIT	04205	04460	05000	05014	05014	05022	05022	05362
PI0207	ISPART	04502	04525	04560	05014	05014	05022	05022	05362
PI0210	ISRT	03130	03222	03240	03415	03415	03415	03415	05362
PI0211	ISW	05717	05717	05717	05717	05717	05717	05717	05362
C00000	ISWTERM								05362
C00000	ITANK	05413	05416	05421	05423	05425	05427	05472	03277
PI0212	ITCGH	03134	03230	03247	03256	03250	03256	03266	03277
C00000	ITS	03277	03301	03301	03303	03303	03305	03305	03311
		03312	03323	03327	03330	03345	03351	03356	03374
		03374	03374	03400	03400	03402	03402	03404	03414

5.4TS PLANSET

12/10/71

ED 0

PAGE NO.

38

C00000	ITEMP	05205	06210								
C00236	ITGT	10065									
C00424	ITIME	02031	02031	02047	02051	02056	02107	02724	02724	02724	02724
C00002	ITOUT	02735	02735	03112	03112	03176	03207	03225	03225	03225	03270
C00000	ITP	03270	05004	05004	05106	06203	06226				
C00005	ITTAPE	05145	05145	05147	05150	06230					
C00900	ITMORU	05473	05473	06362							
C01642	ITY	05770	10104								
P12213	ITYPE	03424	03424	03433	03433	03440	03464	03521	03521	03540	03540
C00230		03553	03553	03572	03572	03610	03615	03651	03651	03656	03656
C00374	ITYPET	03654	03664	03664	03765	04231	04563	05100	05100	05100	05100
C00331	IVULK										
C00000	IWRU	06240		06262	06263			03663	03663	03666	03666
C00000	IWTPE	03623	03623	03641	03641	03655	03657	03714	03714	03717	03717
C01236	IWTP	03664	03702	03703	03704	03705	03707	03717	03717	03717	03717
		03724	03725	03727	03730	07103	07135	07136	07136	07136	07136
		05671	05671								
C00326	IITYP2	02620									
P02421		03040									
P02624		05163									
P05163		05165									
P05166		05170									
P05171		05173									
P05174		03130									
P03276		03324		03240							
P03327		03324									
P03336		03350									
P03351		03355									
P03356		03355									
P03362		03355									
P03366		02353									
P02354		02355									
P02362		02524									
P02422		02462									
P02463		02471									
P02472		02361									
P02402		02500									
P02501		02500									
P02516		02471	02515								
P02521		02462									
P02525		03435	03436								
P03437		03643	03644								
P03645		03660									
P03661		03711									
P03667		03711									
P03712		03711									
P03715		03436	03725								
P03731		02651	02662								
P02560											

P03723	.1210				
P03726	.1211	03722			
P02600	.1220	02605			
P02616	.1240	02614	02615		
P02652	.127	02615			
P02643	.130				
P03446	.1300	03444			
P03451	.1301	03447	03450		
P03463	.1302	03460			
P03500	.1303	03460	03516		
P03514	.1304	03461			
P03533	.1305	03462			
P03561	.1306	03462			
P03517	.1310	03516			
P03536	.1311				
P03545	.1312	03535			
P03556	.1313	03544			
P03564	.1314				
P03577	.1315	03563			
P03613	.1316	03576			
P03615	.1320	03445	03450	03477	03513
P03736	.1321	03735			
P03740	.1322				
P03770	.1323	03735	03737		
P02663	.140	02605			
P02676	.144	02674			
P02702	.149	02674			
P02704	.150	02701			
P02056	.165	02061			
P02063	.1652	02062			
P02072	.1654	02062			
P02100	.1656	02071			
P02103	.166	02061			
P02325	.168				
P02327	.169	02351			
P02320	.171				
P02325	.172	02304			
P02305	.173	02303			
P02256	.175	02324			
P02341	.180				
P02352	.182	02340			
P03003	.200	05721			
P03036	.201	03004	03005	03010	03022
P03041	.219	03037			
P03044	.220	03043			
P03050	.225	03047			
P03057	.226				
P03100	.227	03056			
P03103	.230	03101	03102		
P03106	.231	03104			
P03111	.232	03107			
P03117	.240	03105			
P03124	.241	03123			
P03127	.242	03125	03126		

P03131 .243	04417								
P03134 .244	03126								
P03143 .245	03171	03173	03174						
P03175 .250	03102	03123							
P03203 .260	03204								
P03206 .261	03205								
P03213 .265	03214	03215							
P03216 .266	03417								
P03224 .268	03110	03215							
P03233 .270	03242								
P03243 .271	03241								
P03245 .272	03420								
P03247 .273	03253								
P03255 .275	03253								
P03265 .280	03254								
P07420 .3020									
P07130 .3021									
P03421 .303	03043								
P03424 .304	03422	03423							
P07116 .3055									
P03430 .306	03426								
P03433 .307	03431								
P03734 .308	03732								
P04037 .310	04035	04036							
P04055 .3102	04053								
P04063 .3103	04054								
P04066 .311	04064								
P04074 .313	04034								
P04174 .314	04065	04073							
P04217 .320	06735								
P06736 .32									
P04201 .325	04211								
P04212 .32A	04211	05053							
P04214 .330	04225								
P04227 .331	04074								
P04102 .331A	04075								
P04077 .3319	04101								
P04106 .3320	04232								
P04233 .332	04100	04105							
P04111 .3321	04236								
P04237 .333	04246								
P04253 .334	04252	04261							
P04262 .335	04270	04270							
P04272 .336	04256								
P04257 .337	06735								
P04756 .34	04232	04242	04252	04256	04271	04306	04325	04326	04335
P04307 .350	04342	04351	05021						04341
P04313 .351	05034								
P04322 .355	04261	04305	04306						
P04540 .360	04226	05033	05033						
P04572 .361	04570								
P04695 .362	04571								
P04620 .363	04604								

SATS PLANSSET

12/10/71 EO 0 PAGE NO. 41

P04746 .365	04500	04537	04666	04666	04666			
P05041 .366	04177	04200	05040					
P05054 .369	03432							
P05714 .371	03047	03174	03202	03275	03427	03733	04321	05133
	05162	05227	05302	05354	05511	05546	05554	05570
	05613	05703						
P04010 .373	04007							
P04034 .374	04007							
P04125 .375	04124							
P04136 .376	04124							
P04141 .377	04137							
P04153 .378	04140							
P04156 .379	04154							
P04174 .380	04155							
P06775 .38	04755							
P04302 .384	04301							
P04304 .385	04300							
P04433 .386	04431							
P04436 .387	04434							
P04441 .388	04434							
P04443 .389	04431							
P04460 .390	04456							
P04464 .391	04456							
P04467 .392	04463							
P05722 .400								
P06071 .4001	04065							
P05101 .4005								
P04104 .401								
P04143 .402								
P05201 .405								
P06255 .414								
P04257 .415								
P06003 .4413	05754	05760	05763	05775	05776			
P05777 .4414								
P05755 .4415	05753							
P06022 .4416	06006							
P05735 .4417	06054							
P06055 .4418	05736							
P06025 .4419	05737	06021						
P04031 .4420	06024							
P05035 .4421	04030							
P05757 .4430								
P05762 .4431	05756							
P05764 .4432	05761							
P06007 .4433								
P06013 .4434	06010							
P06011 .4435								
P05740 .4436	05737	06012						
P05177 .4999	05176							
P02753 .5000								
P02746 .5001	02764							
P02771 .5002	02765							
P02774 .5003	02770							
P05202 .5004	05201							

P05210 .5005
 P05213 .5006
 P05314 .5007
 P05321 .5008
 P05225 .5009
 P05257 .5011
 P05262 .5012
 P05340 .5013
 P05343 .5014
 P05370 .5015
 P05373 .5016
 P05376 .5017
 P05422 .5018
 P05474 .5019
 P05426 .5020
 P05475 .5021
 P05527 .5022
 P05500 .5023
 P05532 .5024
 P05535 .5025
 P06345 .5026
 P06407 .5029
 P06450 .5030
 P06505 .5031
 P06542 .5032
 P06577 .5033
 P06305 .5034
 P05481 .5040
 P05420 .5041
 P05434 .5042
 P05412 .5043
 P05463 .5044
 P05447 .5045
 P05487 .5046
 P05415 .5047
 P05267 .5050
 P05271 .5051
 P05365 .5057
 P05524 .5058
 P02045 .53
 P02051 .54
 P0554 .5500

 P06336 .603
 P04243 .604
 P04247 .605
 P04644 .606
 P04650 .607
 P04653 .608
 P04327 .610
 P04376 .611
 P04501 .612
 P04520 .613

05534

05417 05421 05423

05400
 05403
 05403
 05406
 05443
 05446
 05406
 05411
 05266

05201

 05212 05244 05256 05261
 05477 05522 05523 05525
 04334

05315 05337 05342 05343 05344 05367 05474

 04364

 04366

SATS PLANSET

12/10/71

ED 0

PAGE NO.

63

P04667 .614
P04676 .615
P04715 .616
P04722 .617
P04552 .618
P04554 .619
P05024 .620
P05035 .621
P04343 .630
P04352 .640
P04354 .641
P04356 .642
P04365 .643
P04754 .644
P05014 .645
P05016 .646
P05022 .647
P05222 .700
P05230 .701
P05275 .710
P05303 .711
P05325 .720
P05333 .721
P05347 .730
P05355 .731
P05454 .740
P05461 .741
P05504 .750
P05512 .751
P05542 .760
P05547 .761
P05147 .800
P05112 .801
P05115 .803
P05120 .804
P05134 .807
P05151 .809
P05145 .810
P05142 .811
P03006 .899
P05555 .900
P03011 .901
P03016 .902
P03023 .903
P05571 .910
P05614 .919
P05621 .9190
P05634 .9195
P05611 .920
P05646 .921
P05653 .9210
P05657 .923
P05664 .924
P05704 .930
04721
04714 04714
04551
05023
04214 05015 05023
04341
04353
04361
04545
05221
05220
05274
05273
05324
05323
05346
05345
05453
05503
05502
05541
05540
05111
05110
05114
05114
05113
05146
05117
05165
03015
03014
05170
05613
05620
05620
05173
05633
05641 05645
05656
05176

1161

5.4TS PLANSET

12/10/71

ED 0

PAGE NO.

44

P04624	.950	04623							
P04632	.951	04626							
P04627	.952	02610	02613	02614	02613	03473	03475	03507	03511
P10127	.ERASER.	03552	03567	03602	03604	03605	03607	03775	03775
		04275	04346	04411	04416	04417	04450	04454	04454
		06214	05215	07040	07132	07133	07151		
		02006	02006						
P00124	..100000	02415	02415						
P0223	..100	02012	02012						
P00125	..100001	02032	02032						
P00126	..100002	02303	02303						
P00163	..100003	02340	02340						
P00172	..100004	02353	02353						
P00210	..100005	02461	02461						
P00211	..100006	02470	02470						
P03240	..100007	02604	02604						
P00241	..100008	02617	02617						
P00311	..100009	02725	02725						
P00312	..100010	02732	02732						
P00350	..100011	02741	02741						
P00351	..100012	02764	02764						
P00352	..100013	03016	03016						
P00353	..100014	03515	03515						
P00354	..100015	03534	03534						
P00401	..100016	03562	03562						
P00402	..100017	03721	03721						
P00403	..100018	04625	04625						
P00412	..100019	05164	05164						
P00430	..100020	05167	05167						
P00431	..100021	05172	05172						
P00432	..100022	05175	05175						
P00433	..100023	05203	05203						
P00434	..100024	05206	05206						
P00435	..100025	05211	05211						
P00436	..100026	05222	05222						
P00437	..100027	05260	05260						
P00456	..100028	05275	05275						
P00457	..100029	05317	05317						
P00460	..100030	05325	05325						
P00461	..100031	05341	05341						
P00462	..100032	05347	05347						
P00463	..100033	05371	05371						
P00464	..100034	05374	05374						
P00465	..100035	05377	05377						
P00466	..100036	05402	05402						
P00467	..100037	05405	05405						
P00470	..100038	05442	05442						
P00471	..100039	05445	05445						
P00472	..100040	05454	05454						
P00473	..100041	05474	05474						
P00474	..100042	05504	05504						
P00475	..100043								
P00476	..100044								
P00477	..100045								

P00477	..100046	05530
P00500	..100047	05533
P00501	..100048	05542
P00606	..100049	06204
P00607	..100050	06227
P00610	..100051	06237
P00142	..101	02115
P00215	..102	02405
P00167	..105	02332
P00212	..108	02365
PC0232	..110	02425
P00242	..115	02507
P00277	..122	02563
P00264	..125	02555
P00313	..128	02627
P00327	..129	02655
P00341	..155	02713
P00127	..1653	02066
P00134	..1655	02075
P00155	..170	02261
P00184	..174	02312
P00173	..181	02346
P00355	..228	03062
P01560	..3003	07144
P01567	..3004	07164
P01604	..3005	07224
P01614	..3006	07245
P01624	..3007	07266
P01634	..3008	07307
P01644	..3009	07330
P01654	..3010	07351
P01662	..3011	07372
P01672	..3012	07413
P01702	..3013	07434
P01712	..3014	07455
P01722	..3015	07476
P01732	..3016	07517
P01742	..3017	07540
P01750	..3018	07561
P01756	..3019	07602
P01575	..3022	07203
P01107	..3030	06626
P01127	..3031	06634
P01137	..3035	06663
P01165	..3036	06671
P01200	..3040	06723
P01263	..3045	07004
P01275	..3046	07012
P01301	..3050	07033
P01310	..3051	07053
P01317	..3052	07072
P01250	..33	06741
P01255	..35	06761
P00404	..352	04314

02375

P00547	..4003	06074									
P00571	..403	06120									
P00600	..404	06136									
P00524	..4422	05042									
P00502	..4423	05725									
P00514	..4437	06016									
P00440	..5010	06250									
P00645	..5100	06310									
P00621	..5101	06274									
P00611	..5102	06267									
P00652	..5103	06332									
P00705	..5104	06350									
P00713	..5105	06374									
P00743	..5106	06412									
P00750	..5107	06435									
PC0774	..5108	06475									
P01026	..5109	06532									
P01050	..5110	06545									
P01054	..5111	06564									
P00413	..806	05123									
P00255	..97	02544									
P00147	..98	02144	02202	02240	02530						
P00152	..99	02125	02163								
P01764	..999	07634									
P10126	..NSTIFF.	05232	05234	05240	05242	05766	05766	06157	06176	06176	07134
		07135									
P04674	..Z00001.	04671									
P10214		02300	02314	04510	04744	06636	06636	06673	06712	06727	07074
		07111	07751								
P40215	JGRPSTOR	05742	04001	06005	04043	10116					
C09002	JJCCK	02720									
C09001	JJGGP	02717									
C09000	JJTGTS	02715									
C09014	JJUT										
P10216	JSIZE										
C04540	JTAK										
C00000	JTGT										
C00237	JTYPE										
C00375	JTYPET										
P10217	K										
C02044	KORSTY	02255	02300	02323	02324	02473	02476	02501	02517	03132	03234
C00322	KORSTYLE	03235	03240	03243	03251	03265					
P10220	L	04430	04307	04313	06314						
		05426	05424	04357	04365	04503	04547	04603	04614	04670	04704
		04766	05027	05030	05032	05744	06000	06004	06044	07054	07137
		07165	07204	07225	07244	07267	07310	07331	07352	07373	07435
		07454	07477	07520	07541	07562	07603	07731			
		03024	03024	03163	03163	03313	03313	03773	03774	04262	04410
C00204	LAT	04410	04554	04555	04555	04772	04772	05056	05124	05262	05233
		05333	05333	05355	05355						
C00000	LCPX										
C00206	LEGNO	04500	05300	05510	05513	04520	04521	05524	05524		
C01153	LGLOR										
C03201	LINK	03023	03023	05306	05307	05466	05466	05514	05515	05552	05552

5.4.15 PLANSET

C00310	LINKS	05310	05311	06605	06606
C01446	LINKC	05467	05467	06353	06354
C01762	LINKD	05553	05553	06456	06457
C02405	LINKL	05515	05515	06415	06416
C04027	LINKR	03025	03025	06513	06514
C00205	LONG	03030	03030	03105	03105
		04425	04557	06774	06774
		05334	05357	05360	
P00122	LSHIFT	05001	02360	02367	02377
C00003	LSIDE	05200	05200	05612	05612
C00005	LSRIA				
C00004	LSRIA				
P10221	LSW	04202	04213	05030	05052
C00010	LTANK	05055	05055	05063	05063
C00004	LTDM	02030	02030	02100	02100
C00003	LTRDB	02734	02734	05003	05003
C00002	LTTGT	02723	02723	03111	03111
		03267	04202	06202	
C00001	LTTIK				
C00010	LTVIN	02700	02700	02702	02703
C00007	LTVPF	04177	07045	07107	07150
		07363	07404	07425	07446
P10222	M				
C00000	MAINEZ				
C00167	MAJOW				
C00001	MALEST				
C00002	MAS-TYP				
X00037	MAKIF				
C00256	MAKFACTV				
C00255	MAKFACTV	03411	03411	03240	03241
C00009	MAKICOMP	02744	02747	02744	03244
C00234	MAKIKILL	03407	03407	03244	03244
P00121	MAXNGRP	04311	05032		
C00003	MENIDY	04272	04272		
C00004	MCCREGR				
C00005	MCLASS				
C00006	MCONTAYS				
C00357	MCOJF				
C00007	MCOBO	05451	05452		
C00010	MCCO-TYP				
C01012	MCFPMLG	05537	05540		
C00011	MOPEN				
C00013	MGROUP	00212	04212		
C01253	MINKILL	03405	03405		
C00170	MINDP				
C00223	MISDEF				
C00037	MLTX	03150	03150	03152	03154
		03162			
C00014	MPAYLON				
C00015	MPECAVR	03013	03014		
C00014	MPEFCVLG				
C00017	MPEF	05344	05344		

Reproduced from
best available copy.

S.A.T.S PLANSET

12/10/71 ED 0 PAGE NO. 48

C00020	VRTLEG	05501	05501						
C00021	WHTPT	05322	05322						
C00022	WSPERMT								
P10223	WSUR	04046	04127	04164	10012				
P10224	WT	07043	07045	07154	07155	07420			
C00023	WTANKRS	02611	02611	06111	06150	06150			
C00024	WTARCLS								
C00025	WTARCOL								
C00024	WTARCPX								
C00027	WTARCRS								
C00030	WTARGET								
C00031	WTARJND								
C00044	WTAMPCL								
C00032	WTANSEC								
C00033	WTARTEI								
C00034	WTARTYP								
C00035	WTARVAL								
C00036	WTELMCM								
C00037	WTOFHAS								
C00040	WTYPE								
C00000	WULT	03135	03135						
C00217	WVA								
C00041	WVULN								
C00042	WVCAJGP								
P10225	WVWHD	04005	04333						
C00047	WVWHS								
C00043	WVWHTPE								
C00000	WYIDENT	02013	02013	02033	02726	02726	02733	02733	02742 02742
C00044	WZONCEPT	05217	05220						
C00045	WZONES								
P10226	X	06027	06034	06036	07153	07621			
C00332	XAD9LI								
C00333	XAD9LR								
C00415	XAD9MT								
C00405	XAL								
C00024	XALERT	02120	02121	04360	04366	04567	04567	04740	
C00057	XALLOW	04357	04360						
C00301	XALRDBL	04605	04605						
C00303	XALRDBL	03634	03634	04615	05074	05074	04737	04740	
C00154	XALRDBL	03066	03066	03146	03146	03276	03276		
C00335	XAREADEC	05701	05701						
P10227	XASM	04120	04122	04153	04171				
C00262	XASMS	05644	05644	05673	05673				
C00017	XASMTYPE	05606	05607	05607	06714	06714			
P10230	XBR	04041	04057	04061	04122	04215	04330	04541	04724
P10231	XBR	04044	04063	04070					
C00011	XBRDRY	02761	05265	05265	05270	05270	06565	06621	06621
P10232	XBRM1	04114	04121	04123	04134				
P10233	XBRM2	04116	04130	04130	04150				
P10234	XBRM3	03451	04102	04104	04110	04110	05726	06035	06046
C00002	XBRM4	03451	03452	03740	03741	03753	03754	04011	04022
C00002	XC	05134	05135						04022 04023
C00023	XCLASS	06242							
P10235	XCLASSES	02551							

5.ATS PLANSET

	12/10/71	EU	0	PAGE NO.	49
C00203 NCM	05662	05667	06255	06255	06256
C00022 *COMPLEX	03256	03260	05451	05451	05451
C00005 NCDOR	02755	05447	05456	05456	06333
C00025 *CORTYPE	06367	06260	06325	06325	06325
C00001 NCPX	02762	06261	06325	06325	06325
P10236 NCR	03235	03237	03251	03251	03251
C00242 *DECOYS	05414	05417	05462	05462	05462
C00411 *DET	05677	05677			
P00053 *DEXAMPLR	02647	03054	05537	05544	05550
C00006 *NOPEN	02756	05535	05536	05544	05550
P10237 *NEXTGRP	04470	05011			06470
X00033 *NEXTITEM	04362	05011			
C01130 *NEXTZ	05714	06614			
C00211 *NEXTZONE	05315	05314			
P10240 *NG	05313	04404	04412	04450	04474
C00014 *NGROUP	04324	04404	04412	04450	04474
C00000 *NI	04662	04663	04664	04664	04664
C00200 *NINCOM	03661	03661	04017	04021	04040
P10241 *NL	05064	07117			
P10242 *NLEFT	07042	07117			
P00003 *NRIGHT	04361	04363	05020		
C00176 *NRSITE	00121	04056			
C00107 *NMULT	03121	03701	03106	03124	03143
C00177 *NOALERT	02743	02744	03106	03124	03143
C00200 *NOROMR1	03203	03203	03106	03124	03143
C00200 *NOROMR2	03760	04031	04033	04176	04205
C00243 *NOLD	05042	05050	05066	05176	05206
C00433 *NOPERSO1	05624	05624	05640	05657	05657
C00434 *NOPERSO2	05642	05642	05640	05657	05657
C00435 *NOPERSO3	05642	05642	05640	05657	05657
C00175 *NOPERSON	04103	04103	04107	05143	05143
C00000 *NOPRINT	04355	04553			
C00001 *NOUT	03117	03117	03645	03750	03752
C00014 *NPAYLOAD	02010	02011	02040	03750	03752
C00010 *NREF	05615	05615	05625	06777	10054
C00007 *NRECOVER	02757	03011	03012	03752	03760
C00010 *NREG	06525	06525	06777	06777	10054
C00004 *NRTPT	02760	05362	05366	05366	05366
P10244 *NSITES	06241	07024	07024	07024	07024
P10245 *NSPLIT	02753	02754	05521	05522	05525
P10246 *NSUR1	03122	03170	04375	04375	04375
P10247 *NSUR2	04175	04374	04375	04375	04375
P10250 *NSUR3	04160	10022	05214	05237	05304
P10251 *NTANK	02767	02772	05231	05237	05304
P10252 *NTANKAS	02770	02773	05263	05310	05310
P10253 *NTANKAS	02751	05142	05144	05144	05144
P10254 *NTANKAS	05151	05151	05152	05152	05152
P10255 *NTANKAS	02750	03137	03220	03221	03264
P10256 *NTANKAS	02750	03137	03220	03221	03264

Code	Description	03141	03142	03216	03216	03217	03260	03261	03262	06261	06262
C00356	NTARG	03141	03142	03216	03216	03217	03260	03261	03262	06261	06262
C00011	NTGTS	05712	05713								
C03535	NTLINES	03403									
C03337	NTIRT	04002									
C00015	NTIHOUSE	02676									
C00013	NTYPE	02111									
C11110	NTYPS			07036	02664	02667					
C00436	NUMDOKL										
C00001	NV	45007									
P00123	NWHOUSE										
C04116	NWCSGRP	05631									
C00336	NWSDS	05566									
C00020	NWOTYPE	04332									
P10251	NWPOX			06654	04376						
C00355	NWPNS										
C00345	NWTYPE										
P10254	NX										
P10255	NXX										
P07676	P00000*U	04207	04327	04354	04356	04367	04374	04401	04471	04502	04512
P07723	P00002*U	04540	04552	04637	04655	04676	04715	04720	04723	04724	04727
P07737	P00003*U	04731	04734	04736	04746	04763	05001	05020	05025	05027	05051
C11517	PA	04402	04501	04535	04640	04731					
C00412	PARRIVE	02171	02210	02210							
C00244	PAYLOAD	04055	04251	04251	04644	04644	04776	04776	05614	05614	10001
C00315	POES	10001									
C00246	POUC	05560									
C00277	PEN	03474	03510	03510	03527	03530	03557	03557	03570	03570	03600
C00216	PFPF	03604									
C11503	PG	02133	02152	02152	02152	02152	03560	03560	03601		
C00314	PINC	03472	03500	03521	03540	03547					
C00317	PKMIS										
C00425	PKNAV	04343	04635	04635							
C00311	PLANT	03471	03505	03506	03525	03525	03537	03537	03546	03546	03565
C00352	PLACE	03565	03603								
C00353	PLACEN	01775	05655	06733	06733						
P01775	PLANSFT										
C00372	PLD										
C00216	POP										
C00173	POSTURE										
C00313	PRART										
C00372	PRIMETAR										
C00427	PSASH	05707									
X00004	Q1004100	03747	04016	04060	04133	04147	04170	04470	04654	04733	
X00006	Q1005100	04524	04762	06172							
X00003	Q1010100	03654	03751	04032	05636						
X00005	Q2007101	04066									
X00007	Q000101	04000	01776								
X00001	Q000101	02000									
X00041	Q001FUNI	02057									

SATS PLANSET

C11543	QA	02246	02246	03771	05103	05103	05574	05574	03575	03575	03612
C11533	QG	02227	02227								
X000A4	ANSINGL.	07640	07640								
C00220	RADIUS	03317	03317								
C00270	RANGE	03624	03624	03771	05103	05103	05574	05574			
C00271	RANGEDEC	03636	03636								
P02596	RANGEMOD	02397	02397	02406							
C00272	RANGFPREF	03676	03676	03504	03523	03543	03555	03555	03575	03575	03612
C00050	RD9L	03765	03766								
C06337	RECLAT	03027	03027	06515							
C06647	RECLOW	03031	03031	06516							
C00000	REDUCE	03442	03443	03465	03501	03502	03522	03522	03541	03541	03554
		03554	03573	03611	03611	03692	03745	03745	03744	03744	
P00072	REGN	02267	02302	02306	03531	03532	03560	03560	03614	03614	03700
C00276	REL	03476	03476	03512							
		05576	05576	02016	02024	02027	02036	02050	02102	02102	02707
P07674	RELCON..	02002	02005	02777	03002	03201	03212	03231	03274	03274	03744
		02731	02740	04014	04026	05010	05140	05155	05211	05211	06221
		03757	03764	06236	07630	10124					
		06224	06233								
		03731	03731	06551							
C00207	RESERVE	05356	05357								
C07777	REFLAT	05360	05361								
C10023	RFLONG	02315	02315	07020							
C01212	RGV	05334	05335	06356							
C05207	RLAT	05336	05337	06422	06420	06461	06461	06461			
C05517	RLONG	05774	05774								
P10257	RNGE	02034	02034								
X00015	SETHEAD	02727	02734								
X00022	SETWRITE	07626	07626								
X00034	SHUFFL1	02705	02705								
X00021	SHUFFLE	03006	03006	03041	05177	05177	05611	05611	05611	05611	
C00151	SIDE										
C00155	SITEMO										
X00014	SKIPFILE	02045	02045								
C00275	SPDASH	03673	03674								
C04274	SPDLO	03671	03672								
C00273	SPFED	03430	03430	05070	05602	05602					
C00157	SONNO										
X00045	STM.	02064	02073	02113	02344	02403	02442	02505	02542	02553	02625
		02653	03060	04314	05121	05244	06014	06040	06072	06116	06134
		06265	06274	06306	06330	06344	06372	06433	06451	06473	06506
		06530	06543	06562	06600	06624	06661	06667	06721	06737	06757
		07002	07010	07031	07051	07142	07162	07201	07222	07243	07264
		07305	07305	07347	07370	07411	07432	07474	07515	07534	07557
		07600	07632								
X00010	STORAGE	02003	02003	04524	04533	04743	04760	04760	04761	04761	
P10260	SUMDNL	04507	04507	06107	06114	06131					
P10261	SUMVAL	06056	06104								
P10262	SUMVALX	06114	06143								
C00244	T1	03366	03366								
C00247	T2	03362	03362								
C00250	T3	03357	03360								
C00406	TAI*										

SATS PLANSET

12/10/71 EO 3

PAGE NO.

52

SAT	PLANESET	EO	3	PAGE NO.	52
C02000	TANK	05071	05071	05075	05077
C02225	TARDEFFHI	05061	05061	05075	05077
C02226	TARDEFFLO	05104	05104	05075	05077
C02172	TASK	03401	03401	05075	05077
C00000	TD	03155	03155	03367	03367
		03314	03314	03367	03367
		03344	03344	03367	03367
		03371	03371	03367	03367
X00200	TERMTAPE	02103	04222	03322	03342
C00431	TGISTAT	02067	02074	03322	03367
X00002	TEND.	02335	02347	03365	03371
		02558	02601	03365	03371
		00051	00077	02314	02333
		00437	00464	02314	02333
		00714	00724	02314	02333
		07217	07240	02314	02333
		07512	07533	02314	02333
C02342	TIME	04706	04711	04574	04740
P10263	TIMELA	04503	04504	04704	04705
C02341	TIMEN	07610	07610	04704	04705
C02347	TIMESTRT	04422	04436	04704	04705
		05706	05706	04704	04705
P10294	TLONG	05704	05704	04704	04705
C02225	TMAS4	02473	02473	04704	04705
C00304	TMDL	002670	002670	04704	04705
C00430	TPASW	00222	00222	04704	04705
C00310	TRETARG	04513	04513	04704	04705
P02507	TS00014	04747	04747	04704	04705
P02705	TS00016	04061	04126	04704	04705
P00311	TS00020	04166	04247	04704	04705
P04595	TS00021	04304	04304	04704	04705
P04761	TS00022	04541	04541	04704	04705
P00005	TS00023	04603	04603	04704	04705
P04111	TS00024	04504	04504	04704	04705
P04150	TS00025	04126	04126	04704	04705
P00202	TS00026	04166	04247	04704	04705
P00260	TS00027	04247	04247	04704	04705
P00325	TS00030	04304	04304	04704	04705
P00367	TS00031	04541	04541	04704	04705
P00430	TS00032	04603	04603	04704	04705
P00470	TS00033	04544	04544	04704	04705
P00525	TS00034	04504	04504	04704	04705
P00557	TS00035	04541	04541	04704	04705
P00621	TS00036	04573	04573	04704	04705
P00654	TS00040	04640	04640	04704	04705
P00714	TS00042	04675	04675	04704	04705
P00777	TS00043	04731	04731	04704	04705
P07024	TS00046	07016	07016	04704	04705
P07117	TS00047	07043	07043	04704	04705
P07063	TS00050	07056	07056	04704	04705
P07107	TS00051	07101	07101	04704	04705
P07141	TS00053	07124	07124	04704	04705
P07421	TS00054	07154	07154	04704	04705

P07174	TS00055.	07167	02142	02161	02200	02217	02236	02257	02330	02373	02423	02528
P07215	TS00056.	07207	02561	02711	04506	04517	04742	04751	04756			
P07234	TS00057.	07230	05074									
P07257	TS00060.	07251										
P07309	TS00061.	07272										
P07331	TS00062.	07313										
P07342	TS00063.	07334										
P07361	TS00064.	07355										
P07404	TS00065.	07376										
P07425	TS00066.	07417										
P07446	TS00067.	07440										
P07447	TS00070.	07461										
P07510	TS00071.	07502										
P07531	TS00072.	07523										
P07552	TS00073.	07544										
P07573	TS00074.	07565										
P07614	TS00075.	07606										
X00042	ISM.	02123										
P14265	IT	02561	02142	02161	02200	02217	02236	02257	02330	02373	02423	02528
C04305	TT05	04506	04517	04517	04522	04742	04751	04753	04756			
C04307	TVAL	05074										
C04000	TW09D											
C04150	TYPE	03377	03377	03621	03621	05210	05210	05253	05316	05316	05340	05340
		05373	05373	05376	05376	05401	05401	05404	05404	05407	05441	05441
		05441	05444	05444	05527	05527	05532	05532	05532			
C04443	TYPE1	02055	02477	02477								
C04444	TYPE2											
C10515	TYPENAME											
C04376	TYPEPT											
P07706	UP00000.	02130	02135	02147	02154	02166	02173	02205	02212	02224	02231	02243
		02250	02264	02270	02276	02321	02430	02435	02447	02454	02465	02522
		02564	02573	02666	03520	05216	06040	06110	06125	06147	06164	06245
		06303	06324	06340	06366	06402	06427	06443	06447	06503	06524	06560
		06556	06572	06620	06643	06650	06703	06710	06744	06751	06764	06771
		07015	07023	07055	07062	07100	07106	07122	07166	07173	07206	07214
		07227	07235	07250	07256	07271	07277	07312	07320	07333	07341	07354
		07362	07375	07403	07416	07424	07437	07445	07460	07466	07501	07507
		07522	07530	07543	07551	07564	07572	07605	07613	07702	07707	07710
		07711	07721	07722	07551	07564	07572	07605	07613	07702	07707	07710
		07736	04310	05031	05745	07047	07160	07724	07731	07732	07733	07735
P07730	UP00002.	04511	04745	06637	06637	06953	06953	06713	06730	06776	07015	07112
P07750	UP00003.	07744	07751	07752	07753	07764	07765	07775	07776			
P07767	UP00006.	02745	03145	07665	07771	07772	07773	07775	07776			
P10000	UP00010.	04047	04130	04144	04165	10012	10013	10014	10016	10017		
P10021	UP00011.	04161	10022	10023	10024	10026	10027					
P10031	UP00012.	07673	10033	10034	10035	10037	10040					
P10042	UP00023.	07672	10044	10045	10046	10050	10051	10062				
P10053	UP00025.	05616	07666	10055	10056	10057	10061					
P10064	UP00026.	07667	10066	10067	10070	10072	10072	10072				
P10074	UP00027.	07670	10076	10077	10077	10100	10102	10103				
P10105	UP00030.	05771	10106	10107	10110	10112	10113					

5.ATS PLANSET

12/10/71

ED 0

PAGE NO.

54

PLANSET	05743	04002	10110	10117	10120	10122	10123	05557	05557	05561
P01115 UP00031.	03052	03052	03076	03076	03321	03321				
C00221 VAL										
C00441 VAL1										
C00442 VAL2										
C00055 VALFAC										
C00222 VALU	03077	03077	06063	06063	06103	06144	06145	06145	06145	06145
C00147 VALUE										
X00027 VLRADP	03331	03336								
X00011 VPLANSET	02014									
C00162 VULN										
C00165 WACNO										
C00000 WHD	04050	04051	04131	04132	04145	04146	04166	04167	05557	05561
C00240 WHO TYPE	05561	05563	05563	06645	06645	10032				
C00371 WHO TYPE N	05566	05571	05571	05664	05664	10032				
X00026 WRARRAY	03226	03271	05005	05156	06206	06216				
X00025 WRMULT	03113	03177	03210							
X00032 WRWORD	05153	04231								
P02131 W\$00001.	02136									
P02150 W\$00002.	02195									
P02167 W\$00003.	02174									
P02206 W\$00004.	02213									
P02225 W\$00005.	02232									
P02244 W\$00006.	02251									
P02265 W\$00007.	02271									
P02277 W\$00010.	02322									
P02431 W\$00011.	02436									
P02450 W\$00012.	02456									
P02466 W\$00013.	02523									
P02474 W\$00014.	02503									
P02567 W\$00015.	02574									
P02673 W\$00016.	02704									
P03134 W\$00017.	03136									
P04223 W\$00020.	04312	04312								
P04515 W\$00021.	04524									
P04751 W\$00022.	04760									
P05752 W\$00023.	06004									
P06047 W\$00024.	06112	06112								
P06127 W\$00025.	06151	06151								
P06171 W\$00026.	06201									
P06252 W\$00027.	06257									
P06305 W\$00030.	06324	06326								
P06342 W\$00031.	06370	06370								
P06404 W\$00032.	06431	06431								
P06445 W\$00033.	06471	06471								
P06505 W\$00034.	06526	06526								
P06542 W\$00035.	06560	06560								
P06574 W\$00036.	06622	06622								
P06644 W\$00037.	06651	06651								
P06641 W\$00040.	06655	06655								
P06704 W\$00041.	06711	06711								
P06676 W\$00042.	06715	06715								
P06732 W\$00043.	07000	07000								
P06745 W\$00044.	06752	06752								

P05745	*S00045.	06772												
P07017	*S00046.	07025												
P07044	*S00047.	07120												
P07057	*S00050.	07064												
P07102	*S00051.	07110												
P07130	*S00053.	07140												
P07155	*S00054.	07622												
P07170	*S00055.	07175												
P07210	*S00056.	07216												
P07231	*S00057.	07237												
P07252	*S00060.	07260												
P07273	*S00061.	07301												
P07314	*S00062.	07322												
P07335	*S00063.	07363												
P07356	*S00064.	07364												
P07377	*S00065.	07405												
P07420	*S00066.	07426												
P07441	*S00067.	07447												
P07462	*S00070.	07470												
P07503	*S00071.	07511												
P07524	*S00072.	07532												
P07545	*S00073.	07553												
P07566	*S00074.	07574												
P07607	*S00075.	07615												
C00000	4T													
C01236	WTP	03625	03625	03627	03627	03631	03631	03633	03633	03635	03635	03637	03637	03700
		03637	03670	03670	03671	03672	03673	03674	03675	03676	03677	03677	03677	
		03701	05772	05773	05773									
P10248	XDFG	05654	05277	05327	05351	05306	05364	05004	05627	05646				
X00036	XMAXOF	05224												
C00257	YIELD	05555	05555											
P10247	YLD	04052	04057	04062	04072	04073	04112	04135	04151	04152	04172	04173		
		04467	04653	04732	04732	04732								
C00202	ZONE	05311	05312	05470	05470									
C00420	ZONER	05312	05313	06613	06613									
C01604	ZONEC	05471	05471	06361	06361									

0220A SYMBOLS

```

SUBROUTINE ARQVFLW
  CSUR  ARQVFLW 10MAY71 *****
  CUSE  DPQOL  18JAN71 *****
  C
  C THIS BLOCK COMBINES THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
  C /CHECK/, /CORR/, /DEPN/, /KORTYP/, /LEG/, /NAVALK/, /POINT/,
  C /RADATA/, /RECOV/, /REF/, AND /TYPENAME/.
  C IT IS REUSED DURING TGT SORT AS ITEM,
  C AND DURING GRP SORT AS ITANK AND JTANK
  C
  COMMON /DPQOL/ IB(200), LINKB(200), ZONEB(200), NEXTZ(200),
  * ICHKFLG(20), ICHKNUM(20), IC(30), LINKC(30), ZONEC(30), ITY(30),
  * ID(50), LINKD(50), KORST(5), HILOAT(5), DEFR(5), ATTRS(5),
  * ATTRC(5), IL(200), LINKL(200), ATRL(200), TMAS(10,10),
  * DELASH(10,10), NTINES(10), TIMESTRT(200), MALLOW(200),
  * RLAT(200), *LONR(200), RLAT(200), RLONG(200), LINKR(200),
  * REGLAT(200), RECLON(200), IRECPCTY(200), INOREC(200),
  * INOREG(250), TYPENAME(250), NTYPS, CHK(250),
  * PG(12), PA(12), QG(6), QA(6),
  * ITEMPI(500), ITANK(12,200), JTANK(12,200)
  TYPE INTEGER ZONEB, ZONEC
  TYPE INTEGER TYPENAME, CHK
  TYPE INTEGER CUMING
  EQUIVALENCE (I*, ITEMPI, ITANK)
  EQUIVALENCE (ITEMP(240), JTANK)
  CEVD  DPQOL *****
  IDMP=0
  DO 100 I=1,20
  IF (ICHECKFLG(I), EQ, 0) 100, 200
  200 PRINT 300, I, CHK:SUM(I), I, ICHKFLG(I)
  300 FORMAT(19#D0AKRY OVERFLOW * *JIR, 2X, AR)
  IDMP=1
  100 CONTINUE
  500 CALL ARQRT
  600 RETURN
  END
  
```

1000
3600A
2000
1000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
23000
25000
2000
2500
3000
4000
5000
6000
6500
7000
7500
7600
8000
9000

5-4TS AROVRFLW

12/10/71

EO 0

PAGE NO.

2

IDENT AROVRFLW

PROGRAM LENGTH 00050
ENTRY POINTS AROVRFLW 00014
BLOCK NAMES OPOOL 11610

EXTERNAL SYMBOLS
THEEND.
6800ICT.
ABORT
STM.
ONSINGL.

X00003	480RT	00047			
P00014	ARQVRFWL	00014			
C02715	ATRL				
C02070	ATTAC				
C02063	ATTAS				
P00054	HEGIN	00054			
C04367	PLAT				
C04677	HLONG				
C10066	HTYFFS				
CI1111	CHK	00035	00036		
P00053	CVRTI	00041			
P00003	CRFMT				
CI0047	CUMNO				
C03371	ORLASM				
C02056	DEFR				
P00001	NICT	00016	00031	00040	00050
P00055	ENDING	00017	00051		
P00000	EXIT	00055			
P00003	FORMAT	00027			
P00041	GG00000				
C02051	MILOAT	00022	00023	00033	00043
P00056	I				
C00000	IB				
C01510	IC				
C01440	ICMFLG	00024	00024	00036	
C01464	ICMKNM	00034	00034		
C01700	ID				
P00057	IDMP	00021	00042	00045	
C02075	IL				
CI0124	INDHEG				
CI0105	INDCLAS				
C07467	INDREC				
P00054	INITIAL	00017			
C07157	IRECPTY				
C00000	ITANK				
C00000	ITEMP				
C01642	ITY	00026			
P00043	.100	00025			
P00027	.200	00044			
P00047	.500	00045			
P00051	.600	00032			
P00003	.300				
C04540	JTANK				
C02044	KORSTY				
C00310	LINKR				
C01546	LINKC				
C01762	LINKO				
C02405	LINKL				
C06027	LINKR				
C04057	NALLOW				
C01130	NEXTZ				
C03535	NTIMES				
CI1110	NTYPS				
CI1517	PA				

5.4TS AR0VRFLL

12/10/71

ED

0

PAGE NO.

4

CI1503	PG		
X00002	Q800ICT.	00000	00015
CI1543	QA		
CI1533	QG		
X00005	QNSINGL.	00052	
C06337	RECLAT		
C06647	RECLON		
C07777	RFLAT		
CI0023	RFLONG		
C05207	HLAT		
C05517	RLONG		
X00004	STH.	00030	
X00001	THEMD.	00037	
C03547	TIMESTRT		
C03225	TRASH		
CI0516	TYPENAME		
P00023	WS00001.		
C00620	ZONER	00044	
C01604	ZONEC		
	00111	SYMBOLS	

```

SUBROUTINE CALCOMP(I,K)
  CSUBR  CALCOMP  IOMART1
  CUSE   TAU      LINOV70
          COMMON/TAU/TAU(90),MC(60),V(96),INDEX(90),FV(3),T(3),TPOX(3),
          IYBX(3),M(2),FVH(2)
          EQUIVALENCE(TAU,MC)
  CEND   TAU
  CUSE   I2       25JUN71
          COMMON /12/ TAR(29,250),ITAR(25,250),CPLX(30,250),ICPLX(30,250),
          GRPCOMP(5,2500),IGRPCOMP(5,2500)
          EQUIVALENCE(ITAR,ITAR,GRPCOMP,IGRPCOMP),
          (CPLX,ICPLX)
          COMMON /DIRECTRY/ MLTCOMP (8,600), FMLTCOMP (8,600)--LOOK (30),
          FILLR (206)
          EQUIVALENCE (MLTCOMP,FMLTCOMP)
          TAR(29,MTGT), MTGT = MAX NUM TARGET TABLE ENTRIES
          CPLX(29,MCOMP), MCOMP = SIZE OF COMPLEX TGT ARRAY
          MLTCOMP(8,MULT), MULT=SIZE OF MULTIPLE TGT DATA ARRAY
          GRPCOMP(5,MWPN0), MWPN0 = TABLE FOR DATA ON EA WEAPON IN GROUP
          ITANK(12,MTNTRL), MTNTRL = TABLF FOR TANKER DATA
  C      /DIRECTRY/ IS SC NAMED TO REUSE BLOCK USED BY PLANDATA
  C      FILLR DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON
  CEND   I2
          PRIOR  LINOV70
          COMMON/PRIOR/IPTASK(48),IPDES(96),IPTASK,MPOES,ISURT
          TYPE INTEGER TASK,DESIG
  CEND   PRIOR
          N=ITAR(24,I)
          KK=0 $ VTOT=0.
          NTINT=0
          J=0
          TAR(10,I)=0.
          DO I J=25,29
            TAR(J,I)=0.
            MASK1=7700000000000000 $ MASK2=77770000000000000000
            MTPNTASK $ MD=MPOES
            IFIRST=0
            K2=K-1
            DO 88 I1=1,N
              K2=K2+1
              IF(ISURT)K2=81
            81 TASK=(ICPLX(4,K2),AND,MASK1)
              GO TO 83
            82 TASK=(ICPLX(4,K2),AND,MASK2)
            83 DESIG=ICPLX(3,K2) .AND.MASK2)
              IF(MT)835,8+2
            835 CONTINUE
              DO 84 J=1,MT
                IF(TASK.EQ.IPTASK(J))85,84
            84 CONTINUE
              GO TO 88
            85 IF(J.NE.MT)840,842
            840 MD=MPOES
              MT=J
            842 CONTINUE

```

```

DO 86 KI=1,MD
  IF (DESIG.EQ.IPDES(KI)) 87,86
86 CONTINUE
  IF NO MATCH, RESET NT TO SEARCH WHOLE TASK ARRAY NEXT TIME
860 HT=MTASK
  GO TO 88
87 IFIRST=II
  MD=KI-1
88 CONTINUE
  KKK=K-N-1
  IF (FIRST) 91,89
  R9 PRINT 90,(II,ICPLX(4,II),ICPLX(3,II),II=K,KKK)
  90 FORMAT(28H NO MATCH FOR TASK AND DESIG/5X,1M1,5X,4HTASK,5X,5HDESIG
    1/((16,6X)2AB))
    GO TO 948
91 CONTINUE
  KLEAD=K*IFIRST-1
  ITR(1,II)=ICPLX(1,KLEAD)
  ITR(2,II)=ICPLX(2,KLEAD)
  ITR(3,II)=ICPLX(3,KLEAD)
  ITR(4,II)=ICPLX(4,KLEAD)
  ITR(5,II)=ICPLX(5,KLEAD)
  ITR(6,II)=ICPLX(6,KLEAD)
  ITR(8,II)=ICPLX(8,KLEAD)
  ITR(9,II)=ICPLX(9,KLEAD)
  ITR(23,II)=ICPLX(23,KLEAD)
  DO 95 JJJ=1,29
  ITEMPC=ICPLX(JJJ,K)
  ICPLX(JJJ,K)=ICPLX(JJJ,KLEAD)
95 ICPLX(JJJ,KLEAD)=ITEMPC
948 ITR(22,II)=7*HCOMPLEX
  DO 10 J=1,N
  LK=1-
  IF (TR(10,II).GE.CPLX(10,L)) 75,74
74 TR(10,II)=CPLX(10,L)
75 CONTINUE
  FV(1)=CPLX(17,L)
  FV(2)=CPLX(18,L)
  FV(3)=1.-FV(1)-FV(2)
  VT=CPLX(11,L)
  NT=CPLX(16,L)
  T(1)=CPLX(19,L)
  T(2)=CPLX(20,L)
  T(3)=CPLX(21,L)
  VTOT=VTOT+VT
  IF (ITR(25,II).GE.ICPLX(25,L)) 3,2
2 ITR(25,II)=ICPLX(25,L)
3 CONTINUE
  NTINT=NTINT+ICP.X(26,L)
7 DO 6 JX=27,29
6 TR(JX,II)=TR(JX,II)+CPLX(JX,L)*VT
  IF ((ICPLX(23,L)-4) * (ICPLX(23,L)-5)) 6,5,6
5 ITR(22,II)=HCOMPLEX
6 CONTINUE
  DO 10 II=1,NT

```

34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
53100
53200
53300
53400
54000
55000
55500
56000
57000
58000
59000
70000
71000
72000
73000
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000

```

KK=KK+1
V(KK)=FV(I1)*VT
10 TAU(KK)=T(I1)
   ITR(26,I)=INTINT
   TAR(I1,I)=VTOT
   XVI=1./VTOT
   DO 76 JX=27,29
76 TAR(JX,I)=STAR(JX,I)*X/IT
   I1 DO 12 J=1,3
12 TROX(J)=VBOX(J)*C.
   I8=1
   CALL ORDER(TAU,INDEXI,KF)
   CALL REORDER(INDEXI,KK,2,TAU,V,0,0,0,0,0)
KK=KK
DO 15 L=2,KK
15 IF(TAU(L).EQ.TAU(L-1))14,15
14 KK=KN-1
   V(L)=V(L)+V(L-1)
15 CONTINUE
13 LI=1
   DO 17 L=1,KK
17 IF(TAU(L).EQ.0.)17,16
   TAU(LI)=TAU(L)
   LI=LI+1
17 CONTINUE
   KK=KN
   IF(KK.LE.3)30,18
18 I=IR+1
   DO 20 L=1,KK
20 TAU(LR)=TAU(LR)+V(LR)
   V(LR)=V(LR)+V(L)
   TAU(LR)=TAU(LR)/V(LR)
   KK=KN-1
   TAU(L)=V(L)*C.
   IF(KK.LE.3)13,20
20 CONTINUE
25 I=I+1
30 CONTINUE
   ITR(I6,I)=KK
   TAR(I9,I)=V(I)/VTOT
   TAR(I9,I)=V(2)/VTOT
   TAR(I9,I)=TAU(I)
   TAR(I9,I)=TAU(2)
   TAR(I9,I)=TAU(3)
40 DO 50 J=1,N
   L=K-1+J
   VT=CPLX(I1,L)
   NH=CPLX(12,L)
   W(I)=CPLX(I3,L)
   H(2)=CPLX(I4,L)
   FVM(I)=CPLX(15,L)
   FVM(2)=1.-FVM(I)

```

95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000

```

00 50 JN=I+NH
IF (FVH(JM)+EQ.0.) 50,45
  JJ=JJ+1
  V(JJ)=FVH(JM)+VT
  MC(JJ)=M(JM)
50 CONTINUE
  HSOFTHHARD=VSOFTHHARD+0.
  JN=JJ
  DO 40 JJ=1,JN
  IF (MC(JJ)-LT.1.5) 55,52
  HSOFTHHARD=HSOFTHHARD+MC(JJ)+V(JJ)
  VSOFTHHARD=VSOFTHHARD+V(JJ)
  GO TO 40
55 HHARD=HHARD+MC(JJ)+V(JJ)
  VHSARD=VHSARD+V(JJ)
60 CONTINUE
61 TAR(13,I)=HHARD/VHARD
  NH=1
  TAR(15,I)=VHARD/VTOT
  IF (VSOFTHHARD+EQ.0) 62,62
62 TAR(14,I)=HSOFTHHARD/VSOFT
  NH=2
  GO TO 64
63 TAR(13,I)=HSOFTHHARD/VSOFT
  IF (15,I)=1.
  NH=1
64 ITAR(12,I)=NH
  RETURN
  END

```

```

151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
178500
179000

```

IDENT CALCOMP

01253
00034
00436
34436
11654
00223

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES
TAU
12
DIRECTRY
PRIOR

EXTERNAL SYMBOLS
THEND.
ORDDICT.
ORDEP
REORDER
STM.
GNSINGL.

5.415

CALCOMP

12/10/71

ED 0

PAGE NO. 6

Job No.	Description	01154	00207	00457	00477	00500	00631	00532	00660	00681	00307
P01121	DEGIN.	01164	01170								00612
P00034	CALCOMP										
P00741	CNVATI.	00205	00210	00457	00477	00500	00631	00532	00660	00681	00307
P01207	COUNT.	00370	00371	00457	00477	00500	00631	00532	00660	00681	00307
C1-122	CPLX	00234	00235	00270	00271	00274	00300	00300	00302	00302	00307
P00003	CRFMT.	00307	00313	00315	00315	00317	00317	00344	00344	00611	00612
P00736	DESIG	00615	00617	00620	00621	00622					
P00001	DICT.	00217									
P01157	ENDING.	00116	00216	00437	00444	01125	01126				
P00000	EXIT.	00034	00176	01123	01123	01124	01124				
C11336	FILLR	00037	00735								
C00000	FMLTCOMP	01162									
P00003	FORMAT.										
P00056	FP00001.	00254	00342								
P00170	FP00002.	01140	01141								
P00200	FP00003.	01142	01143								
P00220	FP00004.	01144	01145								
P00262	FP00005.	01146	01147								
P00605	FP00006.	01150	01151								
P01056	FP00007.	01152	01153								
P01162	FP00010.	01134	01135								
C00416	FV	01154	01155								
C00434	FVH	00301	00301	00303	00305	00305	00306	00306	00374	00374	00374
P01173	GETPL.	00622	00623	00624	00625	00625	00633	00640	00640		
P01163	GETPU.	01127	01136								
P00217	GG00000.	01132	01167								
C00000	GRPCOMP	00174									
C00432	H	00614	00617	00620	00621	00643	00674				
C00000	HC	00644	00662	00662	00666	00666	00674				
P01210	MHARD	00653	00676	00676	00706						
P01211	MSOFT	00654	00670	00670	00717	00724					
P00003	I	01056									
P01212	IA	00520	00521	00526	00531	00557	00560	00207	00210	00224	00225
P01213	IB	00435	00517	00510	00511	00514	00514	00206	00210	00224	00225
C1-122	ICPLX	00103	00103	00231	00232	00233	00236	00244	00246	00246	00247
		00227	00230	00311	00311	00324	00330	00334	00335	00352	00352
		00251	00251	00311	00311	00324	00330	00334	00335	00352	00352
		00354	00355	00613	00614						
P01214	IFIMST	00065	00154	00162	00173	00221					
C00000	IGRPCOMP										
P01215	II	00072	00161	00164	00201	00204	01000	00363	00410	00563	00707
P00742	IN00001.	00060	00226	00255	00266	00275	00331				
		00720	00725	00734	01063						
P00743	IN00002.	00053	00760	00770	01064						
P00744	IN00003.	00102	00107	01113	01117						
P00745	IN00006.	00206	00772	01004							
P00746	IN00007.	00224	01075								
P00747	IN00010.	00242	01006	01020	01107						
P00750	IN00011.	00242	01006	01017	01076						
P00751	IN00012.	00270	00273	00277	00327	00334	00611	01037	01052		
P00752	IN00013.	00342	00420	01022	01033	01065					
P00753	IN00014.	00342	01022	01034	01036						

5.4TS

CALCOMP

12/10/71

EO 0

PAGE NO.

7

C00264	INDEXT	00440	00445	00226	00227	00230	00231	00232	00233	00234	00237	00255
P01122	INITIAL	00037		00324	00332	00332	00363	00386	00411	00411	00563	00564
C00060	IPDES	00146										
C00000	IPYASK	00126										
C00222	ISURT	00100										
P01216	IT	00366										
C00000	ITAR	00041		00401								
		00256		00323								
		00734		00735								
		00245		00250								
P01217	ITEMPC											
P00400	.10	00551	00552	00561								
P00054	.11	00462										
P00425	.11	00503										
P00431	.12	00516										
P00472	.13											
P00463	.14	00325										
P00471	.15	00551										
P00504	.16	00527										
P00512	.17	00326										
P00517	.18	00515										
P00531	.19	00635										
P00327	.2	00360										
P00553	.20	00635										
P00557	.25	00664										
P00333	.3	00665										
P00562	.30	00360										
P00601	.40	00673										
P00434	.45	00704										
P00362	.5	00716										
P00645	.50	00705										
P00664	.52	00716										
P00574	.55	00705										
P00365	.6	00716										
P00702	.60	00272										
P00706	.61	00271										
P00717	.62											
P00724	.63											
P00733	.64											
P00337	.7											
P00273	.74											
P00277	.75											
P00421	.76											
P00344	.8											
P00102	.81											
P00197	.82											
P00113	.83											
P00121	.835											
P00131	.84											
P00140	.860											
P00143	.842											
P00136	.85											
P00156	.860											
P00151	.86											
P00161	.87											

5-415

CP-COMP

12/10/71

ED C

PAGE NO.

