AKADEMIA SZTABU GENERALNEGO WP
im. generała broni Karola Świerczewskiego

INSTYTUT DOWODZENIA

Egz. Nr 5

KOMPUTEROWY MODEL KIEROWANIA WALKĄ I OCENY EFEKTYWNOŚCI GRUPY JEDNOSTEK WR OPK W PROCESIE ODPARCIA NALOTU PRZECIWNIKA POWIETRZNEGO

Część IV

Program na EMC MIŃSK-32

Autor algorytmu:

ppłk dr inż. Roman KULCZYCKI

Autorzy programu:

mgr Grażyna SOJA
por. mgr inż. Henryk KIEREBIŃSKI
mgr Leon PŁASKONKA

WARSZAWA STYCZEŃ [redacted] 1975

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FORTRAN COMPILATION BY MIFOR MK 3E DATE 11/02/75 TIME 09/40/47


```
LIST
READ FROM(MT,ROBAK,SALW5)
OVERLAY PROGRAM (SALW)
 COMPRESS INTEGER AND LOGICAL
INPUT 2=CP1
INPUT 3=TR1
OUTPUT 10=TYO
USE 8=/ARRAY
USE 5=/ARRAY
OUTPUT 1=LPT
CREATE 4=MT2/(DANE)
USE 6=MT2/(DANE)
OVERLAY(1,1)  SSS1
OVERLAY(1,2)  SSS1A
OVERLAY(1,3)  SSS2
OVERLAY(1,4)  SSS3
OVERLAY(1,5)  SSS4
OVERLAY(1,6)  SSS6
OVERLAY(1,7)  SSS1B
OVERLAY(1,8)  BAZ1B
OVERLAY(1,9)  SSS7
OVERLAY(1,10)  SSS5
OVERLAY(1,11)  OBRAZ
OVERLAY(1,12)  WYOR
OVERLAY(1,13)  BAZ1A
OVERLAY(1,14)  BAZA1
OVERLAY(1,15)  BAZA2
OVERLAY(1,16)  CEL2
OVERLAY(1,17)  DANE
OVERLAY(1,18)  CELE
OVERLAY(1,19)  IKAR
OVERLAY(1,20)  OBR1
OVERLAY(1,21)  ANSAL
OVERLAY(1,22)  AKT9
OVERLAY(1,23)  AKTUL
OVERLAY(1,24)  AKT1
OVERLAY(1,25)  AKT11
OVERLAY(1,26)  AKT10
                                OVERLAY (1,27) EFEKT
END

MASTER ALGOR
INTEGER AA(448),BB(27),SYMB(29),TC(25),AT(25),S,
A       KK(30),J6,V(3001),I6,M1,N6,  NUZWW(297),SYMC(29),
A       NIZWI(128),KRYP(36),RBB(36),III,AAA(814),NN(10),
A       NUZWU(209),BBB(9),KKK(32),I,A(120),POLE(3001),
A       BLOK(16),BLOK2(3),BLOK4(4),BLOK6(4830),BLOK7(34),
A       KLUCZ,ETYK,ALE,POL5(165),POL5(166),POL6,POL7,POL1(165),
A       TABL(20),ST,S2,S3,S4,S5,S6,S7,S8,S9,S10,
A       AV(25),II,IN,MT,BLOK9(56)
INTEGER CALK(965),WRA
INTEGER INTE(116)
REAL A11(64),B11(162),D2(25),D1(25),H1(25),
A       Z11,XX(41),YY(41),Z1,Z2,Z4,Z5,A1(40),BLOK1(8),BLOK3(95),
A       H2(25),BLOK5(3),XXX,POL2(330),POL4(165),
A       PRZ1(4),PRZ2(4),Z111,Z112,BLOK8(285)
REAL    RZEC2(1606)
REAL REAL(75),LALA
COMMON /DRUK/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
A       II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
A       KK,J6,V,I6,M1,N6,
A       NUZWW,SYMC,NIZWI,KRYP,RBB,III,AAA,NN,NUZWU,BBB,KKK,I,A,
A       A1,POLE
COMMON /UUUU/KLUCZ
COMMON /UNUN/BLOK,BLOK1,BLOK2,BLOK3,BLOK4,BLOK5,BLOK9
COMMON/DRUL/BLOK6
COMMON/DDDD/BLOK7,BLOK8
COMMON/ORDR/POL1,POL2,POL3,POL4,POL5
```

```
      COMMON/DATE/POL6
      COMMON/DSOS/POL7
      COMMON /TABL/CALK,WWA,RZECZ