8

00174	89	00135	00155	00160	00534	00537	00264	00404	00426	00430
00220	91	00173								
00240	94	00217								
00174	ERASEK.	00354	00354	00357	00534	00537				
00020	..100000	00254								
00033	..100001	00362								
00003	..90	00177								
00120	J	00051	00122	00120	00136	00142	00257	00264	00404	00430
00121	JH	00602	00607	00646	00765					
00122	JJ	00627	00631							
00123	JJJ	00046	00634	00637	00654	00656	00660			
00124	JK	00240	00014							
00125	JL	00655	00654							
00003	K	00340	00416	01030						
00126	K1	00064	00170	00200	00262	00405	01102			
00127	K2	00144	00146	00151	00162					
00128	KK	00070	00075	00076	01113					
00129	KK	00043	00372	00373	00376	00401	00445	00453	00456	00476
00131	KK	00514	00555	00542						00514
00132	KLEAN	00172	00213							
00133	KM	00222	01071	00464	00513	00544	00545	00553	00607	01045
00134	L	00453	00463	00460	00474	00500	00521	00534		
00135	LI	00264	00454	00510	00511					
00136	LI	00473	00505							
00137	LOOK									
00138	MASK1	00057	00104							
00139	MASK2	00060	00111							
00140	M	00064	00141							
00000	MLCOMP									
00021	MPDES	00063	00063	00140						
00020	MTASK	00061	00061	00156						
00121	VT	00062	00117	00133	00137	00142	00157			
00122	"	00042	00164	00171	00406	00650				
00123	WH	00615	00627	00712	00723	00732	00733			
00124	WT	00312	00366							
00125	WTBT	00045	00333	00336	00410					
00003	ORDER	00434								
00070	P00000.0	00762								
00072	P00001.0	00775								
00006	P00003.0	01011								
00002	P00004.0	01025								
00074	P00006.0	01042								
00134	PF00002.	01133								
00136	PF00003.	01137								
00002	RR00001.	00000								
00004	RSINGL.	00748								
00074	SELCO.0.	00442								
00004	W00004	00443								
00005	STM.	00175								
00021	T	00314	00314	00316	00314	00320	00320	00400	00400	00346
00000	TAR	00047	00050	00054	00055	00235	00236	00260	00276	00276
		00344	00347	00413	00413	00421	00421	00423	00566	00567
										00571



CODE	TASK	00572	00573	00574	00575	00576	00577	00600	ED	C	00710	00710	00713	00714
P00737	TASK	00721	00726	00727	00728	00730	00730							
C00000	TAU	00105	00125	00444	00461	00461	00462	00467	00501	00501	00540	00542	00543	00543
		00504	00506	00532	00535	00535	00535	00537	00546	00546	00564	00564	00565	00565
		00547	00572	00573	00574	00575	00576	00577	00603	00647	00760	00765	00766	00766
C00424	TRIX	00432												
X00001	THEND	00215												
001166	TS00002	00074												
001133	TS00003	00124												
001152	TS00004	00144												
000213	TS00005	00203												
000446	TS00007	00261												
000404	TS00011	00367												
000472	TS00014	00457												
000513	TS00015	00477												
000555	TS00016	00523												
000650	TS00017	00604												
000646	TS00020	00630												
000703	TS00021	00657												
000744	UP00000	00652												
		00767												
P00777	UP00001	00073												
P01013	UP00003	00241												
P01027	UP00004	00341												
P01044	UP00006	00265												
		01053												
P01055	UP00011	00755												
P01070	UP00012	00223												
P01101	UP00016	00754												
P01112	UP00017	00071												
C00132	V	00374												
		00527												
		00567												
C00427	VBOX	00431												
P01246	VHARD	00652												
P01247	VSOFT	00653												
P01250	VT	00310												
P01251	VTOT	00544												
P00054	WS00001	00056												
P00075	WS00002	00167												
P01125	WS00003	00134												
P00145	WS00004	00153												
P00204	WS00005	00214												
P00244	WS00006	00253												
P00262	WS00007	00407												
P00344	WS00010	00350												
P00372	WS00011	00403												
P00421	WS00012	00420												
P00431	WS00013	00433												
P00461	WS00014	00471												
P00501	WS00015	00512												
P00524	WS00016	00556												
P00605	WS00017	00651												

SATS CALCOMP

P00A33 WSD0020. 006A5
P00662 #S00021. 00702
P01252 XVT 00A15 00A22
00310 SY#HOLS

12/10/71

ED 0

PAGE NO.

10

```

FUNCTION DRLCALC (TIME, IDRL)
DRLCALC 150FC70 *****
C
C COMPUTES TIME DEPENDENT DRL FROM TABLES IN /NAVALX/
C
CUSE      DPOOL      10JAN71 *****
C
C THIS BLOCK COMPUTES THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
C /CHECK/, /CORR/, /DEPN/, /KORTYP/, /LEG/, /NAVALX/, /POT/,
C /ADATA/, /RECOV/, /REF/, AND /TYPENAME/.
C IT IS REUSED DURING T6TSORT AS ITMP,
C AND DURING GRPSORT AS JTANK AND JTANK
C
COMMON /DPOOL/ IR(200), LINK8(200), ZONE8(200), NEXT8(200),
* ICHRELG(20), ICHKNUM(20), IC(30), LINKC(30), ZONEC(30), ITY(30),
* IR(50), LINKU(50), KORSTY(5), HILOAT(5), IDEFN(5), ATTRS(5),
* ATPC(5), TL(200), LTANK(200), AIRL(200), TMS*(10,10),
* DELAS*(10*10), NTIMES(10), TIMESTMT(200), NALLOW(200),
* PLAT(200), FLONG(200), PLAT(200), RLONG(200), LINKR(200),
* RECLAT(200), RECLON(200), PRECPTY(200), INHREC(200),
* RPLAT(20), RPLONG(20), CUMNO(15), STYPES(15), INDCLAS(15),
* INOREG(250), TYPENAME(250), NTYPS, CHK(250),
* PG(12), PA(12), GG(A), OA(8),
* ITMP(5000), JTANK(12,200), JTANK(12,200)
TYPE INTEGER ZONE8, ZONEC
TYPE INTEGER TYPENAME, CHK
TYPE INTEGER CUMNO
EQUIVALENCE (ITMP, JTANK)
EQUIVALENCE (ITMP(2401), JTANK)
DPOOL *****
CE:40
C
IF (IDRL) 50, 50, 10
10 IDRL = ITDRL
TIME = ITIME
NT = NTIMES(IDRL)
PLOW = 0.0
TLOW = 0.0
00 30 I = 1, NT
IF (TIME.GT. TMSW(I, IDRL)) 20, 40
20 PLOW = DRLASH(I, IDRL)
TLOW = TMSW(I, IDRL)
30 CONTINUE
DRLCALC = PLOW
RETURN
40 PHIGH = DRLASH(I, IDRL)
THIGH = TMSW(I, IDRL)
DRLCALC = PLOW + ((PHIGH - PLOW) / (THIGH - TLOW)) * (TIME - TLOW)
50 RETURN
END

```

1000
46000
2000
3000
4000
5000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
23000
24000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000

5.ATS DBLCLALC

12/10/71

ED

0

PAGE NO.

2

IDENT DBLCLALC

PROGRAM LENGTH 00162
ENTRY POINTS DBLCLALC 00003
BLOCK NAMES

EXTERNAL SYMROLS OPOOL 11610

ORODICT.

C02715	ATML								
C02070	ATTMC								
C02063	ATTRS								
P00106	MEGIB.	00130	00137	00143					
C04367	HLAT								
C04677	ALONG								
C10066	RTYPES								
C11111	CHK								
C11047	CUMNO								
C03371	DLASW	00033	00033	00046	00046				
P00003	BALCALC	00003							
C02056	DEFER								
P00001	PICT.	00005	00111	00112					
P00133	EXPING.	00004	00044	00041	00196	00147	00167	00110	00110
P00000	EXIT.	00135							
P00007	F000001.	00124	00125						
P00011	F000002.	00124	00127						
P00014	F000003.	00120	00121						
P00144	SETPL.	00113	00122						
P00136	SETPU.	00116	00142						
C02051	HL0AT								
P00152	I	00023	00037	00071					
C00000	CH								
C01510	IC								
C01540	ICHKFLG								
C01464	ICHKNUM								
C01700	ID								
P00153	IOSL	00012	00015	00100					
P00003	IIPRL	00007	00011						
C04475	IL								
P00053	IN00002.	00027	00032	00045	00064	00074	00104		
C10124	IN000EG								
C10105	IN00CLAS								
C07467	IN00REC								
P00106	INITIAL.	00006							
C07157	INFCDCITY								
C00000	ITANK								
C00000	ITEMP								
C01642	ITY								
P00011	.10								
P00032	.20								
P00037	.30								
P00045	.40	00030	00031						
P00061	.50	00010	00010						
P00147	ENASFR.	00053	00054	00055	00055	00056	00057		
C04540	JITANK								
C02044	K00STY								
C00310	LINKR								
C01546	LINKC								
C01762	LINKD								
C02405	LINKL								
C04027	LINKR								
C04057	NALLO-								
C01130	NEXTZ-								

Reproduced from
best available copy.

P0154	NT	00020	00041				
C0335	NTMES	00016	00017				
C1110	NTYPS						
P0006	P00000U	00006					
C1157	PA						
P0122	PF00002.	00117					
P0130	PF00003.	00123					
C11503	PG						
P0155	PMIGH	00047	00052	00043	00050		
P0156	PLOW	00021	00034				
X00001	Q000ICT.	00000	00004				
C11543	QA						
C11533	QG						
C06337	RECLAT						
C06647	RECLON						
C07777	NFLAT						
C10023	RFLONG						
C05207	FLAT						
C05517	RLONG						
P00157	TMIGH	00051	00053				
P00160	TIME	00015	00026	00050			
C03547	TIMESTRT						
P00161	TLOW	00022	00036	00054	00057		
C03225	TMSW	00027	00030	00035	00050		
P00041	TS00001.	00025					
P00033	TTIME	00014					
C10516	TYPENAME						
P00070	UP00000.	00024	00040	00071	00072	00073	00075
P07077	UP00001.	00013	00100	00101	00102	00104	00105
P00024	VALUE.	00043	00060	00102	00104	00105	
P00024	VS00001.	00042	00042				
C00620	ZONEA						
C01604	ZONEC						
	00127 SYM00LS						

```

SUBROUTINE GHP SORT
  CSURR      18AUG71
  CUSE      11NOV70
  COMMON /ITP/ITP
  CEND
  CUSE      11NOV70
  COMMON /TWORD/TWORD,ITWORD
  EQUIVALENCE (TWORD,ITWORD)
  CEND
  CUSE      11NOV70
  COMMON /MYTENT /MYTENT
  MYTENT
  CEND
  CUSE      11NOV70
  COMMON /TWT,IGATE,IDENTNO,LSIDE,NIPT,NCORR,NOPEN,NRECOVER,
  *NREF,NPNDRY,NREG,NTYPE,NGROUP,NTOTRASE,NPAYLOAD,NASMTYPF,
  2NMDTYPE,NTANKRAS,NCOMPLEX,NCLASS,NALERT,NCORTYPE,
  *INTAPE(22)
  EQUIVALENCE (ITAPE,WT)
  CEND
  CUSE      25JAN71
  COMMON /TAPES/ LTWIN,LTIN,LTGT,LTGRP,LTDM,LSRTA,LSRTH
  TAPES
  DPOOL
  CEND
  CUSE      18JAN71
  *****
  C
  C THIS BLOCK CONTAINS THOSE KNOWN IN OTHER PROGRAMS AS /BOUND/,
  /CHECK/,/CORR/,/DEPEN/,/KORTYP/,/LEG/,/NAVALX/,/POINT/,
  /RADATA/,/RECOV/,/REF/,/END /TYPE NAME/,
  IT IS REUSED DURING TGISORT AS ITEM#
  C
  C AND DURING GHP SORT AS ITANK AND JTANK
  C
  COMMON /DPOOL/ I6(200),LINK(200),ZONER(200),NEXTZ(200),
  * ICHKFLG(20),ICRNUM(20),IC(30),LINKC(30),ZONEC(30),ITY(30),
  * ID(50),LINKD(50),KORSTY(5),MLOAT(5),DEFK(5),ATTRS(5),
  * ATTPC(5),ILL(200),LINKL(500),AHL(200),TRAS(10,10),
  * DRLASW(10,10),NTIMFS(10),TIMESTRT(200),MALLOW(200),
  * HLAT(200),HLONG(200),PLAT(200),HLONG(200),LINKP(200),
  * PFCLAT(200),RECLON(200),TRECPTY(200),INDKEC(200),
  * HFLAT(20),HFLONG(20),CUMNO(15),BTYPES(15),INDCLAS(15),
  * INDEG(250),TYPEPAR(250),NTYPS,CHK(250),
  * PG(12),PA(12),OG(6),OA(8),
  * ITEM(5000),ITANK(12,200),JTANK(12,200)
  TYPE INTEGER ZONER,ZONEC
  TYPE INTEGER TYPE NAME,CHK
  TYPE INTEGER CUMNO
  EQUIVALENCE (I,ITY,ITEMP,ITANK)
  EQUIVALENCE (I,TEMP(2401),JTANK)
  DPOOL
  GROUP
  * SDECTO
  COMMON /GROUP/ GRP(14,210),IGRP(14,210),INDGRP(210),MWDNSGRP,
  * JTGT(2500)
  EQUIVALENCE (GHP,IGRP,JTGT)
  GRP+IGRP(14*GROUP+10), AND INDGRP+(GROUP+10) #HERE
  MGROUP * MAX NUMBER OF WEAPON GROUPS
  JTGT IS USED ONLY IN TGISORT, AND IS JTGT(MTARVAL)
  GROUP
  *
  PRCNTL 12MAY71
  *****
  CEND
  CUSE

```

```

COMMON /PPCNTL/ JJJTSTS, JJJGP, JJJCPX
CE-IN *****
CUSE PRCNTL *****
12 PSJUN71 *****
COMMON /I2/ IT*(29,250), ITAM(29,250), CPLX(30,250), JCPK(30,250),
GRPCOMP(5,2500), IGRPCOMP(5,2500)
1 EQUIVALENCE (I2, IT, IGRPCOMP, IGRPCOMP),
(CPLX, ICPLX)
COMMON /DIRECTRY/ MLTICOMP (8,600), FMLTICOMP (8,600), LOGK (30),
EQUIVALENCE (MLTICOMP, FMLTICOMP)
TAP(29, MLTICOMP), MLTICOMP = MAX NUM TARGET TABLE ENTRIES
CPLX(29, MCOMP), MCOMP = SIZE OF COMPLEX TGT ARRAY
MLTICOMP(8, MULT), MULT = SIZE OF MULTIPLE TGT DATA ARRAY
GRPCOMP(5, MGRP), MGRP = TABLE FOR DATA ON EA WEAPON IN GROUP
JTANK(12, MTKR), MTKR = TABLE FOR TANKER DATA
C /DIRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA
C FILLER DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON
CE-0 12 *****
DATA (MTANK = 200)
DATA (MJTANK = 200)
DATA (MWS = 5)
DATA (NT = 1)
DATA (NUMT = 1)
ITPBLTGRP
MYPIDENTBSCHATCH
CALL SETHEAD
C COMPUTE INDICES FOR STORING GROUPS
IANGRP(1)=1
DO 200 I=2, NGRP-UP
200 IANGRP(I)=IANGRP(I-1)+IGRP(I2,I-1)
C READ GROUP COMPOSITION DATA. SORT INTERNALLY
ITBELTGRM
250 CALL RDWORD
IF (ITWORD.EQ. MEMNGROUP) 270, 255
255 IF (ITWORD.GT. 0) 260, 254
C HERE FOR TANKERS
256 IF (ITWORD.EQ. 4) 100, 101
100 CALL RDARRAY (JTANK (NUMT), 12)
NUMT=NUMT+12
IF (NUMT/12.GT. MJTANK) 105, 250
101 CALL RDARRAY (ITANK (NT), 12)
NT=NT+12
IF (NT/12.GT. MTANK) 105, 250
105 PRINT 106
106 FORMAT (30H ITANK OR JTANK OVERFLOW-ABORT )
C CALL ABORT
M=IANGRP (ITWORD)
CALL RDARRAY (IRFCOMP (1, K), MWS)
GO TO 250
C SORT FINISHED. WRITE OUT GROUPS
270 CALL IERTAPE
ITPBLTWIN
*C=1
DO 1420 I=1, NGROUP

```

1000
6700
7000
1000
2000
5000
6000
6200
6300
6400
7000
8000
9000
11000
12000
12300
12500
12700
7000
7200
7400
7600
7800
8000
9000
9500
10000
14000
15000
16000
17000
18000
19000
20000
21000
23000
23000
24000
25000
26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000

```

L = (I - 1) * NWSGRP + 1
CALL WARRAY(GRP(L), NWSGRP)
NWS = IGRP(12,I)
CALL WARRAY(IGRPCOMP(MC),M)
NCEMC = M
1420 CONTINUE
C PRINT GROUP COMPOSITION DATA
IF (JJGP.EQ.6*NGROUPS) 510,511
510 CONTINUE
L=L+1
DO 1430 I=1,NGROUP
N=IGRP(12,I)
N=L+NG-1
PRINT 1421,I
1421 FORMAT('///6M GROUP=I9//,10H INDEKND,13H LAT.
10H LONG,10H PAYLOAD,18H ISTART,18PERBASE /)
PRINT 1422, ((IGRPCOMP(J,K)).J=1,NWS),K=L,M)
L=L+NG
1430 CONTINUE
1422 FORMAT(I10,2(2X,F9.4),110,2X,016)
511 CONTINUE
C WRITE OUT TANKER DATA
NUNT=1
CALL WARRAY(ITANK,M)
NUNT=N-1
CALL WARRAY(JTANK,M)
CALL TFRMTAPE
RETURN
END

```

```

43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000
58000
59000
60000
61000
62000
63000
64000
65000
66000
67000
68000
69000
69500
70000

```

5.ATS GRPSORT

12/10/71

EO 0

PAGE NO. 4

IDENT GRPSORT

00431
06064
00001
00001
00001
00026
00007
11410
04117
00001
34436
11454

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

GRPSORT
ITP
TWORO
MYIDENT
WT
TAPES
UPDOL
GROUP
PRCNTL
I2
DIRECTRY

EXTERNAL SYMBOLS
IEMH.
UBWICT.
SETFEAD
HDMORD
HDMARRAY
AMORT
TENSTAPE
WRARRAY
SIN.
ONSIWGL.

X00096	ABORT	00162											
C02785	ATML												
C02070	ATTRC												
C02083	ATTMS	00412											
P00411	BEGIN.												
C04307	HLAT												
C04677	-LOAD												
C18044	RYRES												
C11111	CMK	00261	00302										
P00341	CVRT1.	00104	00106										
P00421	COURT.	00162	00264	00323									
C14122	CPLA												
P00010	CRFAT.												
C10047	CUMX0												
C03371	DHLAS												
C02056	DEFR	00066	00075	00116	00132	00145	00161	00175	00201	00220			
P00001	DICT.	00230	00257	00263	00266	00314	00326	00333	00336				
P00413	ENDING.	00067	00337	00411	00412								
P00000	EXIT.	00414											
C11336	FILL												
C00000	FMLTCOMP	00072	00117	00240									
P00010	FORMAT.	00154											
P00162	GG0000.	00255											
P00204	GG00001.	00264											
P00315	GG00002.	00216	00221										
C00000	GRP	00064											
C00000	GRPCOMP	00100	00105	00206	00211	00234	00245	00261	00317	00353			
P00054	GRPSORT												
C02051	HIL0AT												
P00422	I												
C00000	IM												
C01510	IC												
C01440	ICRKFLE												
C01464	ICRKN0M												
C14122	ICPLX												
C01700	ID												
C00001	IDATE												
C00002	IDENTNO												
C00000	IGRP	00110	00223	00223	00251	00251	00301	00301					
C00000	IGRPCOMP	00172	00174	00225	00231	00301	00301						
C02075	IL	00105	00222	00250	00345	00357							
P00342	IN00002.	00172	00373	00406									
P00343	IN00006.	00300	00361	00371	00374	00407							
P00344	IN00011.												
C10124	INDHEG												
C10105	INDCLAS	00076	00077	00107	00107	00110	00165	00165	00170	00171			
C05574	INDGRP												
C07447	INDREC												
P00411	INITIAL.	00067											
C07157	IRECPCTY												
C00000	ITANK	00143	00146	00327									
C00000	ITAM												
C00000	ITEMP												

C00000	ITP	00071	00071	00114	00114	00203	00203		
C00000	ITW090	00117	00117	00122	00122	00125	00125	00164	00164
C01542	ITY								
C00000	I-TAPE								
P00127	.100								
P00142	.101								
P00154	.105								
P00234	.1420								
P00317	.1430								
P00107	.200								
P00115	.250	00140	00140	00153	00153	00177	00177		
P00122	.255	00121	00121						
P00125	.256	00123	00123						
P00164	.260	00124	00124						
P00200	.270	00121	00121						
P00243	.510								
P00323	.511	00242	00242						
P00415	.ERASER.	00212	00212						
P00010	.100000	00072	00072						
P00011	.100001	00120	00120						
P00021	.100002	00241	00241						
P00012	.106	00157	00157						
P00022	.1421	00260	00260						
P00052	.1422	00267	00267						
P00133	.200001.	00130	00130						
P00146	.200002.	00143	00143						
P00174	.700003.	00173	00173						
P00221	.Z00004.	00216	00216						
P00231	.Z00005.	00226	00226						
P00423	J	00275	00303	00366					
C00002	JJCPX								
C00001	JJGP	00240	00240						
C00003	JJTGTS								
C04540	JTAK	00130	00133	00334					
C00000	JTGT								
P00424	K	00166	00271	00307	00402				
C02044	KORSTV								
P00425	L	00215	00215	00244	00253	00270	00315	00316	
C00310	LINKA								
C01546	LINKC								
C01762	LINKD								
C02405	LINKL								
C04027	LINKR								
C11300	LOOK								
C00003	LSIDE								
C00005	LSRTA								
C00006	LSRTB								
C00004	LTOW								
C00003	LTGRP	00070	00070	00113	00113				
C00002	LTTGT								
C00001	LTTIN								
C00000	LTTIN								
P00426	M	00202	00202	00231	00254	00311	00324	00327	00331
P00427	MC	00224	00231	00232	00232	00232	00232	00232	00233
		00205	00225	00232	00232				

P00003	MITANK	00152				
P00004	MLTANK	00137				
C00000	MLTCOMP					
C00000	MYIDENT	00073	00073			
C00024	NALEFT					
C00057	HALLOW					
C00017	NIAS-TYPE					
C00011	NHNDRY					
C00023	NCLASS					
C00022	NCOMPLEX					
C00005	NCORR					
C00025	NCOR-TYPE					
C00006	NOPEN					
C01130	NEXIZH					
P00030	NG	00252	00253	00310		
C00014	NGROUP	00102	00102	00236	00236	00321
C00016	NPAYLOAD					
C00007	NRECOVER					
C00010	NREF					
C00012	NREG					
C00004	NRTPT					
P00006	NT	00142	00147	00150	00150	00323
C00021	NTANKHAS					
C03535	NTIMES					
C00015	NTOTRASE					
C00013	NTYPE					
C11110	NTYPS					
P00007	NUMT	00127	00134	00135	00135	00330
P00005	NWUS	00176	00222	00305		
C05116	NWDSGRP	00213	00213	00221		
C00020	NWRTTYPE					
P00345	P00000.U	00350				
P00361	P00001.U	00363				
P00373	P00002.U	00377				
C11517	PA					
C11503	PG					
X00002	PRDICT.	00000	00065			
C11543	QA					
C11533	WG					
X00012	QNSINGL.	00340				
X00005	QDARKAY	00131	00144	00174		
X00004	RDWORD	00115				
C06337	RECLAT					
C06647	RECLON					
C07777	RFLAT					
C10023	RFLONG					
C05207	RLAT					
C05517	ALONG					
X00003	SETREAD	00074				
X03011	SIH.	00155	00256	00265		
C00000	TAR					
X00007	TER-TAPE	00200	00335			
X00001	THEMD.	00160	00262	00313		
C03547	TIMESTRT					

S.ATS GMPSORT

12/30/71

ED 0

PAGE NO. 8

8

```

C03225 TMSW
P00113 TS00001.
P00236 TS00002.
P00321 TS00003.
P00305 TS00004.
P00311 TS00005.
C00000 TWR0
C19516 TYPENAME
P00372 UP00000.
P00305 UP00001.
P00401 UP00002.
X00010 WRABAY
P00107 W500001.
P00211 W500002.
P00250 W500003.
P00300 W500004.
P00274 W500005.
C00000 #T
C00420 ZONE#
C01604 ZONEC
00265 SYPR0LS

```

```

00103
00210
00247
00277
00273
00101
00274
00167
00217
00112
00237
00322
00304
00312

```

```

00235
00207
00304
00272
00227
00237
00322
00306
00312

```

```

00246
00366
00367
00402
00246
00366
00375
00332

```

```

00320
00370
00402
00402

```

```

00346
00370
00403
00404

```

```

00353
00372
00404
00404

```

```

00354
00372
00410
00410

```

```

00355
00357
00410
00410

```

```

00357
00357

```

```

00360
00360

```

CSQSR	INITIALS	TRACGT1	1000
CUSE	MAX	MAX	44000
	COMMON /MAX/	ATCNFZ	2000
1	WCLASS	ACNTRYS	1000
2	WDEPBLG	WGROUP	2000
3	WRECVLG	WREF	3000
4	WSPKAT	WLENKS	4000
5	WTAMENS	TARGET	5000
6	WTARTYP	TARVAL	6000
7	WTYPE	WVULN	7000
8	WZONES	WARPCL	8000
9	MAX	MAX	9000
C			2000
C			3000
C			4000
	DATA (	WAIMPFZ =20	5000
	DATA (	WALFJT =2	6000
	DATA (	WASNTYP =20	7000
	DATA (	WIMPFY =200	8000
	DATA (	WCCFJN =20	9000
	DATA (	WCLASS =2	10000
	DATA (	WCONTRYS = 250	11000
	DATA (	WCONTR = 30	12000
	DATA (	WCONTYP =5	13000
	DATA (	WDEPBLG =50	14000
	DATA (	WDEPBLG =50	15000
	DATA (	WGROUP =200	16000
	DATA (	WPAYLID =40	17000
	DATA (	WRCOVR =200	18000
	DATA (	WRECVLG =40	19000
	DATA (	WREF =20	20000
	DATA (	WRTLEF =200	21000
	DATA (	WRTPT =200	22000
	DATA (	WSPKAT =5	23000
	DATA (	WTAMENS =50	24000
	DATA (	WTAMCLS =15	25000
	DATA (	WTAMCUL =4000	26000
	DATA (	WTAMCUL =4000	27000
	DATA (	WTAMFAS =100	28000
	DATA (	WTAMFT =5000	29000
	DATA (	WTAMJW =12000	30000
	DATA (	WTAMPCL =40	31000
	DATA (	WTAMSEC =4000	32000
	DATA (	WTARTFI =500	33000
	DATA (	WTARTYP =250	34000
	DATA (	WTARVAL =2500	35000
	DATA (	WRECVLG =40	36000
	DATA (	WTOTMAS =150	37000
	DATA (	WTYPE =40	38000
	DATA (	WVULN =50	39000
	DATA (	WZONES = 100	40000
	DATA (	WZONES = 50	41000
	DATA (	WZONESPT =200	42000
	DATA (	WZONES = 63	43000
			44000
			45000


 Reproduced from
 best available copy.

C	WTRNFZ	20	AIR DEFENSE ZONES	45000
C	WALERT	2	ALERT CONDITIONS	47000
C	WASSTYP	20	AS* TYPES(10)	48000
C	WARMAY	200	ARMY LEGS (9LEGS) (150)	49000
C	WCREGN	20	COMMAND/CONTROL (20)	50000
C	WCLASS	2	WEAPON CLASSES	51000
C	WCSTRYS	250	COUNTRY CODES	52000
C	WCRPH	30	DEFENSATION CORRIDORS (20)	53000
C	WCRTYP	2	CONTINUM TYPES	54000
C	WOPEN	20	DEFENSATION COMMISSORS(POITS) (45)	55000
C	WEPPLG	20	DEFENSATION LEGS(45)	56000
C	WGROUP	200	WEAPON GROUPS(100)	57000
C	WPAYLON	20	PAYLOAD TYPES (PEL SIDE) (40)	58000
C	WPCGM	200	RECOVERY BASES(POITS) (180)	59000
C	WPCVLG	20	RECOVERY LEGS(50)	60000
C	WPEF	20	REFUEL POINTS(DIRECTED) (20)	61000
C	WPLEG	200	ROUTE LEGS(150)	62000
C	WPTPT	200	ROUTE POINTS(150)	63000
C	WSPERT	2	SITES PER MULTIPLE TARGET(5)	64000
C	WTANKRS	20	TANKER BASES	65000
C	WTAPCLS	15	TARGET CLASSES(13)	66000
C	WTAPCOL	4000	TARGETS COLLOCATED (3000)	67000
C	WTAPCPX	4000	TARGET COMPLEXES(TOTAL) (3000)	68000
C	WTAPERS	100	TARGETS PER COLLOCATION ISLAND(50)	69000
C	WTARGET	2000	TARGETS (ALLOCATOR) (3500)	70000
C	WTARIN	12000	TARGET INDEX NUMBERS (6000)	71000
C	WTARSEC	4000	TARGETS PER EARTH SECTOR(1500)	72000
C	WTARTEI	500	TGTS WITH TERMINAL INTRCPTRS(ARM) (127)	73000
C	WTARVAL	250	TARGET TYPES-TOTAL (200)	74000
C	WTFMKM	40	TARGET COMPLEX WITH VAL BT (1500)	75000
C	WTFMBS	150	TARGET ELEMENTS PER COMPLEX (30)	76000
C	WTFMBS	40	WEAPON BASES PER GROUP (150)	77000
C	WTFMBS	40	WEAPON TYPES (MSLS + 4-RMS / SIDE)	78000
C	WVULN	50	WEAPONS PER GROUP(600/450) (-SLS+RMRS)	79000
C	WVFAPGP	1000	WEAPON TYPES (40)	80000
C	WVWTOE	50	WEAPON TYPES(150)	81000
C	WZONEPT	200	ZONE POINTS(75)	82000
C	WZONES	75	ZONE TYPES	83000
C	WTANPCL	(40=SL+4=RR)/20=OTHERS	TGT TYPES/CLASS (20/0)	84000
C	WPOOL	16JAN71	*****	85000
C	CUSE		*****	86000
C			*****	1000
C			*****	2000
C			*****	3000
C			*****	4000
C			*****	5000
C			*****	6000
C			*****	7000
C			*****	8000
C			*****	9000
C			*****	10000
C			*****	11000
C			*****	12000
C			*****	13000
C			*****	14000
C			*****	15000

THIS BLOCK CONTAINS THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/
/CHECK//COMR//DEPEN//KORTYP//LEG//NAVALX//POIT//
/RADATA//RECQV//REF//AND /TYPE/NAME//
IT IS REUSED DURING TGISORT AS ITANK,
AND DURING GRPSORT AS ITANK AND JTANK

- ICHKFLG(20)+ICHKNUM(20)+IC(30)+LINK(30)+ZONEC(30)+ITY(30)+
- ID(50)+LINKID(50)+KORTYP(5)+MLOAT(5)+DEPR(5)+BATT(5)+
- ATTRC(5)+IL(200)+LINKL(200)+AIRL(200)+IMAS+(10,10)+
- PHLAS+(10,10)+TIMES(10)+TIMEST(200)+MALLOW(200)+
- RLAT(200)+RLONG(200)+RLAT(200)+RLONG(200)+LINKR(200)+
- RECLAT(200)+RECLON(200)+RECPCITY(200)+INDOCLAS(15)+
- RFLAT(200)+RFLONG(200)+CUMNO(15)+BTYPES(15)+INDOCLAS(15)+

```

* INHNEG(250),TYPENAME(250),NTYPS,CHK(250),
* RG(12),RA(12),SG(8),SWA(8),
* ITEM(5000),JTANK(12,200),JTANK(17,200)
* TYPE INTEGER ZONE,ZONEC
* TYPE INTEGER TYPENAME,CHK
* TYPE INTEGER CUMMO
EQUIVALENCE (I,ITEMP,ITANK)
EQUIVALENCE (ITEMP(2401),JTANK)
*
CPDOL
*
CLASNAME 10JUN71 *****
COMMON /CLASNAME/ CLASNAME(15),CLASVAL(15),CUMVAL(15),VALFAC(15)
*
TYPE INTEGER CLASNAME
CLASNAME,CLASVAL,CUMVAL,VALFAC(NTARCLS) WHERE
*
NTARCLS = MAXIMUM NUMBER OF TARGET CLASSES
CLASNAME *****
GROUP *****
COMMON /GROUP/ GRP(14,210),IGRP(14,210),INDGRP(210),NUMGRP,
*
*
EQUIVALENCE (GRP,IGRP,JIGT)
*
GRP,IGRP(14,NGROUP+10), AND INDGRP(NGROUP+10) WHERE
*
NGROUP = MAX NUMBER OF WEAPON GROUPS
*
JTGT IS USED ONLY IN IGLSORT, AND IS JTGT(1,ANVAL)
*
GROUP *****
MISC *****
COMMON /MISC/ IN(5),FI(5),ITTAPE(5)
*
EQUIVALENCE(IN,FI), (NTGTS,ITTAPE(5))
*
MISC *****
MULTX 30NOV70 *****
COMMON /MULTX/ MULT(3),MLTX(8,5),MLTXX(5,5),MULT
*
EQUIVALENCE(MLTX,FMLTX)
*
MLTX *****
PRIOR 11NOV70 *****
COMMON/PRIOR/PTASK(48),IPRES(96),PTASK,MPDES,ISURT
*
TYPE INTEGER TASK,RESIS
*
PRIOR *****
TAPES 25JAN71 *****
COMMON /TAPES/ LTWIN,LTIN,LTGT,LTGRP,LTUR,LSRTH,LSRTH
*
TAPES *****
TAU 11NOV70 *****
COMMON/TAU/TAU(90),MC(60),V(90),INDEX(90),FV(3),T(3),T-0A(3),
*
LVORX(3),H(2),FVH(2)
*
EQUIVALENCE(TAU,MC)
*
TAU *****
TG 30NOV70 *****
COMMON /TG/ TG(31),ITD(31)
*
EQUIVALENCE(TG,ITD)
*
TG *****
WT 11NOV70 *****
COMMON/WT/WT,TD,IDE,IDE,LSIDE,WRIT,CON,NUMPEN,RECIVER,
*
#REF,NRNDRY,MMEG,NTYPE,NGROUP,NTIBASE,MPAYLOAD,NSMTYPE,
*
NRNDTYPE,NTANKAS,NCOMPLEX,NCCLASS,NALERT,NCORTYPE,
*
INTAPE(22)
*
EQUIVALENCE(IKTAPE,WT)
*
WT *****
T 30NOV70 *****
COMMON /T/ MAXICOMP,NCPIX(2500)
*
T *****

```

```

C      NGRX(NTANK*4) *HREF NTANKVAL = MAX NUM TGT COMPLEXES,VAL GT G
CE:0  1 .....
CUSE  2  30NOV70 ..... 2000
      *COMMON /P/ WTR(3,50),IP(3,50),AS(1,5,20),IAS(1,5,20),
      *PLD(10,40),PLD(10,40),GRM(20),WTP(20,80),WTP(20,80)
      *EQUIVALENCE (WTR,IPMD), (AS,IAS), (WTP,INTP), (PLD,PLD)
      *WTR,IPMD(3,50), (AS,IAS), (WTP,INTP) *MAX NUM WARHEAD TYPES
      *AS,IAS(1,5), (WTP,INTP) *MAX NUM ASM TYPES
      *PLD,IPMD(10,40), (WTR,INTP) *MAX NUM PAYLOAD TYPES
      *NGR(ACCE), *MCCRF(ACCE) *MAX NUM COMMAND/CONTROL
      *WTR,INTP(2,50) *TYPE = MAX NUM WEAPON TYPES
CE:0  2 ..... 108000
CUSE  3  15NOV70 ..... 108500
      *COMMON /3/ LTANK(12),TANK(12),GRPA(6),IGRPA(6)
      *EQUIVALENCE (TANK,LTANK,GRPA,IGRPA)
CE:0  3 ..... 2000
CUSE  12  25JUN71 ..... 108500
      *COMMON /12/ TAR(29,250),TAR(29,250),CPLX(30,250),CPLX(30,250),
      *GRPCOMP(5,250),TGRPCOMP(5,250)
      *EQUIVALENCE (TAR,TAR,GRPCOMP,IGRPCOMP),
      *CPLX,ICPLX)
      *COMMON /DIRECTRY/ MLTCOMP (R*600), FMLTCOMP (H*500), LOOK (30),
      *FILL (206)
      *EQUIVALENCE (MLTCOMP,FMLTCOMP)
      *TAR(29,250), *WGT = MAX NUM TARGET TABLE ENTRIES
      *CPLX(29,250), *COMP = SIZE OF COMPLEX TGT ARRAY
      *MLTCOMP(8, *MULTI), *MULTI = SIZE OF MULTIPLE TGT DATA ARRAY
      *GRPCOMP(5, *GRPD), *GRPD = TABLE FOR DATA ON EA WEAPON IN GROUP
      *LTANK(12, *WTRPL), *WTRPL = TABLE FOR TANKER DATA
      *DIRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA
      *FILLR DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON
CE:0  12 ..... 110000
CUSE  12 ..... 112000
      *CLEAR COMMON /MISC/
      *CLEAR COMMON /TAPES/
      *CLEAR COMMON /TAU/
      *CLEAR COMMON /CLASNAME/
      *CLEAR COMMON /MLTX/
DATA (TIME(0))
DATA (TTAPE(0))
DATA (LTINS=10)
DATA (LTINS=9)
DATA (LTGT=3)
DATA (LTGRP=4)
DATA (LSRTA=1)
DATA (LSRTA=5)
DATA (LSRTB=6)
DATA (FV=3(0))
DATA (FV=3(0))
DATA (FV=3(0))
DATA (FV=3(0))
DATA (FV=2(0))
DATA (FV=2(0))
DATA (FV=2(0))
DATA (CLASVAL=15(0))
DATA (CLASVAL=15(0))
DATA (VALFAC=15(0))

```

```

125120 DATA (MULT=31(0))
125140 DATA (MULT=0(0))
125160 DATA (MULT = 0)
125180
125200 CLEAR COMMON /ORIOR/
125220
125240 DATA (MPTASK=0)
125260 DATA (MDES=0)
125280 DATA (TSURIE=0)
125300 DATA (MPTASK=0(0))
125320 DATA (MDES=Y6(0))
125340
125360 DO 10 I=1,5000
125380 ITP(I)=0
125400 CONTINUE
125420
125440 C
125460 C=NSG0=0
125480 JMAX=4*(NG00+10)
125500 DO 50 I=1,JMAX
125520 ICRP(I)=0
125540 CONTINUE
125560 DO 70 I=1,MGROUP
125580 INGRP(I)=0
125600 CONTINUE
125620
125640 C
125660 DO 190 I=1,90
125680 TAU(I)=0.
125700 V(I)=0.
125720 INEXT(I)=0
125740 CONTINUE
125760
125780 C
125800 DO 200 I=1,31
125820 ITR(I)=0
125840 CONTINUE
125860
125880 C
125900 DO 230 I=1,22
125920 ITRAP(I)=0
125940 CONTINUE
125960
125980 C
126000 MASIC0=0
126020 DO 240 I=1,NTOTAL
126040 MCR(I)=0
126060 CONTINUE
126080
126100 C
126120 JMAX = 3 * NSMTPF
126140 DO 250 I=1,JMAX
126160 I=0
126180 CONTINUE
126200 JMAX = 5 * NSMTPD
126220 DO 260 I=1,JMAX
126240 AS(I)=0.
126260 CONTINUE
126280 JMAX = 10 * NSMPLON
126300 DO 270 I=1,JMAX
126320 PL(I)=0.
126340 CONTINUE
126360 DO 275 I=1,MCC-EGM
126380 MCR(I)=0.

```

```

275 CONTINUE
      JMAX = 20 * ITYPE
      DO 280 I=1,JMAX
        AT(I)=0.
      280 CONTINUE
      C
      DO 290 I=1,12
        ITASK(I)=0
      290 CONTINUE
      C
      DO 310 I=1,10750
        ITASK(I)=0
      310 CONTINUE
      RETURN
      END

```

CLEAR COMPOUND /1/

CLEAR COMPOUND /12/

```

291000
292000
293000
294000
295000
295200
295400
295600
295800
296000
297000
298000
299000
305000
306000

```

Reproduced from
 best available copy.

5.ATS INITALS

12/10/71

ED 0

PAGE NO.

7

IDENT INIT:ALKS

00210
00003
00047
11619
00074
04117
00012
00110
00223
00007
00436
00037
00026
04705
04336
00014
34636
11654

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

INIT:ALKS

MAX
DPOOL
CLASSNAME
GROUP
MISC
PLTX
PHIO
TAPES
TAU
TO
VT
1
2
3
12
UNFACTY
0001CT.

EXTERNAL SYMBOLS

1206

5-ATS INIT-ILAS

12/10/71 00 00 PAGE NO. 0

C00226	ASMT	00122	00123								
C02715	ATPL										
C02070	ATTMC										
C02063	ATTMS										
P00200	REGIM.										
C00357	SLAT										
C04677	SLONG										
C10046	SLYPFS										
C11111	CHK										
C00000	CLASNAME										
C00017	CLASVAL										
P00205	COUNT.	00003	00024	00037	00074	00075	00106	00107	00120	00121	00132
		00025	00143	00036	00144						
		00133		00037	00156	00075	00106	00107	00120	00121	00132
				00037	00156						
C1A122	CPLX										
C10047	CUMNO										
C00036	CUMVAL										
C03371	URLAS*	00003									
C02056	UEFR										
P00001	DICT.										
P00202	ENDING.										
P00000	EXIT.	00005									
C11336	FILLH	00006									
C00000	FIN	00200									
C00000	FMLTCOMP										
C00037	FMLTX										
C00416	FV										
C00434	FVM										
C00000	GPP										
C00000	GRPCOMP										
C01000	GRP*										
C00432	M	00003									
C00000	MC										
C02051	MIL0AT										
P00206	I	00010	00010	00023	00025	00033	00044	00044	00056	00054	00062
		00062	00071	00075	00104	00106	00120	00130	00132	00140	00143
		00153	00156	00164	00194	00172	00120	00130	00132	00140	00143
				00023	00025	00033	00044	00044	00056	00054	00062
				00075	00104	00106	00120	00130	00132	00140	00143
				00164	00194	00172	00120	00130	00132	00140	00143
C00226	IASMT										
C00000	IN										
C01510	IC										
C01440	ICMFLG										
C01464	ICMNUM										
C1A122	ICPLX										
C01700	ID										
C00001	IDATE										
C00002	IDENTRO										
C00000	IGMP										
C00000	IGHPCOMP										
C00000	ICMP*	00027	00030								
C02075	IL										
C00000	IN										
C10124	IND-EG										
C10105	INDCLAS										
C00264	INDEX*	00051									
C05574	INDGMP	00040	00041								

SATS INITIALS

12/10/71

PAGE NO.

9

C07467	IMPDEC								
P05003	INITIALS	00003							
P03200	INITIAL	00004							
C00040	IMES	00003							
C00372	IPLO								
C00000	IPTASK	00003							
C07157	IRECPTY	00003							
C00222	ISUST	00003							
C00000	ITASK								
C00000	ITAD	00174	00175						
C00000	ITG	00046	00057						
C00000	ITAPP	00012	00013						
C00005	ITAPP	00003							
C01442	IY								
C00000	I-MG	00110	00111						
C00000	ITAPE	00064	00065						
C01234	I-MP								
P00014	IC								
P00052	.190								
P00040	.200								
P00046	.230								
P00100	.240								
P00112	.250								
P00124	.260								
P00136	.270								
P00147	.275								
P00142	.280								
P00170	.290								
P00176	.310								
P00031	.40								
P00042	.70								
P00204	ERASEM.	00020	00021						
P00207	JMAX	00022	00023						
C04540	JTAK								
C00000	JTGI								
C02044	KOPSTY								
C00310	LINKR								
C01546	LINKC								
C01762	LINKD								
C02405	LINKL								
C04027	LINKP								
C11300	LOOK								
C00003	LSIDE								
C00005	LSPTA								
C00006	LSPTA								
C00000	LTANK								
C00004	LTDP	00164	00167						
C00003	LTGAP	00003							
C00002	LTIGT	00003							
C00001	LTIN	00003							
C00000	LTWIN	00003							
C00000	MAILRNEZ	00003							
C00001	MALEBT	00003							
C00002	MASATYP	00003	00113	00114	00115	00116	00127	00130	00152

CO:000	*MAXICOMP	00007		
CO:003	*MEMORY	00003		
CO:004	*CCLEGM	00140	00141	
CO:005	*CLASS	00003		
CO:006	*COUNTRYS	00003		
CO:007	*COMP	00003		
CO:010	*COMTYP	00003		
CO:012	*DEFMULG	00003		
CO:011	*DPEM	00003		
CO:013	*GROUP	00016	00017	00033 00034
CO:010	*LTCORP	00003		
CO:017	*LIX	00003		
CO:014	*PAYLON	00125	00126	
CO:021	*PHES	00003		
CO:020	*PTASK	00003		
CO:015	*RECOVR	00003		
CO:014	*RECVLG	00003		
CO:017	*REF	00003		
CO:020	*RTLEG	00003		
CO:021	*RPT	00003		
CO:022	*SPERM	00003		
CO:023	*TANKAS	00003		
CO:024	*TANCLS	00003		
CO:025	*TANCOL	00003		
CO:024	*TANCPX	00003		
CO:027	*TANERS	00003		
CO:030	*TARGET	00003		
CO:031	*TANID	00003		
CO:046	*TANPCL	00003		
CO:032	*TANSEC	00003		
CO:033	*TANIFI	00003		
CO:034	*TANTYP	00003		
CO:045	*TANVAL	00003		
CO:036	*TELACW	00003	00072	0007c
CO:037	*TIDMAS	00003		
CO:040	*TYPE	00150	00151	00153 00154
CO:041	*MULT	00003		
CO:041	*MULN	00003		
CO:042	*KAPBP	00003		
CO:043	*NHTPE	00003		
CO:044	*ZOMPT	00003	00101	00102
CO:045	*ZOMFS	00003		
CO:024	*HALFPT			
CO:057	*ALLOW			
CO:017	*ASATYPE			
CO:011	*MIDJY			
CO:023	*CLASS			
CO:022	*COMPLEX			
CO:005	*CORR			
CO:025	*COMTYPE			
CO:001	*CPA			
CO:006	*DOPFM			
CO:130	*EXITZ			
CO:014	*GROUP			
		00074		00077

Reproduced from
best available copy.

CO0107	MULT	01003
CO0014	PAYLOAD	
CO0007	RECOVER	
CO0010	REF	
CO0012	REG	
CO0004	RTPT	
CO0021	TANKMAS	
CO0011	TENTS	
CO0034	TIMES	
CO0015	TOTRASE	
CO0013	TYPE	
CO1110	TYPS	
CO0114	UNCSHP	00014
CO0020	UNDPDTYPE	
CO1517	PA	
CO1503	PG	
CO0372	PLN	00134 00135
CO0001	PRODUCT	00000 00004
CO1543	QA	
CO1533	QC	
CO0337	RECLPT	
CO0547	RECLON	
CO0777	REFLAT	
CO0023	RFLOMS	
CO1212	RGN	00145 00146
CO0207	RLAT	
CO0517	RLONG	
CO0421	T	00003
CO0000	TANK	
CO0000	TAP	
CO0000	TAV	00044 00047
CO0424	TAX	00003
CO0000	Tp	
CO0347	TIMEST	
CO0224	TMASS	
PO0032	TS00002	00024
PO0043	TS00003	00034
PO0101	TS00007	00073
PO0113	TS00010	00105
PO0125	TS00011	00117
PO0137	TS00012	00131
PO0159	TS00013	00142
PO0169	TS00014	00154
CO0516	TYPEVAR	
CO0132	V	00050
CO0055	VALFAC	00003
CO0427	VARX	00003
CO0000	VAR	
PO0012	VS00001	00014
PO0027	VS00002	00031
PO0040	VS00003	00042
PO0044	VS00004	00052
PO0046	VS00005	00060
PO0048	VS00006	00064

5.4TS INITIALS

12/10/71

ED 0

PAGE NO.

12

PO1076 *S00007.
PO1110 *S00010.
PO1122 *S00011.
PO1124 *S00012.
PO1134 *S00013.
PO1145 *S00014.
PO1159 *S00015.
PO1166 *S00016.
PO1174 *S00017.
CO0000 *T
CO1236 *TP
CO1620 ZONE4
CO1604 ZONEC
00341 SY*40LS

00100
00112
00124
00136
00147
00170
00176
00160
00161

```

SUROUTIME SHUFFLE
CE 30 37000
CUSE 37000
ITP 11NOV70
COMMON/ITP/ITP
ITP
CE 30 1000
CUSE 1000
MOPRINT 11NOV70
COMMON/MOPRINT/MOPRINT
MOPRINT
TWORD 11NOV70
COMMON/TWORD/TWORD,ITWORD
EQUIVALENCE (ITWORD,ITWORD)
TWORD
CE 40 2000
CUSE 2000
MYIDENT 11NOV70
COMMON/MYIDENT/MYIDENT
MYIDENT
CE 40 7000
CUSE 7000
TAPES /S/ JAN71
COMMON/TAPES/ LT4IN,LT1IN,LT1G,LT1GRP,LT1R,LS,IA,LSMTH
TAPES
CE 40 7000
CUSE 7000
DPOOL 11JAN71
COMMON/DPOOL/
THIS BLOCK CONTAINS THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
/CHECK/,/CUR/,/DEPR/,/KORIP/,/LEG/,/NAVALX/,/PGL,IT/,
/RADATA/,/RECQV/,/REF/,AND /TYPE,NAME/,
IT IS REUSED DURING TGT SORT AS ITEM,
AND DURING GRPSORT AS ITANK AND JTANK
COMMON /DPOOL/ IN(200),LINK(200),ZONEM(200),NFATR(200),
* ICHKFLG(20),ICHKNU(20),ITC(30),ITMCK(30),ZONEC(30),ITV(30),
* I(50),LIND(50),KORSTY(5),MILGAT(5),GCFK(5),ATTKS(2),
* ATTK(5),IL(200),LINKL(200),A1ML(200),TWAS(10,10),
* DMLAS(10,10),NTIMFS(10),TIMESTRT(200),MALLOW(200),
* RLAT(200),FLONG(200),HLAT(200),RFLONG(200),LINKR(200),
* RECLAT(200),RFCLON(200),IRECPTY(200),INDMCK(200),
* RFLAT(200),RFLONG(200),COMMON(15),NTYPES(15),INCLAS(1-1),
* INOHEG(250),TYPEBME(250),NTYPES*CHK(250),
* PG(12),PA(12),ORCF(0A(8),
* ITEMP(5000),ITANK(12,200),JTANK(12,200)
TYPE INTEGER ZONEM,ZONFC
TYPE INTEGER TYPE,NAME,CHK
TYPE INTEGER CUMNO
EQUIVALENCE (I,ITEMP,ITANK)
EQUIVALENCE (ITEMP(2001),JTANK)
DPOOL
CE 40 2000
CUSE 2000
CLASNAME 10JUN71
COMMON /CLASNAME/ CLASNAME(15),CLASVAL(15),CUVAL(15),VLFAC(15)
TYPE INTEGER CLASNAME
CLASNAME,CLASVAL,CUVAL,VLFAC(NTARCLS) WHERE
*NTARCLS = MAXIMUM NUMBER OF TARGET CLASSES
CLASNAME
COMMON /TODAY/ NO,NO,NO,NO,DATE,NO,TIME
*
CE 40 17000
CUSE 17000
COMMON /MT,IMATE,IDE,INO,LS,STRE,NTPT,NCORH,NO,PER,NHEC,IVER,
*MPER,NO,NO,RY,NO,PT,NO,TYPE,NGROUP,NO,TBASE,NO,PAYLOAD,NO,AS,MTYPE,
*ZM,NO,TYPE,NTANK,AS,NO,COMPLEX,NO,CLASS,NO,ALERT,NO,CORTYPE,
* I,TAPE(22)
EQUIVALENCE (I,TAPE,MT)

```

```

CE #          CUSE
*-----*
C  MISC          5JAN71 *****
COMMON /MISC/ IN(5),FI(5),ITTAPE(5) *****
EQUIVALENCE(IN,FI),INTGIS,ITTAPE(5) *****
C  MISC          30NOV70 *****
COMMON /2/ AM(13,50),I-MR(3,50),ASW(15,20),IAS,IAS(15,20) *****
*-----*
C  EQUIVALENCE (LMDAT,MR),AS-1,IASH(1),WTP,INTPI,(PLD,IPL) *****
COMMON /3/ MWHO(TH),AS-1,IASH(1),WTP,INTPI,(PLD,IPL) *****
C  ASW,IASW(15),MASK(TH),MCSMTYP=MAX NUM ASW TYPES *****
COMMON /4/ MWHO(TH),MAYLON(1),MAYLON=MAX NUM ASW TYPES *****
C  MGN(MCCEM),MCCFRGN=MAX NUM COMMAND/CONT-OL *****
COMMON /5/ MGN(MCCEM),MCCFRGN=MAX NUM WEAPON TYPES *****
C  ?          30NOV70 *****
COMMON /6/ MGN(MCCEM),MCCFRGN=MAX NUM WEAPON TYPES *****
C  COMMON /7/ MAXICOMP,MCPX(2500) *****
COMMON /8/ MGN(MCCEM),MCCFRGN=MAX NUM IGT COMPLEXES,VAL GT 0 *****
C  GROUP      15DEC78 *****
COMMON /9/ GROUP(15),IGRP(15,210),IANGRP(210),MCSGRP *****
*-----*
C  EQUIVALENCE (M-1,IGRP,IGT) *****
COMMON /10/ MGRP(15),MGRP(15), AND INDRP(MGRP,10) WHERE *****
C  MGRP(15) *****
COMMON /11/ MGRP(15),MGRP(15), AND IS JGT(-IARVAL) *****
C  JGT IS USED ONLY IN IGT SORT, AND IS JGT(-IARVAL) *****
C  6400P      25JUN71 *****
COMMON /12/ IAR(29,250),IAR(29,250),CPLX(30,250),ICPLX(30,250) *****
*-----*
C  EQUIVALENCE (IAR,IAR,IGRP,IGT,IGRP,IGT) *****
COMMON /13/ IAR(29,250),IAR(29,250),CPLX(30,250),ICPLX(30,250) *****
C  (CPLX,ICPLX) *****
C  COMMON /14/ DIRECTRY/ 4LICOP (5,600), FULTCOMP (4,600), LOCK (30) *****
*-----*
C  EQUIVALENCE (MTCOMP,MULTCOMP) *****
COMMON /15/ MTCOMP(4),MTCOMP(4),MTCOMP(4),MTCOMP(4) *****
C  IAR(29,MTCOMP), MGT = MAX NUM; TARGET TABLE ENTRIES *****
C  CPLX(30,MTCOMP), MCOMP = SIZE OF COMPLEX IGT ARRAY *****
C  MULTCOMP(4,MULT), MULT=SIZE OF MULTIPLE IGT DATA ARRAY *****
C  GRPCOMP(5,MPHN), MPH=TABLE FOR DATA OF EA WEAPON IN GROUP *****
C  ITW(112,MTRTAL), MTRTAL = TABLE FOR TANKER DATA *****
*-----*
C  ZOTRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA *****
C  FILL DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON *****
C  12 *****
COMMON /16/ PRIOR *****
COMMON /17/ PRIOR *****
C  TYPE INTEGER TASK,DESIG *****
*-----*
CE #          CUSE
*-----*
C  COMMON /MAX/ MINDEX *****
COMMON /1/ MCLASS, MCTOYS, MCOMP, MCRPTYP, MCHURN, MCCFRGN *****
C  MDEPMLG *****
COMMON /2/ MDEPMLG *****
C  MRECVLG *****
COMMON /3/ MRECVLG *****
C  MDEFM *****
COMMON /4/ MDEFM *****
C  MDEFM *****
COMMON /5/ MDEFM *****
C  MDEFM *****
COMMON /6/ MDEFM *****

```

```

7  MTYPE, MVULN, MWEARGP, MWMDTPE, MZONEPT,      8000
8  MZONES, MTRPCL                               9000
  MAX                                           22500
  DATA (MASK1 = 77000000000000000000)         23000
  DATA (MASK2 = 77770000000000000000)         23500
  DATA (I1=8)                                   24000
  DATA (I2=8)                                   24500
  ITESTZ = 1M .AND..NOT..MASK1.OR..MASK2       28000
  HEAD INPUT PRIORITY CAMUS                    30500
  PRINT 17                                     31000
  DO 182 J=1,6                                  32000
    I1=I22+1,5 I22=I22+4
    READ 180,(IPTASK(I),I=I1,I22)
    PRINT 1800,(IPTASK(I),I=I1,I22)
    FORMAT('R(AB,2X)')
    DO 181 I=I1,I22
      I=(IPTASK(I).EQ.8M) 183,181
    CONTINUE
  181 CONTINUE
  182 CONTINUE
  183 MTASK=I-1
    ISUB=80 < I=I-1
    IPTSK = IPTASK(I) .AND. ITESTZ
    IF (IPTASK(I) .EQ. IPTSK) 1832, 1831
  1831 ISUB=I
    DO 18310 I=1,MPTASK
      IPTASK(I)=(IPTASK(I).AND..MASK2)
      GO TO 1833
  1832 DO 18320 I=1,MPTASK
      IPTASK(I)=(IPTASK(I).AND..MASK1)
  1833 CONTINUE
    PRINT 18
  18 FORMAT('7MODESIG PRIORITIES)
    I1=I22+0
    DO 185 J=1,12
      I1=I22+1,5 I22=I22+4
      HEAD 180,(IPDS(I),I=I1,I22)
      PRINT 1800,(IPDS(I),I=I1,I22)
    DO 184 I=I1,I22
      IF (IPDS(I).EQ.8M) 184,184
    CONTINUE
  184 CONTINUE
  185 MPTASK=I-1
    DO 1860 I=1,MPTDS
      IPDS(I)=(IPDS(I).AND..MASK2)
    RETURN
  C
  ENTRY SHUFFL
  MWMSGP=14
  CLEAR /DIRECTORY/
  C
  DO 20 K=1,480
    MLCOMP(K)=0
  CONTINUE
  MIDENT=7MINTFL
  ITP=LTWIN & CALL SETWRITE

```

```

MYIDENT=7MTINFILE
ITP=LTIN S CALL SETWRITE
NTGTS=MTAPE(1)
ITTAPE(1)=7MTINFILE
ITAPF(2)=NOWDATE
ITTAPE(3)=NOWTIME
DO 10 I=2,4
10 ITTAPE(I)=MTAPE(I)
ITP=LTIN
CALL WRAPRAY(ITTAPE,S)
ITTAPE(1)=7MTINFILE          COPY DATA TO WINFILE

ITP=LTWIN
CALL WRARRAY(ITTAPE,22)
PRINT 200
FORMAT (15H1MT:FILE:HEADER//)
PRINT 250, (INTAPF(J), J=1,22)
FORMAT (2X,4//), 18(2X,1R//)
NWS=2*MTARTYPE
CALL WRARRAY(I,08EG,NWS)
NWS=3*MTANGLS
CALL WRARRAY(CUMNO,NWS)
DO 610 I=1,NCDTYPE
CALL WRITER(KOMSTV(I),HILQAT(I),DEFH(I),ATTMS(I),ATTAC(I),S)
610 CONTINUE
DO 620 I=1,NCDNR
II=IC(I)
CALL WRITER(LINK(I),RLAT(II),RLONG(III),ZONEC(II),ITY(II),S)
620 CONTINUE
DO 630 I=1,NRTPT
II=IL(I)
CALL WRITER(LINKL(I),RLAT(III),RLONG(II),ATRL(II),0,0,0)
630 CONTINUE
DO 640 I=1,NDFEN
II=ID(I)
CALL WRITER(LINKD(I),RLAT(II),RLONG(II),0,0,0,3)
640 CONTINUE
DO 650 I=1,NRECOVER
CALL WRITER(LINKR(I),RECLAT(I),RECLON(I),INECAPTY(II),ITNAMEC(II),S)
650 CONTINUE
DO 660 I=1,NHFF
CALL WRITER(RFLAT(I),RFLONG(I),0,0,0,2)
660 CONTINUE
DO 670 I=1,NHNDRY
II=IR(II)
CALL WRITER(LINKB(II),RLAT(II),RLONG(II),ZONER(II),NEXTZB(II),S)
670 CONTINUE
CALL TBSORT(NTGTS)
ITP=LTWIN
M = 3 * NWDTYPE
CALL WRARRAY(MD,M)
M = 5 * NASHTYPE
CALL WRARRAY(ASMT,M)
M = 10 * NPAYLOAD
CALL WRARRAY(IPLD,M)
CALL WRARRAY(RGN,NREG)

```

FTNS.5

12/10/71

PAGE NO.

5

✓ = 20 * NIVPE
CALL #BARRAY (TMP,M)
70 CALL GRPSORT
RETURN
END

114009
115000
116000
117500
119000

1216

INFMT SHUFFLE

PROGRAM LENGTH	00724
ENTRY POINTS	00330
BLOCK NAMES	00070
ITP	00001
NOPRINT	00001
TRUNC	00001
MYINFMT	00001
TAPES	00007
DPOOL	11610
CLASNAME	00074
TODAY	00003
WT	00024
MISC	00012
2	04334
1	04705
GROUP	06117
12	34436
DIMFACTRY	11654
PRIOR	00223
MAX	00047

EXTERNAL SYMBOLS

THEM. .
 OBJECT.
 SETWRITE
 WRARRAY
 WRITER
 IGTSPORT
 GRPSPORT
 ISH.
 SIM.
 UNSINGL.

5-4TS SHUFFLE

12/10/71 ED 0 PAGE NO. 0

C16122	ICPLX	00540	00540						
C01700	ID								
C00001	IDATE								
C00002	IDENTNO								
C00000	IGRP								
C00000	IGRPCOMP								
P00717	IL	00474	00476	00517	00521	00541	00543	00617	00621
C02075	IL	00516	00516						
C00000	IN								
C10124	INDREG	00441							
C10105	INDCLAS								
C05574	INDGRP								
C07467	INDREC	00565	00572						
P00703	INITIAL	00073	00333						
C00060	IPRES	00253	00253	00270	00270	00302	00302	00322	00324
C00372	IPLD	00664							
C00000	IPTASK	00123	00123	00140	00140	00152	00152	00170	00173
P00720	IPTSKX	00205	00207	00210	00221	00221	00223	00224	00205
C07157	IRECPTY	00172	00174						
C00222	ISUMT	00564	00571						
C00000	ITANK	00165	00176						
C00000	ITAR								
C00000	ITEMP								
P00721	ITESTZ								
C00000	ITP	00076	00171						
C00005	ITTAPE	00346	00346	00354	00354	00376	00376	00405	00442
C00000	ITW000	00362	00362	00373	00373	00401			
C01642	ITY	00501	00507						
C00000	IWMD								
C00000	IWTAPE	00357	00357	00364	00364	00366	00366	00372	00410
C01236	IWTP	00424	00424						
P00372	.10	00675							
P00155	.181								
P00160	.182	00154							
P00162	.183								
P00176	.1831	00154							
P00205	.18310	00175							
P00213	.1832								
P00221	.18320	00175							
P00226	.1833								
P00305	.184	00212							
P00310	.185	00304							
P00312	.186								
P00322	.1860	00304							
P00342	.20								
P00465	.610								
P00510	.620								
P00532	.630								
P00553	.640								
P00573	.650								
P00610	.660								
P00633	.670								

1219

P00676	.70							
P00007	..10000	00074						
P00032	..100001	00153						
P00041	..100002	00303						
P00042	..100003	00343						
P00043	..100004	00351						
P00044	..100005	00361						
P00045	..100006	00402						
P00010	..17	00102						
P00015	..1A9	00114						
P00023	..1M00	00134						
P00033	..1M	00231						
P00046	..200	00414						
P00054	..250	00422						
P00062	..30001.	00453	00454	00455	00456	00457		
P00505	..700002.	00475	00477	00500	00501	00502		
P00527	..200003.	00520	00522	00523	00524			
P00550	..200004.	00542	00544	00545				
P00570	..200005.	00561	00562	00563	00564	00565		
P00605	..200006.	00601	00602					
P00630	..200007.	00620	00622	00623	00624	00625		
P00722	J	00106	00160	00230	00310	00424	00425	00430
C04540	JTANK							
C00000	JIGT							
P00723	K	00336	00337					
C02044	KORSTV	00453	00462					
C00310	LINKA	00020	00630					
C01546	LINKC	00474	00505					
C01762	LINKD	00542	00550					
C02405	LINKL	00520	00527					
C06027	LINKR	00561	00570					
C11300	LOOK							
C00003	LSIDE							
C00005	LSPTA							
C00006	LSPTB							
C00004	LTOH							
C00003	LTOPP							
C00002	LTTGT							
C00001	LITIN							
C00000	LITIN							
P00724	M							
C02000	MALQNEZ							
C03001	MALERT	00353	00355	00375	00375	00375		
P00003	MASKI	00345	00345	00404	00404	00404	00441	
P00004	MASK2	00644	00650	00653	00656	00661	00664	00675
C00002	MAS-TYP							
C00000	MAXICOMP							
C00002	MENDRY	00075	00075	00222				
C00004	MCREGN	00204	00323					
C00005	MCLASS							
C00006	MCONTRYS							
C00007	MCOHR							
C00010	MCOHTYP							
C00012	MCOENLG							

S.ATS

12/10/71

ED 0

PAGE NO.

10

SHUFFLE

C00011 *DPEN
 C00013 *GROUP
 C00000 *LTCOMP
 C00014 *PAYLOAD
 C00221 *PDES
 C00220 *PIASK
 C00015 *RFCOVR
 C00016 *RECVLG
 C00017 *REF
 C00020 *RYLEG
 C00021 *RTPT
 C00022 *SPERM
 C00023 *TANKRS
 C00024 *TARCLS
 C00025 *TARCOL
 C00026 *TARCPX
 C00027 *TAMERS
 C00030 *TARGET
 C00031 *TARIND
 C00046 *TARPLC
 C00032 *TARSEC
 C00033 *TARTFI
 C00034 *TARTYP
 C00035 *TARVAL
 C00036 *TELMCH
 C00037 *TOTRAS
 C00040 *TYPF
 C00041 *VULN
 C00042 *WEAPGP
 C00043 *WHTPE
 C00000 *YINENT
 C00044 *ZONEPT
 C00045 *ZONES
 C00024 *ALERT
 C00057 *ALLOW
 C00017 *NASMYPE
 C00011 *NRNDY
 C00023 *NCLASS
 C00022 *NCOMPLEX
 C00005 *N CORR
 C00025 *N CRTYPE
 C00001 *NCPX
 C00004 *NCPEN
 C01130 *NEXTZR
 C00014 *NGROUP
 C00000 *NOPRINT
 C00001 *NOWDATE
 C00000 *NOWRUNO
 C00002 *NOWTIME
 C00016 *NPAYLOAD
 C00007 *NRECOVER
 C00010 *NREF
 C00012 *NREG
 C00004 *NRTP

00340 00341
 00313 00314 00310 00316
 00163 00164 00201 00201 00214 00215

 00442 00443

 00434 00435

 00344 00344 00352 00352

 00651 00652
 00634 00634

 00511 00511
 00466 00466
 00554 00554
 00624 00632

 00363 00363
 00365 00365
 00647 00640
 00574 00574
 00611 00611
 00667 00667
 00533 00533

C00021	RTANKBAS	00360	00360	00540					
C00011	NTGTS								
C03535	NTIMES								
C00015	NTOTBASE	00670	00671						
C00013	NTYPE								
C11110	NTYPS	00436	00441	00444	00467				
P00725	NWDS	00334	00335						
C06116	NWDSGRP	00643	00644						
C00020	NWHDTYPE								
C11517	PA								
C11503	PG								
C00372	PLD	00000	00071	00331					
X00002	ORODICT.								
C11543	QA								
C11533	QB								
X00012	QNSINGL.	00701	00570						
RECLAT		00562	00571						
C06337	RECLON	00563	00571						
C06647	RECLON	00601	00605						
C07777	RFLAT	00601	00605						
C10023	RFLONG	00602	00605						
C01212	RGN	00667	00505	00527	00543	00550			
C05207	RLAT	00476	00477	00522	00530	00544	00551		
C05517	RLONG	00477	00506	00522	00530	00544	00551		
X00003	SETRITE	00347	00355						
P00330	SHUFFLI	00330							
P00070	SHUFFLE	00070							
X00011	STM.	00100	00132	00227	00262	00412	00420		
X00000	TAR								
X00006	TGTSORT	00636							
X00001	THEMO.	00103	00127	00145	00232	00257	00415	00432	
C03547	TIMESTRT								
C03225	TMASW								
P00125	TS00002.	00120							
P00143	TS00003.	00136							
P00156	TS00004.	00150							
P00212	TS00005.	00202							
P00226	TS00006.	00216							
P00255	TS00010.	00250							
P00273	TS00011.	00266							
P00306	TS00012.	00300							
P00327	TS00013.	00317							
P00466	TS00017.	00451							
P00511	TS00020.	00471							
P00533	TS00021.	00514							
P00554	TS00022.	00536							
P00574	TS00023.	00557							
P00611	TS00024.	00577							
P00634	TS00025.	00614							
X00010	TSN.	00114	00244						
C00000	TWORD								
C10516	TYPENAME								
C00055	VALFAC								
C00000	WHD	00650	00377	00406	00437	00445	00646	00654	00662
X00004	WRARRAY								00673

5.ATS

SHUFFLE

12/10/71

ED

0

PAGE NO.

12

X00095	4RITER	00460	00503	00525	00546	00566	00603	00626
P00107	4S00001.	00161						
P00121	4S00002.	00126	00126					
P00137	4S00003.	00144	00144					
P00151	4S00004.	00157	00157					
P00205	4S00005.	00211						
P00221	4S00006.	00225						
P00237	4S00007.	00311						
P00251	4S00010.	00256	00256					
P00267	4S00011.	00274	00274					
P00301	4S00012.	00307	00307					
P00322	4S00013.	00324						
P00360	4S00014.	00362						
P00372	4S00015.	00374						
P00425	4S00016.	00431						
P00452	4S00017.	00467	00467					
P00472	4S00020.	00512	00512					
P00515	4S00021.	00534	00534					
P00537	4S00022.	00555	00555					
P00560	4S00023.	00575	00575					
P00600	4S00024.	00612	00612					
P00615	4S00025.	00635	00635					
C00000	4T							
C01236	4TTP							
C00620	4ZONEB	00623	00631					
C01604	4ZONEC	00500	00506					
	00436 SYMBOLS							

```

SUBROUTINE TGT SORT(INTR)
  CSUBR   TGT SORT 25 OCT 71 *****
  CUSE    IFTPRN 11 NOV 70 *****
  COMMON /IFTPRN/IFTPRN(10) *****
  CEVD    IFTPRN *****
  CUSE    ITP 11 NOV 70 *****
  COMMON /ITP/ITP *****
  CEVD    ITP *****
  CUSE    TWORD 11 NOV 70 *****
  COMMON /TWORD/TWORD,ITWORD *****
  EQUIVALENCE(TWORD,ITWORD) *****
  CEVD    TWORD *****
  CUSE    MYIDENT 11 NOV 70 *****
  COMMON /MYIDENT/MYIDENT *****
  CEVD    MYIDENT *****
  CUSE    TAPES 25 JAN 71 *****
  COMMON /TAPES/LYIN,LYTIN,LYTGT,LYGRP,LYDR,LSKTA,LSRTR *****
  CEVD    TAPES *****
  CUSE    CLASNAME 10 JUN 71 *****
  COMMON /CLASNAME/CLASNAME(15),CLASVAL(15),CUMVAL(15),VALFAC(15) *****
  TYPE INTEGER CLASNAME *****
  CLASNAME,CLASVAL,CUMVAL,VALFAC(15) WHERE *****
  *TARCLS = MAXIMUM NUMBER OF TARGET CLASSES *****
  CEVD    CLASNAME *****
  CUSE    DPOOL 18 JAN 71 *****
  COMMON /DPOOL/ *****
  C
  C THIS BLOCK CONTAINS THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
  C /CHECK/,/CORR/,/DEPN/,/KORTYP/,/LEG/,/NAVALX/,/POI-T/,
  C /RADATA/,/RECOP/,/REF/, AND /TYPE NAME/.
  C IT IS REUSED DURING TGT SORT AS ITEMP,
  C AND DURING GRPSORT AS ITANK AND JTANK
  C
  COMMON /DPOOL/ I8(200),LINK(200),ZONES(200),NEXTZ(200),
  * ICHKFLG(20),ICHRUM(20),IC(30),LINKC(30),ZINEC(30),ITY(30),
  * I(50),LINKU(50),KORSTY(5),HILQAT(5),DEFRT(4),ATTRS(5),
  * ATTRC(5),IL(200),LINKL(200),AIRL(200),TMSW(10,10),
  * UPLAS(10,10),NTIMES(10),TIMESTRT(200),NALLOW(200),
  * ALAT(200),RFLONG(200),RLAT(200),HLONG(200),LINKR(200),
  * RECLAT(200),RECLON(200),TRECPTY(200),INDHEC(200),
  * RFLAT(20),RFLONG(20),CUMNO(15),MTYPES(15),INDCLAS(15),
  * INDREG(250),TYPE NAME(250),NTYPS,CHK(250),
  * PG(12),PA(12),GG(8),RA(8),
  * ITEMP(5000),ITANK(12,200),JTANK(12,200)
  TYPE INTEGER ZONES,ZONEC
  TYPE INTEGER TYPE NAME,CHK
  EQUIVALENCE (I,ITEMP,ITANK)
  EQUIVALENCE (ITEMP(2401),JTANK)
  CEVD    DPOOL *****
  CUSE    LCPX 18 JAN 71 *****
  COMMON /LCPX/ LCPX(2500),ICNUM(125),ICPRT(125),ICNDA(125),
  * LTYPE(250) *****
  EQUIVALENCE (LCPX,ICNUM), (LCPX(126),ICPNT) *****
  EQUIVALENCE (LCPX(251),ICNDX), (LCPX(376),LTYPE) *****
  C
  C LCPX(K) IN TGT SORT POINTS TO ICPX ARRAY FROM COMPLEX NUM K
  C

```

```

C      ICNUM,ICNDX,ICPNT(M*COMP),MHCUMP(1/2*MCOMP),M1/2*SIZE OF CPLX
C      USED TO SORT PRINTOUT BY ICOMPLEX
CEND  LCPX
CUSE  1 30NOV70 *****
COMMON /1/ MAXICOMP,MCPX(2500)
C      MCPX(MTARVAL) WHERE MTARVAL = MAX NUM TGT COMPLEXES,VAL GT 0
CEND  1 *****
CUSE  GROUP 15NEC70 *****
COMMON /GROUP/ GRP(1,2,210),IGRP(1,2,210),INDGRP(210),MWD5GRP,
*      JTG(2500)
EQUIVALENCE (GRP,IGRP,JTGT)
C      GRP,IGRP(1,2,210), AND INDGRP(MGROUP,10) WHERE
C      MGROUP = MAX NUMBER OF WEAPON GROUPS
C      JTG IS USED ONLY IN IGT SORT, AND IS JTG(MTARVAL)
CEND  GROUP *****
CUSE  12 25JUN71 *****
COMMON /12/ TAR(29,250),ITAR(29,250),CPLX(30,250),ICPLX(30,250),
EQUIVALENCE(TAR,ITAR,GRPCOMP,IGRPCOMP),
*      ICPLX,ICPLX)
C      COMMON /DIRECTRY/ MLTCOMP (8,600), FMLTCOMP (8,600), LONK (30),
*      FILLR (208)
EQUIVALENCE (MLTCOMP,FMLTCOMP)
C      TAR(29,MTGT), MTGT = MAX NUM TARGET TABLE ENTRIES
C      CPLX(129,MCOMP), MCOMP = SIZE OF COMPLEX TGT ARRAY
C      MLTCOMP(R,MULT), MULT=SIZE OF MULTIPLE TGT DATA ARRAY
C      GRPCOMP(15,MPPND), MPPND = TABLE FOR DATA ON EA WEAPON IN GROUP
C      ITANK(12,MTRTL), MTRTL = TABLE FOR TANKER DATA
C      /DIRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA
C      FILLR DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON
CEND  12 *****
CUSE  MLTX 30NOV70 *****
COMMON /MLTX/ MLT(31),MLT(8,5),FMLTX(8,5),MMULT
EQUIVALENCE(MLT,FMLTX)
C      MLTX *****
CEND  PRCNTL 12MAY71 *****
COMMON /PRCNTL/ JJJGT5,JJUGP,JJUCPX
CEND  PRCNTL *****
CUSE  TO 30NOV70 *****
COMMON /TD/ TD(31),TD(31)
EQUIVALENCE(TD,TD)
C      TO *****
CEND  MAX 30NOV70 *****
COMMON /MAX/ MIPDEZ, WALERT, MASTYP, MBNDRY, MCCHEGN,
1 MCLASS, MCTRYS, MARR, MORTYP, MDPEN,
2 MDEPNLG, MGROUP, MPAYLOD, MFCOVR,
3 MDECVLG, MREF, MTLER, MHTOT,
4 MSPERT, MTANKS, MTRCLS, MTRCOL, MTRCPX,
5 MTARRS, MTARGET, MTRKNO, MTRASEC, MTRTET,
6 MTARTYP, MTARVAL, MTELWCM, MTRHRS,
7 MTYPE, MVULN, MDEAGP, MMDTPE, MZONEPT,
*      MZONES, MTABPL
C      MAX *****
CEND  DATA (MTGT = 250)
DATA (MCOMP = 250)

```

```

DATA (MMULT * 600)
IFROM=LSRTA
ITO=LSRTR
MAXSTENTARGET*1
LEAD=NTAR*5*(3.-SORTF(C.))
PRINT 5,NTAR,LEAD
5 FORMAT(14H)BEGIN IGTSORT//6H NTAR=,18/6H LEAD=,18)
2004 PRINT 2005,MAXICOMP
2005 FORMAT(10H)MAXICOMP=,16)
350 CONTINUE
IF (JJJIGTS.EQ.4)MTGTS) 350,351
PRINT 2011
2011 FORMAT(16X,7MTASK=ST,4X,5HDESIG,5X,6HNAME,6X,7HINDEXNO,1X,
* 10HIGTSSTATUS,2X,4MYPE,5X,10HIGTSSTATUS,2X,
* 6HMTGTNUM,7X,8HMTGTVALUE,4X,5HMTGTINI)
351 CONTINUE
DO 10 I=1,MAXICOMP
10 LCPX(I)=C
DO 11 JN = 1,NTARVAL
11 JTG(JN)=0
MIN=0
MAX=MTGT
IPASS=1
ITP=ITGT
MYINENT=8HSCRATCH
CALL SETREAD
50 CONTINUE
MAXCHNG=1 5 IBEG=LEAD
LAST=0
DO 51 I=1,MTGT
51 ITR(2,I)=0
NEXTC=1
NEXTM=1
LENGTH=NTAR*1
DO 200 I=1,LENGTH
IF (I-MAXTS) 54,54,53
53 PRINT 530
530 FORMAT (23H)MORE THAN 5000 TARGETS )
CALL ASORT
54 CONTINUE
GO TO (60,70)IPASS
60 INO=LAST * LEAD
IF(INO.LE.NTAR)62,61
61 INO=INO-NTAR
62 IF(INO.NE.IBEG)66,63
63 IF(I.EQ.1)66,64
64 IBEG=IBEG * 1
2006 PRINT 2007,I,INEG
2007 FORMAT(3H)I=,16,10X,5HINEG=,16)
INO=IBEG
66 LAST=INO
70 ITP=ITGT
CALL RDARRAY(11D,31)
IF (ITD(2)-EQ.8)XXXXXXXXX) 701,71
C RESTURE COMMON /GROUP/
701 JSIZE=1+(MGROUP*10)

```

10675
10800
10900
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000
27500
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
37500
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
47100
47200
47300
47400
47500
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000
58000
59000
60000
61000
61100
61200

```

CALL ROARRAY(IARP,JSIZE)
GO TO 200
71 CONTINUE
ICLASS=ITD(23)
TD(1)=ITD(1)+VALFAC(ICLASS)
GO TO (75,80)IP+55
75 ITD(31)=IND
C
TEST FOR COMPLEX TARGET
80 CONTINUE
IF (ITD(30)) 802,2008,802
ITEMP(1)=ITD(31)
2008 PRINT 2010,ITD(4),ITD(3),ITD(5),ITD(6),ITD(1),ITD(2),
*
ITD(7),ITD(24),ITD(30),
1 ITD(31),TD(11),ITD(26)
2010 FORMAT (7H0TARGET,12X,56,A5,A2,11,1X,A8,2I10,2X,A8,2I10,10X,
*
F7.3,2X,15)
80 CONTINUE
IF (ITD(30)=2) 81,120,81
82 ICXNO=ITD(7)
IF (JGT(ICXNO)) 804,803,804
803 JGT(ICXNO)=ITD(31)
GO TO 2008
804 ITD(31)=JGT(ICXNO)
GO TO 2008
81 IT=ITEMP(1)-MIN
85 IF (IT<L.T.1).OR.(IT<GT.MAX))195,85
86 DO 90 J=1,29
90 ITAR(J,IT)=ITD(J)
IF (ITAR(1,IT).GE. .000000000001) 93,91
91 TAR(1,IT)=.000000000001
93 CONTINUE
92 K=NEXTM
NEXTM=NEXTM+ITD(7)
IF (NEXTM<LE*MMULT)100,95
95 ITAR(2,IT)=0
PRINT 96
96 FORMAT(20HIMULTY TGT TABLE FULL)
MAXMAM=10
MAXCHNG=2
GO TO 201
100 CONTINUE
ITAR(2,IT)=K
L=8*(K-1)+1
M=8*ITD(7)
CALL ROARRAY(MLTCOMP(L),M)
GO TO 200
120 K=LCPK(ITD(7))
IF(K<GT.0)143,121
121 CONTINUE
GO TO 70
125 M=NCPK(ITD(7))
IF(M<GT.1)130,126
126 ITD(7)=1
ITD(30)=0
GO TO 86

```

61300
61400
62000
63000
65000
66000
67000
68000
69000
70000
71000
71500
72000
73000
73500
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000

```

130 K=NEXTC
    NEXTC=NEXTC*N
    IF(NEXTC.LE.MCOMP)140,131
131 PRINT 132
132 FORMAT(19HICOMPLEX TABLE FULL)
    I1AR(2,I1)=0
    MAX=MAX-I0
    MAXCHNG=2
    GO TO 201
140 I1AR(1,I1)=I1D(1)
    I1AR(2,I1)=I1D(2)
    I1AR(3,I1)=I1D(3)
    I1AR(4,I1)=I1D(4)
    I1AR(5,I1)=I1D(5)
    I1AR(6,I1)=I1D(6)
    I1AR(7,I1)=K
    I1AR(8,I1)=I1D(8)
    I1AR(9,I1)=I1D(9)
    I1AR(23,I1)=I1D(23)
    I1AR(24,I1)=N
143 DO 144 J=1,29
144 ICPLX(J,K)=I1D(J)
    ICPLX(30,K)=I1D(7)
    IF (CPLX(I1,K).GE. .000000000001) 145,145
145 CPLX(I1,K)=.000000000001
146 CONTINUE
    CPLX(7,K)=1.
    LCPX(I1(7),K)=
    IF(I1D(30),2) 280,70,200
195 CONTINUE
    IF(I1D(7)-1) 197,200,197
197 IF(I1D(30)) 200,198,200
198 M=8-I1D(7)
    ITP=ITGT
    CALL RDARRAY(MLTK,M)
200 CONTINUE
201 ITP=ITGT
    CALL TERMTAPE
    MYIDENT=8HSCRATCH
    CALL SETREAD
    DO 202 I=1,MAXICOMP
202 LCPX(I)=0
    PRIN: 210,IPASS,MIN,MAX
210 FORMAT(5H0PASS,14,10X,9HMIN INDX=,16,10X,9HMAX TOTS=,16)
    DO 1530 I=1,MTGT
    IF(I1AR(2,I).GT.0)1513,1511
1511 MIN=MIN + I-1
    GO TO 1540
1513 K=I1AR(7,I)
    IF(K-111515,1525,1520
    C
    COMPLEX HERE
1515 I1AR(7,I)=I
    GO TO(1516,1511),MAXCHNG
1516 CONTINUE
    CALL CALCOMP(I,-K)

```

```

115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
125100
125200
125300
125400
126000
127000
128000
128500
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
150500
151000
152000
153000
154000
155000
156000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000

```

```

1517 L=I-1)*30+1
      M=IAR(24,I)
      ITP=LTWIN
      DO 1517 I=M1,M
        CALL WARRAY(ICPLX(L),29)
1517 L=L+30
      GO TO 1525
C     MULTIPLE HERE
1520 L=IAR(2,I)
      ITR(2,I)=MLTCOMP(?,L)
      L=(L-1)*8+1
      N=K*8
      ITP=LTWIN
      CALL WARRAY(MLTCOMP(L),M)
C     WRITE TARGET
1525 L=(I-1)*29+1
      ITR(7,I)=ITAR(7,I)
      ITP=LTWIN
      CALL WARRAY(ITAR(L),29)
1530 CONTINUE
      MIN=MIN+M*GT
1540 IF (MIN.GE.MTAR) 1600,1541
1541 CONTINUE
      GO TO (1542,50)MAXCHNG
1542 CONTINUE
C
1600 IK=1
      IF (JJCPX.NE.7MCOMPLEX) GO TO 1669
      REVERSE LSMTA AND LSRTA
C
      INTM=IFROM
      IFROM=ITO
      ITO=INTM
      IF (IPASS-1) 1585,1585,1580
1580 ITR=IFROM
      MIDENT=MSCRATCH
      CALL SETREAD
      CALL HDARRAY(LOOK,30)
1585 ITR=ITO
      MIDENT=MSCRATCH
      CALL SETWRITE
      DO 1605 IZ=1,125
        ICNUM(IZ)=0
        ICPT(IZ)=0
        ICNDX(IZ)=0
1605 CONTINUE
        ICNUM(I)=ICPLX(30,I)
        ICPT(I)=1
      DO 1620 JJ=2,MCOMP
        IF (ICPLX(30,JJ)=ICNUM(IK)) 1610,1620,1610
1610 I=M+K+1
        ICNUM(IK)=ICPLX(30,JJ)
        ICPT(IK)=JJ
1620 CONTINUE
      CALL ORDER(ICNUM,ICNDX,IK)
      DO 1650 MN=1,IC
        IXX=ICNDX(MN)

```

```

168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
192010
192020
192030
192040
192050
192060
192070
192080
192090
192100
192110
192120
192130
192140
192150
192160
192170
192180
192190
192200
192210
192220
192230
192240
192250
192260
192270
192280
192290
192300
192310

```

```

IX=ICPNT(IXX)
IF (ICNUM(IXX)) 1625,1650,1625
1625 IMOLD=ICPLX(30,IX)
1627 IF (IPASS=1) 1530,1632,1630
C MERGE ITEM WITH LIST OF UNIT IF#0M. WRITE TO UNIT #TC
1630 IF (IMOLD=LOOK(30))1632,1632,1632
1632 ITP=ITO
ILOC(IX=1)*30=1
CALL WRARRAY(ICPLX(ILOC,30)
GO TO 1636
1634 ITP=ITO
CALL WRARRAY (LOOK,30)
ITP=IFROM
CALL RDARRAY(LOOK,30)
GO TO 1639
1636 CONTINUE
ICPLX(30,IX)=0
IX=IX+1
IF (IX=COMP) 1637,1637,1650
1637 IF (ICPLX(30,IX)=MOLD) 1650,1627,1650
1650 CONTINUE
1660 IF (IPASS=1)1660,1666,1660
1660 IF (LOOK(30)=999999) 1663,1668,1663
1663 ITP=ITO
CALL WRARRAY(LOOK,30)
ITP=IFROM
CALL RDARRAY(LOOK,30)
GO TO 1660
1666 LOOK(30)=999999
1668 ITP=ITO
CALL WRARRAY(LOOK,30)
CALL TERMTAPE
IF (IPASS.EQ.1) GO TO 1669
ITP=IFROM
CALL TERMTAPE
CONTINUE
1669 IF (MIN.GE.MTAR) GO TO 1545
EVO OF PRINT SORT
C
IPASS=IPASS + 1
DO 1654 1=1,375
ICNUM(I)=0
CONTINUE
1655 GO TO 50
1645 CONTINUE
ITP=LYTIN
CALL TERMTAPE
ITP=LTWIN
IT=OPD=RMZZZZZZZZ
CALL WORD
ITP=LYTGT * CALL TERMTAPE
C
IF (JJUCPX.NE.THCMPLEX) GO TO 1680
ITP=ITO
MYIDENT=BHSCRATCH
CALL SETREAU
IMOLD=0

```

192320
192330
192340
192350
192360
192370
192380
192390
192395
192400
192410
192420
192430
192440
192450
192460
192470
192480
192490
192500
192510
192520
192530
192540
192550
192560
192570
192580
192590
192600
192610
192620
192630
192640
192650
192660
192670
192680
193000
193200
193300
193400
194000
195000
196000
197000
198000
199000
200000
201000
201020
201040
201060
201080
201100
201120

```

PRINT 151
151 FORMAT (2H0, R=ICOMPLEX, 2X, 7HINDEANO, 2X, 7HTGTNAME, 5X,
1 7HTASK=ST, 7X, 5HDESIG, 6X, 5HCLASS, 6X, 6HTYPE, 6X, 3MLAT, 7X, 4HLONG/)
1570 CALL HDARRAY(L'OK, 30)
IF (LOOK(30) = 999999) 1675, 1640, 1675
1675 IF (LOOK(30).NE.IMOLD) MC=IM6
      INCLUDE=LOOK(30)
PRINT 1435, MC, LOOK(30), LOOK(2), LOOK(1), LOOK(4), LOOK(3),
      LOOK(22), LOOK(124), LOOK(8), LOOK(9)
1435 FORMAT (A1, 1X, 16, 5X, 16, 2A, 48, 6X, 48, 5X, 48, 3X, 48, 2X, 48, 2X,
1  F7.3, 3X, F8.3)
      MC=IM
      GO TO 1670
1640 CALL TERTAPE
1680 CONTINUE
PRINT 1546
1546 FORMAT(18H0TGTSORT COMPLETED /)
      RETURN
      END

```

```

201140
201160
201180
201200
201220
201240
201260
201280
201300
201320
201340
201360
201380
201790
201400
202000
203000
204000
205000

```

IDENT TGTSORT

PROGRAM LENGTH	TGTSORT	IDENT	TGTSORT
ENTRY POINTS		02133	
BLOCK NAMES		00277	
	IFTPRNT	00012	
	IIP	00001	
	TWDRD	00001	
	MYIDENT	00001	
	TAPES	00007	
	CLASNAME	00074	
	DPOOL	11610	
	LCPX	04704	
	GROUP	04705	
	12	05117	
	DIRECTRY	34636	
	MLIX	11654	
	PRCNTL	00110	
	TD	00003	
	MAX	00037	
		00047	

EXTERNAL SYMBOLS

G1004100
 G1010100
 THEND.
 000DICT.
 SETHEAD
 ARORT
 ROARRAY
 TERM:TAP
 CALCOMP
 WRARRAY
 SETWHITE
 ORDER
 WR=040
 SORTF
 STH.
 QNSINGL.

X00006	ABORT	00450												
C02715	ATML													
C02070	ATMC													
C02063	ATRS													
P02000	HEGIN.	02030	02036	02042										
C04367	RLAT													
C04677	RLONG													
C10066	BYPES	01165												
X00011	CALCOMP													
C11111	CHK													
C00000	CLASNAME													
C00017	CLASVAL													
P01661	CNVRT1.	00327	00331	00341	00502	00503	00557	00560	00561	00562	00563	00564	00564	00564
		00565	00566	00567	00570	00571	00572	01127	01130	01131	01630	01632	01632	01632
		01633	01634	01635	01636	01637	01640	01641	01642	01642	01356	01356	01356	01356
		00362	00363	00373	00374	00421	00422	01115	01116	01355	01355	01356	01356	01356
		01034	01041	01042	01044	01045		00676	00764	01134	01607	01645	01645	01645
		00334	00344	00355	00450	00504	00575	00676	00764	01134	01607	01645	01645	01645
		01657												
P02065	COUNT.	00301	00313	00324	00333	00336	00343	00351	00354	00354	00444	00447	00447	00447
C16122	CPLX	00451	00477	00505	00515	00527	00554	00574	00572	00575	00577	00760	00760	00760
P00006	CRPAT.	00763	01072	01103	01107	01124	01133	01166	01267	01262	01264	01264	01264	01264
		01326	01335	01375	01435	01443	01450	01502	01507	01517	01522	01531	01531	01531
		01552	01560	01564	01576	01603	01606	01610	01626	01644	01650	01653	01653	01653
		01656	02003	02004										
		00302	00657	02000	02001	02001	02002	02002	02002					
		02034												
P02031	ENDING.													
P00000	EXIT.													
C11336	FILLR	00344	00406	00517	01104	01305	01321	01332	01555	01565	01573	01620	01620	01620
C00000	FMLTCOMP	01645												
C00037	FMLTX	02014												
P00006	FORMAT.	02015												
P00316	FP00001.	02016	02013											
P00326	FP00002.	02017	02015											
P00431	FP00003.	02026												
P00457	FP00004.	02022												
P00463	FP00005.	02024												
P01275	FP00006.	02020												
P01533	FP00007.	02005												
P02045	GETPL	02010												
P02035	GETPU.	00322												
P00334	GG00000.	00334												
P00344	GG00001.	00347												
P00355	GG00002.	00442												
P00450	GG00003.	00475												
P00506	GG00004.	00552												
P00575	GG00005.	00670												
P00676	GG00006.	00756												
P00764	GG00007.	01122												
P01134	GG00010.													

P01607	GG00011.	01601												
P01645	GG00012.	01624												
P01657	GG00013.	01651												
C00000	GRP													
C00000	GRPCOMP													
C02051	HIL0AT													
P02066	I	00356	00363	00410	00434	00437	00470	00501	00550	00515	01074	01111		
		01116	01135	01145	01167	01244	01266	01540	01542	01700				
C00000	IB													
P02067	IBEG	00415	00466	00473	00474	00503	00506							
C01510	IC													
C01440	ICMKFLG													
C01464	ICMNUM													
P02070	ICLASS	00533	00535											
C00372	ICNDX	01344	01376	01403	01403	01205	01210	01346	01346	01357	01357	01365		
C00000	ICNUM	01341	01342	01347	01347	01361	01361	01367	01367	01376	01411	01411		
		01543	01544											
		01027	01027	01033	01034	01205	01210	01346	01346	01357	01357	01365		
		01365	01414	01414	01433	01436	01454	01455	01464	01464				
		01343	01350	01371	01371	01405	01406							
C16122	ICPLX	00401	00602	00606	00611									
C00175	ICPNT													
P02071	ICKNO	00622												
C01700	ID	00304	01311	01313	01317	01445	01504	01524						
P00624	IF00001.													
P02072	IF00M													
C00000	IFTPRNT	00453	00541	01160	01301									
P02073	IG010.	00530												
C00000	IGRP													
C00000	IGRPCOMP													
P02074	IM0LN	01415	01421	01465	01600	01616	01623							
P02075	IK	01304	01360	01363	01364	01366	01377	01470						
C02075	IL													
P02076	ILOC	01432	01432											
P01662	IN00003.	00422	01140	01147	01156	01175	01220	01251	01672	01704				
P01663	IN00006.	00635	01704	01717	01755									
P01664	IN00010.	00843	00650	00666	00703	00765	00773	01756						
		01024	01704	01720	01745									
P01665	IN00012.	01033	01041	01044	01744									
P01666	IN00013.	01224	01766											
P01667	IN00014.	01354	01722	01734										
P01670	IN00016.	01413	01454	01463	01774									
P02077	IND	00456	00457	00462	00464	00465	00507	00510	00543					
C10124	INDBEQ													
C10105	INDCLAS													
C05574	INDGRP													
C07467	INDREC													
P02000	INITIAL.	00302												
P02100	INTMD	01312	01313	00540	01126	01314	01416	01472	01523	01536	01537			
P02101	IPASS	00403	00452											
C07157	IPECPCY	00620	00624	01751										
P02102	IT													
C00000	ITANK	00423	00424	00540	00540	00666	00667	00703	00704	00765	00766	00774		
C00000	ITAR	00774	00776	01000	01000	01000	01002	01002	01004	01004	01006	01006		
		01010	01010	01016	01016	01020	01020	01141	01141	01150	01150	01156		

5.4TS

TATSORT

12/10/71

ED 0

PAGE NO.

12

CO0000	ITD	01157	01175	01176	01221	01221	01225	01226	01251	01252	01262	01265
00516	00517	00517	00532	00532	00532	00532	00544	00544	00545	00547	00547	00556
00556	00560	00561	00562	00562	00562	00562	00564	00565	00564	00567	00570	00572
00574	00574	00574	00600	00600	00600	00600	00605	00613	00606	00627	00627	00637
00637	00652	00652	00660	00660	00661	00661	00712	00713	00722	00722	00734	00734
00744	00745	00746	00772	00772	00772	00772	00775	00775	00777	00777	01001	01001
01003	01003	01005	01052	01052	01055	01055	01056	01056	01064	01031	01032	01045
01044	00551	00616	00614	00614	00614	00614	01425	01477	01514	01571		
00304	01312	01314	01330	01330	01330	01330	01067	01101	01101	01200	01201	01235
00404	00405	00513	00513	00513	00513	00513	01320	01331	01426	01426	01441	01441
01234	01260	01260	01320	01320	01320	01320	01505	01505	01515	01527	01527	01550
01444	01444	01500	01500	01500	01500	01500	01472	01572				
01560	01554	01554	01562	01562	01562	01562						
01556	01554											
01202	01214											
01407	01427	01450	01457	01457	01772	01772						
01404	01405											
01337	01337											
00663	00664											
01307												
01524												
01534												
01534												
01567												
01617												
01617												
00576												
00731	00731											
00630												
00742	00742											
00743												
00755	00755											
00754												
00732												
01034												
01036	01037											
01142	01143	01162										
01143												
01154												
01161												
01154												
01154												
01154	01154											
01153	01153											
01146	01146											
01274	01274											
01541	01541											

1235

P01303	.1542	01302			
P01547	.1545	01535			
P01317	.1580				
P01330	.1585	01315	01316		
P01303	.1600	01276	01277		
P01345	.1605				
P01363	.1610				
P01372	.1620				
P01413	.1625				
P01416	.1627				
P01421	.1630				
P01425	.1632		01452		
P01440	.1634		01423		
P01453	.1635		01424		
P01463	.1637		01437		
P01647	.1640		01461		
P01467	.1650		01614		
P01545	.1655		01412	01466	
P01474	.1660		01473	01511	
P01477	.1663		01476		
P01512	.1666		01473		
P01514	.1668		01476		
P01532	.1669		01310	01525	
P01607	.1670		01646		
P01615	.1675		01614		
P01451	.1680		01570		
P01056	.195		00623	00626	
P01061	.197		01060		
P01064	.194		01062		
P01074	.200		00531	00453	00721
P00334	.2004			01054	01055
P00475	.2006			01057	01062
P00547	.2008			01063	
P00552	.2009				
P01100	.201		00545	00610	00614
P01117	.202		00701	00771	
P00347	.350				
P00355	.351				
P00412	.50		00346		
P00423	.51		01302	01546	
P00442	.53				
P00452	.54				
P00455	.60		00440	00441	
P00462	.61		00454		
P00465	.62		00461		
P00470	.63		00460	00461	
P00473	.64		00466		
P00510	.66		00471		
P00512	.70		00467	00472	
P00522	.701		00454	00733	01054
P00532	.71				
P00543	.75		00521		
P00575	.80		00542		
P00500	.802		00546	00546	

4 2

S.ATS TGTSORT

12/10/71

ED 0

PAGE NO.

14

P00605	.803	00603										
P00611	.804	00604										
P00615	.81	00577										
P00627	.85	00625										
P00637	.86	00631										
P00637	.90											
P00647	.91	00646										
P00655	.92	00654										
P00652	.93	00645										
P00665	.95	00664										
P02047	.ERASER.	00525	00700	00707	01164	01167	01172	01230	01245	01430		
P00031	..100000	00345										
P00074	..100001	00406										
P00114	..100002	00520										
P00154	..100003	01104										
P00174	..100004	01306										
P00175	..100005	01321										
P00176	..100006	01332										
P00177	..100007	01555										
P00200	..100008	01566										
P00201	..100009	01573										
P00241	..100010	01620										
P00267	..100011	01645										
P00202	..132	00761										
P00146	..151	01604										
P00270	..1546	01654										
P00242	..1635	01627										
P00023	..2005	00337										
P00103	..2007	00500										
P00115	..2010	00555										
P00032	..2011	00352										
P00155	..210	01125										
P00006	..5	00325										
P00075	..530	00445										
P00140	..96	00673										
P02046	.NSTIFF.	00724	00730	00736	01047	01091						
P00720	.Z00001.	00715										
P01210	.Z00002.	01205										
P01243	.Z00003.	01240										
P01265	.Z00004.	01262										
P01436	.Z00005.	01433										
P02110	J	00635	01022	01024	01714							
P02111	JJ	01370	01373	01730								
C00002	JJJCXP	01305	01505	01505								
C00001	JJJPX											
C00000	JJT6TS	00344										
P02112	JN	00370										
P02113	JSIZE	00525										
C04540	JTANK											
C00000	JT6T	00375	00402	00603	00607	00612	00612	00612	00612			
P02114	K	00656	00702	00705	00726	00730	00750	01007	01050	01151	01163	01171
		01233	01740									
C02044	KORSTY	00710	00714	01173	01204	01211	01212	01222	01227	01231	01237	01247
P02115	L											

P02114	LAST	01261	01762												
C00000	LEAD	00414	00455	00511											
P02117	LEAD	00364	00365	00725	01051	01052	01117	01120							
P02120	LENGTM	00321	00330	00414	00456										
C00310	LINKR	00433	01074												
C01546	LINKC														
C01762	LINKD														
C02405	LINKL														
C05027	LINKR														
C11300	LOOK														
C00005	LSRTA	01327	01422	01422	01451	01474	01474	01503	01510	01513	01513	01513	01513	01513	01513
C00006	LSRTA	01520	01611	01612	01615	01615	01622	01622	01631	01631	01631	01633	01633	01633	01633
C00004	LT08	01634	01635	01636	01640	01641	01642								
C00003	LTGRP	00303	00303	00305											
C00002	LTGT	00403	00404	00512	01066	01067	01100	01100	01541	01541	01561				
C00001	LTIN	01257	01257	01547	01235	01553									
C00000	LTWIN	01177	01290	01234	01553	01553									
C00547	LTYPE														
P02121	M	00714	00720	01066	01073	01177	01215	01234	01243						
C00000	MAIRNEZ														
C00001	MALEAT														
C00002	MASPTVP														
P02122	MASX														
P02123	MAXCANG	00402	00625	00676	00677	00770	01131								
C00000	MAXICOMP	00413	00700	00771	01160	01300									
P02124	MAXYST	00340	00340	00360	00360	01113	01113								
C00003	MBRDY	01311	00440												
P02125	MC	01621	01630	01646											
C00004	MCPPEGN														
C00005	MCLASS														
C00006	MCMTPYS														
P00004	MCOMP	00754	01354	01461											
C00007	MCOEP														
C00010	MCORTVP														
C00012	MDEPNLB														
C00011	MDPEN														
C00013	MIGROUP														
P02126	MIN	00522	00522	01136	01144	01146	01273	01274	01274	01274	01274	01274	01274	01274	01274
C00000	MLYCOMP	00401	00617	01224	01225	01237	01243								
C00037	MLYX	00715	00720												
P00005	MMULT	01073													
C00014	MPAYLOD	00663													
C00015	MRECOVER														
C00016	MRECVLG														
C00017	MREF														
C00020	MPTLEG														
C00021	MRTPT														
C00022	MSPERT														
C00023	MTANKBS														
C00024	MTARCLS														
C00025	MTARCOL														

C00026	MTARCPX																		
C00027	MTARERS	00307	00307																
C00030	MTARGET																		
C00031	MTARIND																		
C00046	MTARPCL																		
C00032	MTARSEC																		
C00033	MTARTEI																		
C00034	MTARTYP																		
C00035	MTARVAL	00370	00371																
C00036	MTELMCM	00401	00420	01270	01272														
C00037	MTOTBAS																		
C00040	MTYPE																		
C00000	MULT																		
C00041	MWULM																		
C00042	MWEPGP																		
C00043	MWHTPE																		
C00000	MWIDENT	00407	00407	01105	01105	01322	01322	01322	01322	01322	01322	01333	01333	01333	01333	01574	01574	01574	
C00044	MZONEPT	00740	00741	00752	01017														
C00045	MZONES	00737	00737	00752	00753	00753	00753	00753	00753	00753	00753	00753	00753	00753	00753	00662	00662	00662	
P02127	N	00430	00655	00660	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	00662	
C04057	NALLOW	01401	01402	01467															
C00001	NCPX	00416	00426	00431	00460	00463	00463	01275	01533										
P02130	NEXTC																		
P02131	NEXTH																		
C01130	NEXTZ																		
C00107	NNULT																		
P02132	NN																		
P00006	NTAR																		
C03535	NTIMES																		
C11110	NTYPS																		
C06116	NWDSGRP																		
X00014	ORDER	01374																	
P01672	P00000.U	01675																	
P01706	P00002.U	01711																	
P01722	P00005.U	01725																	
C11517	PA																		
P02030	PF00002.	02011																	
C11503	PG																		
X00001	Q1C0A100	00315																	
X00002	Q1C10100	00320																	
X00004	QROOICT.	00000	00300																
C11543	QA																		
C11533	QG																		
X00020	QMSINGL.	01660																	
X00007	ROARRAY	00514	00526	00710	01071	01325	01447	01506	01607										
C06337	RECLAT																		
C06647	RECLON																		
C07777	RFLAT																		
C10023	RFLONG																		
C08207	RLAT																		
C05517	RLONG																		
X03005	SETRFAD	00410	01106	01323	01575														
X00013	SETWRITE	01334																	

X00014	SORTF	00312	00335	00350	00443	00476	00553	00671	00757	01123	01602	01625
X00017	SIH.	00323										
C00000	TAR	01652	00644	00650	00651	01012	01012	01014	01014	01256	01256	
C00000	TD	00534	00534	00537	00571	01011	01011	01011	01013	01013		
X00010	TERMTAPE	01102	01521	01530	01551	01563	01447					
P00277	TGT SORT	00277										
X00003	THEND.	00332	00342	00353	00446	00504	00573	00674	00762	01132	01605	01643
C03547	TIMESTRT	01655										
C03225	TMASU											
P00367	TS00001.	00361										
P00400	TS00002.	00372										
P00426	TS00003.	00421										
P01076	TS00004.	00436										
P01122	TS00007.	01114										
P01270	TS00010.	01137										
P01215	TS00011.	01203										
P01374	TS00013.	01355										
P01470	TS00014.	01401										
C00000	TWORD											
C10516	TYPE NAME											
P01677	UP00000.	00357	00417	00435	01075	01112	01136	01170	01267	01541	01673	01700
P01713	UP00002.	01701	01702	01704	01705	01715	01716	01721	01721			
P01727	UP00005.	00634	01023	01707	01714	01715	01716	01721	01721			
P01737	UP00007.	01353	01723	01730	01731	01732	01734	01735	01735			
P01750	UP00012.	00657	00727	00751	01152	01740	01741	01742	01746	01746		
P01761	UP00014.	00621	01751	01752	01752	01757	01757	01757				
P01771	UP00016.	00711	01174	01213	01223	01232	01250	01762	01763	01764	01766	01767
C00055	VALFAC	01410	01460	01772	01773	01774	01776	01777				
X00012	WARRAY	00536	00536									
X00015	WWORD	01206	01241	01263	01434	01442	01561	01516				
P00364	WS00001.	01557										
P00375	WS00002.	00354										
P00423	WS00003.	00377										
P00437	WS00004.	00425										
P00637	WS00005.	00425	01077									
P01026	WS00006.	00642										
P01117	WS00007.	01031										
P01140	WS00010.	01121										
P01204	WS00011.	01271	01271									
P01341	WS00012.	01216	01216									
P01357	WS00013.	01345										
P01402	WS00014.	01373										
P01543	WS00015.	01471	01471									
C00620	ZONEB	01545										
C01604	ZONEC											
	00613 SYMBOLS											

```

CSUBR      FUNCTION VLRAIP(YIELD,AVN,MOR,FIN)
CUSE       VLRAID 15MAY71 *****
          DPONL 18JAN71 *****
C          THIS BLOCK COMBINES THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/
C          /CHECK/,/CURR/,/DEPN/,/KORTY/,/LEG/,/NAVALX/,/POI-T/,
C          /RADATA/,/MECGV/,/HEFF/,AND /TYPENAME/.
C          IT IS REUSED DURING TGT SORT AS ITEMP,
C          AND DURING GRPSORT AS ITANK AND JTANK
C
COMMON /DPOOL/ IB(200),LINKS(200),ZONES(200),NEATZR(200),
* ICHKFLG(20),ICHECK(20),IC(30),LINKC(30),ZONEC(30),ITY(30),
* ID(50),LIMKD(50),KORSTY(5),MLOAD(5),DEFM(5),ATTRS(5),
* ATTRC(5),IL(200),LINKL(200),ATRL(200),IMAS(10,10),
* DBLAS(10,10),NTIMES(10),TIMESTM(200),MALLOW(200),
* RLAT(200),HLONG(200),RLAT(200),RLONG(200),LINKR(200),
* RECLAT(200),RECLON(200),THECPCTY(200),INDMEC(200),
* RPLAT(200),RPLONG(200),CUMNO(15),RTYPES(15),INCLAS(15),
* INDEGR(250),TYPENAME(250),NTYPS,CHK(250),
* PG(12),PA(12),SG(6),GA(8),
* ITEMP(5000),ITANK(12,200),JTANK(12,200)
TYPE INTEGER ZONES,ZONEC
TYPE INTEGER TYPENAME,CHK
EQUIVALENCE (I,I,ITEMP,ITANK)
EQUIVALENCE (ITEMP(240),JTANK)
CEND
          DPOOL *****
          DECODE (4,100,AVN) VN=LETTER,JK
          FORMAT (F2.0,A1,F1.0)
          CRYSTILOW=.33333
          IF (JK) I=12
          1 DELTA=0
          IF (LETTER .EQ. SHG ) 19,9
          2 AS=027144 * JK/CRY
            8M1=.1*JK
          IF (LETTER .EQ. SHG ) 15,5
          P CASE
          5 X=2.
          6 Z=(X*X*9)/(2.*X-A)
          IF (ABS(FIX-Z) .LT. .0005) 6,7
          7 X=Z 560 TO 6
          8 RZ=(Z-1.)/(Z+1.)
          DELTA=(21.7991 * 9.1979*HZ)RZ
          9 AVN=DELTA*VN
          ISM1  SF#66.  560 TO 23
          Q CASE
          15 X=1.
          16 Z=(2.*X*X*8)/(3.*X*A)
          IF (ABS(FIX-Z) .LT. .0003) 16,17
          17 X=Z 560 TO 16
          18 RZ=(Z-1.)/(Z+1.)
          DELTA=(16.3493*6.8984*HZ)RZ
          19 AVN=DELTA*VN
          ISM2  SF#63.
          23 IF (MOR) 24,24*25
          24 JSW=1  560 TO 26

```

```

25 JSW=2
26 DO 27 I=2,12
   IF (AVN .LE. 5. * (I-1)) 28,27
27 CONTINUE
   I=12
28 IUPST $IL=I-1
   DV=AVN-5. * (I-1)
   GO TO (29,32),ISM
29 GO TO (30,31),JSM
30 Y=PG(IL) SZ=PG(IUP) $G0 TO 35
31 Y=PA(IL) SZ=PA(IUP) $G0 TO 35
32 GO TO (33,34),JSM
33 Y=QG(IL) SZ=QG(IUP) $G0 TO 35
34 Y=QA(IL) SZ=QA(IUP)
35 S=(Y-2) * 2
   Y=Y-S*OV
   VLKADP=EXP(Y)*CRY
   END

```

```

32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000

```

5:45

VLRAOP

12/10/71

ED

0

PAGE NO.

3

VLRAOP

IDENT

00405
00012
11610

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

VLRAOP
DPOOL

EXTERNAL SYMBOLS

THEM.
GZQ7111
ORADICT.
EAPP
DEC.
ONSINGL.

P00362 A	00044	00060	00110				
C02715 ATRC							
C02070 ATTRC							
P02063 ATTRS							
P00363 AVN	00103	00140	00162	00177			
P01364 R	00050	00056	00113				
P00265 BEGIN.	00316	00325	00331				
C04367 BLAT							
C04677 BLONG							
C10046 BTYPES							
C11111 CHK							
P00264 CNVRTI.	00022	00024	00025				
P00003 CRFMT.	00031						
P01365 CRV	00035	00045	00260				
C10047 CUMNO							
C03371 DBLASH	00017						
X00005 DEC.							
C02056 DEFR							
P00366 DELTA	00041	00101	00102	00136	00137		
P00001 DICT.	00014	00020	00030	00032	00257	00270	00271
P00367 DV	00200	00254					
P00317 ENDING.	00015	00261	00265	00266	00266	00267	00267
P00000 EXIT.	00323						
X00004 EXPF	00254						
P00003 FM	00106	00143					
P00003 FORMAT.	00042	00051					
P00021 FP00001.	00303						
P00033 FP00002.	00277	00300					
P00195 FP00003.	00312	00313					
P00142 FP00004.	00314	00315					
P00144 FP00005.	00306	00307					
P00334 GETPL.	00272	00301	00310				
P00324 GETPU.	00275	00304	00330				
P00031 GG00000.	00014						
C02041 MILOAT							
P00003 M09	00144						
P00370 I	00154	00155	00164	00166	00167	00170	
C00000 IA							
C01510 IC							
C01440 ICHKFLG							
C01464 ICHKNUM							
C01700 IN							
P00371 IGOTO.	00201	00204	00227				
C02075 IL	00171	00172	00206	00204	00216	00231	00241
C10124 INDEC							
C10105 INOCLAS							
C07447 INDEC							
P00265 INITIAL.	00015						
C07157 FRECPCTY							
P00372 IS4	00104	00141	00200				
C00000 ITANK							
C00000 ITEW6							
C01642 ITY							
P00373 IUP	00170	00213	00223	00236	00246		

P00040	.1	00034	00037						
P00107	.15	00052							
P00111	.16	00126							
P00125	.17	00123	-00124						
P00127	.18	00124							
P00137	.19	00043							
P00044	.2	00106							
P01144	.23	00145	00145						
P00147	.24	00144							
P00151	.25	00150							
P00153	.26	00163							
P00164	.27	00162							
P00167	.28	00202	00163						
P00203	.29	00205							
P00206	.30	00205							
P00216	.31	00202							
P00226	.32	00230							
P00231	.33	00230							
P00241	.34	00215							
P00251	.35	00052	00225	00240					
P00053	.5	00071							
P00055	.6	00066	00067						
P00070	.7	00067							
P00072	.8	00043							
P00102	.9	00057	00061	00061	00075	00075	00076	00114	00116
P00336	.ERASER.	00117	00117	00130	00132	00133	00161	00174	
P00003	.100	00021							
P00010	.10000	00042							
P00011	.100001	00051							
P00335	.NSTIFF.	00210	00220	00220	00233	00243	00243		
P00374	.JS*	00150	00152	00203	00233	00243	00243		
C00540	.JIANK	00025	00042	00051					
C02044	.KORSTY								
P00375	.LETTER								
C00310	.LINKR								
C01546	.LINKC								
C01762	.LINKN								
C02405	.LINKL								
C00027	.LINKR								
C00057	.WALLOW								
C01130	.NEXTIP								
C03535	.NTIPES								
C11110	.NTIPS								
P00003	.MVW	00021	00221	00223	00223	00224			
C11517	.PA	00221							
P00301	.PF00002.	00276							
P00304	.PF00003.	00302							
P00310	.PF00004.	00305							
P00316	.PF00005.	00311							
C11503	.PG	00211	00211	00213	00213	00214			
X00002	.Q2007111	00031							
X00003	.RPO0TCT.	00000	00013	00246	00246	00247			
C11543	.QA	00244	00244	00246	00246	00247			

5-4'S VLRAND

12/10/71

ED 6

PAGE NO. 6

C11533	OG	00234	00234	00236	00237				
X00006	SMSINGL.	00263							
C04337	RECLAT								
C05647	RECLON								
C07777	REFLAT								
C10023	REFLONG								
C05207	RLAT								
C05517	RLONG								
P00376	RZ	00076	00077	00100	00101	00133	00134	00135	00136
P00377	S	00253	00253						
X00001	TMEND.	00027							
C03547	TIMESTRT								
C03225	TMASH								
C10516	TYPENAME								
P00262	VALUE.	00260	00322						
P00012	VLRAND	00012							
P00400	VN	00023	00103	00140					
P00155	WS00001.	00105							
P00401	X	00054	00055	00056	00060	00063	00071	00110	00112
P00402	XK	00115	00120	00126					00112
P00403	Y	00026	00036	00045	00047				00113
P00003	YIELD	00212	00222	00235	00245	00251	00254	00255	00115
P00404	Z	00033							
		00062	00063	00070	00072	00074	00120	00121	00125
		00225	00240	00250	00252				00127
C00620	ZONER								00131
C01604	ZONFC								00215
	00204 SYMBOLS								

1246

FTNS.5

12/10/71

PAGE NO.