      COMMON /GSOJA/LALA,INTE,REAL
      CALL SSWTCH(1,S)
      IF (S-1)0,8,0
      EXTERNAL WWW
      CALL FTRAP(WWW)
      KLUCZ=0
      CALL SSS1
      CALL SSS1A
      CALL SSS2
      CALL SSS3
      CALL SSS4
      CALL SSS5
       IF(BLOK(6)-3)103,0,103
       CALL DANE
 103   IF(BLOK(6)-4)29,0,29
      CALL SSS1B
29    WRITE(10,90)
90    FORMAT (13HDANE DO BAZY2)
      PAUSE
      CALL SSWTCH(2,S)
      IF(S-1)91,0,91
      CALL SSS7
      CALL SSS5
      CALL SWOFF(2)
91    CALL OBRAZ(BLOK(5),BLOK(1),BLOK1(1),BLOK1(2),V,PRZ1)
      CALL OBRAZ(BLOK(5),BLOK(2),BLOK1(3),BLOK1(4),POLE,PRZ2)
      MT=4
      WRITE(MT) V,POLE
      WRITE(MT) AA,BB,A11,B11,SYMB,D2,D1,H1,H2,
     A          TC,AT,AV,II,IN,Z11,XX,YY,PRZ1,PRZ2,
     A          KK,J6,I6,M1,N6,NWZW,SYMC,NIZWI,KRYP,
     A          RBB,III,AAA,NN,NUZWU,BBB,KKK,I,A,A1,
     A          KLUCZ,BLOK,BLOK1,BLOK2,BLOK3,BLOK4,
     A          BLOK5,BLOK9,BLOK6,BLOK7,BLOK8,POL1,
     A          POL2,POL3,POL4,POL5,POL6,POL7
      REWIND MT
46    PAUSE 1
      CALL SSWTCH(5,S)
      IF(S-1)3,0,3
      CALL WYDR(V,BLOK(1),BLOK1(1),BLOK1(2),PRZ1)
      CALL SWOFF(3)
      GOTO 6
3     CALL SSWTCH(6,S)
      IF(S-1)4,0,4
      CALL WYDR(POLE,BLOK(2),BLOK1(3),BLOK1(4),PRZ2)
      CALL SWOFF(6)
      GOTO 6
8     MT=4
      READ(MT) V,POLE
      READ(MT)  AA,BB,A11,B11,SYMB,D2,D1,H1,H2,
     A          TC,AT,AV,II,IN,Z11,XX,YY,PRZ1,PRZ2,
     A          KK,J6,I6,M1,N6,NWZW,SYMC,NIZWI,KRYP,
     A          RBB,III,AAA,NN,NUZWU,BBB,KKK,I,A,A1,
     A          KLUCZ,BLOK,BLOK1,BLOK2,BLOK3,BLOK4,
     A          BLOK5,BLOK9,BLOK6,BLOK7,BLOK8,POL1,
     A          POL2,POL3,POL4,POL5,POL6,POL7
      REWIND MT
      CALL SWOFF(1)
      GO TO 46
4     CALL SSWTCH(7,S)
      IF(S-1)6,0,6
      CALL WYDR(V,BLOK(1),BLOK1(1),BLOK1(2),PRZ1)
      CALL WYDR(POLE,BLOK(2),BLOK1(3),BLOK1(4),PRZ2)
      CALL BAZ1A
      CALL BAZA1
      CALL SWOFF(7)
      IF(BLOK(6)-4)6,0,6
      CALL BAZ1B
6     PAUSE 2
      CALL SSWTCH(2,S)
      IF(S-1)1,0,1
      CALL BAZ1A
      CALL BAZA1
      CALL BAZA2
      CALL SWOFF(2)
```

```
      GOTO 5
1     CALL SSWTCH(3,S)
      IF(S-1)2,0,2
      CALL BAZA1
      CALL BAZA1
      CALL SSOFF(3)
      GOTO 5
2     CALL SSWTCH(4,S)
      IF(S-1)5,0,5
      CALL BAZA2
      CALL SSOFF(4)
5     CALL SSWTCH(1,S)
      IF(S-1)17,0,17
      WRITE(10,7)
7     FORMAT (31HAKTUALIZACJA OGOLNA BAZY DANYCH)
      PAUSE
23    CALL SSWTCH(8,ALE)
      ALE=ALE+1
10    READ(ALE,9) S1
      IF(KLUCZ)0,0,33
9     FORMAT (I0)
      IF(S1-2)25,0,25
      CALL AKT9
      GO TO 16