1

```
SUBROUTINE WRITER (N1,N2,N3,N4,N5,NUMB)
  WRITER 11NOV70 *****
  DIMENSION NAK(5) *****
  NAK(1)=N1
  NAK(2)=N2
  NAK(3)=N3
  NAK(4)=N4
  NAK(5)=N5
  CALL WRARRAY (NAK,NUMB)
  END
```

1000
33000
2000
3000
4000
5000
6000
7000
8000
9000

1247

5.4TS WRITER

12/10/71

ED 0

PAGE NO.

2

IOENT WRITER

00107
00010

PROGRAM LENGTH
ENTRY POINTS WRITER
EXTERNAL SYMBOLS
ORNDICT.
WPAHAY

1248

P00032	HEGIN.	00071	00077	00103			
P00001	DICT.	00012	00027	00035	00036		
P00072	ENDING.	00013	00031	00032	00033	00034	00034
P00000	EXIT.	00075					
P00014	FP00001.	00044	00045				
P00016	FP00002.	00050	00051				
P00020	FP00003.	00054	0.055				
P00022	FP00004.	00060	00061				
P00024	FP00005.	00064	00065				
P00030	FP00006.	00070					
P00106	GETPL.	00037	00046	00056	00066		
P00076	GETPU.	00042	00052	00062	00102		
P00032	INITIAL.	00013					
P00010	N1	00014					
P00010	N2	00016					
P00010	N3	00020					
P00010	N4	00022					
P00010	N5	00024					
P00003	NAR	00015	00017	00021	00023	00025	00030
P00010	NUMA	00030					
P00046	PF00002.	00043					
P00052	PF00003.	00047					
P00056	PF00004.	00053					
P00062	PF00005.	00057					
P00064	PF00006.	00063					
P00071	PF00007.	00067					
X00001	WARRAY	00000					
X00002	WRITER	00026					
P00010	WRITER	00010					
	00035 SYMBOLS						

```

SUBROUTINE MMULT
  CSURP 30NOV70
  CUSE 30NOV70
  CE:0 30NOV70
  MMULT 30NOV70
  MLTX 30NOV70
  COMMON /MLTX/ MLT(31),MLTX(R,S),FMLTX(8,5),NMULT
  EQUIVALENCE(MLTX,FMLTX)
  MLTX *****
  MULT(7)=MMULT
  CALL MMARRAY(MULT,31)
  IF(NMULT.EQ.1)GOTO 3
  3 NNMULT=0
  CALL MMARRAY(MLTX,N)
  5 NMULT=N
  RETURN
  END

```

1000
3200C
2000
1000
2000
2000
3000
4000
5000
6000
7000
8000
9000
10000

5.ATS WRMULT

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00033
00003
00110

IDENT WRMULT

WRMULT
PLTX
OBJECT.
WWRMAY

12/10/71

EO

0

PAGE NO.

2

P00024 BEGIN.
 P00001 QICI.
 P00027 ENGIN.
 P00000 EXII.
 C00037 FMYX
 P00024 INITIAL.
 P00014 .3
 P00024 .5
 C00037 MLX
 C00000 MULT
 P00032 N
 C00007 MMULT
 X00001 GDDICT.
 X00002 WRRRAY
 P00003 WRMULT
 000017 SYMBOLS

00026
 00005
 0000A
 00027
 00006
 00015
 00015
 00023
 00010
 00020
 00007
 00000
 00011
 00003
 00012
 00025
 00013
 00023
 00007
 00004
 00021
 00014
 00016
 00016
 00024
 00025

11/26/71

```

PROGRAM PHEPALOC
CSUBR PREPALOC 7JUN71 *****
C DATA PRECOMPUTATION PROGRAM FOR THE PLAN GENERATION SUBSYSTEM *****
CUSE WPNDATA 1JUN71 *****
COMMON/WPNDATA/RANGE(R0),RANGEDEC(R0),CEP(R0),SPEED(R0),ALERTDLY(R0),
1 NALRTDLY(R0),RANGEDEC(R0),ICLASS(R0),RANGEREFR(R0),
2 REL(R0),IMECHMODE(R0),IPENMODE(R0),ISINTYPE(R0),
3 FUNCTION(R0),MWPNS(200),MVEHGRP(200),MLAT(200),
4 WLONG(200),IREG(200),ITYPE(200),IALERT(200),SRL(200),
5 IRFUEL(200),YIELN(200),REFTIME(200),DISTAC(200,30),
6 MTYPE,MGRGRP,MDESREQ
C DIMENSION IPAY(200),MYFIXD(5000),MYDEXST(5000),DUMAR(10000)
C TYPE REAL NALRTDLY
C TYPE INTEGER FUNCTION
C EQUIVALENCE (IPAY,IRFUEL),(MG,MGRGRP)
C EQUIVALENCE (MYFIXD,RANGE,DUMAR),(MYDEXST,DUMAR(5001))
CEND WPNDATA *****
C MGROUP=200 MAXIMUM NUMBER OF WEAPON GROUPS *****
C MWPNS TOTAL NUMBER OF WEAPONS IN ENTIRE GROUP *****
C MVEHGRP TOTAL NUMBER VEHICLES IN GROUP *****
C MLAT AVERAGED LATITUDE *****
C WLONG AVERAGED LONGITUDE *****
C IREG REGIONAL INDEX *****
C ITYPE TYPE INDEX *****
C IALERT INDEX OF ALERT STATUS(ZERO FOR NONALERT,1 FOR ALERT) *****
C SBL PROBABILITY OF SURVIVAL BEFORE LAUNCH *****
C IRFUEL INDEX OF REFUELING AREA ASSIGNED TO GROUP(ZERO IF NONE *****
C ASSIGNED -1 FOR BUDDY REFUELING) *****
C IPAY MISSILE PAYLOAD INDEX *****
C YIELD YIELD OF BOMB,AVERAGED *****
C REFTIME TIME OF REFUELING OF EACH GROUP *****
C DISTAC DISTANCE FROM EACH GROUP CENTROID TO EACH PENETRATION CORR *****
C (FIRST 200 WORDS OUTPUT ON BASFILE AS FRACTION OF *****
C WEAPONS IN EACH GROUP THAT ARE ASMs.) *****
C *****
C MTYPE = 80 MAXIMUM NUMBER OF WEAPON TYPES *****
C RANGE WEAPON RANGE(NAUTICAL MILES) *****
C CEP WEAPON CEP (AVERAGED) *****
C SPEED WEAPON SPEED (KNOTS) *****
C ALERTDLY WEAPON DELAY WHEN ON ALERT STATUS *****
C NALRTDLY WEAPON DELAY WHEN NOT ON ALERT STATUS *****
C RANGEDEC WEAPON RANGE DECREMENT FOR LOW ALTITUDE FLIGHT *****
C ICLASS WEAPON CLASS INDEX (1 FOR MISSILES, 2 FOR BOMBERS) *****
C RANGEREFR WEAPON RANGE WITH REFUELING (N. MILES) *****
C REL WEAPC. RELIABILITY *****
C *RECHMODF NONZERO IF RECOVERY REQUIRED *****
C IPENMODEF NONZERO IF PENETRATION CORRIDOR *****
C ISINTYPDEF HOLLERITH TYPE NAME *****
C FUNCTION WEAPON FUNCTION CODE *****
C *****

```

```

1000
1000
2000
3000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
20000
21000
22000
23000
24000
25000
26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000

```

```

C C MYFIXD TARGET IDENTIFIERS FOR FIXED WEAPON ASSIGNMENT REQUESTS
C C MYDEXST INDEX TO INFIX ARRAY IN /CHANGES/ TO START OF FIXED
C C ASSIGNMENT DATA FOR THIS IDENTIFIER
C C MDESREG MAXIMUM NUMBER OF TARGET IDENTIFIERS FOR FIXED ASSIGNMENTS
C C
C CSE WPNREG 1JUN71 *****
C C COMMON/WPNREG/CCREL(20),MREG
C CEND WPNREG *****
C C MREG=20 MAXIMUM NUMBER OF REGIONS
C C CCREL COMMAND AND CONTROL RELIABILITY
C C *****
C C C C WAKHEAD 1JUN71 *****
C C COMMON/WAKHEAD/YLD(50),POUD(50),FFRAC(50),MMDTYPE
C CEND WAKHEAD *****
C C MMDTYPE = 50 MAXIMUM NUMBER OF WARHEAD TYPES
C C YLD ACTUAL YIELD
C C PRUD DUD PROBABILITY
C C FFRAC FISSION FRACTION
C CSE PLANTYPE 1JUN71 *****
C C COMMON/PLANTYPE/INITSTRK,CORMSL,CORBOMB
C CEND PLANTYPE *****
C C INITSTRK STRIKE INDICATOR ONE FOR FIRST STRIKE
C C CORMSL FRACTION OF MISSILE FLIGHT COMPLETED AT TIME ZERO
C C CORBOMB NUMBER OF NAUTICAL MILES FROM CORRIDOR ENTRY THAT
C C BOMBERS REACH AT TIME ZERO
C C C C DPENREF 1JUN71 *****
C C COMMON/DPENREF/DPLINK(50),DPLAT(50),DPLONG(50),RFLAT(20),
C C *RFLONG(20),MOPEN,MREF
C C TYPE INTEGER DPLINK
C CSE DPENREF *****
C C MOPEN = 50 MAXIMUM NUMBER OF DEPENETRATION CORRIDORS
C C MREF=20 MAXIMUM NUMBER OF REFUELING AREAS
C C DPLINK DEPENETRATION CORRIDOR LINK
C C DPLAT DEPENETRATION CORRIDOR LATITUDE
C C DPLONG DEPENETRATION CORRIDOR LONGITUDE
C C RFLAT REFUELING AREA LATITUDE
C C RFLONG REFUELING AREA LONGITUDE
C C *****
C C C C PAYLOAD 1JUN71 *****
C C COMMON/PAYLOAD/NOROMB1(40),IMWD1(40),NOROMB2(40),IMWD2(40)
C C 1,RASH(40),TASH(40),NCM(40),MDECOYS(40),MADECOYS(40),ZIRV(40)
C C 2 *MPAYLOAD
C C EQUIVALENCE (MP, MPAYLOAD)
C CSE PAYLOAD *****
C C MPAYLOAD = 40 MAX. NUMBER OF PAYLOAD TYPES
C C NOROMB1 NUMBER BOMBS OF BOMB TYPE1
C C IMWD1 WARHEAD TYPE INDEX FOR TYPE 1
C C NOROMB2 DITTO FOR BOMB2

```

```

C      IMHD2 DITTO FOR ROMH2
C      NASM NUMBER OF ASMs
C      IASM ASM TABLE INDEX
C      NCM NUMBER OF COUNTER MEASURES
C      NDECOYS NUMBER OF DECOYS
C      NARECOYS NUMBER AREA DECOYS
C      IMIRV MIRV SYSTEM IDENTIFICATION NUMBER
C*****
C      CUSE      ASMTABLE IJUM71 *****
C      COMMON/ASMTABLE/IMHDAS*(20),RANGEAS*(20),RELAS*(20)
C      1,CEPAS*(20),SPEEDAS*(20),MAS*TYPE
C      EQUIVANCE (NASM, MAS*TYPE)
C      ASMTABLE *****
C      CEND      IMHDASH WARHEAD TYPE INDEX
C      MAS*TYPE = 20 MAX. NO. OF ASM TYPES
C      RANGEAS* RANGE (N, MI.)
C      RELAS* RELIABILITY OF ASM
C      CEPAS* CEP
C      SPEEDAS* SPEED
C*****
C      CUSE      CORRCHAR IJUM71 *****
C      COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PRATT(30,3),DISTDEF(30,3),
C      1 ZPLONG(30), EMTLAT(30), ENTLONG(30), CRLENGTH(30), KORSTYLE(30),
C      2 ATTRCORR(30), ATTRSUPR(30), HILOATTR(30), DEFRANGE(30),
C      3 NPRCORDEF(30), DEFNST(30,3), ATTRPNE(30,3), NOATA, LMAX
C      TYPE INTEGER PCZONE
C      TYPE REAL KORSTYLE
C      DIMENSION DISTC(30),PRATT(30,3),DISTDEF(30,3)
C      EQUIVANCE (DEFDIST,DISTDEF),(PRATT,ATTRPRE)
C      EQUIVANCE (CRLENGTH, DISTBC)
C      CORRCHAR *****
C      CEND      PCLAT LATITUDE OF CORRIDOR POINT
C      PCLONG LONGITUDE OF CORRIDOR POINT
C      PCZONE DEFENSE ZONE OF CORRIDOR ORIGIN
C      RPLAT LATITUDE ZONE OF CORRIDOR ORIGIN
C      RPLONG LONGITUDE ZONE OF CORRIDOR ORIGIN
C      ENTLONG LONGITUDE ZONE OF CORRIDOR ENTRY
C      CRLENGTH DISTANCE FROM CORRIDOR ENTRY TO ORIGIN
C      KORSTYLE POWER OF Y VS X IN FORMULA FOR CURVILINEAR COORDINATES
C      ATTRCORR HIGH ALTITUDE ATTRITION PER N.M.I. UNSUPPRESSED
C      ATTRSUPR HIGH ALTITUDE ATTRITION PER N.M.I. SUPPRESSED
C      HILOATTR RATIO LOW TO HIGH ALTITUDE ATTRITION (LESS THAN 1)
C      DEFRANGE CHARACTERISTIC RANGE OF CORRIDOR DEFENSE
C      NPRCORDEF NUMBER OF LATTITUDE SECTIONS IN CORRIDOR
C      DEFDIST DISTANCE OF EACH ATTRITION SECTION
C      ATTRPNE ATTRITION IN THIS ATTRITION SECTION
C      NOATA NUMBER OF PENETRATION CORRIDORS
C      LMAX MAXIMUM NUMBER OF PRECORRIDOR LEGS (3)
C*****

```

```

79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
1000
2000
3000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000

```

```

C CUSE TAPFS 1JUN71 *****
C C COMMON/FILES/ TGFIL(2),RASFILE(2),MSLTIME(2),
1 ALOC(2),TMAPLOC(2),ALOCGRP(2),STRK(2),
2 EVENTAPE,PLANTAPE
C C TYPE INTEGER TGFIL, RASFILE, MSLTIME, ALOC(2),
1 TMAPLOC, ALOCGRP, STRK(2), EVENTAPE, PLANTAPE
C C COMMON/NOFILE/ WINFILE, TINFILE, POSTDATA, FIXFILE, TMP(2),
1 TMAPLOC, TMAPGRP, TMAPSTR, TMAPSTR, TMAPSTR, TMAPSTR
C C TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIXFILE, TMP(2),
1 TMAPLOC, TMAPGRP, TMAPSTR, TMAPSTR, TMAPSTR, TMAPSTR
C CEND TAPFS *****
C C DATA (TGFIL(1) = -2), (RASFILE(1) = -8), (MSLTIME(1) = -7),
1 (ALOC(1) = -4), (TMAPLOC(1) = -3), (ALOCGRP(1) = -2),
2 (STRK(1) = -5), (EVENTAPE=10), (PLANTAPE = 3)
C C DATA(WINFILE = -9), (TINFILE=-10), (POSTDATA=-7),
1 (FIXFILE =-6), (TMP(1) = -5), (TMAPSTR = -4)
C CUSE MASTER 1JUN71 *****
C C COMMON/MASTER/IMDATE,IDENTNO,ISIDE,NRPT,NCORR,NOPEN,NRECOVER
1,NREF,NRNDY,NREG,NTYPE,NRGRP,NTOTBASE,NP2LOAD,NASHTYPE,NRNDYTYPE
2,NTANKBAS,NCOMPLEX,NCLASS,NALENT,NTGTS,NCORTYPE,NCNTRY
EQUIVALENCE (NRGRP, NR); (NALENT, NNTGTS);
C CEND *****
C C IMDATE MOLLERITH DATE *****
C C IDENTNO MOLLERITH TIME OF DAY FOR PROGRAM PLANSET *****
C C ISIDE *****
C C NRPT NUMBER OF ROUTE POINTS *****
C C NCORR NUMBER OF CORRIDORS *****
C C NOPEN NUMBER OF DEPENETRATION CORRIDORS *****
C C NRECOVER NUMBER OF RECOVERY POINTS *****
C C NREF NUMBER OF REFUEL POINTS *****
C C NRNDY NUMBER OF HOUNDARY POINTS *****
C C NREG NUMBER OF REGIONS *****
C C NTYPE NUMBER OF WEAPON TYPES *****
C C NRGRP NUMBER OF WEAPON GROUPS *****
C C NTOTBASE NUMBER OF BASES, TOTAL *****
C C NP2LOAD NUMBER OF ENTRIES IN PAYLOAD INDEX TABLE *****
C C NASHTYPE NUMBER OF ASM TYPES *****
C C NRNDYTYPE NUMBER OF WARHEAD TYPES *****
C C NTANKBAS NUMBER OF TANKER BASES *****
C C NCOMPLEX NUMBER OF COMPLEX TARGETS *****
C C NCLASS NUMBER OF WEAPON CLASSES(PRESENTLY 2) *****
C C NALENT NUMBER OF ALERT CONDITIONS(PRESENTLY 2) *****
C C NTGTS NUMBER OF TARGETS *****
C C NCORTYPE NUMBER OF CORRIDOR TYPES *****
C C NCNTRY NUMBER OF COUNTRY CODES *****
C C *****
C C *****

```

```

CUSE      BRKPN1  1JUN71  *****
C          COMMON/RRKPN1/ INDBEG(250), TYPENAME(250),
1          CUMNO(15), BTYPES(15), INDCLAS(15), RTARTYPE, MTARCLS
C          *****
CEND      BRKPN1  *****
C          RTARTYPE = 250      MAXIMUM NUMBER OF TARGET TYPES
C          MTARCLS = 15      MAXIMUM NUMBER OF TARGET CLASSES
C          INDBEG           SMALLEST INDEX NUMBER OF EACH TYPE
C          TYPENAME        TYPE NAMES IN ORDER OF INCREASING
C                           INDEX NUMBER
C          CUMNO           INCLUSIVE CUMULATIVE NUMBER OF
C                           TYPES IN EACH CLASS
C          BTYPES         NUMBER OF BLUE SIDE TYPES IN EACH CLASS
C          INDCLAS        SMALLEST INDEX NUMBER IN EACH CLASS
C          *****
CUSE      EXCESS  1JUN71  *****
C          COMMON /EXCESS/ PEXBOMB, PEXAROMB, EXAROMB, PEXMIRV, EXMIRV,
1          PEXMISS, EXNMIS, SBLREAL(200)
C          *****
CEND      EXCESS  *****
C          EXCESS          NUMBER OF WORDS IN COMMON /EXCESS/
C          NEXCESS        PERCENT OF WEAPONS ADDED TO BOMBER GROUP FOR ALLOCATE
C          PEXBOMB        NUMBER OF BOMBER LOADS ADDED TO GROUP FOR ALLOCATE
C          EXBOMB        SAME AS PEXBOMB FOR MIRV GROUPS
C          PEXMIRV       SAME AS EXBOMB FOR MIRV GROUPS
C          EXMIRV        SAME AS PEXBOMB FOR NON MIRV MISSILE GROUPS
C          PEXMISS       SAME AS EXBOMB FOR NON MIRV MISSILE GROUPS
C          EXNMIS        SAME AS EXBOMB FOR NON MIRV MISSILE GROUPS
C          SBLREAL       ACTUAL SBL FOR GROUP (I.E. NO SURPLUS WEAPONS CONSIDERED)
C          *****
CUSE      NAVAL  1JUN71  *****
C          COMMON/NAVAL/NAVAL, IOBL(200), PKNAV(200)
C          *****
CEND      NAVAL  *****
C          NAVAL          NUMBER OF WORDS IN COMMON /NAVAL/
C          NNAVAL        INDEX TO TIME DEPENDENT DBL TABLES
C          IOBL          KILL PROBABILITY OF WEAPON AGAINST NAVAL TARGETS
C          PKNAV
C          *****
CUSE      ITP    1JUN71  *****
C          COMMON/ITP/ITP
C          ITP           *****
CEND      ITP    *****
CUSE      IFTPRN1 1JUN71 *****
C          COMMON/IFTPRN1/IFTPRN1(10)
C          IFTPRN1      *****
CEND      IFTPRN1 *****
C          DATA((IFTPRN1(1),1),10)=10(0)
C          *****
CUSE      BOUNDARY 1JUN71 *****
C          COMMON /BOUNDARY/ BPLINK(200), BPLAT(200), BPLONG(200),
1          BPTZONE(200), NEXTZONE(200), MBNDRY
C          TYPE INTEGER BPLINK,BPTZONE
C          *****
CEND      BOUNDARY *****

```

```

157000
1000
2000
3000
4000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
1000
2000
3000
4000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
1000
2000
3000
180000
181000
182000
183000
184000
185000
186000
187000
1000
187000
188000
1000
188000
189000
190000
190000
1000
2000
3000
190000

```

C	MNRDY=150 MAXIMUM NUMBER OF BOUNDARY POINTS	191000
C	HPLINK BOUNDARY POINT LINK	192000
C	RPLAT BOUNDARY POINT LATITUDE	193000
C	RPLONG BOUNDARY POINT LONGITUDE	194000
C	PRZONE ZONE ENCLOSED BY POINTS IN THIS LIST (POINTS ARE LISTED IN	195000
C	ORDER, CLOCK WISE)	196000
C	NEATZONE ADJACENT ZONE ASSOCIATED WITH POINT	197000
C	*****	198000
C	*****	199000
C	*****	200000
C	*****	201000
C	*****	1000
C	*****	2000
C	*****	3000
CUSE	HAPPEN 1JUN71 *****	201000
C	COMMON/HAPPEN/JAPTYE(250),MAPLAT(250),MAPLONG(250)	202000
C	1,HAFDIST(250),HRIPT	203000
C	EQUIVLENCE (LMAPMAX, MPTPT)	204000
C	HAPPEN *****	205000
C	MPTPT = 250 MAX. NO OF POINTS OF ALL TYPES	206000
C	JAPTYE GOLON INDICATOR, SET TO 12,3 FOR BEGIN GOLON 4,5,6; FOR	207000
C	END GOLON 10=ZONE FOR ZONE CROSSING, ELSE ZERO	208000
C	MAPLAT LATITUDE OF DOGLEG	209000
C	MAPLONG LENGTH OF DOGLEG	210000
C	HAFDIST LENGTH OF DOGLEG (N.MI.)	211000
C	*****	1000
C	*****	211000
C	*****	212000
C	*****	213000
C	*****	214000
C	*****	215000
C	*****	216000
C	*****	217000
C	*****	218000
C	*****	219000
C	*****	220000
C	*****	221000
C	*****	1000
C	*****	221000
C	*****	222000
C	*****	1000
C	*****	222000
C	*****	223000
C	*****	1000
C	*****	2000
C	*****	223000
C	*****	224000
C	*****	1000
C	*****	2000
C	*****	3000
C	*****	4000
C	*****	5000
C	*****	6000
C	*****	7000
C	*****	8000
C	*****	9000

C	CHARTER 1JUN71 *****	1000
C	COMMON/CHARTER/KOUNT(30),HAP(30),MOUNT(50),JMAP(50),H CORR	211000
C	CHARTER *****	211000
C	MCORR=30 MAX. NO CORRIDORS	212000
C	MDPEN=50 MAX. NO OF DEPEN. CORRIDORS	213000
C	KOUNT ROUTE POINT COUNT ASSOCIATED WITH IHAP	214000
C	IHAP CORRIDOR POINTER/CORRCHAR/ TG /HAPPEN/	215000
C	MOUNT ROUTE POINT COUNT ASSOCIATED WITH JMAP	216000
C	JMAP CORRIDOR POINTER/DPENREF/TG/HAPPEN/	217000
C	*****	218000
C	*****	219000
C	*****	220000
C	*****	221000
C	*****	1000
C	*****	221000
C	*****	222000
C	*****	1000
C	*****	222000
C	*****	223000
C	*****	1000
C	*****	2000
C	*****	223000
C	*****	224000
C	*****	1000
C	*****	2000
C	*****	3000
C	*****	4000
C	*****	5000
C	*****	6000
C	*****	7000
C	*****	8000
C	*****	9000

C	COMMON/IORDUMMY/ INPUT(10), MVAR5, NAMES(40), INVALU(2,40),	2000
C	1 INDEX1(40), INDEX2(40), INDEX3(40), HOME	3000
C	COMMON/ HACHINE/ IREAD, IWRIT, ICOMM, IPUNCH	4000
C	DATA(IREAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)	5000
C	COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),	6000

C	I	FVAL(20), NDEFLT	1000
C		EQUIVALENCE (MYVAL, FVAL)	11000
C	CEND	*****	12000
C		IODUMMY *****	13000
C		INPUT TEMPORARY CARD INPUT ARRAY	225000
C		NVARS NUMBER OF INPUT PARAMETERS ON CARD	226000
C		NAMES INPUT PARAMETER NAMES	227000
C		INVALU VALUE OF INPUT PARAMETERS	228000
C		INDEX1 FIRST ARRAY INDEX	229000
C		INDEX2 SECOND ARRAY INDEX	230000
C		INDEX3 THIRD ARRAY INDEX	231000
C		IREAD STANDARD INPUT UNIT	232000
C		IWRITE STANDARD OUTPUT UNIT	233000
C		ICOMM OUTPUT COMMENT UNIT	234000
C		IPUNCH STANDARD PUNCH UNIT	235000
C		MYNAME PARAMETER NAME - FOR DEFAULT	237000
C		MYFORM PARAMETER FORMAT - FOR DEFAULT	238000
C		MYTYPE PARAMETER TYPE - FOR DEFAULT	239000
C		MYVAL PARAMETER VALUE - FOR DEFAULT	240000
C		*****	241000
C	CUSE	OPTON IJUN71 *****	242000
C		*****	243000
C		COMMON/OPTION/ ICHANGE, IFIXTGT, RATIO, INDOVAL(2), INDMIN(2),	1000
C		INDMAX(2), NDESREQ, NFIXREQ	2000
C		*****	3000
C	CEND	*****	4000
C		OPTON *****	243000
C		*****	244000
C		ICHANGE NON ZERO IF TARGET PARAMETERS CHANGED	245000
C		IFIXTGT NON ZERO IF FIXED ASSIGNMENTS REQUESTED	246000
C		RATIO TARGET VALUE MULTIPLIER	247000
C		INDVAL BEGINNING AND ENDING INDEX FOR VALUE CHANGE REQUESTS	248000
C		INDMIN BEGINNING AND ENDING INDEX FOR MARKILL CHANGE REQUESTS	249000
C		INDMAX BEGINNING AND ENDING INDEX FOR MARKILL CHANGE REQUESTS	250000
C		NDESREQ NUMBER OF DESIGNATOR CODES IN FIX REQUESTS	251000
C		NFIXREQ NUMBER OF FIXED ASSIGNMENT REQUESTS	252000
C		*****	253000
C		*****	254000
C	CUSE	CHANGES IJUN71 *****	255000
C		COMMON/ CHANGES/ ICLASMAN(2000), ITYPE#N(2000), IDENT#AN(2000),	1000
C		VALUE#N(2000), IFOUND(2000), #CHANGE, #FIXREQ	2000
C		*****	3000
C		DIMENSION INFIX(10000)	4000
C		EQUIVALENCE(INFIX, ICLASMAN)	5000
C		*****	6000
C		COMMON/ SUMS/ BLDOSUM, SUMMED, NAMCLAS(20), FRCLAS(20)	7000
C		CHANGES *****	255000
C	CEND	*****	256000
C		ICLASMAN DESIRED CLASS NAME FOR CHANGE REQUEST	257000
C		ITYPE#N DESIRED TYPE NAME FOR CHANGE REQUEST	258000
C		IDENT#AN DESIRED TARGET IDENTIFIER FOR CHANGE REQUEST	259000
C		VALUE#N DESIRED NEW DATA FOR CHANGE REQUEST	260000
C		IFOUND REQUEST FULFILLMENT COUNTER	261000
C		#CHANGE MAXIMUM NUMBER OF CHANGE REQUESTS	262000

```

C C C C C
INFIX STORAGE AREA FOR FIXED ASSIGNMENT
REQUESTS (EQUIVALENT TO ICLASMAN)
*FIAMEO MAXIMUM NUMBER OF WEAPONS FOR FIXED ASSIGNMENT
REQUESTS
CALL VPREPALO
CALL STORAGE
SFT ARRAY SIZES
%GROUP = 200
MTYPE = 40
MREG = 20
MWRNTYPE = 50
MDEPR = 50
MREF = 20
MPAYLOAD = 40
MSTTYPE = 20
MTANTYPF = 250
MTARCLS = 15
MCCORR = 30
NDATA = MCCORR
LMAX = 1
MNDRY = 200
MRPT = 250
NEXCESS = 207
NNAVAL = 401
MDESPEQ = 5000
MCHANGE = 2000
MFIAPED = 10000

C
ICHANGE = 0
IFIXTGT = 0
RATIO = 1.0
INVAL(1) = 0
INVAL(2) = 0
INDMIN(1) = 0
INDMIN(2) = 0
INDMAX(1) = 0
INDMAX(2) = 0
NDESHQ = 0
NFIARFD = 0

C
NOPRINT = 1
MYIDFNT = RHPHPALOC
CALL INITAPE

C
100 HEAD (HEAD, 101) INPUT
101 FORMAT(10AS)
102 WRITE(IWRIT, 102) INPUT
102 FORMAT(*OUTPUT FOR OPTION #10AS)
CALL GETVALU(INPUT, NVARB, NAMES, INVALU, INDEX1, INDEX2, INDEX3,
1 *ORE)
1 IF(NVARB) 999*99*110
110 IRUNTYP = NAMES(1)

```

```

C IF(IRUNTY - 7*PRECOMP) 120, 1000, 120
C 120 IF(IRUNTY - 8*VAL*100) 130, 2000, 130
C 130 IF(IRUNTY - 9*WINK*100) 140, 3000, 140
C 140 IF(IRUNTY - 8*MAXKL*100) 150, 4000, 150
C 150 IF(IRUNTY - 8*FIXASSG) 160, 5000, 160
C 160 IF(IRUNTY - 4*STOP) 170, 6000, 170
C 170 IF(IRUNTY - 4*DUMP) 999, 7000, 999
C UNRECOGNIZED OPTION
C 999 WRITE(IWRIT, 999)
C WRITE(ICOMM, 998)
C 903 FORMAT(///* UNRECOGNIZED RUN OPTION*)
C STOP
C PRECOMP
C 1000 CALL ROUTING
C CALL HEADPREP
C CALL TGTPREP
C GO TO 100
C VALUE*100
C 2000 CALL VALUMON
C GO TO 100
C MINKILL MOD
C 3000 CALL WIPMOD
C GO TO 100
C MAXKILL MOD
C 4000 CALL MAXMOD
C GO TO 100
C FIXED ASSIGNMENTS
C 5000 CALL SETFILE
C GO TO 100
C NORMAL TERMINATION
C 6000 CONTINUE
C WRITE(IWRIT, 6001)
C WRITE(ICOMM, 6001)
C 6001 FORMAT(//42# ***** PROCESSOR PREPALLOC COMPLETED *****!)
C STOP
C DUMP REQUESTED
C 7000 CALL ABORT
C STOP
C END

```

318000
319000
320000
321000
322000
323000
324000
325000
326000
327000
328000
329000
330000
331000
332000
333000
334000
335000
336000
337000
338000
339000
340000
341000
342000
343000
344000
345000
346000
347000
348000
349000
350000
351000
352000
353000
354000
355000
356000
357000
358000
359000
360000
361000
362000
363000
364000
365000

IDENT PREPALOC

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	PREPALOC	IDENT
WPNDATA	00316	
WF4REG	00046	
WARHEAD	23420	
PLANTYPE	00025	
DPENREF	00227	
PAYLOAD	00003	
ASMTABLE	00300	
CORRCMAR	00621	
FILES	00115	
NONFILE	00020	
MASTER	00006	
BRKPNY	00027	
EXCESS	01043	
NAVAL	00317	
ITP	00621	
IFTPRNT	00001	
BOUNDARY	00012	
HAPPEN	01751	
CHARTER	01751	
MYIDENT	00241	
NOPRINT	00001	
TWORO	00001	
IODUMMY	00001	
MACHINE	00374	
DEFAULT	00004	
OPTION	00121	
CHANGES	00013	
SUMS	23422	
	00052	

EXTERNAL SYMBOLS

ORCENTRY
 THEM.
 Q8GSTOP5
 Q8DDICT.
 VPREPALO
 STORAGE
 INITAPE
 GETVALU
 ROUTING
 WFAPPREP
 TGTPREP
 VALUMOD
 MINMOD
 MAXMOD
 SETFILE
 AROKT
 TSM.
 STM.
 SLO.
 SLI.

C01356	HAPDIST						
C00372	HAPLAT						
C00764	HAPLONG						
C00512	HIL0ATTR						
C00630	HIALERT						
C00310	HIASM						
C00000	HCHANGE	00112	00113				
C00740	HCLASS						
C00000	HCLASMAN						
C00002	HCOMH	C00002	00230	00230	00274	00274	00274
C00001	HORL						
C00001	HIDENTNO						
C07640	HIDENTMAN						
C00001	HFIXTGT	00114					
C17500	HFOUND						
C00000	HFTPRNT	00003					
C00036	HMAP						
C00000	HMDATE						
C00550	HMRV						
C00000	HNDREG						
C01022	HNOCLAS						
C00203	HINDEX1	00166					
C00253	HINDEX2	00166					
C00323	HINDEX3	00167					
C00007	HINDMFK	00124	00124				
C00005	HINDMIN	00121	00122				
C00003	HINDVAL	00117	00120				
C00000	HINFIX						
X00007	HINITAPE	00132					
C00000	HINITSTRK						
C00000	HINPUT	00144	00157	00164			
C00063	HINVALU	00165					
C05120	IPAY						
C01440	IPENMODE						
C00003	IPUNCH						
C00000	IREAD	00003	00134	00134			
C01320	IPECHMODE						
C05120	IREFUEL						
C03460	IREG						
P00315	IRUNTYP	00173	00174	00177	00202	00205	00210 00213 00216
C00002	ISIDE						
C01560	ISIMTYPE						
C00000	IIP						
C00000	ITWORD						
C03776	ITYPE						
C03720	ITYPFMAN						
C00050	IWH01						
C00170	IWH02						
C00000	IWHDASH						
C00001	IWHIT	C00001	00147	00147	00221	00221	00265 00265
P00134	I100	00250	00253	00256	00261	00264	
P00242	I1000	00175					
P00172	I110						
P00177	I120	00175	00176	00176			

P00202	.130	00201	00201
P00205	.140	00204	00204
P00210	.150	00207	00207
P00213	.160	00212	00212
P00216	.170	00215	00215
P00251	.2000	00200	
P00254	.3000	00203	
P00257	.4000	00204	
P00262	.5000	00211	
P00265	.6000	00214	
P00306	.7000	00217	
P00221	.999	00171	00171
P00003	..100000	00130	
P00016	..100001	00174	
P00017	..100002	00200	
P00020	..100003	00203	
P00021	..100004	00206	
P00022	..100005	00211	
P00023	..100006	00214	
P00024	..100007	00217	
P00004	..101	00140	
P00007	..102	00153	
P00034	..6001	00271	00300
P00025	..998	00225	00234
C00000	JATYPE		
C00156	JHAP		
C00360	KORSTYLE		
C00000	KOUNT		
C01750	LHAPMAX		
C01131	LMAX	00077	
C00144	MASH		
C00144	MASRTYPE	00071	00071
X00016	MAXROI	00257	
C01750	MENDRY	00100	00101
C23420	MCHANGE	00110	00110
C00240	MCOMR	00075	00075
C22032	MDESPFO	00104	00107
C00276	MOPEN	00065	00065
C23421	MFIAREP	00111	
C22031	MG		
C22031	MGROUP	00057	00060
X00015	MINROD	00254	
C00373	MORE	00167	
C00074	MOUNT		
C00620	MP		
C00620	MPAYLOAD	00067	00070
C00277	MREF	00066	
C00024	MREG	00062	00062
C01750	MRIPT	00102	00102
C00004	MSLTIME	C00003	
C01042	MTACCLS	00074	
C01041	MTARTYPE	00072	00073
C22030	MTYPE	00061	
C00226	MMDTYPE	00063	00064

C11610	MYDEKST		
C00000	MYFIXD		
C00024	MYFORM	00131	00131
C00000	MYIDENT		
C00000	MYNAME		
C00050	MYTYPE		
C00074	MYVAL		
C00500	NADECOYS		
C70023	NALERT		
C00500	NALHTDLY		
C00002	NAMCLAS		
C00013	NAMES	00165	00172 00172
C00240	NASH		
C00016	NASHMYPE		
C00010	NBMDRY		
C00022	NCLASS		
C00360	NCH		
C00026	NCNTRY		
C00021	NCOMPLEX		
C00004	NCORR		
C00025	NCORTYPE		
C01130	NDATA	00074	00076
C00430	NDECOYS		
C00120	NDEFLT	00125	
C00011	NDESREQ	00103	00104
C00005	NDPEN		
C00000	NEXCESS		
C01440	NEXTZONE	00126	
C00012	NFKRFO		
C00013	NG		
C00013	NGRCUP	00105	00105
C00000	NNAVAL		
C00000	NOBOMHI		
C00120	NOBOMR2		
C00000	NOPRINT	00127	00127
C00023	NOTHER		
C00015	NPAYLOAD		
C00606	NPRCRDEF		
C00006	NRECOVER		
C00007	NREF		
C00011	NREG		
C00003	NRIPT		
C00020	NTANKRAS		
C00024	NTGTS		
C00014	NTOTRASE		
C00012	NTYPE		
C00012	NVARS	00164	00170 00170
C02330	NVEHGRP		
C00017	NWHDTYPE		
C02020	NWPN		
C00000	OLDSUM		
C00000	PCLAT		
C00036	PCLONG		
C00074	PZONE		

S-ATS PREPALOC

11/26/71

ED 0

PAGE NO.

15

C00062	POUD						
C00001	PEXR0MR						
C00003	PEXMIIV						
C00005	PEXMISS						
C00311	PRNAV						
C00017	PLANTAPE	C00017					
C00002	POSTDATA	C00002					
C00776	PRTTR						
P00046	PREPALOC	00046					
X00004	3R00ICT	00000					
X00001	GR0ENTRY	00051					
X00003	GR0STOPS	00240	00304	00311			
C00000	RANGE						
C00024	RANGEASM						
C00420	RANGEDEC						
C01060	RANGEREFC						
C00002	RATIO	00115	00116				
C05740	REFTIME						
C01200	REL						
C00050	REL4SH						
C00226	REFLAT						
C00252	REFLONG						
X00011	ROUTING	00242					
X04610	SBL						
C00007	SBLREAL						
X00017	SETFILE	00262					
X00024	SLI	00142					
X00023	SLO	00155					
C00240	SPEED						
C00120	SPEEDASM						
X00022	STH	00151	00223	00232	00267	00276	
X00006	STORAGE	00055					
C00014	STPKFIL	C00013					
C00001	SUMMEN						
C00000	TGTFILE	00003					
X00013	TGTPREP	00246					
X00002	TMEND	00145					
C00001	TIMFILE	CDU001					
C00010	TMPALOC	C00007					
C00005	TMPOST	C00005					
C00004	TMPTR	C00004					
X00021	TSM	00136					
C00000	TWORD						
C00372	TYPENAME						
C13560	VALUENEM						
X00014	VALUMOD	00251					
X00005	VPREPALO	00053					
X00012	WEAPPREP	00244					
C00006	WINFILE	00003					
C02640	WLAT						
C03150	WLONG						
C05430	YIELD						
C00000	YLD						
C00132	ZPLAT						

1267

5.4TS PREPALOC

C00170 ZPLONG
00415 SYMBOLS

11/26/71

ED

0

PAGE NO.

16

1268

```

SURROUTINE RASWRIT
CSUBR RASWRIT IJUN71 *****
C
C THIS SURROUTINE WRITES THE RASFILE
CUSE OPTON IJUN71 *****
C
COMMON/OPTION/ ICHANGE, IFIXTGT, NATIO, INDOVAL(2), INDMIN(2),
1 INDMAX(2), NOESREQ, #FIXREQ
C
CEND *****
C
CUSE MASTER IJUN71 *****
COMMON/MASTER/INDATE, IDENTNO, ISIDE, MPTOT, MRCORR, MOPEN, MRECOVER
1, MREF, MRENDY, MNEG, MTYPE, MGROUP, MNTOTBASE, MPAYLOAD, MASHMOTYPE
2, MTAHMAS, MCOMPLEX, MCLASS, MNALENT, MNTGTS, MNCORTYPE, MCONTRY
EQUIVALNCE (MGROUP, NG), (MNALENT, MOTHER)
CEND *****
C
CUSE MRRKPT IJUN71 *****
COMMON/MRRKPT/ INDRNG(250), TYPENAME(250),
1 CUMNO(15), RTYPES(15), INDCLAS(15), MTYPE, MTRCLS
C
CEND *****
C
CUSE TAPES IJUN71 *****
COMMON/FILES/ TGTFILE(2), RASFILE(2), NSLTIME(2),
1 ALOCAR(2), TMPALOC(2), ALOCGRP(2), STRKFIL(2),
2 EVENTAPE, PLANTAPE
C
C TYPE INTEGER TSTFILE, RASFILE, MSLTIME, ALOCAR,
1 TMPALOC, ALOCGRP, STRKFIL, EVENTAPE, PLANTAPE
C
COMMON/MOFILE/ MINFILE, TIMFILE, POSTDATA, FIXFILE, TMPYAR
1 IMPOST
C
C TYPE INTEGER MINFILE, TIMFILE, POSTDATA, FIXFILE, TMPYAR, IMPOST
C
C TAPES *****
C
C CORCHAR IJUN71 *****
COMMON /CORCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30),
1 ZPLONG(30), ENLAT(30), ENLONG(30), CHLENGH(30), KORSTYLE(30),
2 ATTRCOR(30), ATTRSUPR(30), MLOATTR(30), USFRANGE(30),
3 NPHCRDEF(30), DEFNIST(30,3), ATTRPRE(30,3), NDATA, LMAR
C
C TYPE INTEGER PCZONE
C
C REAL KORSTYLE
DIMENSION DISTAC(40), PHATTR(30,3), DISTDEF(30,3)
EQUIVALNCE (MDEFNST, DISTDEF), (PHATTR, ATTRPRE)
EQUIVALNCE (CHLENGH, DISTAC)
C
CORCHAR *****
CHAPTER IJUN71 *****
COMMON/CHAPTER/ACOUNT, IHAP(30), MOUNT(50), JMAP(50), MCONR
1000
39000
2000
3000
4000
5000
1000
2000
3000
4000
5000
6000
7000
1000
2000
3000
4000
5000
6000
7000
8000
9000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
11000
12000
13000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
13000
14000
1000

```

```

CEND CHARTER ***** 14000
CUSE ASMTABLE IJUN71 ***** 15000
COMMON/ASMTABLE/I*HDAS*(20),RANGEAS*(20),RELASM(20) 1000
1,CERASH(20),SPEEDASH(20),WAS*TYPE 2000
EQUIVALENCE (WAS*,WAS*TYPE) 3000
CEND ASMTABLE ***** 15000
C 16000
CUSE PAYLOAD IJUN71 ***** 17000
COMMON/PAYLOAD/NOUMRI(40),I*MDI(40),NOUMR2(40),I*HDZ(40) 1000
1,WAS*(40),IASH(40),RCH(40),NECOYS(40),NANECOYS(40),I*IRV(40) 2000
2,MPAYLOAD) ***** 3000
EQUIVALENCE (MP,MPAYLOAD) ***** 4000
CEND PAYLOAD ***** 17000
C 18000
CUSE DPERPEP IJUN71 ***** 19000
COMMON/DPERPEP/PLINK(50),NPLAT(50),NPLONG(50),NPLAT(20), 1000
*HLONG(20),*MOPEN,*MREF ***** 18000
TYPE INTEGER PLINK ***** 19000
OPENEF ***** 2000
C 21000
CUSE PLANTYPE IJUN71 ***** 21000
COMMON/PLANTYPE/INITSTR,COMMSL,COMRMS ***** 1000
PLANTYPE ***** 21000
C 22000
CUSE WARHEAD IJUN71 ***** 23000
COMMON/WARHEAD/YLD(50),PHID(50),FFRAC(50),MMCTYPE 1000
WARHEAD ***** 23000
C 24000
CUSE *PRNEG IJUN71 ***** 25000
COMMON/*PRNEG/CCREL(20),*REV 1000
*PRNEG ***** 25000
C 26000
CUSE *PRDATA IJUN71 ***** 27000
COMMON/*PRDATA/RANGE(90),CEP(90),SPEFD(90),ALERT(90), 1000
*HALT(90),RANGDEC(90),RANGDEC(90),ICLASS(90),RANGREF(90), 2000
*FL(90),IREC(90),I*PENMODE(40),I*SMODE(80), 3000
FUNCTION(80),*M*PNS(200),*V*FHGRP(200),*MLAT(200), 4000
*LONG(200),*I*EG(200),*I*YF(200),*I*ALEPT(200),*SRL(200), 5000
*OFFUEL(200),*YIELD(200),*LEFTIME(200),*DISTAC(200),*J0), 6000
*TYPE,*NGROUP,*MDESPE ***** 7000
C 8000
C 9000
C DIMENSION IPAY(200),MYFIXD(5000),MYTEXT(5000),DUMAR(10000) 10000
C TYPE REAL HALPTDLY 11000
C TYPE INTEGER FUNCTION 12000
C EQUIVALENCE (IPAY,IREFUEL),(MG,*MGROUP) 13000
C EQUIVALENCE (MYFIXD,*MANG,*DU*AR),(*Y*ENST,DUMAR(5001)) 14000
C 15000
CEND *PRDATA ***** 17000
C 18000
CUSE EXCESS IJUN71 ***** 25000
COMMON/EXCESS/N*EXCESS,PEX*DMR,EX*AM*DMR,PEX*IRV,EX*RM*IRV, 1000
PEX*ITSS,EX*INTSS,SRL*REAL(200) ***** 2000
3 ***** 3000

```

```

C      CEND      EXCESS      *****
C      CUSE      NAVAL      1JUN71      *****
C      COMMON/NAVAL/NAVAL, INRL(200), PKNV(200)
C      CEND      NAVAL      *****
C      CUSE      CTRYCO      1JUN71      *****
C      COMMON /CTRYCO/ CTRYCO(150), MCNTNY
C      DATA (MONTHY = 150)
C      CEND      CTRYCO      *****
C      CUSE      ITP      1JUN71      *****
C      COMMON/ITP/ITP
C      CEND      ITP      *****
C      CUSE      MYIDENT      1JUN71      *****
C      COMMON/MYIDENT/MYIDENT
C      CEND      MYIDENT      *****
C      CUSE      MYLABEL      1JUN71      *****
C      COMMON /MYLABEL/ MYFORMT, MYSECR, MYLGTH, MYCOMM(5)
C      CEND      MYLABEL      *****
C      CUSE      TWORD      1JUN71      *****
C      COMMON /TWORD/ ITWORD
C      EQUIVLENCE (TWORD, ITWORD)
C      TWORD      *****
C      CUSE      EDJVTAR      1JUN71      *****
C      ***** NOTE *****
C      THIS BLOCK IS COMMON / IMPSTOR/ WHERE THE
C      VARIABLES ARE THOSE TO BE OUTPUT ON THE T6FILE.
C      IN ADDITION TEMPORARY STORAGE AREAS FOR
C      COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
C      ELEMENTS ARE DEFINED
C      COMMON/ IMPSTOR/ TGTNAMZ, INDEANZ, DESIGZ, TASKZ, CNTRYLCZ,
1      FLAGZ, TGTMLZ, T6TLAZ, T6TLONZ, T6TRAZ, VTZ, MZ, MZ(2),
2      VOZ(2), MKZ, FWAZ(3), TAZ(3), ICLASSZ, IMPYPZ,
3      TAREZ, MISDEZ, MINKILZ, MAXKILZ, MAXCOSZ, INDYPEZ, DISTOFZ,
4      DISTOGZ, DISTCOZ(30), ATTRCNZ(30), NFIXEZ, MULDATA(4,5),
5      ICKDATA(26, 40)
C      TYPE INTEGER DESIGZ, TGTNAMZ
C      TYPE REAL MINKILZ, MAXKILZ
C      DIMENSION BLOCK(1600), NLOCK(1600)

```

```

C      EQUIVALENCE(BLOCK, TGTNAMZ, NLOCK)
C      EQUIVALENCE(VZA, VOZ(1)), (VZ9, VOZ(2))
C      DIMENSION CXDATA(29, 40)
C      EQUIVALENCE (CXDATA, ICXDATA)
C      COMMON/ SIZES/ MDATAK, MDATEK, M$PERMT, MTELACM, LIN$TOR,
C      1     L$OI, LNGZ
C      CENO
C      CUSE
C      EQUITYAR: *****
C      CHANGES 1JUN71 *****
C      COMMON/ CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTWAN(2000),
C      1     VALUENEM(2000), IFOUND(2000), MCHANGE, MFIXREQ
C      DIMENSION INFIX(10000)
C      EQUIVLFNCE(INFIX, ICLASWAN)
C      COMMON/ SUNG/ OLDSUN, SUNNE, NAMCLAS(20), FNCLAS(20)
C      CHANGES *****
C      COMMON/FILABEL/INIDENT, INRUNNO, INDATE,
C      1     INFORM, IN$SECR, INTIME, INLN$GTH, INCOMM(S)
C      DETERMINE FILE LENGTHS
C      NTOTMPS = 0
C      MWISL = 0
C      NBOMBR = 0
C      00 30 I = 1, N$GROUP
C      NTOTMPS = NTOTMPS + NUPNS(I)
C      IT = ITYPE(I)
C      IF(ICLASS(I)-1) 10, 10, 20
C      MISSILE
C      10 MWISL = MWISL + NUPNS(I)
C      GO TO 30
C      BOMBR
C      20 NBOMBR = NBOMBR + NUPNS(I)
C      30 CONTINUE
C      TGTFILE
C      TGTFILE(2) = LNGZ*NTGTS + NFIXREQ
C      BASFILE
C      DETERMINE WHERE IS POSTDATA INFORMATION
C      IF(ICCHANGE) 50, 40, 50
C      40 IPOST = POSTDATA
C      GO TO 60
C      50 IPOST = TMPOST
C      60 HYIDENT = 7H$CRATCH
C      IYP = IPOST
C      CALL SETREAD
C      BASFILE(2) = INLN$GTH + 12500
C      MSLTIME
C      MSLTIME(2) = MWISL*5
C      ALOCTAR

```

```

C C ALOCTAR(2) = (NIGTS* 45) * (5*NTGTS)
C C TMAPALOC AND ALOCGRP
C C TMAPALOC(2) = (NGROUP*175) * (15*NBOMHR) * (10*N*ISL)
C C ALOCGRP(2) = TMAPALOC(2)
C C STAKFIL
C C STAKFIL(2) = (150*NBOMHR) * (300*NBISL)
C C WRITE HASFILE
C C ITP = HASFILE(1)
C C MYLNGTH = HASFILE(2)
C C MYIDENT = 7HBSAFILE
C C PYFORMT = 8HNOV 70
C C CALL SETWRITE
C C CALL WRARRAY(INDATE, 23)
C C NWD5 = #TARCLS * 3 + #TARTYPE * 2
C C CALL WRARRAY(INDRFG, NWD5)
C C CALL WRARRAY(TGFILE, 14)
C C NWD5 = #CDHR * 20 + 1
C C CALL WRARRAY(PCLAT, NWD5)
C C NWD5 = #ASHTYPE * 5
C C CALL WRARRAY(INDASH, NWD5)
C C NWD5 = #PAYLOAD * 10
C C CALL WRARRAY( NOBOMR), NWD5)
C C NWD5 = (3*#DPEN) * (2*#REF)
C C CALL WRARRAY(DPLINK, NWD5)
C C CALL WRARRAY(INITSTRK, 3)
C C NWD5 = #MOTYPE * 3
C C CALL WRARRAY(YLD, NWD5)
C C CALL WRARRAY(CCHEL, #REG)
C C NWD5 = #TYPE * 13
C C CALL WRARRAY(MAKE, NWD5)
C C NWD5 = #GROUP * (11* #CDHR)
C C CALL WRARRAY(MBNS, NWD5)
C C CALL WRARRAY(NEXCESS, NEXCESS)
C C CALL WRARRAY(MNAVAL, MNAVAL)
C C CALL WRARRAY(CTRYCD, MENTRY)
C C ITP(2) = 8HRRRRRRR
C C CALL WRXORD
C C NOW ADD POSTDATA INFORMATION
C C ITARG = TGFILE(1)
C C MYIDENT = 7HTGFILE
C C IF PLANNING FACTORS HAVE CHANGED OR IF THERE ARE FIXED ASSIGNMENTS
C C THEN THE TARGET DATA IS ON THE TMAPAR FILE.
C C IF (ICHAARGE * IFIXTGT) 90 * 100 * 90
C C 90 ITARG = TMAPAR
C C MYIDENT = 7HNSMATCH
C C NORMALIZE DATA FROM POSTDATA
C C 100 ITP = ITARG
C C CALL SETREAD
C C DO 200 I = 1, NTGTS
C C ITP = ITARG

```

```

81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000

```

```

C      CALL RDARRAY(IGTINAMZ, LMG2)
CHECK TO SEE IF NORMALIZATION NECESSARY
IF(ITGMULZ - 1.001) 110, 110, 130
110 IF (IMCLASZ - 7HCOMPLEX) 120, 140, 120
120 IF (IMCLASZ - 8HCOMPLEXD) 200, 140, 200
C
C      MULTIPLE TARGET
130 IMUL = TGMULZ * .001
NMDS = IMUL * MUATHUL
ITP = IPOST
CALL RDARRAY(MULDATA, NMDS)
ITP = HASFILE(1)
CALL WRARRAY(MULDATA, NMDS)
GO TO 200
C
C      COMPLEX TARGET
140 NMDS = IMTPZ * MDATCX
ITP = IPOST
CALL WRARRAY(CXDATA, NMDS)
FRCLAS(ICLASSZ) = FRCLAS(ICLASSZ) - VTZ
DO 150 J = 11, NMDS, MDATCX
IC = ICXDATA(J*12)
NAMCLAS(1C) = ICXDATA(J*11)
FRCLAS(1C) = FRCLAS(1C) + CXDATA(J)
IF (ICHANGE .NE. 0) CXDATA(J) = CXDATA(J) * RATIO
150 CONTINUE
ITP = HASFILE(1)
CALL WRARRAY(CXDATA, NMDS)
C
C      200 CONTINUE
C
C      TERMINATE TARGET FILE
ITP = ITARG
CALL TERMTAPE
C
C      COMPLETE TRANSMISSION OF DATA FROM POSTDATA TO HASFILE
250 ITP = IPOST
CALL RDWORD
ITP = HASFILE(1)
CALL RWWORD
IF(ITWORD - 8HXXXXXXXX) 250, 300, 250
C
C      TERMINATE ALL TLFS
300 ITP = IPOST
CALL TERMTAPE
ITP = HASFILE(1)
CALL TERMTAPE
RETURN
END

```

137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000

INENT BASWRIT

INENT

00507
 00014
 00013
 00027
 91943
 00020
 00064
 01132
 00241
 00145
 00621
 00300
 00003
 00227
 00025
 23420
 00317
 00621
 00227
 00001
 00001
 00010
 00001
 03100
 00007
 23422
 00052
 00014

BASWRIT
 OPTIOM
 MASIFR
 HRPJT
 FILEX
 NORFILE
 CORCMAR
 CHAPTER
 ASMTABLE
 PAYLOAD
 INPDEF
 PLANTYPE
 WARHEAD
 WPRREG
 WPRDATA
 EXCESS
 NAVAL
 CTRYCD
 ITP
 MYINENT
 MYLA-EL
 TWOMO
 INPSTOR
 SIZES
 CHANGES
 SUMS
 FILA-EL
 010100
 ORJICT.
 SETHEAD
 SETWITE
 WRANRAY
 WPRORD
 MOARRAY
 TEMTAPE
 MDWOPD

PROGRAM LENGTH
 ENTRY POINTS
 BLOCK NAMES

EXTERNAL SYMBOLS

C00000	I*WHD	00254	00433	00433	00049	00254	00433	00049											
C03770	I*YPE	00034	00034	00034	00034	00034	00034	00034											
C03720	I*PE*AN																		
C00050	I*WD1																		
C00170	I*WD2																		
C00000	I*WDASH	00171				00171													
P00042	.10	00040				00040													
P00273	.106	00266				00266													
P00403	.100001																		
P00406	.100002																		
P00312	.110	00310				00310													
P00316	.120	00314				00314													
P00322	.130	00311				00311													
P00363	.140	00314				00314													
P00406	.150																		
P00446	.20	00041				00041													
P00414	.200	00320				00320													
P00423	.250	00435				00435													
P00051	.30	00045				00045													
P00437	.300	00435				00435													
P00061	.40	00057				00057													
P00064	.50	00057				00057													
P00066	.60	00063				00063													
P00267	.90	00266				00266													
P00454	*ERASER.	00103				00103													
P00003	..100000	00122				00122													
P00004	..100001	00066				00066													
P00005	..100002	00131				00131													
P00006	..100003	00133				00133													
P00007	..100004	00255				00255													
P00010	..100005	00271				00271													
P00011	..100006	00313				00313													
P00012	..100007	00317				00317													
P00013	..100008	00434				00434													
P00502	J	00360				00360													
C00156	JHAP	00370				00370													
P00406	JS00003.																		
C00360	KORSTYLE																		
C00000	KOUNT																		
C00004	LINSTOR																		
C01131	LMAX																		
C00005	LMG1																		
C00006	LMG2																		
C00144	LMASH																		
C00144	MASHM																		
C00144	MASHM*TYPE																		
C00036	MACOSZ																		
C00035	MAKKILZ																		
C23420	MCHANGE																		
C00226	MCNTRY																		
C00240	MCOOR																		
C00001	MDATCX																		
C00000	MDATHUL																		
C22032	MDRESFC																		

5.ATS BASWRIT

11/26/71

ED 0

PAGE NO.