25    IF(S1-3)0,10,0
      IF(S1-4)0,11,0
      IF(S1-5)0,12,0
      IF(S1-6)0,13,0
      IF(S1-7)0,14,0
      IF(S1-8)26,0,26
31    DO 27 S2=1,5
            READ(ALE,28) S7,XXX
28          FORMAT (I0,F0.0)
      IF(KLUCZ)0,0,32
            IF(S7+1)0,16,0
            BLOKS(S7)=XXX
27    CONTINUE
      GOTO 16
26    IF(S1-1)0,24,0
18    WRITE(10,15)
15    FORMAT (19HBLEDNE DANE AKTUAL.)
      PAUSE
      GO TO 16
10    CALL AKTUL
      GO TO 16
11    CALL AKT1
      GO TO 16
14    CALL AKT11
      GOTO 16
13    READ(ALE,55) (NN(S6),S6=1,10)
      IF(KLUCZ)0,0,24
55    FORMAT(32I0)
      READ(ALE,55) (BBB(S6),S6=1,9)
      IF(KLUCZ)0,0,24
      READ(ALE,55) (KKK(S6),S6=1,32)
      IF(KLUCZ)0,0,24
      DO 34 S6=1,10
            IF(NN(S6))40,0,0
            IF(NN(S6)-2)0,0,40
34    CONTINUE
      DO 35 S6=1,9
            IF(BBB(S6)-10)41,0,0
            IF(BBB(S6)-90)0,0,41
35    CONTINUE
      DO 30 S6=1,32
            IF(KKK(S6))42,0,0
            IF(KKK(S6)-99)0,0,42
30    CONTINUE
      GO TO 16
40    WRITE(10,20)
20    FORMAT (17HBLEDNE IND.PRZYN.)
      GO TO 13
41    WRITE(10,19)
19    FORMAT (17HBLEDNE IND.UZUPEL)
      GOTO 13
42    WRITE(10,54)
54    FORMAT (21HBLEDNE KODY SIATKI OP)
      GOTO 13
```

```
32      PAUSE 5652
        KLUCZ=0
        GOTO 31
35      PAUSE 5653
        KLUCZ=0
        GO TO 25
24      PAUSE 5151
        KLUCZ=0
        GO TO 15
14      CALL AKT10
        GOTO 16
22      READ(4)
        MT=4
        WRITE(MT) AA,BB,A11,B11,SYMB,D2,D1,M1,M2,
     A            TL,AT,AV,II,IN,Z11,XX,YY,PRZ1,PRZ2,
     A            KK,JJ,I6,M1,M6,NWZWW,SYMC,NIZWI,KRYP,
     A            RBB,III,AAA,NN,NUZWU,BBB,KKK,I,A,A1,
     A            KLUCZ,BLOK,BLOK1,BLOK2,BLOK3,BLOK4,
     A            BLOK5,BLOK6,BLOK7,BLOK8,POL1,
     A            POL2,POL3,POL4,POL5,POL6,POL7
        REWIND MT
  17     S=BLOK(6)
         IF (S) 39,39,0
         IF(S-4) 0,0,39
         GOTO (36,37,38,0),S
        CALL IBAR
        GOTO 21
39      WRITE(10,44)
44      FORMAT (32HBLEDNY KLUCZ 1 W BLOKU KOMUTACJI)
        CALL AKT9
        GOTO 17
  36          CALL CEL2
              GOTO 21
  37          CALL MELO
              GOTO 21
  38     CALL CELE
21      IF(POL5(166))0,0,45
        MT=6
        READ(MT) V,POLE
        REWIND MT
        WUA=0
                IF(INTE(7)-500)17,0,0
              IF (BLOK(1)-BLOK4(2)) 101,0,101
                      CALL EFEKT(V,PRZ1,BLOK1(1))
        CALL WYDR(V,BLOK(1),BLOK1(1),BLOK1(2),PRZ1)
              GOTO 102
101                   CALL EFEKT(POLE,PRZ2,BLOK1(3))
        CALL WYDR(POLE,BLOK(2),BLOK1(3),BLOK1(4),PRZ2)
 102     STOP 74
45      CALL ODR1(V,PRZ1)
        CALL ODR1(POLE,PRZ2)
        CALL SSWTCH(2,S)
        IF (S-1) 150,0,150
        CALL WYDR(V,BLOK(1),BLOK1(1),BLOK1(4),PRZ1)
150     CALL SSWTCH(3,S)
        IF (S-1) 50,0,50
        CALL WYDR(POLE,BLOK(2),BLOK1(3),BLOK1(4),PRZ2)
50      CALL AMSAL
        GOTO 5
        STOP
        END
```

```
      SUBROUTINE WWW(PAR)
      INTEGER PAR,KLUCZ
      COMMON /UUUU/KLUCZ
      IF(PAR)0,1,1
      KLUCZ=1
1     RETURN
      END
```

```
      BLOCK DATA
      INTEGER AA(442),BB(27),SYM1(29),P5(25),P6(25),P7(25),SYMC(29),
     A III,A(914),N(10),NIZWI(128),KRYP(36),ROB(36),NUZWU(209),
     A      II,IN,KK(30),J6,V(3001),I6,M1,M6,NAZWA(297)
      REAL A11(64),B11(162),P1(25),P2(25),P3(25),P4(25),
     A      Z11,XX(41),YY(41),Z1,Z2,Z4,Z5
      COMMON /DPUS/AA,BB,A11,B11,SYM1,P2,P1,P3,P4,P5,P6,P7,
     A      II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A      KK,J6,V,I6,M1,M6,
     A      NAZWA,SYMC,
     A NIZWI,KRYP,ROB,III,A,N,NUZWU
      DATA ROB/10,20,30,40,50,60,70,80,90,100,110,120,130,140,150,160,
     A 170,180,190,200,210,220,230,240,250,260,270,280,290,300,310,
     A 320,330,340,350,0/
      DATA NUZWU(1)/44HPRZECIWNIK POWIETRZNY                          /
      DATA NUZWU(12)/44HOBCY SAMOLOT-NARUSZYCIEL GRANICY PANSTWOWEJ /
      DATA NUZWU(23)/44HSAMOLOT KONTROLNY                             /
      DATA NUZWU(34)/44HCEL,SAMOLOT BEZ SYGNALU ROZPOZNANIA           /
      DATA NUZWU(35)/44HCEL,ZRODLO ZAKLOCEN                           /
      DATA NUZWU(56)/44HMYSLIWIEC WLASNY                              /
      DATA NUZWU(67)/44HSAMOLOT WLASNY-NARUSZYCIEL REZIMU LOTOW       /
      DATA NUZWU(78)/44HSAMOLOT WLASNY ZGODNIE Z ZAMOWIENIEM          /
      DATA NUZWU(89)/44HCEL,SAMOLOT Z SYGNALEM ROZPOZNANIA            /
      DATA NUZWU(100)/44HCEL CWICZEBNY                                /
      DATA NUZWU(111)/44HOBCY BALON POWIETRZNY                        /
      DATA NUZWU(122)/44HCEL ZAGUBIONY                                /
      DATA NUZWU(133)/44HCEL WYSZEDL ZE STREFY OBSERWACJI RLS         /
      DATA NUZWU(144)/44HCEL POMYLKOWY-ZDEJMUJE SIE Z POWIADAMIANIA   /
      DATA NUZWU(155)/44HCEL ZNISZCZONY                               /
      DATA NUZWU(166)/44HCEL STOSUJACY MANEWR                         /
      DATA NUZWU(177)/44HCEL NISKO LECACY                             /
      DATA NUZWU(188)/44HCEL WYSOKO LECACY                            /
      DATA NUZWU(199)/44HCEL NAWODNY                                  /