11

C00276	NDPEN	00200	00201
C23421	MFIXREQ		
C22031	MG	00236	00237
C22031	MGROUP		
C00034	MINKILZ		
C00033	MISDEZ		
C00074	MOUNT		
C00620	MP		
C00620	MPAYLOAD	00172	00172
C00277	MREF	00203	00203
C00024	MREG	00225	00100
C00004	MSLTIME	00100	00100
C00002	MSPERM	00142	00142
C01042	MTARCLS	00144	00145
C01041	MTARTYPE	00144	00145
C00803	MTELMCH	00226	00226
C22030	MTYPE	00334	00341
C00137	MULDATA	00215	00215
C00226	MWHDTYPE		
C00903	MYCQMM		
C11610	MYDEXST		
C00000	MYFINO	00134	00134
C00000	MYFORMT	00067	00067
C00000	MYIDENT	00127	00130
C00002	MYLNKTH		
C00001	MYSECR		
C00013	MZ		
C00500	NADECOYS	00132	00132
C00023	NALERT	00263	00264
C00500	NALRTDLY	00375	00375
C00002	NAMCLAS		
C00240	NASN		
C00016	NASATYPE		
C00010	NRMORY	00023	00046
P00503	NROMRR	00050	00112
C00022	NCLASS	00112	00120
C00360	NCM		
C00026	NCNTRY		
C00021	NCOMPLEX		
C00004	NCORR		
C00025	NCORTYPE		
C01130	NDATA		
C00430	NDECOYS		
C00011	NDESREQ		
C00005	NDPEN	00246	00246
C00000	NEXCESS		
C00136	NFINEZ	00054	00054
C00012	NFIXREQ		
C00013	NG		
C00013	NGROUP	00024	00025
C00020	NKZ	00107	00107
C00000	NLOCK		
P00504	NMISL	00022	00044
C00000	NNAVAL	00077	00113
		00122	00122

C00000	NORQMB1	00177							
C00120	NORQMB2								
C00023	NOTHER								
C00015	NPAYLOAD								
C00006	NPRCRDEF								
C00006	NRECOVER								
C00007	NREF								
C00011	NREG								
C00003	NRTPT								
C00020	NTANKRAS								
C00024	NTGTS								
C00014	NTOTBASE								
P00505	NTOTWPS								
C00012	NTYPE								
C02330	NVENGPP								
P00506	NWOS								
C00017	NWDTYPE								
C02020	NWPN5								
C00000	OLOSUM								
C00000	PCLAT								
C00036	PCLONG								
C00074	PCZONF								
C00062	POUD								
C00001	PEX50MB								
C00003	PEXIRV								
C00005	PEXISS								
C00311	PKNAV								
C00017	PLANTAPE								
C00002	POSTDATA								
C00776	PRATT								
X00001	Q1010100								
X00002	QDICT.								
C00000	RANGE								
C00024	RANGREAS								
C00620	RANGDEC								
C01060	RANGREF								
C00002	RATIO								
X00007	RDARRAY								
X00011	RDHQR								
C00740	REPTIME								
C01200	REL								
C00050	RELAS								
C00226	RELAT								
C00252	RFLONG								
C004610	SRL								
C00007	SRLREAL								
X00003	SETHEAD								
X00004	SETWRITE								
C00240	SPEED								
C00120	SPEEDASH								
C00014	STARFIL								
C00001	SUMNEW								

C00032	TARBEZ								
C00003	TASKZ								
C00024	TAZ								
X00010	TERM-TAPE	00421	00441	00445					
C00000	TGTFILE	00055	00055	00155	00261	00261			
C00007	TGTLA7								
C00010	TGTLONZ								
C00006	TGTMULZ								
C00000	TGTRAZ	00306	00306	00322	00322				
C00011	TGTRAZ								
C00001	TIFILE								
C00010	TMPALOC	00116	00116						
C00005	TMPOST	00064	00064						
C00002	TMPTAP	00267	00267						
P00052	TS00001.								
P00415	TS00002.	00300							
P00407	TS00003.	00361	00364						
C00000	TWORO								
C00372	TYPENAME								
C13500	VALURNEW								
C00016	VOZ								
C00012	VTZ	00355	00355						
C00016	VZA								
C00017	VZH								
C00000	WINFILE								
C02640	WLAT								
C03150	WLONG								
X00005	WPARMAY	00137	00150	00153	00161	00167	00175	00207	00212
		00241	00244	00247	00252	00337	00411	00220	00223
		00051	00051						
X00006	WRWORP								
P00031	WS00001.	00416	00416						
P00030	WS00002.	00406							
P00371	WS00003.								
C05430	YIELD								
C00000	YLD	00222							
C00132	ZPLAT								
C00170	ZPLONG								

00452 SYMROLS

```

SUBROUTINE CHKCHG
  CSUBR  CHKCHG 7SEPT71 *****
  C      THIS SUBROUTINE CHECKS THE RESULTS OF THE VALUE CHANGES.
  C
  CUSE   CHANGES 1JUN71 *****
  COMMON/ CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTIANW(2000),
  1 VALUEWEM(2000), IFOUND(2000), MCHANGE, MFIXREQ
  C
  DIMENSION INFIX(10000)
  EQUIVALENCE(INFIX, ICLASWAN)
  C
  COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FRCLAS(20)
  CEND   CHANGES *****
  CUSE   OPTION 1JUN71 *****
  C      COMMON/OPTION/ ICHANGE, IFIXIGT, RATIO, INDVAL(2), INDIRM(2),
  1 INDIRAA(2), AMESREQ, MFIXREQ
  CEND   OPTION *****
  CUSE   TAPES 1JUN71 *****
  C      COMMON/FILES/ TGTFIL(2), HASFILE(2), MSLTIME(2),
  1 ALOCTAR(2), IMPALOC(2), ALOCGRP(2), STRKFL(2),
  2 EVENTAPE, PLANTAPE
  C
  TYPE INTEGER TGTFIL, HASFILE, MSLTIME, ALOCTAR,
  1 IMPALOC, ALOCGRP, STRKFL, EVENTAPE, PLANTAPE
  C
  COMMON/NONFILE/ MINFILF, TINFILE, POSTDATA, FIXFILE, TMPTAR,
  1 TMPOST
  C
  TYPE INTEGER MINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR, TMPOST
  CEND   TAPES *****
  CUSE   TWORD 1JUN71 *****
  COMMON /TWORD/ ITWORD
  EQUIVALENCE (ITORD, ITWORD)
  CEAD   TWORD *****
  CUSE   ITP 1JUN71 *****
  COMMON/ITP/ITP *****
  CEND   ITP *****
  CUSE   IOJUMPY 1JUN71 *****
  COMMON/IOJUMPY/ INPUT(10), NVARIS, NAMES(40), INVALU(2,40),
  1 INDEX1(40), INDEX2(40), INDEX3(40), MORE
  C
  COMMON/ MACHINE/ TREAD, IWRIT, ICUMM, IPUNCH
  C
  DATA(IREAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)

```

```

1000
41000
2000
3000
4000
5000
1000
2000
3000
4000
4000
7000
5000
6000
7000
8000
9000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
11000
1000
2000
13000
14000
15000
1000
2000
3000
4000
5000
6000
7000
8000

```

```

COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1   FVAL(20), NDEFLT
C
C EQUIVALENCE (MYVAL, FVAL)
CE(4)  IONIMMY *****
C
IF(ICHANGE) 200, 100, 200
100  RATIO = 1.0
    ITP = POSTDATA
    CALL TERTAPE
    RETURN
C 200 ITP = POSTDATA
    CALL POSTDATA
    ITP = TPOST
    CALL WORKORD
    IF(ITWORD = 'XXXXXXXXX') 200, 210, 200
210  ITP = POSTDATA
    CALL TERTAPE
    ITP = TPOST
    CALL TERTAPE
C
C SFT FINAL RATIO VALUE
RATIO = CLOSUM / SUMNEW
C
C IPHNT = 0
ISTART = 1
IEND = XMAXOF(INDVAL(2), INDMIN(2), INDMAX(2))
NTOT = 0
DO 300 I = ISTART, IEND
  NTOT = NTOT + IFOUND(I)
  IF(IFOUND(I)) 220, 220, 300
220  IF(IPHNT) 230, 230, 240
230  WRITE(IWRITE, 231)
231  FORMAT('THE FOLLOWING CHANGE REQUESTS WERE NEVER EXERCISED //312
1  X=HTARGET, 2X, 3X, 9HREQUESTED/* CLASS TYPE IDENTIFIER
1  CHARGE*)
    IPHNT = 100
240  IF(I.LE. INDVAL(1) .AND. I.LE. INDVAL(2)) IAM = SHVALUE
    IF(I.GE. INDMIN(1) .AND. I.LE. INDMIN(2)) IAM = THPINKILL
    IF(I.GE. INDMAX(1) .AND. I.LE. INDMAX(2)) IAM = THMKRILL
C
    CHECK FOR TYPE OF IDENTIFIER
    ITEST = IDENTMAN(I)
245  IF (ITEST) 260, 260, 245
C 250 IF (ITEST = 12000) 250, 250, 260
    INDEX IDENTIFIER
250  WRITE(IWRITE, 251) (CLASMAN(I), ITYPENR(I), IOENTMAN(I), VALUENR(
1), IAM
251  FORMAT('1X,AB,2X,AR,AX,15,AX,F10.4,2X,AB)
    GO TO 300
C
    DESIG IDENTIFIER
260  WRITE(IWRITE, 261) (CLASMAN(I), ITYPENR(I), IOENTMAN(I), VALUENR(
1), IAM
261  FORMAT('1X, AR, 2X, AR, 2X, AR, 2X, AR, 3X, F10.4, 2X, AB)
300  CONTINUE

```

9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000
58000
59000
60000
61000
62000
63000

FTNS.5

11/26/71

PAGE NO.

3

WRITE (WRIT.301) MTOT
301 FORMAT(//)* THERE WERE *.15)* CHANGES ACTUALLY MADE ON THE TARGET
10ATA*)
RETURN
END

64000
65000
66000
67000
68000

1284

5.ATS CHKCHG

11/24/71

ED 0

PAGE NO. 4

IDENT CHKCHG

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

00366	CHKCHG
00114	
23422	CHANGES
00052	SUMS
00013	OPTION
00020	FILES
00004	NOFILE
00001	TWO-D
00001	ITP
00374	1000-HY
00004	MACHINE
00021	DEFAULT

EXTERNAL SYMBOLS

THE NO.
WRDCTY.
TEMP TAPE
MD=CMD
WR=CMD
WR=AF
STR.
WR=SI=GL.

Code	Description	00266	00267	00270	00272	00305	00306	00307	00310	00312	00326
C00012	ALOCGRP										
C00004	ALOCYAR										
C00002	MASFIL										
F00334	HEGIM	00334									
P00114	CHKCMG	00114									
P00333	CNVFTI	00265									
P00003	CNVFTI	00212									
P00001	DICT	00116									
P00335	ENDING	00301									
C00014	EVENTAPE	00117									
P00000	EXIT	00335									
C00003	FIXFILE	00142									
P00003	FORMAT										
C00024	FRCCLAS										
C00074	FVAL										
P00212	GG00000										
P00275	GG00001										
P00315	GG00002										
P00331	GG00003										
P00337	I										
P00340	IAH	00315									
C00000	ICMCHANGE	00224									
C00000	ICLASWAN	00120									
C00002	ICDMM	00264									
C00640	IDENTMAN	C00002									
P00341	IFEND	00250									
P00217	IF00001	00167									
P00230	IF00002	00214									
P00241	IF00003	00227									
C00001	IFIXTGT	00240									
C17500	IF00000	00173									
C00203	INDEX1										
C00253	INDEX2										
C00323	INDEX3										
C00007	INDMAX										
C00005	INDMIN										
C00003	INDVAL										
C00000	INFIX										
P00334	INITIAL	00117									
C00000	INPUT										
C00063	INVALID										
P00342	IPRNT	00161									
C00003	IPUNCH	C00003									
C00000	IPZAN	00003									
P00344	IYSTAT	00170									
P00344	IYEST	00251									
C00000	IYTP	00126									
C00000	IYTHORN	00142									
C03720	IYTYPEMAN	00264									
C00001	IYRIT	C00001									
P00123	.100	00121									
P00223	.100001	00221									

P00225	.100002	00216	00221		
P00234	.100003	00232	00233		
P00238	.100004	00227	00232		
P00245	.100005	00243	00244		
P00247	.100006	00240	00243		
P00132	.200	00121	00122	00144	00145
P00146	.210	00144			
P00200	.220	00176	00177		
P00203	.230	00201	00201		
P00214	.240	00202			
P00253	.245				
P00256	.250	00254	00255		
P00276	.260	00252	00252		
P00315	.300	00177	00275		
P00003	.100000	00143			
P00041	.100001	00223			
P00042	.100002	00234			
P00043	.100003	00245			
P00004	.231	00207			
P00044	.251	00262			
P00061	.261	00302			
P00076	.301	00324			
C23420	MCHANGE				
C23421	MFIXREQ	00170	00172	00175	00325
C00373	MOHE	00156	00156		
C00004	MSLTIME	00125	00125	00132	00146
C00024	MYFORM	00000	00115		
C00000	MYNAME	00332			
C00050	MYTYPE	00124	00124	00157	00160
C00074	MYVAL	00134			
C00002	NAMCLAS	00205	00260	00300	00322
C00013	NAMES	00157			
C00120	NDEFLT	00127	00150	00154	
C00011	NDESREQ	00210	00273	00313	00327
C00312	NFIXREQ				
P00345	NTOT	00136	00136	00152	00152
C00012	NVARS				
C00000	OLDSUM				
C00017	PLANTAPE				
C00002	POSTDATA				
X00002	PRODICT.				
X00010	QNSHGL.				
C00002	RATIO				
X00004	ROWGRD				
X00007	STM.				
C00014	STRKFIL				
C00001	SUMNE#				
X00003	TFRMTAPE				
C00000	TGFILE				
X00001	TMRD.				
C00001	TINFILE				
C00010	TMPALOC				
C00005	TMPOST				
C00004	TMPTAP				

POC314	TS00001.	00171
C00000	TR000	
C13500	VALUE-EX	00270
C00000	WIRE FILE	00310
X00005	W50000	
P00172	W500001.	00140
X00004	W50000	00317
	W50000	00163
	00161 SYMBOLS	

```

SUMROUTINE FIXREP
CSUBR  FIXREP  7SEPT1  *****
C      THIS SUBROUTINE REWRITES THE TGFILE AND ADDS
C      THE FIXED ASSIGNMENTS TO IT. IF THERE WERE
C      VALUE CHANGE REQUESTS, THE TARGET VALUE ARE RENORMALIZED.
C      OPTION 1JUN71 *****
C      COMMON/OPTION/ ICHARGE, IFIXTGT, MATIO, INVAL(2), INDMIN(2),
C      INDMAX(2), NRESREQ, NFIXREQ
C      OPTION *****
C      MASTER 1JUN71 *****
C      COMMON/MASTER/IMATE, IENTNO, ISIDE, IPTI, CORP, WOPEN, WRCOVER
C      I, NFF, NMDRY, NREG, NTYPE, NGROUP, NTOI, MAF, MPAYLOAD, MASTYPE, NNHDTYPE
C      2, NTA, NHAS, NCOMPLEX, NCLASS, NALFMT, NIGTS, NCORTYPE, NCONTRY
C      EQUIVALENCE (/GROUP, NG), (NALERT, NOTMER)
C      MASTER *****
C      CHANGES 1JUN71 *****
C      COMMON/ CHANGES/ ICLASMAN(2000), ITYPE, AN(2000), INENTMAN(2000),
C      1 VALUEFM(2000), IFOUMP(2000), MCHANGE, WFIXED
C      DIMENSION INFAC(10000)
C      EQUIVALENCE (IMFAC, ICLASMAN)
C      COMMON/ SUMS/ ULOSUM, SUMNEW, NAMCLAS(20), FRCLAS(20)
C      CHANGES *****
C      MPMATA 1JUN71 *****
C      COMMON/MPMATA/RANGE(AN), CEP(50), SPEED(M0), ALEFIDLY(80),
C      1 AALPTDLY(M0), RANGEDEC(40), ICLASS(R0), RANGEREFL(80),
C      2 FUEL(50), IPECPONE(H0), IPECPONE(PO), ISIMTYPE(80),
C      3 FUNCTION(M0), NMPNS(260), NVMGMP(200), MLAT(200),
C      4 WLONG(200), IMEG(200), ITYPE(200), TALEPT(200), SWL(200),
C      5 IDEFUEL(200), YIELD(200), SPEFTIME(200), DISTAC(200, 30),
C      6 MTYPE, MGROUP, WDESECO
C      DIMENSION IPAY(200), WFIXD(5000), WYEXST(5000), UUMAR(10000)
C      TYPE REAL MULTIPLY
C      TYPE INTEGER FUNCTION
C      EQUIVALENCE (IPAY, IREFUEL), (MG, MGROUP)
C      EQUIVALENCE (WFIXD, RANGE, UUMAR), (WYEXST, UUMAR(5001))
C      MPMATA *****
C      COMMON/MPMATA/ INPUT(10), NVALS, NAMES(40), INVALU(2,40),
C      1 TIMEA(10), TIMEB(40), INDEF(40), JOME
C
1000
2000
3000
4000
5000
6000
7000
1000
2000
3000
4000
7000
8000
9000
1000
2000
3000
4000
9000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
2000
3000
4000

```

```

COMMON MACHINE/ TREAD, I=11, ICUM, IPUNCH
C
DATA(ICUM = 64), (I=11, ICUM = 64), (IPUNCH = 65)
C
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
I
FVAL(20), ADEFLT
C
EQUIVALENCE (MYVAL, FVAL)
C
END
CUSE EQUIMAY *****
C
CUSE MYVAL IJUN71 *****
C
COMMON/ANALYZEVAL, INRL(200), PRNAV(200)
C
CEND
CUSE MYVAL *****
C
CUSE TAPES IJUN71 *****
C
COMMON/FILES/ TGFILE(2), HASFILE(2), MSLTIME(2),
I
ALCCIR(2), TPDALOC(2), ALOGGRP(2), STRAFIL(2),
P
EVENTAPE+PLA:TAPE
C
TYPE INTEGER I=FILE, HASFILE, MSLTIME, ALCCIR,
I
TPDALOC, ALOGGRP, STRAFIL, EVENTAPE, PLA:TAPE
C
COMMON/ANALYZE/ STNFILE, TIMFILE, POSTDATA, FIXFILE, IMPTAR
I
, IMPOST
C
TYPE INTEGER *AFIL, TI*FIL, POSTDATA, FIXFILE, IMPTAR, IMPOST
C
TAPES *****
C
CUSE ITD IJUN71 *****
C
COMMON/ITD/IIP *****
C
CEND ITD *****
CUSE MYTENT IJUN71 *****
COMMON/MYTENT/MYTENT *****
CEND MYTENT *****
CUSE MYLAPFL IJUN71 *****
COMMON /MYLAPFL/ MYFORMAT, MYSECR, MYINATH, MYCUM(5)
C
CEND MYLAPFL *****
C
CUSE TAPES IJUN71 *****
COMMON /TAPES/ IT=0
EQUIVALENCE (I=GRN, IT=GRN)
CEND TAPES *****
CUSE PRATCTAL IJUN71 *****
COMMON/PRATCTAL/IDMIS*(7), ISMT(3), ILS(3), IDM=INU, NIGS,
I
*PFC, MSFT(7)
CEND PRATCTAL *****

```

```

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

```

```

C CUSE EXCESS LJUN71 *****
C C COMMON /EXCESS/ NEXCESS, PEAK04R, EXH04R, PEXMIRV, EXPMIRV,
1 PEXM1SS, EXM1SS, SALREAL(200)
C CEND
C C CUSE EXCESS *****
C C EQUVTAR LJUN71 *****
C C ***** DATE *****
C C THIS BLOCK IS COMMON / IMPSTOR/ WHERE THE
C VARIABLES ARE THOSE TO BE OUTPUT ON THE TGTFILE.
C IN ADDITION TEMPORARY STORAGE AREAS FOR
C COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
C ELEMENTS ARE DEFINED
C C COMMON/ IMPSTOR/ TGTNAMZ, INDFANZ, DFCIGZ, IASKZ, CNRYLCZ,
1 FLAGZ, TGTMLZ, TGTLAZ, TGTLOFZ, TGTTRAZ, VTZ, WZ, W7(2),
2 VOZ(2), WKZ, FVAZ(3), TAZ(3), IMLASZ, ICLASSZ, INTYPZ,
3 TAPPEZ, M1SUEZ, MINKILZ, MARKILZ, MAXCOSZ, INDYPEZ, DISTOFZ,
4 DISTOZ, DISTOZ(30), ATTACHZ(30), NFIXZ, MULTDATA(4,5),
5 ICXDATA(29, 40)
C C TYPE INTEGER DESIGZ, TGTNAMZ
C TYPE REAL MINKILZ, MARKILZ
C DIMENSION BLOCK(1400), MLOCK(1600)
C EQUIVALENCE(BLOCK, TGTNAMZ, MLOCK)
C EQUIVALENCE(VZA, VOZ(1)),(VZH,VOZ(2))
C DIMENSION CXDATA(29, 40)
C EQUIVALENCE(CXDATA, ICXDATA)
C COMMON/ SIZES/ MATHUL, MDTCA, MDPERT, MTELMCM, LINSTOR,
1 LAG1, LNR2
C CEND EQUVTAR *****
C C DIMENSION NFIXZ(200), INDM(200), NMPG(200)
C EQUIVALENCE(NFIXZ, IUGL), (INDM, PEXM), (NMPG, SALREAL)
C *****COMMON/NAVAL/ AND /EXCESS/ USED HERE FOR TEMPORARY
C STORAGE OF WEAPON DATA
C DO 5 I = 1, NGROUP
C NMPG(I) = NMPAS(I)
C NFIXZ(I) = 0
C IT = ITYPE(I)
C 5 IPRM(I) = ICLASS(IT) - 1
C INITIALIZE FILE AND READ IN DATA
C ITP = FIXFILE
C MVIDENT = 7MSCATCH

```

30000
31000
1000
2000
3000
4000
31000
32000
33000
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
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000

```

C
CALL SETHEAD
CLEAR ADWAYS
DO 10 I = 1, NFIXREV
  10 INFIX(I) = 0
  NTIMES = NDESPLAD
  DO 20 Y = 1, NTIMES
    MYFIX(I) = 0
    MYDEX5(I) = 0
  20 MYDEX5(I) = 0
C
IAMNO = 0
GO 300 Y = 1, NDESHEQ
CALL WORD
MYFIX(I) = ITWORD
MYDEX5(I) = IAMNO + 1
100 CALL WORD
IF(ITWORD - MINUHLCK) 200, 300, 200
200 IAMNO = IAMNO + 1
INFX(IAMNO) = ITWORD
GO TO 100
300 CONTINUE
CALL TERTAPE
WRITE HEADNG
C
301 FORMAT(=FIXED WEAPON ASSIGNMENTS LISTING=)
C
INITIALIZE OTHER FILES
ITP = TPTAR
CALL SETHEAD
ITP = TGFILE(1)
MYIDRT = RHGFILE
MYLNTH = TGFILE(2)
CALL SETWRITE
C
LP = LNG2 - 1
NTOT = 0
NTS = NTGTS
DO 1000 I = 1, NTS
  NTGS = I
  ITP = TPTAR
  CALL HDARRAY(TGTNAMZ, LNGZ)
  NORMALIZE VALUE
  VTZ = VTZ + MATIO
  VZA = VZA + MATIO
  VZB = VZB + VZA
  MISDEF = MISDEF
  DESIG = DESIG
  INDEKX = INDEKX
  MULT = TGMULZ
  IF(ICHANGE) 500, 610, 600
  600 IF(IPRNTS*(7) .EQ. 0) GO TO 610
  WRITE(IWHT, 601)
  601 FORMAT(= ITGT TGTNAME INDEKXO DESIG IMCLASS ICLASS IHTYPE
    1 VALUE MINKILL MAXKILL ITGT=)
  IPRNTNO = 7
  CALL PRINTOUT
  GO TO 615
610 WRITE (IWHT, 611) I, TGTNAMZ, DESIGZ, CNTRYLCZ, FLAGZ, INDEKXZ

```

51000
52000
53000
54000
55000
56000
57000
58000
59000
60000
61000
62000
63000
64000
65000
66000
67000
68000
69000
70000
71000
72000
73000
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000

```

ALL FORMAT(// TARGET NO. TGNAME DESIG INDEKNO/ 3X, 15,
1 5X,A4,2X,A5,AP,11,2X,15)
A15 ITP = TGFILE(1)
CALL MARRY(TGTNAME, LM)
CHECK FOR FIXED ASSIGNMENTS
C
NO4 = 0
DO 700 J = 1, NDESREQ
IF (IFIX(J) 670, 710, 630)
TGNO - OPTION - CHECK TARGET NUMBER
C
A20 IF (MYFIX(J) 700, 650, 700)
DESIG OR INDEX NUMBER
C
630 IF (DESIG - MYFIX(J)) 640, 650, 640
640 IF (INDEKNO - MYFIX(J)) 700, 650, 700
FOUND A MATCH
C
650 ISTART = MYDEAST(J)
IEND = MYDEAST(J) - 1
IF (J EQ. NDESREQ) IEND = IANNOH
MYFIX(J) = 0
DO 660 K = ISTART, IEND
NO4 = NO4 + 1
IF (NO4 - LINSTOR) 670, 670, 640
660 WRITE(IWRITE, 661) LINSTOR
661 FORMAT(//IA, 15(1H*)) MORE THAN 0.15, * FIX REQUESTS ON THIS TARGET
IT, * EXCESS WILL BE IGNORED*)
NO4 = NO4 - 1
GO TO 760
670 NLOCKING* = INFIX(K)
680 CONTINUE
700 CONTINUE
C CHECK FIXED ASSIGNMENT INFORMATION
710 IF (NO4) 720, 720, 730
C
720 ITWRND = 0
CALL WRWHD
WRITE(IWRITE, 721)
721 FORMAT(// NO FIXED ASSIGNMENTS*)
GO TO 1003
C
730 NCUT = 0
DO 850 J = 1, NO4
DECIDE(3, 731, NLOCK(J)) IG
731 FORMAT(A3)
IG = NUNGET(IG, 3)
IF (IG) 750, 750, 740
740 IF (IG - NGROUP) 760, 760, 750
C INVALID GROUP NUMBER
750 WRITE(IWRITE, 751) NLOCK(J), IG
C
751 FORMAT(//IA, A4, 5X, *GROUP NO., 15, * IS OUT OF RANGE, REQUEST IGNORE
10*)
GO TO 850
760 IF (NFIRES(IG) - NMPG(IG)) 780, 770, 770
C TOO MANY WEAPONS FIXED THIS GROUP
770 WRITE (IWRITE, 771) NLOCK(J), IG, NMPG(IG)
771 FORMAT(//IA, A4, 5X, *GROUP NO., *13, * HAS ALL ITS WEAPONS (*14, *)
FIXED, REQUEST IGNORED*)

```

106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000

```

GO TO 450
780 IF(NOUT = 30) 430, 790, 790
MORE THAN 30 WEAPONS FIXED
C 790 IF(MISDEF) 400, 800, 810
UNDEFINDED TARGET
C 800 WRITE(IWRITE, R01)
801 FORMAT(223, *MORE THAN 30 WEAPONS FIXED ON AN UNDEFINDED TARGET,
CALL FURTHER REQUESTS FOR THIS TARGET IGNORED*)
GO TO 440
C 810 IF(IFORM(IIG)) 430, 830, 820
NUMBER ON DEFERRED TARGET IN SATURATION ATTACK
C 820 WRITE(IWRITE, R21) NLOCK(J), IG
821 FORMAT(10A, *K*GROUP NO. *13* IS A NUMBER ON A TARGET ALLOCAT
IED MORE THAN 40 WEAPONS. REQUEST IGNORED*)
GO TO 440
C ALL OK
830 NOUT = NOUT + 1
NLOCK(NOUT) = NLOCK(J)
MFIXES(IG) = MFIXES(IG) + *MULT
850 CONTINUE
C
C 940 WRITE FIXED ASSIGNMENT INFORMATION ON TDTFILE
870 IT4040 = NOUT
CALL *FORMD
CALL *ARRAY(NLOCK, NOUT)
WRITE(IWRITE, R71) NOUT
871 FORMAT(1X, *15* FIXED ASSIGNMENTS// 10(* GRP TIME *1)
WRITE(IWRITE, R72) NLOCK(J), *NLOCK(J), *J = 1, NOUT)
872 FORMAT(10(1X, *3, 2X, *5, 1X))
NOUT = NOUT + *NOUT
1000 CONTINUE
C
ITP = TMTAPE
CALL TMTAPE
ITP = TDTFILE(1)
CALL TMTAPE
CHECK NUMBER OF FIXES
WRITE(IWRITE, I001) MFIXED, NITOT
1001 FORMAT(/// * OUT OF *15* REQUESTS FOR FIXED ASSIGNMENT: *15* *E
BE FULFILLED*)
GO TO 1040
IF(MYFAD(1)) 1200, 1100, 1200
1100 CONTINUE
GO TO 1340
C SOME IDENTIFIERS MISSED
1200 WRITE(IWRITE, I201)
1201 FORMAT(/// * THE FOLLOWING TARGET IDENTIFIERS WERE NEVER ENCOUNTERED
ID ON THE TARGET FILE*)
J = I
IF(IWRITE) 1210, 1230, 1220
1210 WRITE(IWRITE, I211)
1211 FORMAT(/// * TARGET NUMBER*)
GO TO 1230
1220 WRITE(IWRITE, I221)
1221 FORMAT(/// * DESIGNATION OF INDEX NUMBER*)

```

```

1230 DO 1380 Y = J. NDESSED
      IF(MYFIX(I)) 1340, 1380, 1350
1350 IF(IFIX(TGT)) 1340, 1380, 1370
1360 WRITE(IUNIT, 1361) MYFIX(I)
1361 FORMAT(1X,I9)
      GO TO 1380
1370 WRITE(IUNIT, 1371) MYFIX(I), MYFIX(I)
1371 FORMAT(2X,A9,A9,I9)
1380 CONTINUE
      GO TO 1400
1390 WRITE(IUNIT, 1391)
1391 FORMAT(// 'EVENY TARGET IDENTIFIER REQUESTED WAS ENCOUNTERED ON TH
      LE TARGET FILE')
C PRINT HEADINGS BY GROUPS
1400 WRITE(IUNIT, 1401)
1401 FORMAT(1X,HEADING OF FIXED ASSIGNMENTS BY GROUP*/ * GROUP FIXED WE
      TINGS TOTAL #ofDMSes)
      DO 1420 I = 1, NGROUP
      IF(CFIXS(I)) 1420, 1420, 1410
1410 WRITE(IUNIT, 1411) I, CFIXS(I), NPG(I)
1411 FORMAT(2A,I3,A9,I5,A9,I5)
1420 CONTINUE
      RETURN
      END)
218000
219000
220000
221000
222000
223000
224000
225000
226000
227000
228000
229000
230000
231000
232000
233000
234000
235000
236000
237000
238000
239000
240000
241000

```

IDENT FIWEAP

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	FIWEAP	IDENT
		01424
		0041*
OPTION		00013
MASTER		00027
CHANGES		23422
SUMS		00052
4PNMATA		23420
ICQUAMY		00374
MACHINE		00004
OFFAULT		00121
NAVAL		00621
FILES		00020
NONFILE		00004
ITP		00001
MYIDENT		00001
MYLA+EL		00010
TRON)		00001
PHNICTRL		00032
EXCESS		00317
IMPSTOP		03100
SIZES		00007

EXTERNAL SYMBOLS

TMEWD.
 G1010100
 GRAPHIC.
 SETHEAD
 HUNGRO
 TERM-TAPE
 SETWJIF
 HDARRAY
 PHNIDAT
 WPMJAY
 APRWD
 NUMGET
 DEC.
 STM.
 UNSINGL.

5-ATS FIXHEAD

11/26/71

ED 0

PAGE NO.

10

P01150	GG00012.	01140	00424	00450	00453	00462	00445	00475	00501	00521	00557	00560
P01170	GG00013.	01151	00662	01172	01221	01222	01226	01241	01265	01266	01301	01314
P01220	GG00014.	01204	01345	01346	01356	01360	01366					
P01241	GG00015.	01233										
P01254	GG00016.	01246										
P01264	GG00017.	01254										
P01304	GG00020.	01275										
P01322	GG00021.	01310										
P01335	GG00022.	01327										
P01344	GG00023.	01334										
P01364	GG00024.	01352										
C00014	WZ	00421	00424	00450	00453	00462	00445	00475	00501	00521	00557	00560
P01402	I	00635	00662	01172	01221	01222	01226	01241	01265	01266	01301	01314
		01322	01345	01346	01356	01360	01366					
C04300	IALLPT	00474	00503	00513	00514	00516	00704					
P01403	IAMKAM	00436	00437	01072	01072							
C00311	IMPH	00607	00607									
C00000	ICMAGE	00435	00435									
C00740	ICLASS											
C00030	ICLASSZ											
C00000	ICLASAM											
C00002	ICOPM											
C00207	ICXDATA											
C00001	INDL											
C00001	INDERTNO											
C97640	INDERTNAM											
P01404	IDESIG	00601	00666	00742	01243	01271	01271					
P01405	IFENS	00703	00707	01242	01243	01271	01271					
C00001	IFIXTGT	00657	00657	01242	01243	01271	01271					
C17500	IFGUMN											
P01406	IG	01000	01005	01006	01010	01023	01030	01044	01046	01071	01104	01117
C00027	IMCLASZ											
C00000	IMDATE											
C00031	IMTYP7											
C00012	ILST											
C00203	INDEX1											
C00253	INDEXP											
C00323	INDEX3											
P01407	INDFANO	00603	00672	00602	00644							
C00001	INDFANZ	00601	00602	00644								
C00007	INDMAX											
C00005	INDMIN											
C00003	INDVAL											
C00037	INDYPEZ											
C00000	INFIA	00454	00454	00517	00517	00736	00736	00736				
P01374	INITIAL.	00417	00417									
C00000	INPUT											
C00063	INVALU											
C00015	INWDS											
C05120	IPAY											
C01440	IPEMQUE											
C00020	IPRNTNG	00623	00624									
C00000	IPRNTSW	00611	00611									

Code	Description	Code	Code	Code	Code	Code	Code	Code	Code
C00003	IPUNCH	C00003							
C00000	IREAD	C00003							
C01320	IRECODE								
C05120	IREFUEL								
C03460	IRFG								
C00002	ISINE								
C01560	ISITYPF								
P01410	ISTART								
P01411	ISTRT								
C00000	ITP	00700	00713						
		00433	00434						
		00442	00442						
		01174	01202						
		00500	00510						
		00431	00432						
C00000	ITWORN	C00001	00526						
C03770	ITYPF	01013	01034						
C00001	IWHIT	01150	01205						
		01307	01327						
P00455	.10								
P00504	.100								
P01172	.1000								
P00613	.100001								
P00614	.100002								
P00706	.100003								
P00710	.100004								
P01226	.1100								
P01222	.1200								
P01245	.1210								
P01255	.1220								
P01264	.1240								
P01271	.1350								
P01274	.1360								
P01307	.1370								
P01322	.1380								
P01324	.1390								
P01335	.1400								
P01351	.1410								
P01366	.1420								
P00470	.20								
P00513	.200								
P00521	.300								
P00434	.5								
P00611	.600								
P00630	.610								
P00647	.615								
P00662	.621								
P00664	.623								
P00672	.641								
P00676	.650								
P00721	.661								
P00735	.670								
P00741	.680								
P00744	.700								

P01450	NOV	00655	00715	00716	00732	00733	00737	00747	01124
C00015	MPAYLOAD								
C00026	NRECOVER								
C00007	UPFF								
C00011	PRFG								
C00003	MRTP								
C00020	NTANKMAS								
C00021	NTGS	00561	00561						
C00024	NTGTS	00554	00555						
P01421	NTIMES	00461	00463						
P01422	NTOT	00554	01170	01171	01224				
C00014	NTOTHASE								
P01423	NTS	00554	01173						
C00012	NTYPE								
X00014	NUMSET	01003							
C00012	NVARS								
C02330	NVEMGRP								
C00017	NWMTYPE								
C00007	NWPG	00427	00427	01032	01032	01046	01047	01362	01362
C02020	NWPA5	00424	00424						
C00000	OLDSUM								
C00001	PEAKPK								
C00003	PFMTRV								
C00005	PFMTR5								
C00011	PKNAV								
C00017	PLA-TAPF								
C00002	POSTDATA								
X00011	PRINTOAT	00624							
X00002	QDQ100	00604							
X00003	QBONICT.	00000	00415						
X00017	QNSINGL.	01372							
C00000	RANGE								
C00020	RENEDEC								
C01060	WANGREF								
C00002	HATIO	00570	00570	00572	00573				
X00010	RDARAY	00564							
X00005	RDWORD	00476	00506						
C05740	RFTIME								
C01200	RFL								
C04610	SRL								
C00007	SRLPEAL								
X00004	SETHEAD	00445	00537						
X00007	SETWHITE	00547							
C00240	SPEED								
X00016	STM.	00530	00616	00632	00723	00760	01015	01036	01063
		01207	01234	01247	01257	01276	01311	01330	01337
									01353
									01141
									01152
C00014	STRKFL								
C00001	SUMNEW								
C00032	TANDEF								
C00003	TASKZ								
C00024	TAZ								
X00006	TEMTAPE	00524	01177	01203					
C00000	TGTFILE	00541	00541	00545	00544	00647	00647	01201	01201
C00007	TGTLAZ								

5.4TS FIXWEAP

11/26/71 ED 0 PAGE NO. 15

C00010	TGLOWZ								
C00006	TGLOWZ	00603	00604						
C00000	TGLOWZ	00566	00637	00653					
C00011	TGLOWZ								
X00001	TGLOWZ	00533	00621	00730	01001	01025	01050	01066	01146
		01166	01216	01237	01304	01320	01333	01342	01364
C00001	TGLOWZ								
C00010	TGLOWZ	00535	00535	00562	01175	01175			
C00005	TGLOWZ								
C00004	TGLOWZ	00423							
P00441	TGLOWZ	00452							
P00460	TGLOWZ	00464							
P00473	TGLOWZ	00475							
P00522	TGLOWZ	00557							
P01173	TGLOWZ	00656							
P00745	TGLOWZ	00714							
P00742	TGLOWZ	00770							
P01124	TGLOWZ	01156							
P01164	TGLOWZ	01221							
P01227	TGLOWZ	01265							
P01323	TGLOWZ	01345							
P01367	TGLOWZ								
C00000	TGLOWZ								
C13560	VALUENEN								
C00016	VOZ	00567	00567	00571	00571	00574			
C00012	VIZ	00572	00572	00574	00574				
C00014	VZA	00575	00575						
C00017	VZH								
C00000	WINFILE								
C02640	WLAT								
C03150	WLONG								
X00012	WRARRAY	00651	01134						
X00013	WRARRAY	00754	01132						
P00426	WS00001	00440							
P00455	WS00002	00457							
P00466	WS00003	00472							
P00476	WS00004	00523							
P00560	WS00005	01174	01174						
P00657	WS00006	00744	00744						
P00715	WS00007	00743	00743						
P00771	WS00010	01125	01125						
P01157	WS00011	01165	01165						
P01222	WS00012	01230	01230						
P01266	WS00013	01324	01324						
P01346	WS00014	01370	01370						
C05430	YIELD								
	00536 SYMBOLS								

```

SUBROUTINE MAKECHG
  CSURR  MAKECHG  IJUN71 *****
  C      THIS SUBROUTINE IS RESPONSIBLE FOR MAKING THE
  C      ACTUAL VALUE, MKKILL, AND MAXKILL
  C      CHANGES ON THE TGTFILE.
  C
  CUSE   CHANGES  IJUN71 *****
  C      COMMON/ CHANGES/ ICLASWAN(2000), IYDFWAN(2000), IRENTWAN(2000),
  C      VALUENEM(2000), IFOUNN(2000), MCMARQUE, MFIXED
  C
  C      DIMENSION INFIX(10000)
  C      EQUIVALENCE(INFIX, ICLASWAN)
  C
  C      COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FROCLAS(20)
  C      CHANGES *****
  C
  CUSE   OPTIOA   IJUN71 *****
  C
  C      COMMON/OPTION/ ICHANGE, IFIATGT, MATIO, INDOVAL(2), INDMT*(2),
  C      IINDMAX(2), INFESREQ, MFIXED
  C
  C      OPTIOA *****
  C
  C      TAPFS   IJUN71 *****
  C
  C      COMMON/FILES/ TGTFILE(2), HASFILE(2), NSLTIME(2),
  C      1 ALOCTAR(2), TMAPALOC(2), ALOCGRP(2), STARKFIL(2),
  C      2 EVENTAPE, PLANTAPE
  C
  C      TYPE INTERER TGTFILE, HASFILE, NSLTIME, ALOCTAR,
  C      1 TMAPALOC, ALOCGRP, STARKFIL, EVENTAPE, PLANTAPE
  C
  C      COMMON/INDFILE/ MINFILE, TIMFILE, POSTDATA, FIAFILE, TMAPAR
  C      1 , TPOST
  C
  C      TYPE INTERER MINFILE, TIMFILE, POSTDATA, FIAFILE, TMAPAR, TPOST
  C
  C      TAPFS *****
  C
  CUSE   ITP      IJUN71 *****
  C      COMMON/ITP/ITP *****
  C
  C      ITP *****
  C
  CUSE   EQUITVIA IJUN71 *****
  C
  C***** NOTE *****
  C      THIS BLOCK IS COMMON / IMPSTOR/ WHERE THE
  C      VARIABLES ARE THOSE TO BE OUTPUT ON THE TGTFILE.
  C      IN ADDITION TEMPORARY STORAGE AREAS FOR
  C      COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
  C      ELEMENTS ARE DEFINED
  C
  C      COMMON/ IAPSTOR/ TGTMAP*(2), INDEAN*(2), FESSTGZ, TASK*(2), CNTBYLOC*(2),
  C      1 FIA*(2), TMAP*(2), TGTCLAZ, TGTLOW*(2), TGTTRAZ, VIZ, WZ, W*(2),
  C      2 W*(2), W*(2), FVAZ(3), IAZ(3), IMCLAS*(2), ICLASSZ, IMPY*(2),
  C      3 TAPBZ, MISUCFZ, MIPKILLZ, MARRKILLZ, MARCOS*(2), INDYPPFZ, DISTOPFZ,

```

11/26/71

```

4  DISTOZ, DISTOZ(30), ATTCDZ(30), MFIXZ, MULDATA(R95),
5  ICDATA(20, 40)
C
TYPE INTERM INSIGZ, TGTMAXZ
TYPE REAL MINKILZ, MAXKILZ
C
DIMENSION BLOCK(1400), MLOCK(1400)
EQUIVALENCE (BLOCK, TGTMAXZ, MLOCK)
C
EQUIVALENCE (VZ, VOZ(1)), (VZ, VOZ(2))
C
DIMENSION CDATA(20, 40)
EQUIVALENCE (CDATA, ICXDATA)
C
COMMON / STZS/ MZATML, MZATCX, MZSPRT, MTELCX, LINSTG,
      LNS1, LNS2
C
      EQUIVAT *****
CEND *****
C
MULDATA  TEMPORARY STORAGE FOR MULTIPLE TARGET DATA
CXDATA  TEMPORARY STORAGE FOR COMPLEX TARGET DATA
DUMMY  DUMMY ARRAY TO FILL BLOCK
C
DATA (MSPRT) = 5, (MTELCX) = 40
DATA (MINKIL) = 4, (MAXKIL) = 29
DATA (LINSTG) = 1400, (LNS1) = 29, (LNS2) = 95
C
MSPRT  MAXIMUM NUMBER OF ELEMENTS PER MULTIPLE TARGET
MTELCX  MAXIMUM NUMBER OF ELEMENTS PER COMPLEX TARGET
MINKIL  NUMBER OF DATA WORDS PER MULTIPLE ELEMENT
MAXKIL  NUMBER OF DATA WORDS PER COMPLEX ELEMENT
LINSTG  LENGTH OF COMMON/INSTG/
LNS1  LENGTH OF COMMON/INSTG/
LNS2  LENGTH OF LOGICAL RECORD ON TAPE
C
THE FOLLOWING VARIABLES ARE INDEX TO THE MULTIPLE AND COMPLEX
      TARGET DATA AREAS.
C
DATA (IMAX) = 1, (IMIN) = 21, (IRMS) = 31,
1  (IVZ) = 11, (IINC) = 21, (IICL) = 23,
2  (IINTYP) = 24, (IIMK) = 27, (IIMAX) = 28)
C
CHECK TO SEE IF THERE ARE ANY CHANGES
C
IF (ICXCHNG) 200, 100, 200
NO CHANGES
100  OLDSUM = OLDSUM + VZ * TGTMLZ
      SUMM * OLDSUM
      RETURN
C
CHANGES TO BE CHECKED
200  IVAL = n
      IMK = 0
      IMAX = 0
      IML = TGTMLZ * .01
      ICX = 0

```

13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000

```

ISAVN = IGTMAXZ
ISAVI = IADEANZ
ISAVD = IDESIGZ
MWDSC = 0
MWDSC = 0

C
C CHECK FOR MULTIPLE TARGET
IF (IGTMULZ = 1.5) 220, 220, 210
MFD MULTIPLE TARGET DATA
C 210 ITP = POSTDATA
MWDSC = MWDATMUL * IMLL
CALL MARRAY(MULDATA, MWDSC)
GO TO 300
C CHECK FOR COMPLEX TARGET
C 220 IF ((MCLASZ = 7) * COMPLEX) * ((MCLASZ = 8) * COMPLEX) * 1300, 230, 300
MFD COMPLEX TARGET DATA
C 230 ITP = POSTDATA
MWDSC = MWDATCA * IHTYP7
CALL MARRAY(ICXDATA, MWDSC)
ICPX = IHTYPZ

C CHECK VALUE CHANGE ON TARGET ON COMPONENT
C 300 ISTART = INVAL(1)
IEND = INVAL(2)
IOPT = 1
OLDSUM = OLDSUM * VTZ
SUMNEW = SUMNEW * VTZ
IF (IVAL) 1000, 1000, 400
VALUE CHANGE FOUND
C 310 RATIO = VN/VTZ
SUMNEW = SUMNEW * ((VN-VTZ) * IGTMULZ
VTZ = VN
VOZ(1) = VOZ(1) * RATIO
VOZ(2) = VOZ(2) * RATIO
IVAL = 1
C CHANGE VALUES OF COMPLEX COMPONENTS IF TARGET IS A COMPLEX
IF (ICPX) 400, 400, 320
C 320 ON 330 II = 1, ICPX
C 330 CXDATA(IVTZ,II) = CXDATA(IVTZ,II) * RATIO

C CHECK MINIKILL CHANGE ON MAIN TARGET
C 400 ISTART = INMIN(1)
IEND = INMIN(2)
IOPT = 2
IF (IMINK) 1000, 1000, 500
MINIKILL CHANGE FOUND
C 410 RATIO = VN / MINIKILZ
MINIKILZ = VN
IMINK = 1
C CHANGE MINIKILL OR TARGET COMPONENTS IF TARGET IS A COMPLEX
IF (ICPX) 500, 500, 420
C 420 ON 430 II = 1, ICPX
C 430 CXDATA(IMINK,II) = CXDATA(IMINK,II) * RATIO

C CHECK MAXKILL CHANGE ON MAIN TARGET
C 500 ISTART = INMAX(1)

```

53000
54000
55000
56000
57000
58000
59000
60000
61000
62000
63000
64000
65000
66000
67000
68000
69000
70000
71000
72000
73000
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000

```

IEND = (IPMARK,?)
IOPT = 3
IF (IPARK) 1000, 1000, 600
MINKILL CHANGE SOUND
MARKILLZ = VN / MARKILLZ
510 RTIO = VN / MARKILLZ
MINKILLZ = VN
IPARK = 1
C CHANGE MINKILL ON TARGET COMPONENTS IF TARGET IS A COMPLEX
IF (ICPX) 600, 600, 520
520 GO 530 IF = 1, ICPX
530 CXDATA(IPARK,II) = CXDATA(IPARK,II) * RTIO
C CHECK COMPONENTS IF NECESSARY
600 IF (IMUL-1) 620, 620, 610
610 II* = IMUL
IMUL = IMUL - 1
TGTNAMZ = MULTATA(INAME, IIM)
INDEXNZ = MULTATA(INDFX, IIM)
DESIGZ = MULTATA(IDESIG, IIM)
GO TO 300
C RESTORE VALUES
620 TGTNAMZ = ISAVI
DESIGZ = ISAVI
INDEXNZ = ISAVI
INDFXNZ = ISAVI
IF (INQSM) 700, 700, 630
630 ITP = IMPOST
CALL MARRAY(MULDATA, NQDSM)
C CHECK ON COMPLEX
C 700 IF (ICPX) 900, 900, 710
C 710 ISAVC = IMCLASSZ
ISAVI = ICLASSZ
ISAVT = INTYPZ
IIC = ICPX
IMC = 0
720 TGTNAMZ = ICXDATA(INAME, IIC)
INDEXNZ = ICXDATA(INDFX, IIC)
DESIGZ = ICXDATA(IDESIG, IIC)
IMCLASSZ = ICXDATA(IMCLS, IIC)
ICLASSZ = ICXDATA(IICLS, IIC)
INTYPZ = ICXDATA(IIMTYP, IIC)
ISTART = INDVAL(1)
IEND = INDVAL(2)
IOPT = 4
IF (IVAL) 1000, 1000, 740
VALUE CHANGE
C 730 CXDATA(ITVZ, IIC) = VN
IMC = 1
C CHECK FOR MINKILL
740 ISTART = ENDIM(1)
IEND = INDMIN(2)
IOPT = 5
IF (IPINK) 1000, 1000, 760
MINKILL CHANGE
C 750 CXDATA(IPINK, IIC) = VN

```

109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000

```

C      JMC = 1
      CHECK FOR MAXKILL
760  ISTART = ITHMAX(1)
      IEND = ITHMAX(2)
      IOPT = A
      IF(I*MARK) 1000, 1000, 740
C      MAXKILL CHANGE
770  CADATA(IIMARK, IIC) = VN
      JMC = 1
C      GET NEXT ELEMENT IF NECESSARY
780  IIC = IIC-1
      IF(IIC) 790, 790, 720
C      RESTORE VALUES
790  ITHMAX = ISAVI
      IDEFANZ = ISAVI
      DESIGZ = ISAVI
      IMCLASZ = ISAVHC
      ICLASS7 = ISAVIC
      IMTYP7 = ISAVI
      IF (IMC) 820, 820, 800
C      RESET VALUES IF NECESSARY
800  SV = 0
      SPN = 0
      SMA = 0
      DO #10 JJ = 1, ICPX
      VN = CADATA(IVTZ, JJ)
      SV = SV + VN
      SPN = VN + CADATA(IIMINK, JJ) + SMN
      SMA = VN + CADATA(IIMARK, JJ) + SMA
#10  CONTINUE
      RATIO = SV/VTZ
      SUMMA = SUMMA + SV - VTZ
      VTZ = SV
      VOZ(1) = VOZ(1) + RATIO
      VOZ(2) = VOZ(2) + RATIO
      MTKILL7 = SPN / SV
      MAXKILL = SMA / SV
#20  ITP = I*POST
#40  CALL MAXRAY(CKDATA, #NOSC)
C      900 RETURN
C
C      CHECK FOR CHANGES
C
1000 IF(I*START) 1100, 1100, 1010
1010 IF(I*END-I*START) 1100, 1020, 1020
1020 DO 1029 I = I*START, I*END
C      CHECK CLASS
      IF((ICLASKAN(I) .EQ. 1) .OR.
1  (ICLASKAN(I) .EQ. 3) ALL) .OR.
2  (ICLASKAN(I) .EQ. 1) ICLASZ)) 1021, 1029
C      CHECK TYPE
1021 IF((ITYPEMAN(I) .EQ. 1) .OR.
1  (ITYPEMAN(I) .EQ. 3) ALL) .OR.
2  (ITYPEMAN(I) .EQ. 1) IMTYPZ)) 1022, 1029
C      CHECK IDENTIFIER

```

165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
193000
194000
195000
196000
197000
198000
199000
200000
201000
202000
203000
204000
205000
206000
207000
208000
209000
210000
211000
212000
213000
214000
215000
216000
217000
218000
219000
220000

FTNS.5

11/26/71

PAGE NO.

6

```

1022 IF ((IDENTMAN(I) .EQ. 14) .OR.
1 (IDENTMAN(I) .EQ. 344)) .OR.
2 (IDENTMAN(I) .EQ. UESIGZ) .OR.
3 (IDENTMAN(I) .EQ. LINDMANZ)) 1200, 1029
1029 CONTINUE
C NO MATCH FOUND
C
C 1100 GO TO (400, 500, 600, 740, 760, 780), IOPT
C
C CHANGE FOUND
C
C 1200 VA = VALUEM(I)
IF OUS(I) = FOUNO(I) + 1
GO TO (310, 410, 510, 730, 750, 770), IOPT
C
END

```

```

221000
222000
223000
224000
225000
226000
227000
228000
229000
230000
231000
232000
233000
234000
235000
236000

```

MARKCHG

TOP AT

PROGRAM LENGTH	01122
ENTRY POINTS	00024
BLOCK NAMES	
CHARACTERS	23822
SUMS	23552
OPTION	00013
FILES	00026
NO-FILT	00004
IPP	00001
INSTRON	00100
SIZES	00007

EXTERNAL SYMBOLS

010100	OPTION
000001	FILES
000002	NO-FILT
000003	IPP
000004	INSTRON
000005	SIZES
000006	CHARACTERS
000007	SUMS
000008	OPTION
000009	FILES
000010	NO-FILT
000011	IPP
000012	INSTRON
000013	SIZES
000014	CHARACTERS
000015	SUMS

5.ATS MAKECNC

11/26/71 8 0 PAGE NO. 8

Code	Description	01053	00162	00166	00250	00444	00214	00215	00216	00244	00245	00334	00335	00246	00246	00246	00250	00250
C00012	ALUC-APP																	
C00006	ALUC-TR4																	
C00100	ATTACHZ																	
C00002	WASFILE																	
P01047	WFLC																	
C00000	WDECA																	
C00004	WNT4YI CZ																	
P01065	WNT4YI																	
C00207	WNT4YI																	
C00002	WFLC-7																	
P00001	WFLC																	
C00042	WFLC-7Z																	
C00040	WFLC-7Z																	
C00041	WFLC-7Z																	
P01054	WFLC-7Z																	
C00014	WFLC-7Z																	
P00000	WFLC																	
C00003	WFLC																	
C00005	WFLC																	
P00014	WFLC																	
C00026	WFLC																	
C00021	WFLC																	
C00014	WFLC																	
P01066	WFLC																	
C00000	WFLC-7Z																	
C00030	WFLC-7Z																	
C00000	WFLC-7Z																	
P01067	WFLC-7Z																	
C00207	WFLC-7Z																	
C07640	WFLC-7Z																	
P00005	WFLC-7Z																	
P01070	WFLC-7Z																	
P00520	WFLC-7Z																	
P00534	WFLC-7Z																	
P00540	WFLC-7Z																	
P00550	WFLC-7Z																	
P00554	WFLC-7Z																	
P00560	WFLC-7Z																	
C00001	WFLC-7Z																	
C17500	WFLC-7Z																	
P01071	WFLC-7Z																	
P01072	WFLC-7Z																	
C00027	WFLC-7Z																	
C00031	WFLC-7Z																	
P01073	WFLC-7Z																	
P01074	WFLC-7Z																	
P00010	WFLC-7Z																	
F00007	WFLC-7Z																	
P00011	WFLC-7Z																	

544TS

MARKFCMG

11/24/71

ED 0

PAGE NO.

10

PO0175	.1200	00567	00553	00557	00563
PO0137	.2100	00031	00032		
PO0063	.2100				
PO0074	.2200	00062			
PO0105	.2300	00103			
PO0120	.3000	00074	00103	00104	00270
PO0135	.3100	00604			
PO0156	.3200				
PO0164	.3300				
PO0170	.4000	00134	00155	00155	00571
PO0177	.4100	00604			
PO0207	.4200				
PO0215	.4300				
PO0221	.5000	00176	00205	00200	00571
PO0230	.5100	00604			
PO0240	.5200				
PO0244	.5300				
PO0252	.6000	00227	00236	00237	00572
PO0255	.6100	00253	00254		
PO0271	.6200				
PO0301	.6300	00300	00300		
PO0307	.7000				
PO0311	.7100				
PO0322	.7200	00404			
PO0330	.7300	00604			
PO0354	.7400	00347	00572		
PO0363	.7500	00607			
PO0367	.7600	00362	00474		
PO0376	.7700	00607			
PO0402	.7800	00374	00574		
PO0407	.7900	00405	00405		
PO0425	.8000				
PO0451	.8100				
PO0476	.8200	00424	00424		
PO0504	.8300	00310	00310		
PO0506	.8400	00077	00101	00102	00102
PO0514	.8500	00074			
PO0515	.8600	00101			
PO0516	.8700	00516			
PO0517	.8800	00522			
PO0526	.8900	00532			
PO0521	.9000	00534			
PO0522	.9100	00546			
PO0523	.9200	00552			
PO0512	.9300	00431			
CO0004	LIUJTCM	00003			
CO0005	LIUJ	CO005			
CO0006	LIUJ	CO006			
CO0024	MARKFCMG	00024			
CO0034	MARKFCMG				
CO0035	MARKFCMG	00231	00231	00234	00475
C23420	MARKFCMG				
CO0001	MARKFCMG	CO001	00107	00167	
CO0000	MARKFCMG	00003	00065	00065	

C22421	4FIXGFG	00200	00200	00202	00203	00472	00473				
C00034	4INKILZ										
C00033	4ISDEF										
C00004	4SLTIME										
C00002	4SPEBRT										
C00003	4TELMFM										
C00137	4ULPDATA	00262	00262	00264	00265	00247	00267	00305			
C00013	4Z										
C00002	4AMCLAS										
C00011	4RESUFG										
C00136	4FLIEZ										
C00012	4FIXGFG										
C00020	4KZ										
C00000	4NLOC4										
P01112	4WOSC	00111	00114	00502							
P01114	4WOSC	00267	00072	00305							
C00000	4OLDSUM	00035	00035	00125	00127	00127	00127				
P00665	00000000										
P00665	00000100										
C00017	4PLANTAPE	00063	00105	00105							
C00002	4POSTDATA	00045									
X00001	4LIGLO100	00000									
X00002	4SUBJECT	00025									
X00003	4RIMWAY	00137	00146	00147	00151	00151	00165	00165	00455	00455	00464
P00643	4FLCON..	00065	00467								
P01115	4RTIO	00070	00112	00306	00503	01047					
P01114	4SM4	00201	00216	00232	00247						
P01117	4SM4	00427	00444	00445	00471						
C00014	4STCKFIL	00450	00447	00450	00474						
C00001	4SUMMEN	00034	00130	00131	00132	00147	00143	00143	00456	00456	00461
P01120	4SV	00424	00441	00442	00453	00457	00462	00472	00474		
C00032	4TARNEZ										
C00003	4TASKZ										
C00024	4TZ										
C00000	4TGIFILE										
C00007	4TGILAZ										
C00010	4TGLONZ										
C00004	4TGMULZ	00034	00042	00043	00040	00060	00142				
C00011	4TGTABZ	00050	00050	00263	00272	00272	00324	00410			
C00001	4TINFILF										
C00010	4TAPALOC	00301	00301	00476	00474						
C00005	4TAPOST										
C00004	4TAPTAN										
P00170	4TS00001	00162									
P00221	4TS00002	00213									
P00252	4TS00003	00244									
P00453	4TS00004	00434									
P00565	4TS00005	00513									
P00654	4TP00000	00160	00211	00242	00550	00455	00456	00657	00664	00664	
P00674	4B00001	00432	00470	00475	00474	00677	00704	00704			
P00704	4UP00003	00452	00707	00710	00711	00715	00715				

P00717	UP000004.	00257	00720	00721	00722	00727	00727	00727					
P00731	UP000005.	00642	00732	00733	00734	00737	00737	00737					
P00741	UP000006.	00641	00742	00743	00744	00747	00747	00747					
P00751	UP000007.	00640	00752	00753	00754	00757	00757	00757					
P00761	UP000010.	00320	00404	00762	00763	00764	00777	00777					
P01001	UP000011.	00634	01002	01003	01004	01006	01004	01004					
P01010	UP000012.	00635	01011	01012	01013	01015	01015	01015					
P01017	UP000013.	00634	01020	01021	01022	01024	01024	01024					
P01026	UP000014.	00637	01027	01030	01031	01035	01035	01035					
P01037	UP000015.	00633	01040	01041	01042	01046	01046	01046					
C13500	VALUENEW	00574	00576										
P01121	V4	00135	00140	00144	00177	00202	00230	00230	00233	00350	00363	00376	00440
C00014	V0Z	00441	00442	00445	00577								
C00012	V7	00470	00144	00150	00150	00152	00152	00152	00464	00465	00466	00466	00470
C00016	VZA	00033	00033	00126	00126	00130	00131	00131	00136	00136	00141	00141	00145
C00017	VZH	00145	00454	00454	00454	00460	00460	00460	00463	00463			
C00000	4JNFILF												
X00004	4JANWAY	00303	00500										
P00144	4S00001.	00167											
P00215	4S00002.	00220											
P00246	4S00003.	00251											
P00437	4S00004.	00452											
P00514	4S00005.	00564											
	00351 SYMOLS												

```

SUBROUTINE NORVALZ
  CSUBR   NORMALZ   IJUN71
  C
  C THIS SUBROUTINE NORMALIZES THE TARGET
  C VALUES IN THE TGTFILE
  CUSE
  MASTER   IJUN71 *****
  COMMON/MASTER/IMDATE,IDENTO,INSIDE,NRPT,NCORR,NOPEN,PRECOVER
  1,NREF,NHARRY,NREG,NTYPE,NFGROUP,NTOTBASE,NPAYLOAD,NASMTYPE,NBMDTYPE
  2,NTANKAS,NCOMPLEX,RCCLASS,ALERT,NTGTS,NCORTYPE,NCNTRY
  EQUIVALENCE (NGROUP, NG), (NALERT, NMOTHER)
  CEND
  C
  C OPTION: IJUN71 *****
  C
  1 COMMON/OPTION/ ICHARGE, IFIXTGT, NATIO, INVAL(2), INDMI4(2),
  INDMAA(2), NDESREQ, NFIXREQ
  C
  C OPTION *****
  C
  C TAPES IJUN71 *****
  C
  COMMON/FILES/ TGTFILE(2),RASFILE(2),SLTIME(2),
  1 ALOCTAR(2),TMPALOC(2),ALOCGRP(2),STRKFIL(2),
  2 EVENTAPE,PLANTAPE
  C
  C TYPE INTEGER T5TFILE, RASFILE, MSLTIME, ALOCTAR,
  1 TMPALOC, ALOCGRP, STRKFIL, EVENTAPE, PLANTAPE
  C
  1 COMMON/NONFILF/ WINFILE, TIMEFILE, POSTDATA, FIXFILE, TMPTAR
  , TMPOST
  C
  C TYPE INTEGER WINFILE, TIMEFILE, POSTDATA, FIXFILE, TMPTAR, TMPOST
  C
  C TAPES *****
  C
  C ITP IJUN71 *****
  COMMON/ITP/ITP *****
  CEND
  C
  C MYIDENT IJUN71 *****
  COMMON/MYIDENT/MYIDENT *****
  CEND
  C
  C MYIDENT *****
  C
  C TWORD IJUN71 *****
  COMMON /TWORD/ ITWORD *****
  EQUIVALENCE (TWORD, ITWORD)
  CEND
  C
  C TWORD *****
  C
  C MYLAREL IJUN71 *****
  COMMON /MYLAREL/ MYFORMIT, MYSECR, MYLENGTH, MYCOMM(5)
  C
  C MYLAREL *****
  C
  C PRINTCTRL IJUN71 *****
  CUSE
  1000
  4000
  2000
  3000
  4000
  5000
  6000
  1000
  2000
  3000
  4000
  5000
  6000
  7000
  8000
  1000
  2000
  3000
  4000
  5000
  6000
  7000
  8000
  9000
  10000
  1000
  2000
  3000
  4000
  5000
  6000
  7000
  8000
  9000
  10000
  11000
  12000
  13000
  14000
  1000
  14000
  15000
  16000
  17000
  18000
  1000
  2000
  3000
  18000
  19000
  20000

```

```

COMMON/PRACTICM/ IPRINTS(7), ISTART(3), ILSI(3), INHUS(3), IPORTNO, NTGS,
1      IPRG, MSET(7)
C      PRINTTRL *****
C
CUSE      EQUVTAR  IJUN71 *****
C
C***** NOTE *****
C      THIS BLOCK IS COMMON / IMPSTOR/ WHERE THE
C      VARIABLES ARE THOSE TO BE OUTPUT ON THE TGTFILE.
C      IN ADDITION TEMPORARY STORAGE AREAS FOR
C      COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
C      ELEMENTS ARE DEFINED
C
COMMON/ IMPSTOR/ TOTNAMZ, INDEKZ, DESIGZ, TASKZ, CNTBYLCZ,
1      FLAGZ, ISTMILZ, TGTLAZ, TGTLMZ, TGTIRAZ, VTZ, MZ, MZ(2),
2      VOZ(2), MZ2, EVAZ(3), IAZ(3), IMCLASZ, ICLASSZ, IHTVZ,
3      TMODEZ, MISUEZ, MINKILZ, MAXKIL7, MAXCOSZ, INDPFZ, DISTDFZ,
4      DISTDRZ, DISTDRZ(30), ATTWCDZ(30), NFIXEZ, MULDATA(4,5),
5      ICKDATA(29, 40)
C
C      TYPE INTEGER DESIGZ, TOTNAMZ
C      TYPE REAL MINKILZ, MAXKILZ
C
C      DIMENSION BLOCK(1600), NLOCK(1600)
C      EQUIVALENCE (BLOCK, TGTNAMZ, NLOCK)
C
C      EQUIVALENCE (VZ, VOZ(1)), (VZ2, VOZ(2))
C
C      DIMENSION CKDATA(29, 40)
C      EQUIVALENCE (CKDATA, ICKDATA)
C
COMMON/ STRES/ MDAIMUL, MDAICX, MDAPERMT , MTELMCH, LINSTOR,
1      LMG1, LMG2
C
CEND      EQUVTAR *****
C
CUSE      ICDDUMY  IJUN71 *****
C
COMMON/ ICDUMMY/ IPUT(10), NVARZ, NAMES(40), INVALU(2,40),
1      INDEK1(40), INDEK2(40), INDEK3(40), MOHE
C
COMMON/ MACHIRE/ IREAD, IWRIT, ICUMM, IPUNCH
C
C      DATA (IPFAD = 60), (IWRIT = 61), (ICUMM = 44), (IPUNCH = 65)
C
COMMON/ DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1      FVAL(20), NDFEFL
C
EQUIVALENCE (MYVAL, FVAL)
C
CEND      ICDDUMY *****
C
IF (IPRINTS(7) .EQ. 0) GO TO 10
WRITE (IWRIT, 1)
1  FCPMATELINE = TARGET DATA// ITGT  TGTNAME INDEKNO DESIG  IMCLA
ISS  ICLASS  IMYTYPE  VALUE  MINKILL  MAXKILL  ITGT*

```

1000
2000
2000
21000
22000
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
22000
23000
24000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
24000
25000
26000
27000
28000
29000

```

10 MYIDENT = TMSCHATCH
   ITP = TPTAR
   CALL SETREAD
   MYIDENT = SMTGTFILE
   ITP = TGTFILE(1)
   MYLENGTH = TGTFILE(2)
   CALL SETWRITE

C
   NTS = NTGTS
   DO 1000 I = 1, NTS
     NTGS = I
     NORMALIZE TGTFILE
     ITP = TPTAR
     CALL RDARRAY(FLOCK, LNG2)
     VTZ = VTZ * RATIO
     VZA = VZA * RATIO
     V7A = VTZ - VZA
     IPNTNO = 7
     CALL PRINTDAT
     ITP = TGTFILE(1)
     CALL RDARRAY(MLOCK, LNG2)

C
1000 CONTINUE
   ITP = TPTAR
   CALL TERTAPE
   ITP = TGTFILE(1)
   CALL TERTAPE
   RETURN
   END)

```

```

30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000
58000

```

5.475 NORMALZ

11/26/71

ED 0

PAGE NO.

4

IDENT NORMALZ

PROGRAM LENGTH	00137
ENTRY POINTS	00030
BLOCK NAMES	
MASTER	00027
OPTION	00013
FILES	00020
NONFILE	00006
IIP	00001
MYIDENT	00001
TWORK	00001
MYLABEL	00010
PRRCTRL	00032
INPSTOR	03100
SIZES	00007
IDUMMY	00374
MACHINE	00004
DEFAULT	00121

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

MASTER
OPTION
FILES
NONFILE
IIP
MYIDENT
TWORK
MYLABEL
PRRCTRL
INPSTOR
SIZES
IDUMMY
MACHINE
DEFAULT

EXTERNAL SYMBOLS

TEND.
ORNDICT.
SETHEAD
SETWRITE
ROADWAY
PRINTOAT
WRHHAY
TERMTAPE
STR.

5.ATS NORMALZ

11/26/71

EC C

PAGE NO.

5

C00012	ALCGRD						
C00006	ALCCTAP						
C00106	ATMCDZ						
C00002	BASFILE						
P00133	HEGIN.						
C00000	BLOCK						
C00004	CATWLCZ						
P00003	CHPMT.						
C00207	CKDATA						
C00002	DESI6Z						
P00001	DICT.						
C00062	DISTCDB						
C00040	DISTDFZ						
C00041	DISTGZ						
P00136	ENDING.						
C00016	EVENYAPE						
P00000	EXIT.						
C00003	FIAPFILE						
C00005	FLAGZ						
P00003	FOPMAT.						
C00074	FVAL						
C00021	FVALZ						
P00045	GG00000.						
C00014	HZ						
P00135	I						
C00000	ICMARGE						
C00030	ICLASSZ						
C00002	ICBWM						
C00207	ICEDATA						
C00001	IDENTAO						
C00001	IFRATGT						
C00027	ICLASCZ						
C00000	ICDATE						
C00031	I-TYPZ						
C00012	ILST						
C00203	INDEX1						
C00253	INDEX2						
C00323	INDEX3						
C00001	INDEX4						
C00007	INDEX5						
C00005	INDEX6						
C00003	INDEX7						
C00037	INDEX8						
P00133	INITIAL.						
C00000	IPDAT						
C00053	IVAL1						
C00015	INERS						
C00020	IBSATC						
C00000	IBPATS						
C00003	IPUNCH						
C00000	IPRAN.						
C00002	ISICE						
C00007	ISTST						
C00000	ITP						

C00000	WORD				
C00001	WRIT	00127			
P00046	IP	C00001	00037	00037	
P00117	.1000	00036			
P00036	.100001				
P00037	.100002	00035			
P00003	.1	00043			
P00026	.100000	00044			
P00027	.100001	00054			
C00004	LINSTR				
C00005	LN61				
C00006	LMG2	00074	00114		
C00036	MAXCOSZ				
C00035	MAXKILZ				
C00001	MDATCX				
C00000	MDATMUL				
C00034	MINKILZ				
C00033	MISNEZ				
C00373	MORE				
C00022	MPRG				
C00023	MSET				
C00004	MSLTIME				
C00002	WSPERWT				
C00003	WTELMCM				
C00137	MULDATA				
C00003	MYCOMM				
C00024	MYFORM				
C00000	MYFORMT				
C00000	MYIDENT	00047	00047	00055	00055
C00002	MYLNKTH	00061	00061		
C00000	MYNAME				
C00001	MYSECP				
C00050	MYTYPE				
C00074	MYVAL				
C00013	MZ				
C00023	MALERT				
C00013	NAMES				
C00016	NASMTYPE				
C00010	NBNDRY				
C00022	NCLASS				
C00026	NENTRY				
C00021	NCOMPLEX				
C00004	NCORR				
C00025	NCORTYPE				
C00120	NDEFLT				
C00011	NDESRFG				
C00005	NDPEN				
C00136	NFIXEZ				
C00012	NFIXREQ				
C00013	NG				
C00013	NGROUP				
C00020	NKZ				
C00000	NLOCK				

P00030	NORMALZ	00030							
C00023	HOTHER								
C00015	NPAYLOAD								
C00006	NRECOVER								
C00007	NREF								
C00011	NRFQ								
C00003	NRPT								
C00020	NTAMKRAS								
C00021	NTGS	00071	00071						
C00024	NTGTS	00064	00064						
C00014	NTOTBASE								
P00136	NTS	00065	00120						
C00012	NTYPE								
C00012	NVARS								
C00017	NWOTYPE								
C00017	PLANTAPE								
C00002	POSTDATA								
X00006	PRINTDAT								
X00002	QBDDICT.	00110							
C00002	RATIO	00000							
X00005	RDARRAY	00100	00100						
X00003	SETHAD	00074							
X00004	SETHRITE	00052							
X00011	SM.	00062							
C00014	STRKFIL	00041							
C00032	TARDEZ								
C00003	TASKZ								
C00024	TAZ								
X00010	TERMTAPE	00124	00130						
C00000	TGFILE	00056	00056						
C00007	TGFLAZ								
C00010	TGLONZ								
C00006	TGMULZ								
CC0000	TGTAMPZ								
C00011	TGTHAZ								
X00001	THEND.	00044							
C00001	TINFILE								
C00010	TMPALOC								
C00005	TMPOST								
C00004	TMPTAR								
P00120	TS00001.	00050	00050						
C00000	TWORD	00067							
C00016	V0Z								
C00012	VIZ	00077	00077						
C00016	VZA	00102	00103						
C00017	VZB	00105							
C00000	WINFILE								
X00007	WRARRAY	00114							
P00070	WS00001.	00121	00121						
	00234 SYMBOLS								

```

SUBROUTINE PRINTDAT
  PRINTDAT 1,JUN71 *****
  C PRINT SUBROUTINE FOR THE PREALLOCATOR *****
  CUSE MASTER 1JUN71 *****
  COMMON/MASTER/IMDATE,INENTN,ISIDE,INRPT,ICORR,NDPEN,MRECOVER *****
  1,NMFF,NMNDHY,MREG,NMTYPE,NGROUP,NTOT,BASE,NPAYLOAD,KASMTYPE,NMWDTYPE *****
  2,NTANKHAS,NCOMPLEX,MCCLASS,NALEST,NTGTS,NCORTYPE,MCNTRY *****
  EQUIVALENCE (MGMROUP,NG), (NALEST,NOTHER) *****
  CEND *****
  CUSE TAPFS 1JUN71 *****
  COMMON/FILES/IGTFILE(2),BASFILE(2),MSLTIME(2), *****
  1 ALOCATN(2),TMPALOC(2),ALOCGRP(2),STRNFIL(2), *****
  2 EVENTAPE,PLANTAPE *****
  C *****
  C TYPE INTEGER IGTFILE, BASFILE, MSLTIME, ALOCATN, *****
  1 TMPALOC, ALOCGRP, STRKFIL, EVENTAPE, PLANTAPE *****
  C *****
  C COMMON/NOVFILE/ *INFILE, TINFILE, POSTDATA, FIXFILF, YMPYAR *****
  1 TMPOST *****
  C *****
  C TYPE INTEGER *INFILE, TINFILE, POSTDATA, FIXFILE, TMYTAK, TMPOST *****
  C *****
  C TAPES *****
  OPENHFF 1JUN71 *****
  COMMON/RPREF/DPLINK(50),DPLAT(50),DPLONG(50),RFLAT(20), *****
  1 DPLONG(20),DPDEN,PREF *****
  C *****
  CUSE *****
  TYPE INTEGER DPLINK *****
  OPENHFF *****
  BOUNDARY 1JUN71 *****
  COMMON/BOUNDARY/RPLINK(200),BPLAT(200)+BPLONG(200), *****
  1 RPZONE(200),NEXTZONE(200),MBNDRY *****
  C *****
  CUSE *****
  TYPE INTEGER RPLINK,RPZONE *****
  BOUNDARY *****
  WPNREG 1JUN71 *****
  COMMON/WPNREG/CCREL(20),MREG *****
  C *****
  CUSE *****
  WPNREG *****
  WPNDATA 1JUN71 *****
  COMMON/WPNDATA/RANGE(R0),CEP(R0),SPEC(R0),ALENTDLY(80), *****
  1 NALRTDLY(40),RANGEVEC(80),ICLASS(R0),RANGEREFR(80), *****
  2 REL(R0),IRECODE(R0),IPENMODE(R0),ISIMTYPE(80), *****
  3 FUNCTION(R0),NWPMS(200),NVENGRP(200),MLAT(200), *****
  4 WLONG(200),IMEG(200),ITYPE(200),IALERT(200)+SRL(200), *****
  5 IDEFUEL(200),YIELD(200),REFTIME(200),DISTAC(200,30), *****
  6 MTYPE,MGRQUP,MDESREG *****
  C *****
  C DIMENSION IPAY(200),MYFIXD(5000),MYDEXST(5000),DUMAR(10000) *****
  C *****
  C TYPE REAL NALRTDLY *****
  CUSE *****
  TYPE INTEGER FUNCTION *****
  EQUIVALENCE (IPAY,IREFUEL), (MGM,MGMROUP) *****
  C *****
  C EQUIVALENCE (MYFIXD,RANGE,DUMAR), (MYDEXST,DUMAR(5001)) *****
  C *****
  CEND *****
  CUSE *****
  WPNDATA *****

```

1000
 37000
 2000
 3000
 1000
 2000
 3000
 4000
 10000
 2000
 3000
 4000
 5000
 6000
 7000
 8000
 9000
 10000
 11000
 12000
 13000
 4000
 5000
 1000
 2000
 3000
 4000
 5000
 6000
 7000
 8000
 9000
 1000
 2000
 3000
 4000
 5000
 6000
 7000
 8000
 9000
 10000
 11000
 12000
 13000
 14000
 15000
 16000
 17000
 8000

```

CUSE C          ICODUMPY 1JUN71 *****
COMMON/ICODUMPY/ INPUT(10), NVARS, NAMES(40), INVALU(2,40),
1     INDEX1(40), INDEX2(40), INDEX3(40), MORE
C          COMMON/ MACHINE/ TREAD, IMPIT, ICUMM, IPUNCH
C          DATA(IREAD = 60), (IMRIT = 61), (ICOMM = 44), (IPUNCH = 65)
C          COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1     FVAL(20), NDEFLT
C          EQUIVALENCE (MYVAL, FVAL)
C          ICODUMPY *****
C          PAYLOAD 1JUN71 *****
COMMON/PAYLOAD/MOROMB1(40),IMHD1(40),NOBOMB2(40),IMHD2(40)
1,NASM(40),IASM(40),NCM(40),MADECOYS(40),MADECOYS(40),IMIRV(40)
2     ,PAYLOAD
EQUIVALENCE (MP, MPAYLOAD)
C          PAYLOAD *****
C          ASMTABLE 1JUN71 *****
COMMON/ASMTABLE/IMHDASH(20),RANGEASH(20),RELASH(20)
1,CEPASH(20),SPEEDASH(20),MASMTYPE
EQUIVALENCE (MASM, MASMTYPE)
C          ASMTABLE *****
C          WARHEAD 1JUN71 *****
COMMON/WARHEAD/YLD(50),PDUU(50),FFRAC(50),MMPUTYPE
WARHEAD *****
COMMON /CORRCHAK/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30),
1 ZPLONG(30), EJTLAT(30), EMTLONG(30), CRLENGTM(30), KORSTYLE(30),
2 ATTRCORR(30), ATTSUPP(30), HILOATTR(30), DEFHANGE(30),
3 MPRCRUFF(30), DEFDUIST(30,3), ATTRPME(30,3), NDATA, LMAX
C          TYPE INTEGER PCZONE
C          TYPE REAL KORSTYLE
C          DIMENSION DIST-C(30),PRATTR(30,3),DISTDEF(30,3)
EQUIVALENCE (DEFDIST,DEFDEF),(PRATTR,ATTRPRE)
EQUIVALENCE (CRLNGTH, DISTRFC)
C          CORRCHAK *****
COMMON/HAPPEN/1JUN71 *****
COMMON/HAPPEN/JAPTY(250),MAPLAT(250),MAPLONG(250)
1,MAPDUIST(250),MRTDT
EQUIVALENCE (LMAPMAX, MPTPT)
C          HAPPEN *****
CHAPTER 1JUN71 *****
COMMON/CHAPTER/OUNT(30),IMAP(30),MOUNT(50),JMAP(50),MCOORR
CHAPTER *****
ITP 1JUN71 *****
COMMON/ITP/ITP *****
ITP *****
ITP *****
COMMON/IFIPRINT/IFIPRINT(10)
IFIPRAT 1JUN71 *****
COMMON/IFIPRINT *****
IFIPRINT *****
TEMPO 1JUN71 *****

```

```

COMMON/TEMP/OLT(50),LM(50),JT(50),DT(50)
TYPE REAL LT, LN
TEMPO *****
SOURCE IJUN71 *****
COMMON/ROUND/X1,Y1,X2,Y2,IZN,XR,YR,NZN
I,I,ZII *****
ROUND *****
PHEALOC IJUN71 *****
COMMON/PREALOC/PCLINK(30),RPLINK(200),PLAT(200),PPLONG(200),
*ATPLG(200),DISTEF(50),DISTEG(50),HECLINK(200),RECLAT(200),
*RECLONG(200),IRECPTY(200),INDREC(200),IREGIN(30),PCTYPE(30),
*ATTIPRC(30)
TYPE INTEGER PCLINK,RPLINK,HECLINK,PCTYPE
PHEALOC *****
RECQVW IJUN71 *****
COMMON/RECOVR/RCLAT(50,4),RCFLOW(50,4),INDBAS(50,4),INDCAP(50,4),
*DYSTR(50,4),MCCLIX(50),PCHLNX(50)
RECQVW *****
IMPSTOR IJUN71 *****
COMMON/IMPSTOR/BLOCK(1400)
C
DIMENSION MLOCK(1400)
EQUIVALENCE(MLOCK,MLOCK)
C
COMMON /SIZES/ MDATMUL, MDATEX, MSPERT, MTELCM, LINSTOR,
LMS1, LMG2
C
IMPSTOR *****
PNTCTRL IJUN71 *****
COMMON/PNTCTRL/IRPTS*(7),ISTR(3),ILSI(3),INUS(3),IPRINO,NTGS,
*PRQ, MSET(7)
PNTCTRL *****
C PRINTS DATA DESIGNATED BY REQUESTS 1, 3, 5, AND 7
GO TO (10, 110, 120, 110, 120, 110, 120, 110, 150), IPRINO
PRINTS FROM POINTING
C 109 IF(IRPTS*(1)+EG-0)110,111
110 RETURN
111 CONTINUE
WRITE(IWRIT, 116)
116 FORMAT(//224,26H PENETRATION COMMONR DATA//9X,9HCORRIDOR,6X,
14-LTM, 6X, 3-PLAT
1, 7X, 4MLONG,6X,4HZONE,6X,4HTYPE,4X, 49HCORSTYLE MLOATTR DEFRA
2NGE ATTRSUPP ATTRCORP 1
WRITE(IWRIT,117)(I,PCLINK(I),PCLAI(I),PCLONG(I),PCZONE(I),PCTYPE(I
1)KORSTYLE(I)+MLOATTR(I),DEFRANGE(I),ATTUSUPP(I),ATTICORP(I),
2I=1,NCORH)
117 FORMAT(IX,2110,2F10.4,3110,4F10.4)
WRITE(IWRIT, 132)
132 FORMAT (// 9H CORRIDOR,5X,4H1STBC,7X,6MATTRBC,5X,4HIREGIN)
WRITE(IWRIT, 60) (I,DISTHC(I),ATTMPC(I),IREGIN(I),I=1,NCORR)
60 FORMAT (I6,4X,E12.4, F10.4,5X,I6)
WRITE(IWRIT, 200)
200 FORMAT (//9M CORRIDOR,1X,4HMPRCDEF,11X,7HDISTDEF,10X,6HPRATTR)
WRITE(IWRIT,65)(I,MPRCDEF(I),(DISTDEF(I),L),PRATTR(I),L
*L = 1, LMAX), I = 1,NCORH)
1
65 FORMAT (I6, 5X,I5,6X,I12.4,10X,I10.4,/,22X))

```

1000
2000
18000
19000
1000
2000
19000
20000
1900
2000
3000
4000
5000
20000
21000
22000
1000
3000
4000
5000
6000
7000
8000
22000
23000
1000
2000
23000
24000
25000
26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000

```

WRITE(I,WRIT,112)
112 FORMAT(/20X,30H DEPENETRATION CORRIDOR DATA //23X,4HLINK,6X,
13HLAT,7X,4HLCOR, )
WRITE(I,WRIT,113) (I,APL(LINK(I),OPLA(I),OPLONG(I),I=1,NDPEN)
113 FORMAT(7X,2110,2F10.3)
WRITE(I,WRIT,300)
300 FORMAT (/78H OPEN PT,9X,6HDISTEG,11A,4HDISTEF)
WRITE(I,WRIT,70) (I,DIS(TEG(I),DISTEF(I),I=1,NDPEN)
70 FORMAT ((16,4X,2(F12.4,5X))
WRITE(I,WRIT,114)
114 FORMAT(/24X,13HRECOVERY DATA//13X,4HBASE,6X,4HLINK,7X,3HLAT,6X,
4HLONG,3X,6HCAPACITY,5X,5HINDEX)
WRITE(I,WRIT,150) (I,RECL(LINK(I),RECLAT(I),RECLONG(I),IRECPTY(I),
*INDREC(I),I=1,IRECOVER)
150 FORMAT(7X,2110,2F10.3,2110)
WRITE(I,WRIT,100)
160 FORMAT(/* DEPENETRATION CORRIDOR - RECOVERY HASE LINKING*/ LONGI
10 JEPENETR *610 HASE *1)/* CORRIDOR ORDER LATITUDE LONGI
2TUD INDEX CAPACITY DISTANCE*)
WRITE(I,WRIT,161) (I, (J,RECLAT(I,J),WCRLOW(I,J),INDPAS(I,J),
1INDCA(I,J),DIS(H(I,J),J=1,4),I=1,NDPEN)
161 FORMAT (/1X,15,19,F13.3,F11.3,19,F13.3,3/(6X,19,F13.3,F11.3,18,
1 19,F13.3))
WRITE(I,WRIT,115) (I,REPL(I),RPLONG(I),I=1,NDREF)
115 FORMAT(/27X,14H REFUL POINTS/** POINT NO. LATITUDE LONGITUDE*/
1(1X,15,4X,F9.4,1X,F10.4))
WRITE(I,WRIT,118)
118 FORMAT(/27X,14H ROUTING POINTS /** POINT NO. LINK LATITUDE
LONGITUDE ATTRITION*)
WRITE(I,WRIT,119) (I,APL(LINK(I),RPLAT(I),RPLONG(I),
1 ATTRLE(I), I = 1, NRTP))
119 FORMAT(11X,15,4X,16,4X,F9.4,1X,F10.4,F10.5)
WRITE(I,WRIT,134)
134 FORMAT(/27X,14H BOUNDARY DATA,** NUMBER LINK LATITUDE
LONGITUDE ZONE NEXTZONE*)
WRITE(I,WRIT,135) (I,APL(LINK(I),RPLA(I),RPLONG(I),RPZONF(I),
1 NEXTZONE(I), I=1,NDNDRY)
135 FORMAT(11X,15,4X,16,4X,F9.4,F11.4,16,4X,15)
RETURN
C PRINT OF WEAPPREP COMPUTATIONS
120 CONTINUE
IF(I,PRINTS=13),5G,0)110,121
121 WRITE(I,WRIT,122)
122 FORMAT(/25X,5HGROUP,21H CORRIDOR DISTAC )
DO 140 IG = 1, NGROUP
IT = ITYPE(IG)
IF (ICLASS(IT) .NE. 2) GO TO 140
WRITE(I,WRIT,136) IG
DO 124 IC=1,NCORR
WRITE(I,WRIT,123) IC, DISTAC(IG,IC)
124 CONTINUE
140 CONTINUE
RETURN
C PRINTS FROM TGTREP

```

```

125 CONTINUE
   IF(IPRINTSW(5).EQ.0)110,126
126 IF(INTGS.GE.ISTRT(1).AND.NTGS.LE.IBST(1))127,110
127 WRITE(IWRIT,124)NTGS,(BLOCK(I),I=1,3),BLOCK(5)
   I = BLOCK(6), BLOCK(7), BLOCK(8), (BLOCK(I), I = 7,9)
128 FORMAT(/10X,'TARGET NO',I,' TGINAME =',A8,' INDEXNO',I6,'
2,'F10.4,' TGLONG',F10.4)
   N = BLOCK(32)
   WRITE(IWRIT,129) N,DISTEG(N), BLOCK(34), BLOCK(33)
129 FORMAT(15X,9HINDYPEN =13,10H DISTEG =F10.4,10H DISTDG =F10.4)
   110H DISTDF =F10.4)
   WRITE(IWRIT,130)
130 FORMAT(25X,'ICORR DISTCO AIRCD=)
131 FORMAT(20X,110,2F10.4)
   RETURN
C PRINT OF CHANGED PLANNING FACTORS
150 CONTINUE
   IF(IPRINTSW(7))151,110,151
151 IF(INTGS.GE.ISTRT(3).AND.NTGS.LE.IBST(3))152,110
152 WRITE(IWRIT,153) NTGS, (BLOCK(I), I = 1,3),BLOCK(5),BLOCK(6),
   1 BLOCK(24), BLOCK(25), BLOCK(26), BLOCK(11), BLOCK(29),
   2 BLOCK(30), NTGS
153 FORMAT(1X,14,2X,A8,16,2X,A5,A2,11,2X,A8,3X,12,3X,A8,
   3(1X,F9.4),2X,14)
   RETURN
END

```

```

104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000

```

IDENT PRINTCAT

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	PRINTCAT	IDENT	PRINTCAT
		01750	
		30451	
MASTER		00027	
FILES		00020	
NOMFILE		00004	
DPNREF		00300	
HOUMARY		01751	
WPNREG		00025	
WPNDATA		23420	
IOUJMY		00374	
MACHINE		00004	
DEFAULT		00121	
PAYLOAD		00621	
ASMTABLE		00145	
VARHEAD		00227	
CONHCHAR		01132	
HAPPEN		01751	
CHAPTER		00241	
ITP		00001	
IFTPRNT		00012	
TEMPO		00000	
BOUND		00011	
PREALOC		03741	
RECOVK		02114	
IMPSTOR		03100	
SIZES		00007	
FRNICTRL		00032	

EXTERNAL SYMBOLS
 TEND.
 ORGOICT.
 SYN.
 OMSINGL.

C00360	ALERTPLY	00761	01471	01473	01474	01501	01501	01523	01523	01525	01525
C00012	ALOCGDP		01464	01607	01614	01614	01616	01617	01620	01621	01621
C00006	ALOCSTAR		01553	01607	01614	01614	01616	01617	01620	01621	01621
C00370	ATTACMC	00761	01423	01607	01614	01614	01616	01617	01620	01621	01621
C00416	ATTACORH	00724	01423	01607	01614	01614	01616	01617	01620	01621	01621
C01166	ATTIRLFG	01304									
C00774	ATTIDPRE	00724									
C00454	ATTISUPP										
C00002	HASFIL										
P01731	HEGIN.										
C00000	HLCK.										
C00010	HPLAT										
C00000	HPLINK										
C00620	HPLONG										
C01130	HZONE										
C00000	CMHEL										
C00120	CFP										
C00074	CFRASH										
P01633	CMWATI.										
P00003	CFEFT.										
C00322	CLENGTH										
C00644	DEFINIST										
C00550	DEFRANGE										
P00001	DTICI.										
C00650	DISTAC										
C00322	DISTAC										
C00644	DISTDEF										
C01476	DISTEF										
C01560	DISTEC										
C01440	DISTR										
C00062	DPLAT										
C00000	DPLINK										
C00144	DPLONG										
C00225	DT										
C00000	DUHAP										
P01733	ENDING.										
C00226	ENTLAT										
C00264	ENTLONG										
C00016	EVEETAPE										

P01433	.14C	01374	
P01544	.15D	02663	
P01566	.15I	01565	
P01574	.15Z	01572	
P00146	.112	01044	
P00171	.113	01053	
P00223	.114	01133	
P03446	.115	01236	
P00003	.116	00473	
P00050	.117	07702	
P00374	.118	01262	
P00414	.119	01271	
P00484	.122	01361	
P00503	.123	01420	
P00511	.12A	01455	
P00561	.129	01514	
P00604	.130	01534	
P00615	.131	01543	
P00057	.132	04741	
P00427	.134	01317	
P00450	.135	01324	
P00476	.136	01403	
P00255	.150	01142	
P00622	.153	01630	
P00263	.160	01171	
P00321	.161	01200	
P00110	.200	00776	
P00176	.300	01100	
P00076	.660	00750	
P00127	.665	01005	
P00211	.76	01107	
P01745	J	01211	01221 01675
C00000	JAPTYPE		
C00156	JMAP		
C00144	JT		
C00360	KOPSTYLE	00721	
C00000	KOUNT	00721	
P01746	L	01017	01026 01661
C01750	LMAPMAX		
C00004	LINSTOR		
C01131	LMAX	01030	01030
C00062	LN		
C00005	LMG1		
C00004	LMG2		
C00000	LT		
C00144	MAS*		
C00144	MASPTYPE		
C01750	MRNDPY		
C00240	MCORP		
C00001	MDATCK		
C00000	MDATMUL		
C22032	MOESREQ		
C00276	MDPEN		
C22031	M6		

C00024	NTGTS	01601	01625	01625								
C00014	NTOTBASE											
C00012	NTYPE											
C00012	NVARS											
C02330	NVEMGRP											
C00017	NHMDTYPE											
C02020	NHPS											
C00007	NZ											
P01637	P00000AU	01642										
P01653	P00001AU	01656										
P01667	P00002AU	01672										
P01703	P00003AU	01705										
P01715	P00004AU	01720										
C00000	PCLAT	00713										
C00000	PCLINK	00711	00712									
C00036	PCLCRG	00715										
C03650	PCTYPE	00717	00717									
C00074	PZONE	00716										
C00062	POUG											
C00017	PLANTAPE											
C00002	POSTDATA											
C03776	PRATR	01025										
P00651	PRINTDAT	00651	00652									
X00002	JANUCL	00000										
X00004	MASINGL	01632										
C00000	RANGE											
C00024	RANGELSM											
C00620	RANGEMEC											
C01060	RANGERE											
C00000	RCBLAT	01213	01214									
C02032	RCMLNK											
C00310	RCMLON	01215										
C01750	RCMLTX											
C02152	RECLAT	01153										
C01642	RECLINK	01151	01152									
C02462	RECLONG	01154										
C05740	RETYPE											
C01200	REL											
C00050	RELASM											
C00226	RELAT	01245	01246									
C00252	REPLONG	01247										
C00346	RPLAT	01302										
C00036	RPLINK	01300	01301									
C00656	RPLONG	01303										
C04610	SRL											
C00240	SPEED											
C00120	SPEEDASM											
X00003	STH											
C00014	STRKFIL	00671	00700	00731	00746	00774	01003	01042	01051	01076	01105	01131
C00000	TGTFILE	01140	01167	01176	01234	01260	01267	01315	01324	01357	01401	01416
X00001	TAEAG	01453	01514	01532	01551	01576						
		00674	00733	00742	00770	00777	01436	01045	01072	01101	01125	01134

5-ATS PRINTOUT

11/26/71 ED 0 PAGE NO. 13

01163 01172 01230 01254 01263 01311 01320 01347 01362 01406 01425
 01504 01526 01535 01561 01627

C00001 TIMFILE
 C00010 TMAPALDC
 C00005 TMAPOST
 C00004 TMAPTAP
 P00731 TS00001.
 P00754 TS00002.
 P01030 TS00003.
 P01034 TS00004.
 P01070 TS00005.
 P01123 TS00006.
 P01161 TS00007.
 P01226 TS00011.
 P01257 TS00012.
 P01307 TS00013.
 P01345 TS00014.
 P01435 TS00015.
 P01431 TS00016.
 P01557 TS00021.
 P01544 UP00000.

00730 00753 00765 01010 01033 01056 01067 01112 01122 01145
 01203 01225 01241 01251 01274 01306 01331 01344 01462 01467
 01564 01586 01556 01605 01612 01640 01645 01666 01667 01652
 01652 01627 01654 01661 01662 01677 01701 01702 01714 01714 01730
 01660 01670 01676 01676 01677 01701 01702 01714 01714 01730
 01412 01434 01703 01710 01723 01724 01725 01727 01730

P01600 UP00001.
 P01674 UP00002.
 P01707 UP00003.
 P01722 UP00004.
 C00000 *TIMFILE
 C02640 *LAT
 C03150 *LGNG
 P00707 *S00001.
 P00755 *S00002.
 P01022 *S00003.
 P01012 *S00004.
 P01060 *S00005.
 P01114 *S00006.
 P01147 *S00007.
 P01211 *S00010.
 P01205 *S00011.
 P01243 *S00012.
 P01276 *S00013.
 P01333 *S00014.
 P01370 *S00015.
 P01414 *S00016.
 P01463 *S00017.
 P01500 *S00020.
 P01550 *S00021.
 P01604 *S00022.
 C00000 X1
 C00002 X2
 C00005 XR
 C00001 Y1
 C00003 Y2

00732 00767 00767 01031 01035 01071 01071 01124 01162 01223 01227 01253 01253 01310 01310 01346 01436 01432 01470 01505 01560 01560 01613

SATS PRINTOUT

C05430 YIELD
C00000 YLD
C00004 YR
C00132 ZPLAT
C00170 ZPLONG
00540 SYMBOLS

11/26/71

ED

0

PAGE NO.

14

1336

```

SUBROUTINE ROPKOMP
  ROPRCMP IJUNT1 *****
  C
  C THIS SURROUTINE READS THE USER INPUT
  C PARAMETERS FOR THE PRECOMP OPTION
  C
  CUSE IODUMMY IJUNT1 *****
  C
  COMMON/IODUMMY/ INPUT(10), NVAR5, NAMES(40), INVAL(2,40),
  1 INDEX1(40), INDEX2(40), INDEX3(40), MORE
  C
  COMMON/ MACHINE/ IREAD, IWRIT, ICOMM, IPUNCH
  C
  DATA(IREAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)
  C
  COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
  1 FVAL(20), NDEFLT
  C
  EQUIVLFNCE (MYVAL, FVAL)
  C
  IODUMMY *****
  PLANTYPE IJUNT1 *****
  COMMON/PLANTYPE/ INITSTRK,CORMSL,COMROMB
  PLANTYPE *****
  EXCESS IJUNT1 *****
  C
  COMMON /EXCESS/ NEXCESS, PEKROMR, EXNROMR, PEKMIRV, EXKMIRV,
  1 PEKMISS, EXNMIS5, SBLREAL(200)
  C
  EXCESS *****
  PRINTCTL IJUNT1 *****
  COMMON/PRINTCTL/ IPRTSM(7), ISTR1(3), ILSI(3), INHDS(3), IPRTNO, NTGS,
  1 MPRQ, MSET(7)
  C
  PRINTCTL *****
  EQUIVTAR IJUNT1 *****
  C
  C***** NOTE *****
  C THIS BLOCK IS COMMON / IMPSTOR/ WHERE THE
  C VARIABLES ARE THOSE TO BE OUTPUT ON THE Y&TFILE.
  C IN ADDITION TEMPORARY STORAGE AREAS FOR
  C COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
  C ELEMENTS ARE DEFINED
  C
  COMMON/ IMPSTOR/ TGTNAMZ, INDEXN, DESIGZ, TASKZ, CNTRYLCZ,
  1 FLAGZ, TGTMLKZ, TGTFLZ, TGTLOMZ, TGTTRZ, VIZ, MZ, MZ(2),
  2 VOZ(2), MKZ, FVAZ(3), TAZ(3), INCLASZ, ICLASSZ, INTYPZ,
  3 YARDEZ, MISDEZ, MINKILZ, MAXKILZ, MAXCOSZ, IMOYPEZ, DISTOFZ,
  4 DISTOGZ, OISTGOZ(30), ATTRGOZ(30), NFIXEZ, MULDATA(4,5),
  5 ICDATA(2, 4n)
  C
  TYPE INTEGER DESIGZ, TGTNAMZ
  TYPE REAL MINKILZ, MAXKILZ
  C
  DIMENSION BLOC(1600), NLOCK(16n)
  EQUIVALENCE(BLOCK, TGTNAMZ, NLOCK)
  C

```

1000
45000
2000
3000
4000
5000
6000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
6000
7000
1000
7000
8000
1000
2000
3000
4000
9000
1000
2000
9000
10000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
10000
10000
17000
18000
19000
20000
21000

```

C      EQUIVALENCE(VZA, VOZ(1)),(VZR,VOZ(2))
C      DIMENSION CXDATA(29, 40)
C      EQUIVALENCE (CXDATA, ICXDATA)
C      COMMON/ SIZES/ MDATAUL, MDATA, M$PERMT, MTELCH, LINSTOR,
C      1      LMG1, LNG2
C      CEQD      EQUIVTAR *****
C      DIMENSION IFORMAT(5)
C      DATA(IFORMAT = 8H(1H0,AR,6H* *),1H,8H,* BY *,3HAR))
C      DIMENSION NAMPRINT(3)
C      DATA(NAMPRINT = 7HFIRSTAR, 6HLASTAR, RHNTOPRINT)

C      INT = 2H1R
C      IF = 4HFR.4
C      IA = 2H4B
C      MPRQ = 7

C      SET UP DEFAULTS FOR PARAMETERS
C      INITSTRK
C      MYNAME(1) = 8HINITSTRK
C      MYFORM(1) = INT
C      MYVAL(1) = 1
C      CORNSL
C      MYNAME(2) = 6HCORNSL
C      MYFORM(2) = IF
C      FVAL(2) = 0.0
C      CORBOPB
C      MYNAME(3) = 7HCORROMB
C      MYFORM(3) = IF
C      FVAL(3) = 0.0
C      PEKXOPB
C      MYNAME(4) = 7HPEXROMB
C      MYFORM(4) = IF
C      FVAL(4) = 0.0
C      EKXROMB
C      MYNAME(5) = 7HEKXROMB
C      MYFORM(5) = IF
C      FVAL(5) = 3.0
C      PEKXIRV
C      MYNAME(6) = 7HPEXIRV
C      MYFORM(6) = IF
C      FVAL(6) = 0.1
C      EKXIRV
C      MYNAME(7) = 7HEXIRV
C      MYFORM(7) = IF
C      FVAL(7) = 2.0
C      PEKXISS
C      MYNAME(8) = 7HPEXISS
C      MYFORM(8) = IF
C      FVAL(8) = 0.0
C      EKXISS
C      MYNAME(9) = 7HEXISS

```

```

22000
23000
24000
25000
26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000

```

```

58000
59000
60000
61000
62000
63000
64000
65000
66000
67000
68000
69000
70000
71000
72000
73000
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000

MYFORM(9) = IF
FVAL(9) = 0.0

NDEFLT = 9
DO 10 I = 1, NDEFLT
10 MYTYPE(I) = 7HDEFAULT

C
C
C
C
SET UP STANDARD PRINTS

DO 20 I = 1, MPRO
20 IPRTSM(I) = 0
DO 30 I = 1, 3
30 ISTART(I) = 1
ILST(I) = 5000
INOS(I) = LNGI / 2 + 1
IPRTSM(1) = 7
IPRTSM(3) = 7
IPRTSM(5) = 7
DO 40 I = 1, MPRO
40 MSET(I) = 7HDEFAULT

C
C
C
READ PARAMETER CARDS

WRITE(IWRITE,99)
99 FORMAT(=USER INPUT PARAMETER CARDS FOR OPTION PRECOMP*)
100 READ (IPEAD,101) INPUT
101 FORMAT(10A8)
WRITE(IWRITE,102) INPUT
102 FORMAT(/1X,10A8)
CALL GETVALU(INPUT,NVARS,NAMES,INVALU,INDEX1,INDEX2,INDEX3, MORE)
IF(NVARS) 2000, 2000, 110
INTERPRET INPUT

C
110 DO 1000 I = 1, NVARS
KKK = I
ITEST = NAMES(I)
IAM = ITLE(ITEST, MYNAME, NDEFLT)
IF(IAM) 120, 120, 150
CHECK FOR PRINT OR NO PRINT
120 IF(ITEST = 5HPRINT) 130, 200, 130
130 IF(ITEST = 7HNOPRINT) 140, 300, 140
ERROR - NO MATCH
C
140 WRITE(IWRITE, 141) ITEST
141 FORMAT(/75A,* UNABLE TO DECIPHER VARIABLE NAME *,AR,*, INPUT REQU
TEST IGNORED*)
GO TO 1000

C
INPUT PARAMETER
150 MYTYPE(IAM) = 6H INPUT
IF(IAM=1) 151, 151, 152
151 MYVAL(I) = NUMGET(INVALU(I,KKK),16)
GO TO 1000
152 DECODE(16, 1001, INVALU(I,KKK)) FVAL(IAM)
GO TO 1000

C
C
C
PRINT REQUEST
C
C
200 ITEST = NUMGET(INVALU(I,KKK), 16)

```

```

ITSV = ITEST
IF(IITEST) 1000, 1000, 210
210 IF(IITEST - MPH0) 220, 220, 1000
220 PRINT$(ITEST) = 7
MSET(IITEST) = 6H INPUT
IF(IITEST - 4) 1000, 1000, 230
230 I = I + 1
IITEST = IITSAV
IF(I - NVANS) 240, 240, 1000
240 IAM = ILE(NAMES(I), NAMPRNT, 3)
IF(IAM) 250, 250, 260
250 I = I - 1
GO TO 1000
PRINT INFORMATION
C 260 IITEST = IITEST - 4
KKK = I
GO TO (261, 262, 263), IAM
C 261 FIRST TARGET
FIRST(IITEST) = NUMGET(INVALU(1, KKK), 16)
GO TO 230
C 262 LAST TARGET
LAST(IITEST) = NUMGET(INVALU(1, KKK), 16)
GO TO 230
C 263 NUMBER OF WORDS TO BE PRINTED
NUMWDS(IITEST) = NUMGET(INVALU(1, KKK), 16)/2 + 1
GO TO 230
C
C PRINT CANCELLATION
C
C 300 ITEST = NUMGET(INVALU(1, KKK), 16)
IF(IITEST) 1000, 1000, 310
310 IF(IITEST - MPH0) 320, 320, 1000
320 PRINT$(ITEST) = 0
MSET(IITEST) = %REMOVED
GO TO 1000
C
C 1000 CONTINUE
1001 FORMAT(F16.0)
IF(MOME) 2000, 2000, 100
C
C PRINT RESULTS
C
C 2000 WRITE(IWRIT, 2001)
2001 FORMAT(*USER INPUT PARAMETERS FOR OPTION PRECOMPS)
C
C PRINT REQUESTS
WRITE(IWRIT, 2002)
2002 FORMAT(/25X,* PRINT REQUESTS/** NUMBER STATUS FIRST TARGET LA
1ST TARGET NO. OF WORDS SET BY*)
DO 2010 I = 1, 4
IAM = 2MON
IF (IPRNT$(I) .EQ. 0) IAM = 6H OFF
WRITE (IWRIT, 2003) I, IAM, MGET(I)
2003 FORMAT(3X, I2, 4X, A6, 6X, N/A, *10X, *N/A, *11X, *N/A, *6X, A8)
2010 CONTINUE
ON 2020 I = 5, MPRO

```

```

J = I-4
IAM = 240N
IF (IPRINTS(I) .EQ. 0) IAM = 6M OFF
WRITE (IWRIT, 2011) I, IAM, ISTART(J), ILST(J), INWDS(J), MSET(I)
2011 FORMAT(3X,I2,4X,A5,5X,I5,2(8X,I5),6X,A8)
2020 CONTINUE
WRITE(IWRIT, 2021)
2021 FORMAT(////25X,** OTHER PARAMETERS**)
C
LOAD PARAMETERS
INITSTRK = MYVAL(1)
CORMSL = FVAL(2)
CORBDMR = FVAL(3)
PEXROH = FVAL(4)
EXNBDMR = FVAL(5)
PEXMIH = FVAL(6)
EXMIRV = FVAL(7)
PEXMISS = FVAL(8)
EXNMISS = FVAL(9)
C
DO 2100 I = 1, NDEFLT
IFORMAT(3) = MYFORM(I)
WRITE(IWRIT, IFORMAT) MYNAME(I), MYVAL(I), MYTYPE(I)
2100 CONTINUE
RTURN
END

```

```

170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
193000
194000
195000

```

PROGRAM LENGTH			
ENTRY POINTS			
BLOCK NAMES			
RDRPCMP			RDRPCMP
IOUPLY	01060		
MACHINE	00374		
DEFAULT	00004		
PLANTYPF	00121		
EXCESS	00003		
PRNTCTRL	00317		
IMPSTOR	00032		
SIZES	03100		
	00007		

EXTERNAL SYMBOLS

- THEMD.
- ORGDICT.
- GETVALU
- ITL
- NUMGET
- TSH.
- DEC.
- STM.
- SLO.
- SLI.
- QNSINGL.