      DATA NAZWA(1)/44HZESTAW RAKIETOWY  S-75M    -WOLCHOW            /
      DATA NAZWA(12)/44HZESTAW RAKIETOWY  SA-75M  -DZWINA             /
      DATA NAZWA(23)/44HZESTAW RAKIETOWY  S-125   -NEWA               /
      DATA NAZWA(34)/44HZESTAW RAKIETOWY    -     -KRUG               /
      DATA NAZWA(45)/44HZESTAW RAKIETOWY    -     -KUB                /
      DATA NAZWA(56)/44HZESTAW RAKIETOWY    -     -STRZALA-2          /
      DATA NAZWA(67)/44HZESTAW ARTYLERYJSKI   S-60                    /
      DATA NAZWA(78)/44HZSU-23-4(2)           SZYLKA                  /
      DATA NAZWA(89)/44HARTYLERIA PKM                                 /
      DATA NAZWA(100)/44HSPONTONY PEJON                               /
      DATA NAZWA(111)/44HSTACJA SPB-7,SPB-8                           /
      DATA NAZWA(122)/44HSTACJA ZAKLOCEN LACZNOSCI                    /
      DATA NAZWA(133)/44HPUNKT NAPROWADZANIA TYPU A                   /
      DATA NAZWA(144)/44HPUNKT NAPROWADZANIA TYPU B                   /
      DATA NAZWA(155)/44HPUNKT NAPROWADZANIA TYPU C                   /
      DATA NAZWA(166)/44HPUNKT NAPROWADZANIA TYPU D                   /
      DATA NAZWA(177)/44HRADIOLOKACYJNY POSTERUNEK WYKRYWANIA TYPU A /
      DATA NAZWA(188)/44HRADIOLOKACYJNY POSTERUNEK WYKRYWANIA TYPU B /
      DATA NAZWA(199)/44HRADIOLOKACYJNY POSTERUNEK WYKRYWANIA TYPU C /
      DATA NAZWA(210)/44HRADIOLOKACYJNY POSTERUNEK WYKRYWANIA TYPU D /
      DATA NAZWA(221)/44HLOTNICTWO MYSLIWSKIE TYPU A                  /
      DATA NAZWA(232)/44HLOTNICTWO MYSLIWSKIE TYPU B                  /
      DATA NAZWA(243)/44HLOTNICTWO MYSLIWSKIE TYPU C                  /
      DATA NAZWA(254)/44HLOTNICTWO MYSLIWSKIE TYPU D                  /
      DATA NAZWA(265)/44HZESRODKOWANIE WOJSK                          /
      DATA NAZWA(276)/44HNATARCIE WOJSK                               /
      DATA NAZWA(287)/44HSTANOWISKO DOWODZENIA                        /
     DATA SYM1/4H00↑W,4H00↑D,4H00↑N,4H00↑X,4H00↑B,4H00↑S,
     .          4H00/S,4H00/Z,4H00/P,4H00+R,4H00[C,4H00[L,
     .          4H00)A,4H00)B,4H00)C,4H00)D,4H00(A,4H00(B,
     .          4H00(C,4H00(D,4H00]A,4H00]B,4H00]C,4H00]D,
     .          4H000,4H000,,4H000=,4H000.,4H000 /
      DATA P1,P2,P3,P4,P5,P6,P7/2*7.00,10.00,2*0.00,0.50,6*0.00,2.00,
     A      3*0.00,2.00,3*0.00,34.00,27.00,17.00,2*0.00,6.00,
     A      5.00,3.00,2.00,0.00,40.00,30.00,90.00,80.00,
     A      70.00,60.00,100.00,90.00,80.00,70.00,100.00,
     A      110.00,120.00,130.00,0.00,0.10,0.50,