P00501	AM00004.	00475	00502	00675	00676	00700	00725	00726	00730	00731	00732	00735
C00100	ATT+CDZ	01007	01010	01011								
P01032	HESIN.	00757	00757									
C00000	HLOCK	00755	00755									
C00004	CNT+YLCZ	00305	00306	00310	00317	00346	00347					
P01021	CNVRT1.	00362	00375	00410	00456	00537	00550	00557	00703	00740	00752	
C00002	CORHOMR	00477										
C00001	CRMSL	00210	00354	00361	00365	00371	00374	00500	00604	00607	00611	00632
P03045	COUNT.	00450	00455	00470	00500	00506	00513	00545	00567	00576	00605	00617
P01013	CRFAT.	00644	00647	00653	00656	00672	00702	00722	00737	00746	00751	01004
X00007	DEC.	01013										
C00002	DESIG7											
P00001	DICT.											
C00042	DISTCOZ											
C00040	DISTOFZ											
C00041	DISTDGG											
P01034	ENDING.	00211	01017	01032								
C00004	EXMIRV	00757	00767									
P00000	EXIT.	01035										
C00002	EXNBOMB	00763	00763									
C00006	EXNMISS	00773	00773									
C00005	FLAGZ											
P00013	FORMAT.	00212	00214	00215	00220	00225	00232	00237	00244	00252	00260	00266
C00074	FVAL	00273	00301	00342	00421	00457	00527	00632	00657	00705		
C00021	FVAZ	00231	00236	00243	00251	00251	00257	00257	00265	00272	00272	00277
X000C3	GETVALU	00504	00504	00754	00754	00756	00756	00760	00760	00762	00762	00764
P00362	GG00000.	00764	00764	00766	00770	00770	00772	00772				
P00375	GG00001.	00410										
P00410	GG00002.	00354										
P00456	GG00003.	00376										
P00507	GG00004.	00446										
P00550	GG00005.	00476										
P00557	GG00006.	00642										
P00703	GG00007.	00651										
P00740	GG00010.	00670										
P00752	GG00011.	00720										
P01014	GG00012.	00744										
P01046	I	01002										
P01047	IA	00302	00305	00313	00316	00324	00324	00343	00346	00422	00423	00426
P01050	IAM	00534	00535	00537	00542	00552	00553	00557	00554	00560	00562	00574
C00030	ICLASSZ	00677	00703	00705	00707	00712	00724	00733	00740	00775	00776	01014
C00002	ICOMW	00215	00460	00462	00503	00550	00561	00662	00666	00676	00711	00716
		00726										
		C00002										

Code	Description	00214	00227	00234	00241	00246	00254	00262	00270	00275	00577
C00207	ICXDATA										
P01051	IF	00013	01000	01005							
P00003	IFORMAT										
P01052	IGOTO.										
C00027	IMCLASZ										
C00031	IMTYPZ										
C00012	ILST	00600	00600	00601	00731						
P01022	IN00003.	00465	00474	00510	00564	00573	00602	00614	01030		
C00203	INDEX1	00414									
C00253	INDEX2	00414									
C06323	INDEX3	00415									
C00001	INDEXM										
C00037	INDEPEZ										
P01032	INITIAL.	00211									
C00000	INITSTRK	00753									
C00000	INPUT	00372	00405	00412							
C00000	INT	00213	00222								
P01053	INT	00413	00466	00471	00475	00501	00511	00514	00565	00570	00574
C00063	INVALU	00603	00606	00615	00620	00732					
C00015	INWDS	00334	00335	00612	00612						
C00020	IPRNTNO	00320	00321	00337	00340	00341	00525	00526	00630	00631	00663
C00000	IPRNTSM	00712	00713								
C00003	IPUNCH	C00003									
C00000	IREAD	00013	00362	00362							
C00007	IRST	00326	00327	00371	00572	00727	00730				
P01054	ITEST	00430	00433	00437	00442	00452	00515	00516	00520	00525	00531
X00004	IILE	00555	00556	00571	00600	00611	00621	00623	00630		
P01055	ITSAV	00431	00544								
C00001	IWRIT	00515	00536	00353	00375	00375	00445	00445	00641	00641	00650
P00307	.10	C00001	00353	00717	00717	00743	00743	01001	01001		
P00362	.100	00667	00667								
P00634	.1000	00640	00473	00507	00516	00517	00523	00532	00533	00541	00554
P00665	.100001	00622	00626								
P00667	.100002	00664									
P00715	.100003	00714									
P00717	.100004	00420									
P00421	.110	00435	00436								
P00437	.120	00441									
P00442	.130	00441									
P00445	.140	00444									
P00457	.150	00434									
P00465	.151	00463	00463								
P00474	.152	00464									
P00320	.20	00440									
P00510	.200	00417	00417	00637	00640						
P00641	.2000										
P00703	.2010										
P00740	.2020										
P00520	.210										
P01014	.2100										

P00524	.220	00522	00522
P00534	.230	00572	00601
P00542	.240	00540	00541
P00552	.250	00550	00551
P00555	.260	00551.	
P00564	.261	00562	
P00573	.262	00563	
P00602	.263	00563	
P00331	.30		
P00614	.300	00443	
P00623	.310		
P00627	.320	00625	00625
P00350	.40		
P01036	ERASER.	00607	
P00013	..10000	00212	
P00014	..100001	00214	
P00015	..100002	00215	
P00016	..100003	00220	
P00017	..100004	00225	
P00020	..100005	00232	
P00021	..100006	00237	
P00022	..100007	00244	
P00023	..100008	00252	
P00024	..100009	00260	
P00025	..100010	00266	
P00026	..100011	00273	
P00027	..100012	00307	
P00030	..100013	00350	
P00052	..100014	00440	
P00053	..100015	00443	
P00073	..100016	00457	
P00074	..100017	00527	
P00075	..100018	00632	
P00133	..100019	00661	
P00134	..100020	00665	
P00156	..100021	00711	
P00157	..100022	00715	
P00076	..1001	00501	
P00042	..101	00366	
P00045	..102	00401	
P00054	..141	00451	
P00101	..2001	00645	
P00112	..2002	00654	
P00135	..2003	00673	
P00160	..2011	00723	
P00176	..2021	00747	
P00031	..99	00357	
P00471	Z00001.	00466	
P00514	Z00002.	00511	
P00546	Z00003.	00543	
P00570	Z00004.	00565	
P00577	Z00005.	00574	
P00606	Z00006.	00603	
P00620	Z00007.	00615	

00613

5.4TS RDRPCMP

11/26/71 50 0 PAGE NO. 11

P00312	TS00001.	00304
P00323	TS00002.	00315
P00353	TS00004.	00345
P00635	TS00005.	00422
P00741	TS00007.	00706
P01015	TS00010.	00775
X00006	TSM.	00364
P01024	UP00002.	00425
C00016	V0Z	
C00012	VIZ	
C00016	VZA	
C00017	VZB	
P00307	MS00001.	00311
P00320	MS00002.	00322
P00326	MS00003.	00336
P00350	MS00004.	00352
P00423	MS00005.	00636
P00461	MS00006.	00704
P00707	MS00007.	00742
P00776	MS00010.	01016
	00332 SYMBOLS	

00560 01025 01026 01027 01031 01031

```

SUBROUTINE ROUTING
C SUHR ROUTING IJUN71 *****
C ROUTING PHASE OF REALLOCATION
C CALCULATES DISTRC(ICORR),ATTRC(ICORR),NPRCDEF(ICORR),
C DISTDEF(ICORR),AND PRATH(ICORR,L) FOR ICORR=1,NCORR
C AND L=1,LMAX
C AND DISTEF(IDPEN) AND DISTEG(IDPEN) FOR IDPEN=1,NDPEN
C MASTER IJUN71 *****
COMMON/MASSTEN/INDATF,INDTKO,ISIDE,NRTPT,NCORR,NDPEN,NRFCOVER
1 NREF,NRTRY,NREG,NTYPE,NGROUP,NTOTBASE,NPAYLOAD,NASMTYPE,NMHDTYPE
2 NTANKS,NCOMPLEX,NCLAS,NALENT,NTGTS,NCORTYPE,NCNTRY
EQUIVALENCE (NGROUP, NG), (NALENT, NOTHER)
CEND
C MASTER *****
DIMENSION IDUMD(11)
EQUIVALENCE (IDUMD, INDATF) *****
C USE RPKPNT IJUN71 *****
C
COMMON/HRKPN1/ INDBEG(250), TYPENAME(250),
1 CUMAG(15), RTYPES(15), INDCLAS(15), PTAHTYPE, HTARCLS
CEND
CUSE
C RPKPNT *****
C TAPES IJUN71 *****
COMMON/FILES/ TGFILE(2),RASFILE(2),MSLTIME(2),
1 ALOCTAR(2),TMAPLOC(2),ALOCGRP(2),STRNFIL(2),
2 EVENTAPE,PLANTAPE
C
C TYPE INTEGER TGFILE, RASFIL, MSLTIME, ALOCTAR,
1 TMAPLOC, ALOCGRP, STRNFIL, EVENTAPE, PLANTAPE
C
C COMMON/NOFILE/ WINFILE, TINFILE, POSTDATA, FINFILE, TMAPAR
1 TYPE INTEGER WINFILE, TINFILE, POSTDATA, FINFILE, TMAPAR
C
C TAPFS *****
C PLANTYPE IJUN71 *****
COMMON/PLANTYPE/ INITSTK,CORNSL,CORRORB
C PLANTYPE *****
C OPENREF IJUN71 *****
COMMON/OPENREF/DPLINK(50),DPLAT(50),NPLONG(50),RFLAT(20),
* RFLONG(20),MDPEN,MPREF
C TYPE INTEGER DPLINK
C OPENREF *****
C HOUNDARY IJUN71 *****
COMMON /BOUNDARY/ RPLINK(200), RPLAT(200), RPLONG(200),
1 RPZONE(200), NEXTZONE(200), MBNDRY
C TYPE INTEGER RPLINK,RPZONE
C BOUNDARY *****
C CORRCHAR IJUN71 *****
COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30),
1 ZPLONG(30), ENTLAT(30), ENTLONG(30), CRLENGTH(30), KORSTYLE(30),
2 ATTRCORR(30), ATTRSUPP(30), WLOATTR(30), DEFRANGE(30),
3 NPRCROEF(30), DEFNDIST(30,3), ATTRPRET(30,3), NDATA, LMAX
C TYPE INTEGER PCZONE

```

```

1000
26000
2000
3000
4000
5000
6000
7000
1000
2000
3000
4000
10000
11000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
1000
2000
3000
4000
10000
11000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
11000
12000
1000
12000
13000
2000
3000
13000
14000
1000
2000
3000
3000
14000
15000
1000
2000
3000
4000
5000
6000

```

```

TYPE REAL KORSTYLE
DIMENSION DISTR(30),PRATTR(30,3),DISTRDEF(30,3)
EQUIVALENCE (DEFDST,DISTRDEF), (PRATTR,ATTRPRE)
EQUIVALENCE (CRLNGTHM, DISTR)
CORRCHAR *****
HAPPEN IJUN71 *****
COMMON/HAPPEN/JAPTYPE(250),MAPLAT(250),MAPLONG(250)
I,MAPDST(250),MRTPT *****
EQUIVANCE (LHAPMAX, MHTPT) *****
HAPPEN *****
CHARTER IJUN71 *****
COMMON/CHARTER/ROUND(30),IMAP(30),MOUNT(50),JMAP(50),MCOBR
CHARTER *****
ITP IJUN71 *****
COMMON/ITP/ITP *****
ITP *****
IFTPRNT IJUN71 *****
COMMON/IFTPRNT/IFTPRNT(10) *****
IFTPRNT *****
MYIDENT IJUN71 *****
COMMON/MYIDENT/MYIDENT *****
MYIDENT *****
IODUMMY IJUN71 *****
COMMON/IODUMMY/ INPUT(10), NVAR5, NAMES(40), INVALU(2,40),
I INDEX1(40), INDEX2(40), INDEX3(40), MORE
C
COMMON/ MACHINE/ IREAD, IWRITE, ICUMM, IPUNCH
C
DATA(IREAD = 40), (IWRITE = 61), (ICUMM = 44), (IPUNCH = 45)
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
I FVAL(20), NOEFLT
C
EQUIVALENCE (MYVAL, FVAL)
C
IODUMMY *****
TEMPO IJUN71 *****
COMMON/TEMPO/LI(50),LN(50),JT(50),IT(50)
TYPE REAL LI, LN
TEMPO *****
ROUND IJUN71 *****
COMMON/ROUND/X1,Y1,X2,Y2,I2N,XR,YH,NZN
I,IZIT *****
ROUND *****
PREALOC IJUN71 *****
COMMON/PREALOC/PCLINK(30),RPLINK(200),RPLAT(200),RPLONG(200),
*ATTLEG(200),DISTRDEF(50),DISTRDEF(50),RECLINK(200),
*RECLONG(200),IRECPTY(200),INDREC(200),IREGIN(30),PCTYPF(30),
*ATTRC(30) *****
TYPE INTEGER PCLINK,RPLINK,RECLINK,PCTYPE
PREALOC *****
RECOVR IJUN71 *****
COMMON/RECOVR/CHLAT(50,4),CALOW(50,4),INDBAS(50,4),INDCAP(50,4),
*OTISTR(50,4),CHLTX(50),PCLNIX(50) *****
RECOVR *****

```

```

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

```

```

DIMENSION IREC(4),DISTP(4),INDEXA(4)
INPSTOR IJUN71 *****
COMMON/INPSTOR/ALOCK(1400)
DIMENSION MLOCK(1600)
EQUIVLFNCE(MLOCK,NLOCK)
COMMON /SIZES/ WDATMUL, MDAICX, MSPERMT, MTELMCH, LINSTOR,
LNG1, LNG2
C
INPSTOR *****
PRINTHL IJUN71 *****
COMMON/PRINTHL/IPRINTS(7),ISTR(3),ILST(3),IMDS(3),IPRINTO,NTGS,
MPSR, MSFI(7)
PRINTTRL *****
DIMENSION CORSTYLE(30)
EQUIVLFNCE (CORSTYLE,CORSTYLF)
COMMON /DUMCORR/ NDUMCORR
NDUMCORR = NUMBER OF DUMMY CORRIDORS WITH NO ASSOCIATED GEOGRAPHY
DUMCORR *****
DATA (NDUMCORR = 2)
CALL RDRPRCMP
IUMIN = XMSF(INFILE)
IF(IPRINTS(2).EQ.0)AL01.600
400 IF(IPRINT(IUMIN) = 15
401 CONTINUE
LTEMP = NDATA * IR
DO 911 K = 1, LTEMP
911 PCZORE (K) = -0
LTEMP = 40LMPMAX
DO 912 K = 1, LTEMP
912 JAPTYPE(K) = -0
LTEMP = 2*NDOPEN + 2*NCORR
DO 913 K = 1, LTEMP
913 KOUNT(K) = -0
MYIDENT = 7H*INFILE
ITP = WINFILE % CALL SETREAD
J=1
ITP = WINFILE % CALL RDRPRAY(ITPTYPE,1)
ICHECK = 7H*INFILE
IF(ITPTYPE.EQ.ICHECK)902.900
900 WRITE(IWRIT,90) ITPTYPE
WRITE (ICOMM, 90) ITPTYPE
901 FORMAT(/33H ERROR IN REAPON INPUT FILE TYPE *AH)
STOP
902 CALL RDRARRAY(IUMIN,20)
CALL RDRARRAY(NCORTYPE,1)
NDS = 2*NTANTYPE
CALL RDRARRAY(INDBFG,NMDS)
NDS = 3*MTAMCLS
CALL RDRARRAY(CJMMO, NMDS)
NDS=CORTYPE*5
CALL RDRARRAY(ZPLAT,NMDS)
NDS=NCORR*5
CALL RDRARRAY(NLOCK,NMDS)

```

26000
27000
1000
2000
3000
4000
5000
6000
7000
8000
27000
28000
1000
2000
28000
29000
30000
31000
1000
2000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000
58000
59000
60000
61000
62000
63000
64000
65000
66000

```

J=1
DO 904 K=1,NWDS,5
  PCLINK(J)=NLOCK(K)
  PCLAT(J)=RLOCK(K+1)
  PCLONG(J)=RLOCK(K+2)
  PCZONE(J)=NLOCK(K+3)
  PCTYPE(J)=NLOCK(K+4)
904 J=J+1
  DO 903 J=1,NCORR
    KCORR=CTYPE(J)
    K=5+(KCORR-1)*4
    MLOATTR(J)=ZPLAT(K+1)
    DEFRANGE(J)=ZPLAT(K+2)
    ATTRSUPP(J)=ZPLAT(K+3)
    ATTRCORR(J)=ZPLAT(K+4)
903 CONTINUE
  NDS=NRPT*4 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 905 K=1,NWDS,4
    RPLINK(J)=NLOCK(K)
    RPLAT(J)=RLOCK(K+1)
    RPLONG(J)=RLOCK(K+2)
    ATTRLEG(J)=RLOCK(K+3)
905 J=J+1
  NWDS=NDS*4 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 906 K=1,NWDS,3
    DPLINK(J)=NLOCK(K)
    DPLAT(J)=RLOCK(K+1)
    DPLONG(J)=RLOCK(K+2)
906 J=J+1
  NWDS=RFCOVER*5 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 907 K=1,NWDS,5
    RECLINK(J)=NLOCK(K)
    RECLAT(J)=BLOCK(K+1)
    RECLONG(J)=BLOCK(K+2)
    IRECPCTY(J)=NLOCK(K+3)
    IINDREC(J)=NLOCK(K+4)
907 J=J+1
  NWDS=NBANDY*2 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 908 K=1,NWDS,2
    RFLAT(J)=RLOCK(K)
    RFLONG(J)=BLOCK(K+1)
908 J=J+1
  NWDS=NBANDY*5 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 909 K=1,NWDS,5
    RPLINK(J)=NLOCK(K)
    RPLAT(J)=RLOCK(K+1)
    RPLONG(J)=BLOCK(K+2)
    BPZONE(J)=NLOCK(K+3)
    NEXTZONE(J)=NLOCK(K+4)
909 J=J+1

```

67000
68000
69000
70000
71000
72000
73000
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000

```

N=1
C INITIALIZE ARRAYS
DO 101 NDX = 1, MDPEN
DO 100 NDX2=1,4
  RCHLAT(NDX,NDX2)=0
  RCBLON(NDX,NDX2)=0
  INOBAS(NDX,NDX2)=0
  INDCAP(NDX,NDX2)=0
  DISTR(NDX,NDX2)=0
100 CONTINUE
101 CONTINUE
DO 30 ICORR = 1, NCCORR
  DISTBC(ICORR)=0
  ATTRBC(ICORR)=0
  NPRCRDEF(ICORR)=0
  IBEGIN(ICORR) = 0
  DO 10 L=1, LMAX
    DISTDEF(ICORR,L)=0
    PRATTR(ICORR,L)=0
  10 CONTINUE
  IF (ICORR = NDUCCORR) 30, 30, 15
C CALCULATE DISTBC(ICORR), ATTRBC(ICORR), IBEGIN(ICORR), NPRCRDEF(ICORR),
C   DISTDEF(ICORR,L), AND PRATTR(ICORR) FOR ICORR=1, NCCORR AND
C   L=1, LMAX
C
C BEGIN PROG *****
15 ICC = L = 0 $ IT = 1
  ILL=0
  KRTP=PCLINK(ICORR)
  X1=L(1)=ZPLAT(ICORR)=RPLAT(KRTP)
  Y1=L(N(1))=ZPLONG(ICORR)=RPLONG(KRTP)
  JT(1)=0
  DT(1)=0
  IZNPZONE(ICORR)
  ATTRA=ATTRLEG(KRTP)
  IF (ATTRA) 20,21
21 L=L+1
  ILL=1
20 JRTPT=RPLINK(KRTP)
  IF (JRTPT) 31,32
31 X2=RPLAT(JRTPT)
  Y2=RPLONG(JRTPT)
24 DIST=DISTF(X1,Y1,X2,Y2)
  DISTBC(ICORR)=DISTBC(ICORR)+DIST
  ATTRA=ATTRLEG(KRTP)
  IF (ATTRA) 39,27
39 IF (L<LTL.LMAX) 25, 777
25 L=L+1
777 DISTDEF(ICORR,L)=DISTDEF(ICORR,L)+DIST
  PRATTR(ICORR,L)=PRATTR(ICORR,L)+DIST*ATTRA
  ATTRBC(ICORR)=ATTRBC(ICORR)+PRATTR(ICORR,L)
  IF (ICC) 29,26
26 ICC=1
  JT(IT)=L
  GO TO 29
27 IF (ICC) 28,29
28 ICC=0

```

123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000

```

JT(IT) =L*3
29 IT=IT+1
   LN(IT)=X2
   JT(IT)=0
   DT(IT)=DIST
   KRTP=JRTP
   X1=X2
   Y1=Y2
   GO TO 20
C   CORRIDOR PROCESSED TO ZERO LINK
32 ENLAT(ICORR)=X1
   ENPLONG(ICORR)=Y1
41 DO 35 K=1,IT
   LL=K*N-1
   IF(LL.GT.(M*MAXI)300,303
300 WRITE(IWRIT,301)
301 FORMAT(10X,21MAPPEN AKHAY OVERFLOW)
   GO TO 302
303 CONTINUE
   JATYPE(LL) = JT(K)
   HADIST(LL)=DT(K)
   HAPLAT(LL) =LT(K)
35 HAPLONG(LL) =LN(K)
302 CONTINUE
   KOUNT(ICORR)=IT
   IHAP(ICORR)=N
   N=N+IT
   IBEGIN(ICORR)=KRTP
   NPRODEF(ICORR)=L
   IF(L.EQ.1.AND.ILL.EQ.1136,30
36 NPRODEF(ICORR)=0
C   END PROG *****
30 CONTINUE
C   BEGIN DEPEN. SEQUENCE *****
C   WHICH COMPUTES DISTEF,DISTEG AND FILLS /CHARTER/
C   AND / HAPPEN/ WITH DEPEN INFO.
   DO 2+9 IOPEN = 1, NOPEN
   DISTEF(IOPEN)=0
   IT=1
   JRTP=DPLINK(IOPEN)
   X1 = LT(I) = OPLAT(IOPEN)
   Y1 = LN(I) = OPLONG(IOPEN)
   JT(I)=0
   GO TO 211
209 JRTP = RPLINK(KRTP)
211 CONTINUE
   IF(JRTP)210,212
210 Y2 =RPLONG(JRTP)
   DIST = DISTF(X1,Y1,X2,Y2)
   DISTEF(IOPEN) = DISTEF(IOPEN)+DIST
   IT = IT+1
   LT(IT) = X2
   LN(IT) = Y2
   JT(IT) = 0

```

179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
193000
194000
195000
196000
197000
198000
199000
200000
201000
202000
203000
204000
205000
206000
207000
208000
209000
210000
211000
212000
213000
214000
215000
216000
217000
218000
219000
220000
221000
222000
223000
224000
225000
226000
227000
228000
229000
230000
231000
232000
233000
234000

```

DI(I1) = DIST
KRIPT = JRIPT
X1 = X2
Y1 = Y2
GO TO 209
C FIND RECOVERY BASE
212 NRHAS=0
DO 220 IRE=1,NRECOVER
IF (RELINK(IRE).EQ.KRIPT)213,221
213 NRHAS=NRHAS+1
IF (NRHAS.GT.4)214,217
214 WRITE(IWRIT, 215) IDPEN, IRE
215 FORMAT(4H ***** MORE THAN FOUR RECOVERY BASES, IDPEN ,I4,
1 10H IRECOVER,I4,7H *****)
NRHAS=4 $ GO TO 220
217 IREC(NRRAS)=IRE
220 CONTINUE
2200 IF (NRHAS.EQ.0)221,225
C NO RECOVERY BASE FOUND
221 DIST=0
GO TO 226
225 DO 227 IRAS=1,NRBAS
X2=RECLAT(IREC(IRAS))
Y2=RECLONG(IREC(IRAS))
DISTN(IRAS)=DISTF(X1,Y1,X2,Y2)
227 CONTINUE
CALL ORDER(DISTN,INDEXA,NRRAS)
DO 228 IRAS=1,NRBAS
RCLAT(IDPEN,IRAS)=RECLAT(IREC(INDEXA(IRAS)))
RCLON(IDPEN,IRAS)=RECLONG(IREC(INDEXA(IRAS)))
INDRAS(IDPEN,IRAS)=INDREC(IREC(INDEXA(IRAS)))
INDCAP(IDPEN,IRAS)=IRFCPTY(IREC(INDEXA(IRAS)))
DISTR(IDPEN,IRAS)=DISTRN(INDEXA(IRAS))
228 CONTINUE
I1=I1+1
LI(I1)=RCLTX(IDPEN)=RCLAT(IDPEN,I)
LN(I1)=RCLNX(IDPEN)=RCLON(IDPEN,I)
DIST=DISTR(IDPEN,I)
DI(I1) = DIST
JT(I1)=IREC(INDEXA(I))
226 DISTEG(IDPEN) = DISTEF(IDPEN) * DIST
DO 230 K=1,I1
L = K*N-1
IF (L.GT.LHAPMAX) 304,304
304 WRITE(IWRIT, 301)
GO TO 305
306 CONTINUE
JATYPE(L) = JT(K)
HAPDIST(L) = DT(K)
HAPLAT(L) = LI(K)
HAPLONG(L) = LV(K)
230 CONTINUE
MOUNT(IDPEN) = IT
305 CONTINUE
JHAP(IDPEN) = N

```

```

235000
236000
237000
238000
239000
240000
241000
242000
243000
244000
245000
246000
247000
248000
249000
250000
251000
252000
253000
254000
255000
256000
257000
258000
259000
260000
261000
262000
263000
264000
265000
266000
267000
268000
269000
270000
271000
272000
273000
274000
275000
276000
277000
278000
279000
280000
281000
282000
283000
284000
285000
286000
287000
288000
289000
290000

```

FTNS.5

11/26/71

PAGE NO.

8

```
N = N+IT
240 CONTINUE
C   END DEPEND. SEQUENCE *****
   IPRTNO=I
   CALL PRINTDAT
   IF(IPRT(IUNWIP)) = 0
   END
```

```
291000
292000
293000
294000
295000
296000
297000
```

IDENT ROUTING

01526	ROUTING
00062	MASTER
00027	MARKET
01063	FILES
00020	NOFILE
00054	PLANTYPE
00003	OPENREF
00300	BOUNDARY
01751	CORRCHAR
01132	HAPPEN
01751	CHARTER
00241	REP
00001	LEFTPNT
00012	MYIDENT
00001	IODUMMY
00374	MACHINE
00004	DEFAULT
00121	TEMPU
00310	ROUND
00011	PREALOC
03744	RECOVR
02114	INPSTOR
03100	SIZES
00007	PHNTCTRI
00032	DUMCURR
00001	

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

ROUTING
MASTER
MARKET
FILES
NOFILE
PLANTYPE
OPENREF
BOUNDARY
CORRCHAR
HAPPEN
CHARTER
REP
LEFTPNT
MYIDENT
IODUMMY
MACHINE
DEFAULT
TEMPU
ROUND
PREALOC
RECOVR
INPSTOR
SIZES
PHNTCTRI
DUMCURR
TEND.
G80STOPS
080DICT.
RDPACMP
SETREAD
NDARRAY
DISTF
ORDER
PRINTOAT
STH.
ONSINGL.

EXTERNAL SYMBOLS

P00174	GG00000.	00164							
P00205	GG00C01.	00175							
P00746	GG00002.	00740							
P01123	GG00003.	01112							
P01303	GG00004.	01275							
C01356	HAPDIST	00754	01311	01311					
C00372	HAPLAY	00756	01313	01313					
C00764	HAPLONG	00762	01315	01315					
C00512	HILDATTR	00310							
P01477	IBAS	01137	01170	01174	01444				
C03612	IBEGIN	00546	00775	00775					
P01500	ICC	00570	00670	00676	00701				
P01501	ICHECK	00160	00161						
C00002	ICOMM	C00002	00174	00174					
P01502	ICORR	00535	00562	00572	00637	00664	00724	00767	01005 01007 01493
C00001	IDENTND	01014	01020	01054	01116	01240	01255	01324	01330 01431
P01503	IDPEN	00212							
C00000	ICU*0								
P01002	IF00001.	00077	00100	01341	01342				
C00000	IFTPRINT	00771	00772						
C00036	IMAP								
C00000	IMDATE								
P01504	ILL	00572	00620	01002					
C00012	ILST								
P01345	IN00004.	00520	01350	01360	01362	01374			
P01346	IN00006.	00555	00455	01376	01406	01410	01422		
P01347	IN00017.	01174	01424	01434	01436	01450			
C00620	INDRAS	00524	01220	01221					
C00000	INDNEG	00223							
C01130	INDCAP	00525	01227	01227					
C01022	INDCLAS								
C00203	INDEX1								
C00253	INDEX2								
C00323	INDEX3								
P00013	INDEXA	01165	01176	01205	01213	01222	01230	01252	
C03302	INDREX	00424	00424	01217	01220				
P01452	INITIAL.	00065							
C00000	INITSTRK								
C00000	INPUT								
C00063	INVALU								
C00005	INWDS	01334	01335						
C00020	IPRINTNO	00073	00073						
C00000	IPRNTSM	C00003							
C00003	IRACH								
P01505	IRE	01100	01101	01120	01125	01127			
C00000	IREAD	00017							
P00003	IREC	01126	01144	01151	01200	01207	01215	01224	01254
C02772	IRECPCTY	00422	00422	01224	01226				
C00002	ISIDE								
C00007	ISTRT								
P01506	IT	00571	00674	00702	00704	00705	00707	00764	00773 01022 01060
		01061	01063	01236	01237	01242	01317	01351	
		00156	00160	00170	00201				
P01507	ITAPTYPE	00145	00145	00152	00152				
C00000	ITP								

5.ATS ROUTING

11/26/71 ED 0 PAGE NO. 12

P01510	IUNWIN	00072	00077	01341					
C00001	IMRIT	C00001	00163	00163	00737	00737	01111	01111	01274 01274
C00010	I211								
C00004	I2N	00611	C0611						
P00527	.100								
P00530	.101								
P00565	.15								
P00621	.20	00614	00722						
P01035	.209	01075							
P01042	.210	01041							
P01040	.211	01034							
P01076	.212	01041							
P01105	.213								
P01111	.214								
P01125	.217	01110	01110						
P01127	.220	01104							
P01132	.2200	01124							
P01134	.221								
P01136	.225	01133							
P01256	.226	01135							
P01162	.227								
P01234	.22A								
P01314	.230								
P00632	.24								
P01330	.240								
P00652	.25								
P00672	.26								
P00676	.27	00644							
P00700	.28	00677							
P00704	.29	00671	00675	00677					
P00737	.300								
P01007	.30	00564	00564	01001	01003				
P00766	.302	00744							
P00747	.303	00736	00736						
P01274	.304								
P01323	.305	01303							
P01304	.306	01272	01273						
P00625	.31	00624							
P00723	.32	00624							
P00757	.35								
P01004	.36								
P00647	.39	00645							
P00730	.41								
P00076	.600	00074							
P00101	.601	00075							
P00655	.777	00651	00651						
P00163	.900	00161							
P00210	.902	00162							
P00314	.903								
P00270	.904								
P00343	.905								
P00372	.906								

P00425 .907	00127	00131	00303	00304	01177	01230	01201	01202	01206	01205	01210
P00452 .908	00142				01217	01223	01223	01225	01225	01231	01232
P00505 .909	00157										
P00110 .911	01115										
P00122 .912	00143										
P00137 .913	00167										
P01462 .FRASER.	00127	00131	00303	00304	01152	01204	00271	00320	00333	00343	00344
P00017 .100000	00142				01214	01223	00277	00425	00433	00446	00452
P00020 .100001	00157				01144	00274	00413	00425	00433	00446	00452
P00042 .215	01115				01210	00274	00413	00425	00433	00446	00452
P00033 .301	00143				01253	00274	00413	00425	00433	00446	00452
P00021 .901	00167				00200	00274	00413	00425	00433	00446	00452
P01440 .WSTIFF.	01145	01214	00152	01152	01144	00274	00413	00425	00433	00446	00452
	01210	01214	01215	01215	01214	00274	00413	00425	00433	00446	00452
	01253	01253	00256	00256	01253	00274	00413	00425	00433	00446	00452
	00151	00244	00674	00674	00151	00274	00413	00425	00433	00446	00452
	00451	00344	00473	00473	00451	00274	00413	00425	00433	00446	00452
	00453	00460	00752	00752	00453	00274	00413	00425	00433	00446	00452
	01324	01325	00710	00710	01324	00274	00413	00425	00433	00446	00452
	00023	00025	00674	00674	00023	00274	00413	00425	00433	00446	00452
	00006	00005	01255	01255	00006	00274	00413	00425	00433	00446	00452
	01067	01305	00116	00116	01067	00274	00413	00425	00433	00446	00452
	00104	00106	00362	00362	00104	00274	00413	00425	00433	00446	00452
	00331	00355	00763	00763	00331	00274	00413	00425	00433	00446	00452
	00747	00757	00763	00763	00747	00274	00413	00425	00433	00446	00452
	00302				00302	00274	00413	00425	00433	00446	00452
P01514 KCORR	00137	00140	00767	00767	00137	00774	01035	01072	01103	00776	01000
C00360 KOSTYLE	00574	00575	00621	00643	00574	00774	01035	01072	01103	00776	01000
C00000 KOURT	00550	00506	00615	00616	00550	00774	01035	01072	01103	00776	01000
P01515 KRPT	01267	01271	01366	01414	01267	00774	01035	01072	01103	00776	01000
P01516 L	00113	00114	00735	00735	00113	00774	01035	01072	01103	00776	01000
C01750 LMHPMAX	00734	00734	00751	00761	00734	00774	01035	01072	01103	00776	01000
C00004 LIMPSTOR	00552	00552	00650	00650	00552	00774	01035	01072	01103	00776	01000
P01517 LL	00603	00604	00712	00712	00603	00774	01035	01072	01103	00776	01000
C01131 LMAX	01244	01314	01314	01314	01244	00774	01035	01072	01103	00776	01000
C00002 LN						00774	01035	01072	01103	00776	01000
C00005 LNSI						00774	01035	01072	01103	00776	01000
C00006 LNG2						00774	01035	01072	01103	00776	01000
C00000 LT	00577	00600	00710	00710	00577	00774	01035	01072	01103	00776	01000
P01520 LIEMP	01243	01312	00115	00116	01243	00774	01035	01072	01103	00776	01000
C01750 MANDRY	00103	00104	00115	00116	00103	00774	01035	01072	01103	00776	01000
C00240 MCOMS	00130	00130			00130	00774	01035	01072	01103	00776	01000
C00001 MDATEX						00774	01035	01072	01103	00776	01000
C00000 MDATEMUL						00774	01035	01072	01103	00776	01000
C00274 MHPEN	00125	00126	00532	00532	00125	00774	01035	01072	01103	00776	01000
C00373 MHPF	01222	01322			01222	00774	01035	01072	01103	00776	01000
C00074 MOUNT						00774	01035	01072	01103	00776	01000
C00022 MPHG						00774	01035	01072	01103	00776	01000
C00277 MREF						00774	01035	01072	01103	00776	01000
C01750 MTRPT						00774	01035	01072	01103	00776	01000
C00023 MSET						00774	01035	01072	01103	00776	01000

P00764	TS00017.	00731	01350	01355	01356	01357	01361													
P01332	TS00020.	01016	01370	01371	01372	01374	01375													
P01130	TS00021.	01100	01376	01403	01404	01405	01407													
P01163	TS00022.	01142	00617	00654	01270	01411	01416													
P01236	TS00023.	01173	01331	01424	01432	01433	01435													
P01317	TS00024.	01264	01140	01444	01445	01446	01450													
C00372	TYPE NAME		00531	01350	01355	01356	01357	01361												
P01354	UP00002.	00513	01363	01370	01371	01372	01374	01375												
P01367	UP00003.	00517	01010	01376	01403	01404	01405	01407												
P01402	UP00004.	00536	00567	00617	00654	01270	01411	01416												
P01415	UP00005.	00551	01015	01424	01432	01433	01435	01435												
P01430	UP00006.	01015	01171	01437	01444	01445	01446	01450												
P01443	UP00010.	01140	00070	00144	00144	00151	00152	01451												
C00060	WINFILE	00070																		
P00110	WS00001.	00112																		
P00122	WS00002.	00124																		
P00137	WS00003.	00141																		
P00255	WS00004.	00272																		
P00301	WS00005.	00314																		
P00332	WS00006.	00345																		
P00363	WS00007.	00374																		
P00412	WS00010.	00427																		
P00445	WS00011.	00454																		
P00472	WS00012.	00507																		
P00515	WS00013.	00533																		
P00521	WS00014.	00527																		
P00540	WS00015.	01012																		
P00556	WS00016.	00561																		
P00732	WS00017.	00765																		
P01017	WS00020.	01333																		
P01101	WS00021.	01131																		
P01144	WS00022.	01162																		
P01265	WS00024.	01235																		
C00000	X1	01320																		
C00002	X2	00600																		
		00627																		
		01062																		
C00005	XR	00504																		
C00001	Y1	00631																		
C00003	Y2	01074																		
C00006	YR	00237																		
C00132	ZPLAT	00602																		
C00170	ZPLONG	00603																		

00527 SYMBOLS

```

SUBROUTINE SETFILE
  CSEUBR  SETFILE  IJUN71  *****
  C      THIS SUBROUTINE READS THE FIXED ASSIGNMENT
  C      REQUESTS AND SETS UP A TEMPORARY DISK FILE FOR
  C      THE FIXED ASSIGNMENT DATA.
  CUSE    IOUUMMY  IJUN71  *****
  C      COMMON/IOUUMMY/ INPUT(10), MVAR5, NAMES(40), INVALU(2,40),
  C      1 INDEX1(40), INDEX2(40), INDEX3(40), MORE
  C      COMMON/ MACHINE/ IREAD, IWRIT, ICOMM, IPUNCH
  C      DATA(IREAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)
  C      COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
  C      1 FVAL(20), NOEFLT
  C      EQUIVALENCE (MYVAL, FVAL)
  CSENO   IOUUMMY *****
  C      TAPES  IJUN71 *****
  C      COMMON/FILES/ TGTFILE(2),RASFILE(2),MSLTIME(2),
  C      1 ALOCTAR(2),TMPALOC(2),ALOCGRP(2),STRKFL(2),
  C      2 EVENTAPE,PLANTAPE
  C      TYPE INTEGER TGTFILE, RASFILE, MSLTIME, ALOCTAR,
  C      1 TMPALOC, ALOCGRP, STRKFL, EVENTAPE, PLANTAPE
  C      COMMON/NOFILE/ WINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR
  C      1 , TPOST
  C      TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR, TPOST
  C      TAPES *****
  C      ITP  IJUN71 *****
  C      COMMON/ITP/ITP *****
  CSENO   ITP *****
  C      MYIDENT IJUN71 *****
  C      COMMON/MYIDENT/MYIDENT *****
  CSENO   MYIDENT *****
  C      TWORD  IJUN71 *****
  C      COMMON /TWORD/ ITWORD
  C      EQUIVALENCE (TWORD, ITWORD)
  C      TWORD *****
  CSENO   WPNDDATA IJUN71 *****
  C      COMMON/WPNDDATA/RANGE(80),CEP(80),SPEED(80),ALERTDLY(80),
  C      1 MALRTDLY(80), RANGEDEC(80), ICLASS(80), RANGEREFL(80),
  C      2 REL(80),IRECMODE(80),IPENMODE(80),ISIMTYPE(80),

```

```

1000
45000
2000
3000
4000
5000
6000
7000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
7000
8000
9000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
1000
11000
12000
13000
1000
11000
12000
13000
1000
11000
12000
13000
14000
15000
16000
17000
1800
2000
16000
17000
1800
2000
3000

```

```

3 FUNCTION(80),NWPNS(200),NVEGRP(200),MLAT(200),
4 *LONG(200),IREG(200),ITYPE(200),IALERT(200),SRL(200),
5 *REFUEL(200),YIELD(200),REFTIME(200),DISTAC(200,30),
6 *MYPE,MGROUP,MDESREQ
C DIMENSION IPAY(200),MYFIXD(5000),MYDEXST(5000),DUMAR(10000)
C TYPE REAL NALHTDLY
C TYPE INTEGER FUNCTION
C EQUIVALENCE (IPAY,IREFUEL),(MG,MGROUP)
C EQUIVALENCE (MYFIXD,RANGE,DUMAR), (MYDEXST,DUMAR(500))
CEND MPDATA *****
CUSE CHANGES IJUN71 *****
COMMON/ CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTWAN(2000),
1 VALUENEW(2000), IFUND(2000), MCHANGE, MFIXREQ
C DIMENSION INFIX(10000)
C EQUIVALENCE(INFIX, ICLASWAN)
C COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FRCLAS(20)
CEND CHANGES *****
CUSE OPTION IJUN71 *****
COMMON/OPTION/ ICHANGE, IFIXTGT, RATIO, INDFVAL(2), IADMIN(2),
1 INDMAX(2), NDESREQ, NFIXREQ
CEND OPTION *****
CUSE MASTER IJUN71 *****
COMMON/MASTER/IMDATE, IDENTNO,TSIDE,NRPT,NCORR,NDPEN,NRF COVER
1,NREF,NRNDRY,NREG,NTYPE,NGROUP,NTOTHASE,NPAYLOAD,NAKTYPE,NMHTYPE
2,NTANKBAS,NCOMPLEX,NCLASS,NALENT,NTGTS,NCORTYPE,NCNTRY
EQUIVALENCE (NGROUP, NG), (NALENT, NOTHER)
CEND MASTER *****
C SET UP ARRAYS
NTOT = 0
IGNORET = .FALSE.
IGNOREF = .FALSE.
IFIXTGT = -100
NRESREQ = 0
SET UNIT NUMBER, READ FORMAT, IDENTIFIER
MYVAL(1) = IREAU
MYVAL(2) = AMRCD IMAG
MYVAL(3) = IME
MYVAL(4) = BMDRESIG/IN
MYVAL(5) = THDFX NO.
MYVAL(6) = AM TME
MYVAL(7) = AMCARD
ISAVUN = AMREARER
DO 10 I = 1, 5

```

4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
2000
2000
3000
4000
5000
6000
7000
10000
20000
21000
1000
2000
3000
4000
23000
24000
25000
26000
27000
28000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000

```

10 MYTYPE(1) = 7HDEFAULT
11 WRITE(IWRITE, 99)
99 FORMAT(/,/'* USER INPUT PARAMETER CARDS FOR FIAED ASSIGNMENTS.*')
100 READ (IREAD, 101) INPUT
101 FORMAT(10A8)
C CHECK FOR FIRST DATA CARD
105 IF (NUMGET(INPUT, 10)) 300, 105, 300
106 DECODE(5,106,INPUT) ITEMP
106 FORMAT(2X,A3)
IF (NUMGET(ITEMP, 3)) 300, 110, 300
C OPTION CARD
110 CALL GETVALU(INPUT, NVARS, NAMES, INVALU, INDEX1, INDEX2, INDEX3,
1 MORE)
111 WRITE(IWRITE, 111) INPUT
111 FORMAT(/1X, 10A8)
115 IF (NVARS) 300,300,115
DO 200 I = 1, NVARS
115 IF (NAMES(I) - 4HTAPE) 130, 120, 130
120 MYVAL(1) = NUMGET(INVALU(2*I-1), 16)
ENCODE(18,121,ISAVUN) MYVAL(1)
121 FORMAT(78)
MYVAL(6) = 4HTAPE
MYVAL(7) = 4MUNIT
125 MYTYPE(1) = 6H INPUT
MYVAL(2) = 8HFLEKAND
MYVAL(3) = 3MFLK
MYTYPE(2) = 6H INPUT
GO TO 200
130 IF (NAMES(1) - 7HHCOTAPE) 150, 140, 150
140 MYVAL(1) = NUMGET(INVALU(2*I-1), 16)
ENCODE(18,121,ISAVUN) MYVAL(1)
MYTYPE(1) = 6H INPUT
MYVAL(2) = 6HRCD IMAG
MYVAL(3) = 1ME
MYTYPE(2) = 6H INPUT
MYVAL(6) = 4HTAPE
MYVAL(7) = 4MUNIT
GO TO 200
150 IF (NAMES(1) - 4HDISK) 170, 140, 170
160 MYVAL(1) = INVALU(2*I-1)
ISAVUN = MYVAL(1)
MYVAL(6) = 4HDISK
MYVAL(7) = 4HFLE
GO TO 125
170 IF (NAMES(1) - 6HTGTNUM) 200, 180, 200
180 MYVAL(6) = 7H TARGET
MYVAL(5) = 6MNUMBER
MYTYPE(4) = 6H INPUT
IF (ITGT = -100)
200 CONTINUE
IF (MORE) 300,300,100
C
C END OF DATA READ
C
300 WRITE(IWRITE, 301)
301 FORMAT(/,/'* USER INPUT PARAMETER INTERPRETATIONS.*')

```

41000
42000
43000
44000
45000
46000
47000
48000
49000
50000
51000
52000
53000
54000
55000
56000
57000
58000
59000
60000
61000
62000
63000
64000
65000
66000
67000
68000
69000
70000
71000
72000
73000
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000

```

WRITE(INUNIT,302) MYVAL(6), MYVAL(7), ISAVUN, MYTYPE(1)
302 FORMAT(/# DATA INPUT FROM #A4,1X#A4,1X#A8,# BY #A8)
WRITE(INUNIT,303) MYVAL(2), MYVAL(3), MYTYPE(2)
303 FORMAT(/# DATA FORMAT IS #A8,A3,# BY #A8)
WRITE(INUNIT,304) MYVAL(4), MYVAL(5), MYTYPE(4)
304 FORMAT(/# TARGET IDENTIFIERS ARE #A8,A8,# BY #A8)
WRITE(INUNIT,305)
305 FORMAT(///# THE LISTING OF USER INPUT PARAMETER CARDS CONTINUES Q
IN THE NEXT PAGE#/#USER INPUT PARAMETER CARDS FOR FIELD ASSIGNMENT
2$ (CONTINUED) #)
INUNIT = MYVAL(1)
DO 310 I = 1, MGROUP
310 NWRNS(I) = 0
NEWCRD = 1
SET UP UNITS
IF(INUNIT #EQ. XARSP(FIXFILE)) FIXFILE = -3
ITP = FIXFILE
MYIDENT = TMSCRATCH
CALL SETWRIT
IF(MYVAL(6) - #HDISK) #10, #00, #10
DISK FILE
#400 MYIDENT = INUNIT
ITP = -3
CALL SETREAD
GO TO #50
#410 IF(MYVAL(2) - #RBCD IMAG) #40, #20, #40
#420 IF(MYTYPE(1) - #H INPUT) #50, #30, #50
BCD TAPE
#430 REWIND INUNIT
GO TO #50
FILEHANDLER TAPE
#440 ITP = INUNIT
MYIDENT = #RFXEDASS
CALL SETREAD
CONST READ NEXT CARD IF NO OPTIONS READ
#450 DC #60 I = 1, 5
IF(MYTYPE(1) - #HDEFAULT) #50, #60, #50
#460 CONTINUE
GO TO #600
C READ NEXT CARD
C
C
500 IF (MYVAL(2) - #RBCD IMAG) #20, #10, #20
510 READ(INUNIT, 101) INPUT
GO TO #600
520 ITP = INUNIT
CALL RDARRAY(INPUT, 10)
C
C
600 ITP = FIXFILE
PROCESS CARD
WRITE(INUNIT,111) INPUT
IF(IGNOREF) #HENDFIXES) #10, #00, #10
510 IF(IGNOREF) GO TO 500
DECODE(72, #11, INPUT) (MYFORM(1), I = 1, 9)
611 FORMAT(AR, A2, #6(AR, 2X), A2)

```

97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000

```

153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
193000
194000
195000
196000
197000
198000
199000
200000
201000
202000
203000
204000
205000
206000
207000
208000

IF(NEWCRD) 650, 650, 620
IF(IGNORE) GO TO 500
ITWORD = NUMGET(MYFORM(1), 10)
IF(ITWORD) 630, 630, 640
630 ITWORD = MYFORM(1)
640 CALL WRWORD
NEWCRD = 0
NDESREQ = NDESREQ + 1
IF(NDESREQ = *DESREQ) 650, 645, 645
645 IGNORE = .TRUE.
WRITE(IWRIT, 646) NDESREQ
646 FORMAT(//IX, 15(1M)*, 100 MANY TARGETS FOR FIXED ASSIGNMENT. ONL
IV FIRST *15* REQUESTS WILL BE PROCESSED.*/16,* FIX REQUESTS ON
244 TARGETS AFTER CURRENT TARGET WILL BE IGNORED*)
650 DO 690 I = 3,8
IF(MYFORM(I) = 1M) 660, 690, 660
660 DECODE(I, 661, MYFORM(I)) IG
661 FORMAT(83)
IG = NUMGET(IG, 3)
IF(IG) 670, 670, 665
665 IF(IG = MGROUP) 680, 680, 670
670 WRITE(IWRIT, 671) IG
671 FORMAT(//IX, 15(1M)*, * GROUP NUMBER *15,* OUT OF RANGE. FIXED
ASSIGNMENT REQUEST IGNORED*)
GO TO 690
680 MWPNS(IG) = MWPNS(IG) + 1
ITWORD = MYFORM(1)
CALL WRWORD
NTOI = NTOI + 1
IF(NTOI = MFIXED) 690, 685, 685
685 IGNOREF = .TRUE.
WRITE(IWRIT, 686) MFIXED
686 FORMAT(//IX, 15(1M)*, * MORE THAN *16,* FIXED ASSIGNMENT REQUESTS
I. REMAINDER WILL BE IGNORED.*)
GO TO 700
690 CONTINUE
C
C CHECK FOR LAST CARD FOR TARGET
C
IF(MYFORM(9) = 1M) 500, 700, 500
700 NEWCRD = 1
ITWORD = RHEND*LOCK
CALL WRWORD
GO TO 500
C
C END OF FIXES
C
1000 ITP = FIXFILE
CALL TERMTAPE
IF(MYVAL(2) = RHFILEMEND) 1200, 1100, 1200
1100 ITP = INUNIT
CALL TERMTAPE
C
C PRINT RESULTS
C
1200 WRITE(IWRIT, 1201)

```

FTNS.5

11/26/71

PAGE NO.

6

```
1201 FORMAT(*FIXED ASSIGNMENTS REQUESTED BY GROUP** GROUP NO., OF RE
1QUESTS*)
DO 1210 I = 1, MGROUP
IF (NWPNS(I)) 1210, 1210, 1205
1205 WRITE(*WRIT, 1206) I, NWPNS(I)
1206 FORMAT(2X, I3, 7X, I4)
1210 CONTINUE
NFIXREQ = NTOT
WRITE(*WRIT, 1211) NTOT, NDESREQ
1211 FORMAT(///% TOTAL NUMBER OF FIXED ASSIGNMENT REQUESTS IS *15** WE
1APONS FOR *15.* TARGETS*)
RETURN
END
```

```
209000
210000
211000
212000
213000
214000
215000
216000
217000
218000
219000
220000
221000
```

IDENT SETFILE

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

SETFILE.	01452
	00404
IDDUMY	00374
MACHINE	00004
DEFAULT	00121
FILES	00020
NOFILE	00004
ETC	00001
MYIDENT	00001
TRONO	00001
WPRDATA	23420
CHANGES	23422
SUMS	00052
OPTION	00013
MASTER	00027

EXTERNAL SYMBOLS

THEND.
GADICT.
NUMGET
GETVALD
SETWRITE
SETWEAR
RDARRAY
WPRO-D
TERMTRPF
HEW.
TSP.
DEC.
STH.
EMC.
SLO.
SLI.
WAS[UGL.

SAYS SETFILE

11/26/71

ED 0

PAGE NO.

8

C00360	ALERTPLY	00557	00714	00715	00717	00721	00732	00733	00734	00745
C00012	ALDCGRP	00746	01210	01230	01252	01301	01363	01365	01404	01406
C00004	ALCTAR	00453	00513	00562	00706	00724	00737	00752	00761	01154
P01227	AN00017.	00474	01136	01225	01370	01411				
C00002	MASFILF	00406	00447	00452	00445	00467	00475	00502	00504	00511
C00120	CEP	00521	00525	00530	00541	00607	00614	00620	00702	00705
P01413	CNVHT1.	00711	00723	00727	00742	00755	00760	01012	01025	01041
P01440	COUNT.	01050	01074	01100	01116	01123	01126	01137	01153	01162
P00003	CRFXT.	01172	01205	01212	01233	01247	01254	01265	01276	01303
X00014	DEC.	01321	01326	01336	01345	01360	01401	01410		
P00001	DICT.									
C00250	DISTAC	00554	00613							
C00000	DUMAR	00407	01411	01430						
X00016	ENC.									
P01432	ENOING.									
C00016	EVENSTARF	01433								
P00000	EXIT.	00775	01004	01005	01005	01112	01112	01323	01323	00564
C00003	FIXFILE	00420	00424	00430	00432	00434	00436	00524	00562	00564
P00003	FORWAT.	00564	00572	00574	00621	00623	00625	00627	00631	00633
		00634	00647	00651	00663	00665	01007	01013	01027	01033
		01045	01065	01065	01213	01310	01327			
C00026	FRCLAS									
C01700	FUNKTTOK									
C00074	FVAL									
X00004	GETVALU	00510								
P00453	GG00000.	00445								
P00466	GG00001.	00454								
F00503	GG00002.	00473								
P00531	GG00003.	00517								
P00562	GG00004.	00553								
P00621	GG00005.	00612								
P00704	GG00006.	00700								
P00724	GG00007.	00707								
P00737	GG00010.	00725								
P00752	GG00011.	00740								
P00761	GG00012.	00753								
P01104	GG00013.	01072								
P01127	GG00014.	01115								
P01154	GG00015.	01134								
P01213	GG00016.	01203								
P01234	GG00017.	01224								
P01255	GG00020.	01245								
P01304	GG00021.	01274								
P01346	GG00022.	01340								
P01370	GG00023.	01356								

5.415 SETFILE

PAGE NO. 9

11/26/71

EO

0

P01411	GG00024.	01377	00440	00535	00540	00577	00636	00654	00671	00763	00770	01852
P01441	I	00434	01061	01142	01145	01147	01214	01216	01222	01261	01305	01347
		01352	01362	01364	01370	01423						
C04300	ALERT											
C00000	ICHARGE											
C00740	ICLASS											
C00000	ICLASHAN											
C00002	ICOMM											
C00001	IDENTNO											
C07640	IDENTMAN											
C00001	IFIXTGT	00414	00414	00667	00670							
C17500	IFOUND											
P01442	IG	01251	01236	01237	01241	01251	01256					
P01443	IGNOREF	00413	01132	01273								
P01444	IGNORET	00412	01155	01202								
C00000	IMDATE											
P01414	IN00002.	00545	00604	00633	01415	01426						
C00203	INDEX1	00514										
C00253	INDEX2	00514										
C00323	INDEX3	00515										
C00007	INDMAX											
C00005	INDMIN											
C00003	INDVAL											
C00000	INFIX											
P01430	INITIAL.	00407	00470	00476	00512	00524	01101	01111	01124	01127	01127	01140
C00000	INPUT	00463	01001	01017	01022	01037	01043	01071	01105	01333		
P01445	INUT	00762	00546	00551	00605	00610	00644	00644				
C00063	INVALU	00513										
C05120	IPAY											
C01440	IPENCODE											
C00003	IPUNCH											
C00000	IREAD	00003	00416	00416	00453	00453						
C01320	IRECODE											
C05120	IREFUEL											
C03460	IREG											
P01446	ISAVUN	00435	00556	00615	00646	00716						
C00002	ISIDE											
C01560	ISIMTYPE											
P01447	ITEMP	00500	00505	01023	01023	01044	01044	01106	01113	01113	01113	01324
C00000	ITP	01324	01334	01334	01170	01263	01263	01316	01317			
		01164	01164	01170	01170	01263	01263	01316	01317			
C00000	ITWORD											
C03770	ITYPE											
C03720	IYPENAN											
C00001	IWRIT	C00001	00444	00444	00516	00516	00677	00677	00706	00706	00724	00724
		00737	00737	00752	01114	01114	01114	01202	01203	01244	01244	01273
		01274	01337	01337	01355	01355	01376	01376				
P00441	*10											
P00453	*100	00676										
P01323	*1000	01131										
P01003	*100001											
P01005	*100002	01002										
P01134	*100003	01133										

P01135	.100004	01133			
P01160	.100065	01157			
P01161	.100006	01157			
P00473	.104	00471			
P00510	.110	00506			
P01333	.1100	01331			
P00534	.115	00533			
P00545	.120	00543			
P01337	.1200	01331			
P01355	.1205				
P01370	.1210	01354			
P00566	.125	00653			
P00577	.130	00543			
P00604	.140	00602			
P00636	.150	00602			
P00643	.160	00641			
P00654	.170	00641			
P00661	.180	00657			
P00671	.200	00676			
P00677	.300	00471			
P00771	.310				
P01017	.400	01016			
P01027	.410	01015			
P01033	.420	01031			
P01037	.430	01035			
P01043	.440	01031			
P01051	.450	01026			
P01061	.460	01057			
P01065	.500	01057			
P01071	.510	01067			
P01105	.520	01067			
P01112	.600	01104			
P01132	.610	01131			
P01156	.620				
P01157	.630	01165			
P01171	.640	01166			
P01201	.645	01177			
P01213	.650	01155			
P01222	.660	01221			
P01241	.665				
P01244	.670	01240			
P01256	.680	01243			
P01272	.685	01271			
P01305	.690	01221			
P01314	.700	01304			
P01434	.ERASER.	01000			
P00003	..100000	00420			
P00004	..100001	00422			
P00005	..100002	00424			
P00006	..100003	00426			
P00007	..100004	00430			
P00010	..100005	00432			
P00011	..100006	00434			
P00012	..100007	00441			
		01255	01271		
		01312	01312	01313	01322
		01160	01160	01160	01322
		01036	01036	01042	
		00657	00657	00660	
		00506	00507	00532	00676
		00472	00472	00532	00675
		00635	00635	00532	00675
		00642	00642	00532	00675
		00602	00602	00532	00675
		00543	00543	00532	00675
		00653	00653	00532	00675
		01354	01354	00532	00675
		01331	01331	00532	00675
		00543	00543	00532	00675
		00602	00602	00532	00675
		00641	00641	00532	00675
		00657	00657	00532	00675
		00471	00471	00532	00675
		01016	01016	00532	00675
		01031	01031	00532	00675
		01035	01035	00532	00675
		01026	01026	00532	00675
		01057	01057	00532	00675
		01067	01067	00532	00675
		01104	01104	00532	00675
		01131	01131	00532	00675
		01165	01165	00532	00675
		01166	01166	00532	00675
		01177	01177	00532	00675
		01155	01155	00532	00675
		01221	01221	00532	00675
		01240	01240	00532	00675
		01243	01243	00532	00675
		01271	01271	00532	00675
		01304	01304	00532	00675
		01000	01000	00532	00675
		00420	00420	00532	00675
		00422	00422	00532	00675
		00424	00424	00532	00675
		00426	00426	00532	00675
		00430	00430	00532	00675
		00432	00432	00532	00675
		00434	00434	00532	00675
		00441	00441	00532	00675

P00042	..10000R	00542
P00046	..100009	00562
P00047	..100010	00564
P00050	..100011	00566
P00051	..100012	00570
P00052	..100013	00572
P00053	..100014	00574
P00054	..100015	00601
P00055	..100016	00621
P00056	..100017	00623
P00057	..100018	00625
P00060	..100019	00627
P00061	..100020	00631
P00062	..100021	00633
P00063	..100022	00640
P00064	..100023	00647
P00065	..100024	00651
P00066	..100025	00656
P00067	..100026	00661
P00070	..100027	00663
P00071	..100028	00665
P00177	..100029	01007
P00200	..100030	01014
P00201	..100031	01030
P00202	..100032	01034
P00203	..100033	01045
P00204	..100034	01056
P00205	..100035	01066
P00206	..100036	01130
P00232	..100037	01220
P00335	..100038	01311
P00336	..100039	01314
P00337	..100040	01330
P00026	..101	00457
P00031	..104	00474
P00035	..111	00522
P00340	..1201	01343
P00355	..1206	01361
P00043	..121	00554
P00363	..1211	01402
P00072	..301	00703
P00102	..302	00712
P00121	..303	00730
P00134	..304	00743
P00150	..305	00754
P00207	..611	01140
P00220	..646	01206
P00263	..661	01227
P00266	..671	01250
P00311	..686	01277
P00013	..99	00450
P00551	..Z00001.	00546
P00610	..Z00002.	00605
C23420	HCHANGE	

01075

01120

00615

CODE	DESCRIPTION	01174	01177	01207	01207	01207	01242	01372	01372	01217	01217	01223	01227	01262	01262
C22032	WDESRFQ	01174	01177	01207	01207	01207	01242	01372	01372	01217	01217	01223	01227	01262	01262
C23421	WFIXRFQ	01270	01270	01300	01300	01300									
C22031	WG														
C22031	WGROUP	00765	00765	01242	01242	01242	01372	01372	01372						
C00373	WRF	00515	00675												
C00004	WSLTIME														
C22030	WTYPE														
C11610	WYDEAST														
C00000	WYFIXD														
C00024	WYFORM														
C00000	WYINENT	01144	01144	01163	01167	01167	01167	01167	01167	01217	01217	01223	01227	01262	01262
C00000	WYNAME	01310	01310	01020	01020	01020	01046	01046	01046						
C00050	WYTYPE	01610	01610												
C00074	WYVAL	00442	00442	00567	00567	00567	00575	00575	00575	00622	00622	00630	00630	00630	00666
		00666	00720	00720	00734	00734	00747	00747	00747	01033	01033	01055	01055	00427	00431
		00417	00417	00421	00421	00421	00423	00423	00423	00423	00423	00425	00427	00565	00571
		00431	00433	00433	00452	00452	00452	00452	00452	00452	00452	00453	00455	00626	00632
		00571	00573	00573	00511	00511	00511	00511	00511	00511	00511	00524	00526	00662	00662
		00632	00634	00634	00645	00645	00645	00645	00645	00645	00645	00652	00652	00744	00746
		00664	00664	00713	00713	00713	00715	00715	00715	00731	00731	00733	00744	00744	00746
		00745	00761	01013	01013	01013	01027	01027	01027	01065	01065	01327	01327	01327	01327
C00023	WALFOT														
C00500	WALRTOLY														
C00002	WAMCLAS														
C00013	WAMES	00513	00541	00541	00590	00590	00590	00590	00590	00637	00637	00655	00655	00655	00655
C00016	WASMTYPE														
C00010	WASNDPY														
C00022	WCLASS														
C00026	WCENTRY														
C00021	WCOMPLEX														
C00004	WCCORR														
C00025	WCCRTYPF														
C00120	WDEFPLY														
C00011	WDFSRFQ	00415	01174	01175	01174	01174	01405	01405	01405						
C00005	WDPEN														
P01450	WFCRD	00775	01154	01174	01315	01315									
C00012	WFIXRFQ	01375	01375												
C00013	WG														
C00013	WGROUP														
C00023	WOTHER														
C00015	WPAYLOAD														
C00004	WRECOVER														
C00007	WREF														
C00011	WREG														
C00003	WRPTT														
C00020	WTAMPAS														
C00024	WTGTS														
P01451	WTOT	00411	01266	01267	01374	01374	01403	01403	01403						
C00014	WTOBASE														
C00017	WTYPE														
X00003	WUNGET	00466	00503	00547	00606	00606	01161	01234	01234						
C00012	WVAMS	00512	00531	00531	00673	00673	00673	00673	00673						
C02330	WVFMGRP														
C00017	WVMTYPE														

5.415 SRTFILE

11/26/71 ED 0 PAGE NO. 13

Code	Description	00771	00772	01257	01257	01260	01353	01353	01364	01365
C02020	AMPS-S									
C00000	OLDSUM									
P01415	P00000-U	01420								
C00017	PLANTAPE									
C00002	POSTDATA									
X00002	PRODICT.	00000	00404							
X00021	UN-SINGL.	0141P								
C00000	RANGE									
C00620	RANGENEC									
C01060	RANGEFEF									
C00002	RATIO									
X00907	HDAPRAY	01107								
C05740	REFTIME									
C01200	KEL									
X00012	HEW.	01040								
C04610	SAL									
P00404	SETFILE	00404								
X00006	SETREAD	01024	01047							
X00005	SETWRITE	01011								
X00020	SLI.	00401	01077							
X20017	SLO.	00524	01122							
C00240	SPEED									
X00015	STM.	00444	00520	00701	00710	00726	00741	00754	01116	01204 01246 01275
C00014	STKFFIL	01341	01357	01400						
C00001	SUMNEW									
X00011	TER-TAPE	01324	01335							
C00000	TGTFILE									
X00001	THRD.	00451	00464	00501	00527	00560	00517	00704	00722	00735 00750 00757
C00001	TENFILE	01102	01125	01152	01211	01232	01253	01302	01344	01364 01407
C00010	TEMPALOC									
C00005	IMPOST									
C00004	IMPJAR									
P00673	IS00002.	00537								
P00774	IS00003.	00766								
P01372	IS00007.	01351								
X00013	ISM.	00455	01073							
C00000	TWORD									
P01422	UP00000.	00437	00536	00672	00764	01053	01062	01143	01150	01215 01306 01350
C13560	VALUENEM	01371	01416	01423	01424	01425	01427	01427		
C00000	WINFILE									
C02640	WLAT									
C03150	WLONG									
X00010	WWORD	01171	01264	01320						
P00441	WS00001.	00443								
P00540	WS00002.	00674	00674							
F00771	WS00003.	00773								
P01054	WS00004.	01063								
P01144	WS00005.	01151								
P01216	WS00006.	01307								
P01352	WS00007.	01373	01373							
C05430	YIELD									
00453	SYMBOLS									

```

SURROUTINE IGTPREP
CSUBR IGTPREP IJUN71 *****
C TARGET PREPARATION PHASE OF PREALLOCATION *****
C CALCULATES DISTCD(ICORR) AND ATTRCD(ICORR) FOR ICORR=1, NCOHR AND *****
C DISTOG AND DISTOF *****
CUSE MASTER IJUN71 *****
COMMON/MASTER/INDATE,IDENTNO,ISIDE,NRPTY,NCOHR,NDPEN,NRECOVER *****
1,NREF,NRNDRY,NREG,NTYPE,NGROUP,NTOTBASE,NPAYLOAD,NASMTYPE,NHMDTYPE *****
2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE,NCNTRY *****
EQUIVALENCE (NGROUP, NG1), (NALERT, NOTHER) *****
CEND MASTER *****
CUSE TAPES :IJUN71 *****
COMMON/FILES/ TGFILE(2),BASFILE(2),MSLTIME(2), *****
1 ALOCYAR(2),TMPALOC(2),ALOCGRP(2),STRKFL(2), *****
2 EVENTAPE,PLANTAPE *****
C TYPE INTEGER IGTFILE, BASFILE, MSLTIME, ALOCYAR, *****
1 TMPALOC, ALOCGRP, STRKFL, EVENTAPE, PLANTAPE *****
C COMMON/NONFILE/ WINFILE, TINFILE, POSTDATA, FIXFILE, TMPYAR *****
1 , TMPST *****
C TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIXFILE, TMPYAR, TMPST *****
C TAPES *****
CEND OPENREF IJUN71 *****
CUSE COMMC,OPENREF/DPLINK(50),DPLAT(50),DPLONG(50),RFLAT(20), *****
*RELONG(20),MDPEN,MREF *****
TYPE INTEGER DPLINK *****
CEND OPENREF *****
CUSE CORRCHAR IJUN71 *****
COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30), *****
1 ZPLONG(30), ENLAT(30), ENLONG(30), CRLENGTH(30), KORSTYLE(30), *****
2 ATTRCORR(30), ATTRSUPF(30), HILQATTR(30), DEFRANGE(30), *****
3 NPROCDEF(30), DEFDIST(30,3), ATTRPRE(30,3), NDATA, LMAX *****
C TYPE INTEGER PCZONE *****
TYPE REAL KORSTYLE *****
DIMENSION DISTRC(30),PRATTR(30,3),DISTDEF(30,3) *****
EQUIVALENCE (DEFDIST,DISTDEF), (PRATTR,ATTRPRE) *****
EQUIVALENCE (CRLENGTH, DISTRC) *****
CEND CORRCHAR *****
CUSE ITP IJUN71 *****
COMMON/ITP/ITP *****
CEND ITP *****
CUSE IFTPRINT IJUN71 *****
COMMON/IFTPRINT/IFTPRINT(10) *****
CEND IFTPRINT *****
CUSE MYIDENT IJUN71 *****
COMMON/MYIDENT/MYIDENT *****
CEND MYIDENT *****
CUSE PREALOC IJUN71 *****
COMMON/PREALOC/PCLINK(30),RPLINK(200),RPLAT(200),RPLONG(200), *****
*ATTRLEG(200),DISTEF(50),DISTEG(50),RECLINK(200), *****
*RECLONG(200),IRECPTY(200),INDREC(200),IBEGIN(30),PCTYPE(30), *****

```

1000
34000
2000
3000
4000
5000
1000
2000
3000
4000
5000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
6000
7000
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
6000
7000
8000
9000
10000
8000
9000
1000
9000
10000
10000
1000
10000
1000
1000
11000
1000
11000
12000
1000
1000
2000
3000

```

*ATTRC(30)
TYPE INTEGER PCLINK,RPLINK,RECLINK,PCTYPE
PREALOC .....
DIMENSION DISTCD(30),ATTRCD(30)
IMPSTOR IJUN7I .....
COMMON/IMPSTOR/BLOCK(1600)
C
DIMENSION NLOCK(1600)
EQUIVALENCE(BLOCK,NLOCK)
C
COMMON /SIZES/MDATMUL,MDATCX,MSPERMT,MTELMCH,LINSTOR,
1 LNG1,LNG2
C
IMPSTOR .....
PRINTCTRL IJUN7I .....
COMMON/PRINTCTRL/PRINTSW(7),LSTRI(3),LST(3),INWDS(3),IPRINTNO,NTG5,
1 MPRQ,MSET(7)
PRINTCTRL .....
DUMCCORR IJUN7I .....
COMMON /DUMCCORR/NDUMCCORR
NDUMCCORR = NUMBER OF DUMMY CORRIDORS WITH NO ASSOCIATED GEOGRAPHY
DUMCCORR .....
1 DUDUMMY IJUN7I .....
COMMON/DUDUMMY/INPUT(10),MVAR5,NAMES(40),INVALU(2,40),
1 INDEX1(40),INDEX2(40),INDEX3(40),MORE
C
COMMON/ MACHINE/ IREAD, IWRIT, ICOMM, IPUNCH
C
DATA(IREAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)
C
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1 FVAL(20), NOEFLT
C
EQUIVALENCE (MYVAL, FVAL)
C
DUDUMMY .....
OPTION IJUN7I .....
COMMON/OPTION/ ICHANGE, IFIXTGT, RATIO, INOVAL(2), INDMIN(2),
1 INDMAX(2), NDESREQ, NFIXREQ
C
OPTION .....
CHANGES IJUN7I .....
COMMON/ CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTWAN(2000),
1 VALUENEW(2000), IFOUND(2000), MCHANGE, MFLAREQ
C
DIMENSION INFIX(10000)
EQUIVALENCE(INFIX, ICLASWAN)
C
COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FRCLAS(20)
CHANGES .....
CUSE MYLABEL IJUN7I .....
COMMON /MYLABEL/ MYFORHIT, MYSECR, MYLNGTH, MYCOMM(5)
C

```

```

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

```

```

CEND MYLABEL ***** 20000
CUSE BRKPT 1JUN71 ***** 21000
C     ***** 1000
      COMMON/BRKPT/ INDRG(250), TYPENAME(250),
      CUMNO(15), BTYPES(15), INCLAS(15), MTARTYPE, *TARCLS
      1 ***** 2000
      ***** 3000
      ***** 4000
CEND BRKPT ***** 21000
CUSE CTRYCO 1JUN71 ***** 22000
C     ***** 1000
      COMMON /CTRYCO/ CTRYCO(150), MCONTRY
      DATA (MCONTRY = 150) ***** 3000
      ***** 4000
C     ***** 5000
CEND CTRYCO ***** 22000
      EQUIVALENCE(NTS,NTIMES)
      IUNFIN = XBSF(TINFILE)
      MYIDENT = 7HTINFILE
      ITP = TINFILE $ CALL SETREAD
      READ TINFILE
      ITAPECK=7HTINFILE
      ITP = TINFILE $ CALL ROARRAY(NLJCK,5)
      NTS=NLOCK(S)
      NTGS=NLOCK(S)
      IF(NLOCK(1).EQ.ITAPECK)90,91
      91 WRITE(UNIT, 92) NLOCK(1), ITAPECK
      WRITE(COMM, 92) NLOCK(1), ITAPECK
      92 FORMAT(/* ERROR IN TARGET INPUT FILE **A6.2X,A8)
      STOP
      90 CONTINUE
      DO 93 I = 1, LNG2
      93 NLOCK(I) = -0
      IF(ICHANGE + IFIXGT) 95, 94, 95
      NO SCRATCH FILE REQUIRED
      94 IOUTF = TGFILE(1)
      MYLENGTH = LNG2 * NTS
      TGFILE(2) = MYLENGTH
      MYIDENT = 8HTGFILE
      GO TO 98
      95 IF(ICHANGE) 96, 97, 96
      96 ITP = TPOST
      MYIDENT = 7HSCRATCH
      CALL SETWRITE
      97 IOUTF = TPPTAR
      MYIDENT = 7HSCRATCH
      98 ITP = IOUTF
      CALL SETWRITE
      MYIDENT = 8HSCRATCH
      ITP = POSTDATA
      CALL SETREAD
      CLEAR VALUE CHANGE ARRAYS
      OLDSUM = 0.0
      SUMNEW = 0.0
      NTIMES = MIAHCLS
      DO 99 I = 1, NTIMES
      NAMCLAS(I) = #NOT USE#
      FRCLAS(I) = 0.0
  
```

```

99 CONTINUE
NCNTRY = 0
DO 300 N TIMES=1,NYS
IF (PRINTSV(6) .EQ. 0) 451,450
450 IF (N TIMES .GE. ISTR(2)) AND (N TIMES .LE. ILST(2)) 452,453
452 IF (PRINT(IUNTR)) = INWDS(2)
GO TO 451
453 IF (PRINT(IUNTR)) = 0
451 CONTINUE
IYP = TIMFILE % CALL ROADWAY(ALOCK,LNG)
C PUSH DOWN WORDS IN BLOCK
DO 40 I=1,11
40 R0 RLOCK(N)=RLOCK(N-1)
N = 31-(I-1)
DO 41 J=1,3
41 RLOCK(N)=RLOCK(N-1)
C INSERT ARRAYS VO,EVAL
BLOCK(15) = BLOCK(15)+RLOCK(11)
RLOCK(16)=RLOCK(11)+RLOCK(15)
RLOCK(20)=1-RLOCK(19)+RLOCK(18)
C FILL WORDS TGLAT,TGLONG
TGLAT = RLOCK(8)
TGLONG = RLOCK(9)
C FIND INDYEN FOR WHICH THE QUANTITY 2*DISTDF (INDYEN)+DISTNG (INDYEN)
C IS A MINIMUM
X2=TGLAT
Y2=TGLONG
XF=PLAT(1)
YF=PLONG(1)
RDIST=2*DISTF(X2,Y2,XF,YF)+DISTEF(1)+DISTEG(1)
INDIC=1
DO 45 (OPEN=2,UPEN)
45 (OPEN=2,UPEN)
XF=PLAT(UPEN)
YF=PLONG(UPEN)
TDIST=2*DISTF(X2,Y2,XF,YF)+DISTEF(UPEN)+DISTEG(UPEN)
KIND=UPEN
IF (TDIST.LT.TDIST) 45,44
44 RDIST=TDIST
INDIC=KIND
45 CONTINUE
DISTDF=(RDIST-DISTEG(INDIC)+DISTEF(INDIC))/2
DISTEG=(DISTDF+DISTEG(INDIC)-DISTEF(INDIC))
INDYEN=INDIC
C PUT INDYEN, DISTDF, AND DISTNG IN BLOCK
BLOCK(32) = INDYEN
BLOCK(33) = DISTDF
BLOCK(34) = DISTNG
DO 50 ICORR = 1, N CORR
50 ICORR = 1, N CORR
C CALCULATE DISTCD AND ATTCD
IF (ICORR = N) N CORR) 52, 52, 54
52 DISTCD(ICORR) = ATTCD(ICORR) = 0.0
GO TO 54
54 JRTPT = PCLINK(ICORR)
XJ=PLAT(JRTPT)
YJ=PLONG(JRTPT)

```

```

65000
66000
67000
68000
69000
70000
71000
72000
73000
74000
75000
76000
77000
78000
79000
80000
81000
82000
83000
84000
85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000

```

```

DISTCO(ICORR)=DISTF(X1,Y1,X2,Y2)
ATTRCD(ICORR)=DISTCO(ICORR)*5*(ATTRCORR(ICORR)+ATTRSUPP(ICORR))
C PUT DISTCO AND ATTRCD IN #LOCK
56 INDEX1 = ICORR+34
INDEX2 = ICORR+64
BLOCK(INDEX1)=DISTCO(ICORR)
BLOCK(INDEX2)=ATTRCD(ICORR)
50 CONTINUE
CALL MAKECHG
IPRNTN0=5
CALL PRINTDAT
IC = N000(25)
FRCLAS(1) = BLOCK(24)
FRCLAS(2) = FRCLAS(1C) + (BLOCK(11) * #BLOCK(7))
C WRITE #BLOCK ON TGTAPE
NLOCKING2) = 0
ITP = IOUTF
CALL WHARRAY(#BLOCK, LMG2)
CHECK FOR NEW COUNTRY CODE
I = TITLE(NLOCK(5), CTRYCD, NENTRY)
IF(I) 210, 210, 300
210 IF(NENTRY = NENTRY) 230, 220, 220
220 WRITE(UNIT, 221) NENTRY
221 FORMAT(// * MORE THAN *13 * COUNTRY LOCATION CODES. SOME WILL BE
      IGNORED*)
GO TO 300
230 NENTRY = NENTRY + 1
CTRYCD(NENTRY) = BLOCK(5)
END DO LOOP OVER TARGETS
C 300 CONTINUE
C
ITP = IOUTF
CALL TERMTEPE
ITP = TINFIL
CALL TERMTEPE
FINISH TGTFIL IF NECESSARY
CALL CHKCHG
CALL HASWRIT
IF(IFKTGT) 400, 410, 400
400 CALL FIREAP
GO TO 500
410 IF(ICCHANGE) 420, 500, 420
420 CALL NORMALZ
500 WRITE(UNIT, 501) NTS
501 FORMAT(//10X,15 * TARGETS PROCESSED*// * ICLASS CLASS NAME
      FRACTION OF TOTAL*/24X * VALUE IN CLASS*)
DO 510 I = 1, NTARCLS
FRCLAS(I) = FRCLAS(I) / SUMNEW
WRITE(UNIT, 502) I, NAMCLAS(I), FRCLAS(I)
502 FORMAT(3X,12,6X,AR,AR,7F.4)
510 CONTINUE
END
END

```

121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000
158000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000

INENT TGTREP

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	TGTREP	01014 00174
MASTER		00027
FILES		00020
NOFILE		00006
OPENREF		00300
CORHCHAR		01132
ITP		00001
IFIPHAT		00012
MYIDNT		00001
PREALOC		03744
INPSTOR		03100
SIZES		00007
PRNTCTHL		00032
DUNCORR		00001
IODUPPY		00374
MACHINE		00004
DEFAULT		00121
OPTION		00013
CHANGES		23422
SUMS		00052
MYLABEL		00010
BKRPNT		01043
CTRYCD		00227

EXTERNAL SYMBOLS

THEMID.
 GRUSTOPS
 GRJOICT.
 SETHEAD
 WDAHRRAY
 SETWRITE
 DISTF
 MAKECHG
 PRINTDAT
 WRAHRRAY
 ITLE
 TER-TAPE
 CHKCHG
 BASHRIT
 FIXWEAP
 NORMALZ
 STM.
 QNSINGL.

C00512	HLOATTR	00261	00264	00341	00344	00404	00405	00414	00415	00417	00426	00633
P00765	I	00722	00723	00733	00742							
C03612	IREGIN	00610	00612	00305	00305	00704	00704					
P00766	IC	00271	00271									
C00000	ICHANGE											
C00000	ICLASWAN											
C00000	ICOMM											
P00767	ICORP	C00002	00242	00242	00531	00564	00564					
C00001	IDENTAN	C0526	00531	00533	00561	00564	00600					
C00760	IDENT-AN											
P00770	IPEN	00457	00463	00477	00507							
P00364	IF00001	00362	00367	00677	00677							
C00001	IFIXTG:	00272	00272									
C17500	IFOUND											
C00000	IFTRPT	00371	00371	00374	00375							
C00000	IN-DATE											
C00012	ILST	00365										
C00000	IN-DEFG											
C01022	IN-CLAS											
C00203	INDEX1	00562	00563	00566	00566							
C00253	INDEX2	00565	00565	00572	00572							
C00323	INDEX3											
P00771	INDIC	00456	00456	00511	00517							
C00007	INDMAX											
C00005	INDMIN											
C00302	INDREC											
C00003	INRSEL											
P00772	INDYPEN	00517										
C00000	INFIX	00177										
P00750	INITIAL											
C00000	INPUT											
C00053	IRVALU	00367	00367	00321	00622	00663						
C00015	IRWTS	00275	00314									
P00773	ISJTE	00603	00604									
C00020	ISNTNO	00354	00355									
C00000	ISPC-TSM	C00003										
C00003	ISUNCH	00677										
C00000	IS-AC											
C02772	ISPCDCTV											
C00002	ISIDE											
C00607	ISJTY	00362	00225	00230	00251							
P00774	ITAPECK	00212	00227	00213	00214	00310	00310	00322	00322	00330	00330	00377
X00013	ITL	00205	00205	00623	00663	00664	00670	00670	00670	00670	00670	
C00000	ITP	00377	00377	00622	00622							
C03720	ITYPE-AN											
P00775	IUN-TIN	00202	00370	00374	00374	00710	00710	00710	00725	00726		
C00001	I-4IT	C00001	00227	00227	00227							
PC 36	.210	00634	00634									
P00001	.220	00640	00640									
P00653	.230	00640	00640									
P00660	.300	00634	00634									
P00660	.300	00634	00634									
P00701	.500	00700	00452									

P00704	.410	00700			
P00704	.420	00765			
P00503	.44	00501	00501		
P00361	.450	00357			
P00506	.45	00502			
P00376	.451	00360	00372		
P00367	.452	00365			
P00373	.453	00353	00364		
P00577	.50	00577			
P00710	.500	00703	00705		
P00742	.510	00742			
P00537	.52	00535	00535		
P00542	.54	00534			
P00561	.54	00541			
P00411	.55				
P00423	.51				
P00260	.50				
P00227	.91	00224			
P00266	.93	00224			
P00274	.94	00272			
P00305	.95	00271	00273		
P00307	.96	00304			
P00315	.97	00304			
P00321	.97	00304			
P00351	.99				
P00755	FKASSEH	00404	00407	00420	00421
P00077		00203			
P00100		00211			
P00114		00302			
P00115		00311			
P00114		00317			
P00117		00325			
P00120		00344			
P00121	.221	00345			
P00137	.2501	00374			
P00164	.2502	00373			
P00101	.22	00233			
P00754	ASTIFF	00567	00574	00575	
P00774	JRST	00562			
P00777	KING	00477			
C00360	KO-STYLE				
C00094	LITON				
C00131	LYAX				
C00005	LYGI				
C00004	LYND				
C00010	MAFCMG				
C00020	MCHSWF				
C00225	MCURY				
C00001	MATCX				
C00000	MATMUL				
C00124	MPPEN				
C00421	PLIFXU				
C00373	PLI				
C00022	PLIC				
00262		00270	00274	00270	00420
00077		00037	00045	00044	
00402					
00261					
00601					

C00017	MMNTYPF	00333	00334						
C00000	MLDSUM								
C00000	PCLAT	00542	00542						
C00000	PCLINK								
C00034	PCLONG								
C03650	PCTYPF								
C00074	PCZONE								
C00017	PLANTAPE	00327	00327						
C00002	POSTDATA								
C00776	PHATTR								
X00011	PRINTDAT	00605							
X00003	PROUCT.	00000	00175						
X00002	QRSTOPS	00256							
X00022	QNSINGL.	00746							
C00002	RATIO								
X00005	RDARRAY	00215	00400						
P01002	RDIST	00455	00500	00504	00510				
C02152	RECLAT								
C01642	RECLINK								
C02462	RECLONG								
C00226	RFLAT								
C00252	RFLOMG								
C00346	RPLAT	00544	00545						
C00036	RPLINK								
C00656	RPLONG	00546	00547						
X00004	SETPEAD	00207	00331						
X00006	SETWRITE	00313	00323						
X00021	STM.	00231	00244	00643	00712	00730			
C00014	SYMKFIL								
C00001	SUMNEW	00335	00725						
P01003	TDIST	00476	00500	00503					
X00014	TFMTAPE	00665	00671						
C00000	TGFILE	00274	00274	00301	00301				
P01004	TGFLAT	00436	00441						
P01005	TGFLONG	00440	00442						
P00174	TGTRFP	00174							
X00001	THEMO.	00240	00253	00650	00717	00740			
C00001	TINFILE	00200	00200	00204	00205	00212	00213	00376	00667
C00010	TMPALOC								
C00005	TMPOST	00307	00307						
C00004	TMPTAP	00315	00315						
P00271	TS00001.	00263							
P00352	TS00002.	00343							
P00661	TS00003.	00355							
P00510	TS00006.	00461							
P00601	TS00007.	00530							
P00743	TS00010.	00722							
C00372	TYPENAME								
C13560	VALUENEW								
C00000	WINFILE								
X00012	WRARRAY	00624							
P00266	WS00001.	00470							
P00346	WS00002.	00351							
P00356	WS00003.	00662	00662						

P00405	*S00004.	G0414		
P00417	*S00005.	G0424		
P00444	*S00006.	G0507		
P00533	*S00007.	00000		
P00723	*S00010.	00744		
P01004	X1	00544	00453	
P01007	X2	00441	00451	00472 00554
P01010	XF	00444	00452	00465 00473
P01011	Y1	00550	00453	
P01012	Y2	00442	00451	00472 00554
P01013	YF	00444	00452	00467 00473
C00132	ZPLAF			
C00170	ZPLONG			
	00427 SVF HOLS			

```

SUBROUTINE VALUMOD
  VALUMOD 1JUN71 *****
C
C THIS ROUTINE READS THE CHANGE REQUEST CARDS
C FOR CHANGES TO TARGET VALUE, MINKILL, OR MAXKILL.
C
C   CHANGES 1JUN71 *****
COMMON/CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTWAN(2000),
1 VALUENEW(2000), IFOUND(2000), MCHANGE, MFIXREQ
C
DIMENSION INFIX(10000)
EQUIVALENCE(INFIX, ICLASWAN)
C
COMMON/SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FNCLAS(20)
CEND
C   CHANGES *****
CUSE IORUNMY 1JUN71 *****
C
COMMON/TORUNMY/ INPUT(10), NVARS, NAMES(40), INVALU(2,40),
1 INDEX1(40), INDEX2(40), INDEX3(40), MORE
C
COMMON/ MACHINE/ IREAD, IWRITE, ICUMF, IPUNCH
C
DATA(IREAD = 40), (IWRITE = 61), (ICUMF = 44), (IPUNCH = 45)
C
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
; FVAL(20), NDEFLT
C
EQUIVALENCE (MYVAL, FVAL)
C
CEND IORUNMY *****
CUSE OPTION 1JUN71 *****
C
COMMON/OPTION/ ICHANGE, IFIXTGT, KATIO, INDVAL(2), INDMIN(2),
1 INDMAX(2), MDESFRD, MFIXREQ
C
CEND OPTION *****
C
DIMENSION ITEMP(2)
IAM = 7HVALUMOD
IMOD = 4H VALUE
IOPT = 1
ISTART = XMAXOF(INDMAX(2), INDMIN(2)) + 1
INDVAL(1) = IREAD = ISTART
GO TO 100
C
ENTRY MINMOD
C
IAM = 4HMINMOD
IMOD = 7HMINKILL
IOPT = 2
ISTART = XMAXOF(INDVAL(2), INDMAX(2)) + 1
INDMIN(1) = IREAD = ISTART
GO TO 100

```

1000
47000
2000
3000
4000
5000
6000
1300
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
13000
8000
9000
10000
1000
2000
3000
4000
10000
11000
12000
13000
14000
15000
16000
17000
18000
19000
20000
21000
22000
23000
24000
25000
26000
27000
28000


```

      INOW = INOW + 1
      GO TO 200
      C 250 WRITE (UNIT, 251) MCHANGE
      251 FORMAT (//10A, I5, I5) * * * * * CHANGE REQUEST. REMAINDER
            10F REQUESTS (QUOTED)
      260 READ (IOF40, 261) (TEMP
      261 FORMAT (A8, A2)
      C 300 IF (TEMP(1) = 'R') MCHANGE(6) = 260, 300, 260
            ALL REQUESTS READ
      C 310 ISTORE = INOW - 1
            INOW = INOW - 1
            WRITE (UNIT, 301) ISTORE, IEND, ISTART, INOW
      301 FORMAT (// 'A TOTAL OF *1A, 1X, A7* * * * * CHANGE REQUESTS WERE PROCESSED
            1. * * * * * REQUESTS ARE STORED IN LOCATIONS *1A* * * * * THROUGH *1A)
            GO TO (310, 320, 330), (UPT
            VALUE
      C 310 INOVAL(P) = INOW
            RETURN
      C 320 INOVAL(P) = INOW
            RETURN
      C 330 INOVAL(P) = INOW
            RETURN
            END

```

```

85000
86000
87000
88000
89000
90000
91000
92000
93000
94000
95000
96000
97000
98000
99000
100000
101000
102000
103000
104000
105000
106000
107000
108000
109000
110000

```

5.4TS VALUMOD

11/26/71

ED 0

PAGE NO.

4

IDENT VALUMOD

00603
00273
00254
00235
23422
00052
00374
00604
00121
00013

PROGRAM LENGTH
ENTRY POINTS
BLOCK NAMES

MAXMOD
MINMOD
VALUMOD

CHANGES
SUMS
IDDUMY
MACHINE
DEFAULT
OPTION

EXTERNAL SYMBOLS

THEM0.
QMORICT.
NUMGET
XMAXOF
TSM.
STM.
SLO.
SLI.
QNSINGL.

P00330	..100001								
P00331	..100002	00327	00327						
P00325	..200	00434	00476						
P00375	..210	00374							
P00403	..220	00401	00401						
P00404	..230	00402							
P00411	..240	00405							
P00477	..250	00330							
P00510	..260	00525	00525						
P00526	..300	00374	00524						
P00551	..310	00547							
P00554	..320	00547							
P00557	..330	00550							
P00425	..400								
P00435	..410	00415	00420	00422	00424				
P00441	..420	00437							
P00444	..430	00473							
P00460	..440	00437	00440						
P00471	..450								
P00474	..460	00457	00467	00470					
P00566	..FRASER.	00250	00267	00306	00464	00467			
P00005	..100000	00241							
P00004	..100001	00243							
P00007	..100002	00260							
P00010	..100003	00262							
P00011	..100004	00277							
P00012	..100005	00301							
P00102	..100006	00373							
P00103	..100007	00414							
P00104	..100008	00417							
P00105	..100009	00422							
P00106	..100010	00424							
P00201	..100011	00524							
P00013	..101	00316							
P00055	..201	00335							
P00066	..202	00357							
P00152	..251	00503							
P00175	..261	00514							
P00202	..301	00535							
P00107	..401	00431							
P00127	..431	00450							
P00273	..VAX*00	00273							
C23420	..CHANGE	00324							
C23421	..FIX*00	00324	00324	00504	00504				
P00254	..WIN*00								
C00373	..ORE	00254							
C00024	..YFOR*								
C00000	..YNAME								
C00050	..YTYPE								
C00074	..YVAL								
C00002	..NAMECLAS								
C00013	..NAMES								
C00120	..NREFLT								
C00011	..NRESBFG								


```

CEND #MNDATA ..... 10000
CUSE PLANTYPE IJUNT1 ..... 11000
COMMON/PLANTYPE/INITSTRK,CORNSL,CORRONE 1000
CEND PLANTYPE ..... 11000
CUSE PAYLOAD IJUNT1 ..... 12000
COMMON/PAYLOAD/NOROMBI(40),IMHD1(40),MOBOMB2(40),IMHD2(40) 1000
1,NASM(40),IASM(40),NCM(40),MDECOYS(40),MADECOYS(40),IMIMV(40) 2000
2,PAYLOAD ..... 3000
EQUIVALENCE (MP,MPAYLOAD) ..... 4000
PAYLOAD ..... 4000
CEND ASHTARLE IJUNT1 ..... 12000
CUSE COMMON/SMTABLE/IMHDAS(20),RANGEAS=(20),RELAS=(20) 13000
1,CEPAS=(20),SPEEDAS=(20),MASMTYPE ..... 1000
EQUIVALENCE (MASM,MASMTYPE) ..... 14000
ASHTARLE ..... 15000
#MHEAD IJUNT1 ..... 1000
COMMON/MARHEAD/YLD(50),POUD(50),FERAC(50),MMDTYPE ..... 14000
#MHEAD ..... 15000
CORRCHAR IJUNT1 ..... 1000
COMMON/CORRCHAR/PCLAT(30),PCLONG(30),PCZONE(30),ZPLAT(30), 1000
1,ZPLONG(30),ENTLAT(30),ENTLONG(30),CRLENGTH(30),KORSTYLE(30), 2000
2,ATTCORR(30),ATTRSUPP(30),HILDATP(30),DEFRANGE(30), 3000
3,MWRCDDEF(30),DEFDIST(30,3),ATTRHEI(30,3),MDATA,LMAX 4000
C TYPE INTEGER PCZONE ..... 5000
TYPE REAL KORSTYLE ..... 6000
DIMENSION DISTM(30),PRATM(30,3),DISTDEF(30,3) ..... 7000
EQUIVALENCE (DEFDIST,DISTDEF),(PRATR,ATTRPRE) ..... 8000
EQUIVALENCE (CHLENGTH,DISTRC) ..... 9000
CORRCHAR ..... 10000
HAPPEN IJUNT1 ..... 15000
COMMON/HAPPEN/JAPTYPE(250),MAPLAT(250),MAPLONG(250) 14000
1,MAPDIST(250),MR1PT ..... 1000
EQUIVALENCE (LMAPMAR,MR1PT) ..... 2000
HAPPEN ..... 3000
CHAPTER IJUNT1 ..... 16000
COMMON/CHAPTER/KOUNT(30),IMAP(30),MOUNT(50),JMHP(50),MCCORR 17000
CHAPTER ..... 1000
BOUNDARY IJUNT1 ..... 17000
COMMON/BOUNDARY/PLINK(200),BPLAT(200),BPLONG(200), 18000
1,RPZONE(200),NEXTZONE(200),MBNDRY ..... 1000
TYPE INTEGER BPLINK,RPZONE ..... 2000
BOUNDARY ..... 3000
ITP IJUNT1 ..... 18000
COMMON/ITP/ITP ..... 19000
ITP ..... 1000
ITPNT IJUNT1 ..... 19000
COMMON/ITPNT/ITPNT(10) ..... 20000
ITPNT ..... 1000
MYIDENT IJUNT1 ..... 21000
COMMON/MYIDENT/MYIDENT ..... 1000
MYIDENT ..... 1000
TEMPO IJUNT1 ..... 21000
COMMON/TEMPO/LT(50),LN(50),JT(50),OT(50) 22000
TYPE REAL LT,LN ..... 1000
TEMPO ..... 2000
TEMPO ..... 22000

```

```

CUSE    PHEALOC  IJUN71  *****
COMMON/PHEALOC/PCLINK(30),RPLINK(200),RPLAT(200),RPLONG(200),
*ATTLEF(200),DISTFF(50),DISIEG(50),RECLINK(200),RECLAT(200),
*RECLONG(200),IRECPCTY(200),INDREC(200),IREGIN(30),PCTYPE(30),
*ATTRC(30)
TYPE INTEGER PCLINK,RPLINK,RECLINK,PCTYPE
PHEALOC *****
IMPSTOR  IJUN71  *****
COMMON/IMPSTOR/BLOCK(1600)
C
DIMENSION NLOCK(1600)
EQUIVALENCE(BLOCK,NLOCK)
C
COMMON /SIZES/ MDATE,MUL,MDATCK,MSPERT,MTELMCH,LINSTOR,
      LMG1, LMG2
C
IMPSTOR *****
PRINTCTL IJUN71 *****
COMMON/PRINTCTL/PRINTS*(7),I$TRT(3),I$D$S(3),I$PRATNO,ATGS,
      MPRG,MSF(7)
C
PRINTCTL *****
RECOVER  IJUN71 *****
COMMON/RECOVER/RCLAT(50,4),RCLON(50,4),INORAS(50,4),INDCAP(50,4),
*DISTR(50,4),RCLATX(50),RCLAX(50)
RECOVER *****
EXCESS  IJUN71 *****
COMMON /EXCESS/ MEXCESS, PEROMB, EXNROMB, PEXMIRV, EXMIRV,
      I PEXMISS, EAMTSS, SHLREAL(200)
C
EXCESS *****
NAVAL  IJUN71 *****
COMMON/NAVAL/NAVAL, IDRL(200), PKNV(200)
C
NAVAL *****
DUMCORR IJUN71 *****
COMMON /DUMCORR/ NDUMCORR
NDUMCORR = NUMBER OF DIMMY CORRIDORS WITH NO ASSOCIATED GEOGRAPHY
DUMCORR *****
DIMENSION NOPERSON(80),NMP$ITE(80),IREP(80), SP$HI(80),
      I SP$LO(80), SPDASH(80), IHWTYPE(80)
DATA (MTOBASE = 150)
DIMENSION EXPASH(200)
DATA (I$OMBER=2)
IUNWIN = XAR$F(INFILE)
MIDENT = TH$SCHATCH
ITP=POSTDATA $CALL SETWRITE
698 ITP = WINFILE
      CALL M$ARRAY(INLOCK,1)
      ITP =POSTDATA
      CALL M$ARRAY(INLOCK,1)
      IF(INLOCK,EQ,BH7ZZZZZZZ1699,69A
699 CONTINUE
      IF(IPRINTSW(4),EQ,0)697,696
696 IF(IPRINTIUNWIN) = 10

```

23000
1000
2000
3000
4000
5000
23000
24000
1000
2000
3000
4000
5000
6000
7000
8000
24000
25000
1000
2000
25000
26000
2000
26000
27000
1000
2000
3000
4000
27000
28000
1000
2000
3000
28000
29000
1000
2000
29000
30000
31000
32000
33000
34000
35000
36000
37000
38000
39000
40000
41000
42000
43000
44000
45000

```

697 CONTINUE
ITP = WINFILE
NWDS = NMWTYPE*3 $ J = 1
CALL ROARRAY(NLOCK,NWDS)
DO 700 K = 1, NWDS*3
YLO(J) = RLOCK(K)
PDU(J) = RLOCK(K+1)
FFZC(J) = RLOCK(K+2)
700 J = J+1
NWDS = NASMTYPE*5 $ J = 1
CALL ROARRAY(NLOCK, NWDS)
DO 701 K = 1, NWDS*5
IMDASH(J) = NLOCK(K)
RANGEAS(J) = BLOCK(K+1)
RELASM(J) = BLOCK(K+2)
CEPASM(J) = BLOCK(K+3)
SPEEDAS(J) = BLOCK(K+4)
701 J = J+1
NWDS = PAYLOAD*10 $ J = 1
CALL ROARRAY(NLOCK, NWDS)
DO 702 K = 1, NWDS*10
NOSOMBI(J) = NLOCK(K)
I*HDI(J) = NLOCK(K+1)
N*HOMR2(J) = NLOCK(K+2)
I*H02(J) = NLOCK(K+3)
NASM(J) = NLOCK(K+4)
IASM(J) = NLOCK(K+5)
N*CM(J) = NLOCK(K+6)
N*DECOYS(J) = NLOCK(K+7)
N*DECOYS(J) = NLOCK(K+8)
I*TRV(J) = NLOCK(K+9)
702 J = J+1
NWDS = REF
CALL ROARRAY(CREL,NWDS)
LNG3 = 20 * NTYPE
DO 710 K = 1, LNG3*20
CALL ROARRAY(MLVCR(K), 20)
710 CONTINUE
C FILL COMMON WPNTYPE AND OTHER WEAPON TYPE ARRAYS
DO 704 K = 1, NTYPE
JJ = 20*(K-1)
I*WTYPE(K) = NLOCK(JJ+1)
RANGE(K) = RLOCK(JJ+2)
CEP(K) = RLOCK(JJ+3)
SPEED(K) = RLOCK(JJ+4)
ALERTOLY(K) = RLOCK(JJ+5)
N*ALRTOLY(K) = RLOCK(JJ+6)
IF (I*ITSTRK*0.1) *15*16
415 N*ALRTOLY(K) = N*ALRTOLY(K) - ALERTOLY(K)
ALERTOLY(K) = 0.
IF (N*ALRTOLY(K).LT.0) *17*16
417 N*ALRTOLY(K) = 0
416 CONTINUE
RANGEDEC(K) = RLOCK(JJ+7)
ICLASS(K) = NLOCK(JJ+8)
NO*PERSON(K) = NLOCK(JJ+9)

```

11/26/71

```

SPDHI(K)=RLOCK(JJ+10)
SPUL0(K)=RLOCK(JJ+11)
SPUASH(K)=RLOCK(JJ+12)
RANGREF(K)=RLOCK(JJ+13)
HEL(K)=RLOCK(JJ+14)
NMPSTE(K)=RLOCK(JJ+15)
IREP(K)=RLOCK(JJ+16)
IRECMODE(K)=RLOCK(JJ+17)
IPENMODE(K)=RLOCK(JJ+18)
ISIMTYPE(K)=RLOCK(JJ+19)
FUNCTION(K)=RLOCK(JJ+20)
704 CONTINUE
DO 703 K=1,NGRUP
  ITP = *INFILE
  CALL RQARRAY(RLOCK, 14)
  NVEGAP(K)=RLOCK(2)
  WLAT(K)=RLOCK(3)
  WLONG(K)=RLOCK(4)
  IREG(K)=RLOCK(5)
  ITYPE(K)=RLOCK(6)
  SBLREAL(K) = (1. - RLOCK(4))
  IDML(K) = RLOCK(13)
  PKNAV(K) = RLOCK(14)
  ADD FAT FOR ALLOCATOR
  KK=ITYPE(K)
  IF((CLASS(KK)=EG.FROMREP) * 11. * 11)
    *10 IP = RLOCK(9)
    *13 IF (IPV(IP)) *13, *13, *14
  C
  C
  C
  *13 NMPNS(K) = RLOCK(1) * (1.0 + PEXMISS * (EXNMIS / RLOCK(2)))
  GO TO *12
  C
  C
  C
  *14 NMPNS(K) = RLOCK(1) * (1.0 + PEXMIRV * (EXMIRV / RLOCK(2)))
  GO TO *12
  C
  C
  C
  *11 NMPNS(K) = RLOCK(1) * (1.0 + PEXRUM * (EXNRUM / RLOCK(1)))
  *12 PELFACT = (NMPNS(K) * 1.0) / RLOCK(1)
  FWP = RLOCK(1)
  YALFT(K)=RLOCK(7)
  S-L(K) = (1. - RLOCK(8)) / PELFACT
  IREFUEL(K)=RLOCK(9)
  IF (IREFUEL(K) * EG. - 3) 500, 501
  500 IREFUEL(K)=0
  501 CONTINUE
  YIELD(K)=RLOCK(10)
  ITPPOSTDATA SCALL WRADWAY(K,1)
  RLOCK(2)=NVEGAP(K)
  RLOCK(3)=IREG(K)
  RLOCK(4)=ITYPE(K)
  RLOCK(5)=TALEPT(K)

```

102000
103000
104000
105000
106000
107000
108000
109000
110000
111000
112000
113000
114000
115000
116000
117000
118000
119000
120000
121000
122000
123000
124000
125000
126000
127000
128000
129000
130000
131000
132000
133000
134000
135000
136000
137000
138000
139000
140000
141000
142000
143000
144000
145000
146000
147000
148000
149000
150000
151000
152000
153000
154000
155000
156000
157000

```

NLOCK(6)=IRFFUL(K)
NLOCK(7)=YIELD(K)
NLOCK(8)=NLOCK(11)
NLOCK(9)=NLOCK(12)
IIP=POSTDATA 5 CALL WRARRAY(NLOCK,9)
NRASE=NLOCK(12)
DO 705 M = 1, LNG2
705 DISTAC(M) = 0
60 NWDS=NRASE*5
IIP = WINFILE
CALL WRARRAY(NLOCK,NWDS)
FASM = 0.
DO 62 M=1,NRASE
JJ=5*(M-1)
DISTAC(M)=BLOCK(JJ+1)
DISTAC(M + MTOTBASE) = BLOCK(JJ+2)
DISTAC(M + 2*MTOTBASE) = BLOCK(JJ+3)
DISTAC(M + 3*MTOTBASE) = BLOCK(JJ+4)
IPAYT = NLOCK(JJ+4)
DISTAC(M + 4*MTOTBASE) = BLOCK(JJ+5)
INCREMENT NUMBER OF ASMS
NV = NLOCK(JJ+5) *AND. 7777K
FASM = FASM + NV * NASH(IPAYT)
62 CONTINUE
EXPASH(K) = FASM / FWP
IIP=POSTDATA
NWDS = 5*MTOTBASE
CALL WRARRAY(DISTAC,NWDS)
63 CONTINUE
KK=ITYPE(K)
NLOCK(1)=ISIMTYPE(KK)
RLOCK(2)=RANGE(KK)
RLOCK(3)=CEP(KK)
RLOCK(4)=SPEED(KK)
BLOCK(5)=ALEWIDLY(KK)
BLOCK(6)=NALRTDLY(KK)
RLOCK(7)=RANGDEC(KK)
NLOCK(8)=ICLASS(KK)
NLOCK(9)=NOPERSON(KK)
RLOCK(10)=SPDHI(KK)
RLOCK(11)=SPDLO(KK)
BLOCK(12)=SPDASH(KK)
RLOCK(13)=RANGREF(KK)
NLOCK(14)=NMPSTE(KK)
NLOCK(15)=IREP(KK)
NLOCK(16)=IRECHODE(KK)
NLOCK(17)=IOPENHODE(KK)
NLOCK(18) = FUNCTION (KK)
IIP = POSTDATA 5 CALL WRARRAY(NLOCK,18)
703 CONTINUE
DC 50 IGROUP=1,NGROUP
C. CALCULATE ATTRAC AND DISTAC
INDEX=ITYPE(IGROUP)
REFTIME(IGROUP)=0.
IF((ICLASS(INDEX).EQ.IROMBER)10,50
10 JRT=IRFUEL(IGROUP)

```

159000
159000
160000
161000
162000
163000
164000
165000
166000
167000
168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
193000
194000
195000
196000
197000
198000
199000
200000
201000
202000
203000
204000
205000
206000
207000
208000
209000
210000
211000
212000
213000

```

C DOES WEAPON GROUP HAVE A REFUELING POINT
  IF (JPT.GT.0) 25*20
C NO, CALCULATE DISTANCES FROM WEAPON GROUP ORIGIN TO BEGINNING OF EACH
  C
  C 20 XI=WLAT(IGROUP)
  Y1=WLONG(IGROUP)
  GO TO 30
C YES, CALCULATE DISTANCES FROM REFUELING POINT TO BEGINNING OF EACH
  C
  C 25 XI=RELAT(JPT)
  Y1=RFLONG(JPT)
  X2 = WLAT(IGROUP)
  Y2 = WLONG(IGROUP)
  REFTIME(IGROUP)=(DISTF(X2,Y2,X1,Y1))/SPEED(INDEX)
  30 CONTINUE
  C 35 ICORR = 1, NDUMCORR
  DISTAC(IGROUP, ICORR) = 0.0
  ISTARTC = NDUMCORR + 1
  DO 40 ICORR = ISTARTC, NCORR
  KPT=IBEGIN(ICORR)
  X2=RPLAT(KPT)
  Y2=RPLONG(KPT)
  DISTAB=DISTF(X1,Y1,X2,Y2)
  DISTAC(IGROUP,ICORR)=UISTAR*DISTBC(ICORR)
  40 CONTINUE
  50 CONTINUE
  DO 421 M=1,NGROUP
  421 DISTAC(M,1) = EXPAS*(M)
  IPHYTNO= 3
  CALL PRINTDAT
  ITP=POSTDATA
  ITWORD = RHYYYYYYYY
  CALL WRWORD
  NWDS = MNDRY * 5
  CALL WHARRAY(MPLINK,NWDS)
  NWDS = 2*NCORR + 2*MDPEN
  CALL WHARRAY(KOUNT, NWDS)
  NWDS = 4 * MPTPT
  CALL WHARRAY(JAPTYP, NWDS)
  NWDS = 2 * MDPEN
  CALL WHARRAY(HCBLTX(1), NWDS)
  NWDS = 5 * 4 * MDPEN
  CALL WHARRAY(HCBLAT(1,1), NWDS)
  NWDS = NTANKRAS * 12
  ITP = WINFILE
  CALL WHARRAY(NLOCK, NWDS)
  ITP=POSTDATA
  CALL WHARRAY(NLOC,NWDS)
  ITP = WINFILE 5 CALL TERMTAPE
  ITP = POSTDATA
  ITWORD = RHXXXXXXXXX
  CALL WRWORD
  CALL TERMTAPE
  DO 420 M = 1, NTYPE
  420 ISIMTYPE(M)=IMWTYPE(M)
  RETURN

```

214000
215000
216000
217000
218000
219000
220000
221000
222000
223000
224000
225000
226000
227000
228000
229000
230000
231000
232000
233000
234000
235000
236000
237000
238000
239000
240000
241000
242000
243000
244000
245000
246000
247000
248000
249000
250000
251000
252000
253000
254000
255000
256000
257000
258000
259000
260000
261000
262000
263000
264000
265000
266000
267000
268000
269000

FTNS.5

END

11/26/71

270000

PAGE NO.

8

1403

IDENT WEAPPREP

PROGRAM LENGTH	02661
ENTRY POINTS	01401
BLOCK NAMES	
WEAPPREP	
MASTER	00027
FILES	00020
NOFILE	00006
TORNO	00001
OPENREF	00300
WPNREG	00025
WPNDATA	23420
PLATYPE	00003
PAYLOAD	00621
ASMTABLE	00145
WARHEAD	00227
CORRCHAR	01132
HAPPEN	01751
CHARTER	00241
BOUNDARY	01751
ITP	00001
IFTPHNT	00012
MYIDENT	00001
TEMPO	00310
PREALOC	03744
INPSTOR	03100
SIZES	00007
PRNTCTRL	00032
RECOVR	02114
EXCESS	00317
NAVAL	00621
DUMCORR	00001

EXTERNAL SYMBOLS

01005100
 01004100
 01010100
 02001000
 SETWITE
 HDARRAY
 WRARRAY
 DISTP
 PRI-DAT
 WARRD
 TAP-TAPE

5.ATS WEAPPREP

11/26/71

ED 0

PAGE NO.

10

C00360	ALFADLV	01636	01636	01644	01645	02233	02234												
C00012	ALOCARP																		
C00006	ALDCTAR																		
C03706	ATTIHC																		
C00416	ATTICORR																		
C01166	ATTILFG																		
C00776	ATTIPRE																		
C00454	ATTISUPF																		
C00002	HASFILF																		
P02576	HEGIMI.																		
C00000	WLOCK																		
C00310	HPLAT																		
C00000	HPLINK																		
C00520	HPLONG																		
C01130	HPZONE																		
C00000	CCHEL																		
C00120	CEP																		
C00074	CEPAS*																		
C00002	COMPHM																		
C00001	COMPSL																		
P02626	COUNT.																		
C00322	CPLNGIT*																		
C00644	DEFBIST																		
C00550	DEF-RANGE																		
P00001	DICT.																		
P02627	DISTAR																		
C00250	DISTAC																		
C00322	DISTHC																		
C00644	DISTDEF																		
C01476	DISTEF																		
C01560	DISTES																		
X00010	DISTF																		
C01440	DISTR																		
C00062	DPLAT																		
C00000	DPLINK																		
C00144	DPLONG																		
CC-7226	DT																		
C00000	DU-AP																		
P02601	EMDING.																		
C00226	ERLCAT																		
C00264	ENLIDG																		
C00016	EVENYAPF																		
C00004	EXP-INV																		

5.4TS WEAPPREP

11/26/71 ED 0 PAGE NO. 12

ITEM NO	ITEM	QTY	UNIT	PRICE	TOTAL	DATE	STATUS
C00000	ITMORD						
C03770	ITYPE						
P02640	IUNWIN						
C00050	IMMUI						
C00170	IWM02						
C00000	IWMRASM						
P02314	.10						
P02322	.20						
P02330	.25						
P02350	.30						
P02357	.35						
P02412	.40						
P01751	.410						
P02004	.411						
P02016	.412						
P01756	.413						
P01771	.414						
P01643	.415						
P01653	.416						
P01651	.417						
P02543	.420						
P02426	.421						
P02045	.500						
P02414	.501						
P02050	.501						
P02116	.60						
P02204	.62						
P02220	.63						
P01436	.694						
P01441	.697						
P01416	.698						
P01433	.699						
P01467	.700						
P01522	.701						
P01567	.702						
P02275	.703						
P01710	.704						
P02113	.705						
P01610	.710						
P02605	.ERASER.						
P01375	.100000						
P01376	.160001						
P01377	.100002						
P01400	.100003						
P02604	.NSTIFF.						
P01607	.200001.						
P02661	J						
C00000	JAPTYPE						
C00156	JMAP						
P02642	JJ						
P02643	JJT						
C00144	JT						

SATS WEAPREP

11/26/71 ED 0 PAGE NO. 13

P02644	K	01452	01457	01501	01506	01534	01541	01602	01603	01611	01614	01620
		01621	01711	01713	01722	01765	02000	02013	02015	02046	02051	02057
		02060	02207	02220	02275							
		01744	01745	02222	02223							
P02645	KK											
C00360	KORSTYLE											
C00000	KOUNT	02461										
		02375	02376									
P02646	KPT											
C01750	LHAP4AX											
C00004	LINSTOR											
C01131	LPAX											
C00062	LN											
C00005	LNGL	02107	02107									
C00006	LNGL2	01601	01612									
P02647	LNGL3											
C00000	LT	02106	02112	02127	02131	02133	02141	02150	02156	02165	02205	02421
P02650	M	02424	02536	02541								
C00164	MASM											
C00144	MASMTYPE											
C00170	MENDRY	02443	02443									
C00240	MCORR	02443	02452									
C00001	MDATCX											
C00000	MDATMUL											
C22032	MIESRFB											
C00276	MPPFN	02454	02454	02470	02471	02477	02477	02477	02477	02477	02477	02477
C22031	MG											
C22031	MGROUP											
C00074	MOUNT											
C00620	MP											
C00620	MPAYLOAD											
C00022	MPC											
C00277	MPEF											
C00024	MREG											
C01750	MRTPT	02462	02463									
C00023	PSET											
C00004	MSLTIME											
C00002	MSPERMT											
C00003	MTELMCM											
P01373	MTOBASE	02142	02147	02155	02165	02213						
C22030	MTYPE											
C00226	MWMTYPE											
C11610	MYDEXST											
C00000	MYFIXD	01410	01411									
C00000	MYIDENT	01564	01564									
C00500	MADECOYS											
C00023	MALFRT											
C00500	MALHTCLY	01640	01640	01643	01643	01644	01646	01651	01652	02235	02236	
C00240	MASW	01554	01554	02202	02202							
C00016	MASMTYPE	01472	01472									
P02651	MBASE	02105	02116	02127								
C00010	MENDRY											
C00022	NCLASS											
C00360	NCM	01560	01560									
C00026	RCNTRY											

C00001	PEAKOVH	02010	01412	01423	02053	02053	02077	02210	02211	02267
C00003	PEXSTMV	01775	02435	02435	02514	02514	02525			
C00005	PEALISS	01762								
C00311	PRWAV	01742								
C00017	PLAKTAP	01411								
C00002	POSTDATA	02270								
C00774	PRATT	02433								
X00011	PRI-TDPT	01761	01774	02011	02201					
X00002	Q1404100	01757	02005	02024						
X00001	Q1005100	01744	02001							
X00003	Q1010100	00000	01402							
X00004	GRAPHIC	01630	01430	02225	02226					
C00000	RANGE	01513	01513	02237	02240					
C00024	RANGFASH	01655	01455	02253	02254					
C00020	RANGFREC	01671	01671							
C01060	RANGREF	02503								
C00000	RCHLAT	02474	01447	01470	01531	01574	01605	01716	02122	02511
C02032	RCHLNY	01420								
C00310	RCHLON									
C01750	RCHLTX									
X00006	RDRWAY									
C02152	RECLAT	02307								
C01642	RECLTAK	01673	02310	02341						
C02462	RECLPAG	01515	01673							
C05740	REFTIME	02024	02040							
C01200	REL	02331	02331							
C00050	RELASH	02333	02333							
P02654	RELFAC	02374	02377							
C00224	RELAT	02400	02401							
C00252	RELONG	01734	01736							
C00346	RPLAT	01614	02252							
C00036	RPLNY	01663	02246							
C00056	RPLONG	01664	02250							
C00410	SAL	01634	01634	02231	02232	02346	02347			
C00007	SALREAL	01521	01521							
X00005	SET-RTT	02523	02523							
P00623	SPOASH	01454	01454							
P00363	SPOUT	01503	01503							
P00503	SPULO	01534	01534							
C00240	SPEFO	01602	01602							
C00120	SPEFOASH	01616	01616							
C00014	STRAFIL									
X00013	TFR-TAPE									
C00007	TGFILE									
C00001	TINFILE									
C00010	TPALNC									
C00004	TPTDST									
C00004	TPTAP									
P01472	TS00001	01454	01454							
P01525	TS00002	01503	01503							
P01572	TS00003	01534	01534							
P01612	TS00004	01602	01602							
P01712	TS00005	01616	01616							