     C      0.01,2*0.00,0.01,6*0.00,0.10,3*0.00,0.10,3*0.00,0.01,4*0.00,
     U      32.00,30.00,17.00,2*0.00,5.00,5*0.00,120.00,30.00,3*0.00,
     W      30.00,3*0.00,20.00,4*0.00,2*95.75,(2*0/
      END
```

```
      SUBROUTINE SSS1A
      INTEGER ETYK,ALE,I,S(16),KLUCZ,T1
      REAL S1(8),T4
      COMMON /UNUR/S,S1
      COMMON /UUUU/KLUCZ
      PAUSE 11
      ASSIGN 2 TO ETYK
2     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,3) S(1),(S1(I),I=1,2),S(2),
     A            (S1(I),I=3,6),(S(I),I=3,16)
      IF(KLUCZ)0,0,30
3     FORMAT (I0,6F0.0,I0,6F0.0,14I0)
19    DO 4 I=1,2
        IF(S(I)-1000000)0,0,5
4     CONTINUE
      DO 7 I=1,6
        IF(S1(I)-1000000)0,0,0
        T4=9999.999*1000
        IF(S1(I)-T4)0,0,8
7     CONTINUE
      IF(S(3))10,10,0
      IF(S(3)-99)0,0,10
      IF(S(4)-10)12,0,0
      IF(S(4)-360)0,0,12
      IF(S(5)-6)12,20,0
      IF(S(5)-8)12,0,12
20    DO 16 I=6,15
        IF(S(I))12,16,0
        IF(S(I)-9)0,0,12
16    CONTINUE
      IF(S(16))23,0,0
      IF(S(16)-99)0,0,23
      GO TO 18
5     WRITE(10,6)
6     FORMAT (12HBLEDNE SKALE)
      PAUSE
      CALL AKT9
      GO TO 19
9     FORMAT (18HBLEDNE WSPOLRZEDNE)
8     WRITE(10,9)
      PAUSE
      CALL AKT9
      GOTO 19
10    WRITE(10,11)
11    FORMAT (12HBLEDNA KOL.7)
      PAUSE
      CALL AKT9
      GO TO 19
12    WRITE(10,13)
13    FORMAT (23HBLEDNA JEDNA Z KOL.8-15)
      PAUSE
      CALL AKT9
      GO TO 19
23    WRITE(10,24)
24    FORMAT (13HBLEDNA KOL.20)
      PAUSE
      CALL AKT9
      GOTO 19
30    PAUSE 14
      KLUCZ=0
      GO TO ETYK
18    WRITE(10,21)
21    FORMAT (12HAKTUALIZACJA)
      PAUSE
      CALL SSWTCH(1,T1)
      IF(T1-1)22,0,22
      CALL AKT9
      CALL SUOFF(1)
22    RETURN
      END
```

```
      SUBROUTINE SSS2
      INTEGER A(448),NAZWA(128),KRYP(36),B(27),M1,G,C,PP,
     A        BBB(36),III,AAA(814),NN(10),NUZWU(209),
     A        BBB(9),KKK(32),IIII,AAAA(120),
     A  J,M,D,E,R,S,W,U,I,N,K,L,ST1,T,I1,TABLE(20),
     A        IN,SYMB(29),TC(25),AT(25),AV(25),
     A  ALE,ETYK,KLUCZ,
     A        KK(30),J6,V(3001),I6,M1,N6,NUZWW(297),SYMC(29)
      REAL B1(162),T1,A1(64),D2(25),D1(25),
     A        H1(25),H2(25),AAA1(40),
     A        Z11,XX(41),YY(41),ZT,Z2,Z4,Z5
      COMMON /ORUKA/A,B,A1,B1,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A        I,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A        KK,J6,V,I6,M1,N6,
     A        NUZWW,SYMC,NAZWA,KRYP,
     A        BBB,III,AAA,NN,NUZWU,BBB,KKK,IIII,AAAA,AAA1
      COMMON /UUUG/KLUCZ
      CALL DEFBUF(5,80,TABLE)
      PAUSE 22
      ASSIGN 1 TO ETYK
1     CALL SSPTCH(8,ALE)
      ALE=ALE+1
94    J=1
      M=4
      D=-14
      E=0
      W=-1
      U=0
      DO 11 I=1,455,14
      N=I+1
      READ(ALE,10) A(I),A(N),(NAZWA(K),K=J,M)
      IF(KLUCZ)0,0,16
10    FORMAT (2I0,3A4,A2)
      IF(A(I)+1)0,12,0
      D=D+14
      E=E+14
      U=U+2
      W=W+2
      READ(ALE,13) A1(W),A1(U),(A(C),C=D,E)
      IF(KLUCZ)0,0,16
13    FORMAT (2F0.0,14I0)
      J=J+4
      M=M+4
11    CONTINUE
      I=455
      GOTO 50
12    IF(I-1)30,30,0
      I=I-14
      J=J-14
50    DO 51 K=1,I,14
      IF(A(K))20,20,0
      IF(A(K)-99)0,0,20
51    CONTINUE
4     DO 52 K=2,J,14
      IF(A(K))21,0,0
      IF(A(K)-99)0,0,21
52    CONTINUE
5     DO 53 K=1,W,2
      IF(A1(K)-1000000)22,0,0
      T1=9999999*1000
      IF(A1(K)-T1)0,0,22
53    CONTINUE
7     DO 54 K=2,U,2
      IF(A1(K)-1000000)23,0,0
      IF(A1(K)-T1)0,0,23
54    CONTINUE
      ST1=I+2
8     DO 55 K=3,ST1,14
      IF(A(K))24,0,0
      IF(A(K)-99)0,0,24
55    CONTINUE
      R=5
      S=14
      ST1=I+3
9     DO 56 K=4,ST1,14
      IF(A(K))25,0,0
      IF(A(K)-99)0,0,25
14    DO 15 P=R,S
```

```
      IF(A(P))26,0,0
      IF(A(P)-999)0,0,26
15    CONTINUE
      R=R+14
      S=S+14
50    CONTINUE
      GOTO 19
20    WRITE(10,71)
71    FORMAT (11HBLEDNA KOL1)
            P=1
            GOTO 100
21    WRITE(10,72)
72    FORMAT (11HBLEDNA KOL2)
            P=2
            GOTO 100
22    WRITE(10,73)
73    FORMAT (14HBLEDNA WSPOL.X)
            P=3
            GOTO 100
23    WRITE(10,74)
74    FORMAT (14HBLEDNA WSPOL.Y)
            P=4
            GOTO 100
24    WRITE(10,75)
75    FORMAT (11HBLEDNA KOL6)
            P=5
            GOTO 100
25    WRITE(10,76)
76    FORMAT (11HBLEDNA KOL7)
            P=6
            GOTO 100
26    WRITE(10,77)
77    FORMAT (15HBLEDNA KOL 8-17)
            P=7
100         PAUSE
            CALL AKTUL
            GOTO (50,4,5,7,8,9,14),P
19    WRITE(10,78)
78    FORMAT (12HAKTUALIZACJA)
      PAUSE
      CALL SSWTCH(1,T)
      IF(T-1)50,0,30
      CALL AKTUL
30    PAUSE 25
      CALL SSOFF(1)
      ASSIGN 17 TO ETYK
17    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      J=1
      M=4
      D=1
      E=18
      DO 31 IN=1,25,3
      N=IN+1
      N1=IN+2
      READ(ALE,32) B(IN),B(N),(KRYP(K),K=J,M)
      IF(KLUC2)0,0,16
32    FORMAT (2I0,3A4,A2)
      IF(B(IN)+1)0,33,0
      READ(ALE,38) (BT(C),C=D,E),B(N1)
      IF(KLUC2)0,0,16
38    FORMAT (18F0.0,I0)
      J=J+4
      M=M+4
      E=E+18
      D=D+18
31    CONTINUE
      IN=25
      GOTO 61
35    IF(IN-1)47,47,0
      IN=IN-1
61    D=1
      E=18
      DO 62 K=1,IN,3
      N=K+1
      N1=K+2
60    IF(B(K))40,40,0
      IF(B(K)-99)0,0,40
```

```
29      IF(B(N))41,0,0
        IF(B(N)-999)0,0,41
39      IF(B(N1))42,0,0
        IF(B(N1)-999)0,0,42
44      DO 34 P=D,E
        IF(B1(P))43,34,0
        IF(B1(P)-1000000)43,0,0
        IF(B1(P)-T1)0,0,43
34      CONTINUE
        J=J+4
        M=M+4
        D=18+D
        E=18+E
62      CONTINUE
        GOTO 46
40      WRITE(10,80)
80      FORMAT (11HBLEDNA KOL1)
              P=1
              GOTO 200
41      WRITE(10,81)
81      FORMAT (11HBLEDNA KOL2)
              P=2
              GOTO 200
42      WRITE(10,82)
82      FORMAT (12HBLEDNA KOL13)
              P=3
              GOTO 200
43      WRITE(10,83)
83      FORMAT (18HBLEDNE WSPOLRZEDNE)
              P=4
 200          PAUSE
              CALL AKT1
              GOTO (80,29,39,44),P
10      PAUSE 24
        KLUCZ=0
        GOTO ETYK
46      WRITE(10,84)
84      FORMAT (12HAKTUALIZACJA)
        PAUSE
        CALL SSWTCH(1,T)
        IF(T-1)47,0,47
        CALL AKT1
47      CALL SWOFF(1)
        RETURN
        END
```

```
      SUBROUTINE SSS3
      INTEGER A(814),ROB(56),E,F,K,I,E1,F1,W,E2,F2,T,I1,K1,
     A        AA(448),BB(27),SYMB(29),TC(25),AT(25),AV(25),
     A        NUZWW(297),SYMC(29),NAZWA(128),KRYP(36),
     A        ALE,KLUCZ,
     A        II,IN,KK(30),J6,V(3001),I6,M1,N6
      REAL A11(64),B11(162),D2(25),D1(25),H1(25),H2(25),
     A        Z11,XX(41),YY(41),Z1,Z2,Z4,Z5
      COMMON /ORUR/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A        II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A        KK,J6,V,I6,M1,N6,
     A        NUZWW,SYMC,NAZWA,KRYP,ROB,I,A
      COMMON /UUUO/KLUCZ
      PAUSE 33
1     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      E=2
      F=37
      DO 2 I=1,778,37
      READ(ALE,3) A(I)
      IF(KLUCZ) 0,0,8
3     FORMAT (37I0)
      IF(A(I)+1)0,4,0
      READ(ALE,3) (A(K),K=E,F)
      IF(KLUCZ)0,0,8
      F=F+37
      E=E+37
2     CONTINUE
      I=778
      GO TO 41
4     IF(I-1)20,20,0
      I=I-37
21    E=2
      F=37
      DO 22 K1=1,I,37
      IF(A(K1)) 10,10,0
       IF(A(K1)-99) 0,0,10
15    DO 5 K=E,F
      IF(A(K))11,0,0
      IF(A(K)-999)0,0,11
5     CONTINUE
      E=E+37
      F=F+37
22    CONTINUE
      GO TO 14
10    WRITE(10,51)
51    FORMAT (12HBLEDNY NR.JW)
      PAUSE
      CALL AKT11
      GOTO 21
11    WRITE(10,52)
52    FORMAT (14HBLEDNE STOPNIE)
      PAUSE
      CALL AKT11
      GOTO 21
8     PAUSE 34
      KLUCZ=0
      GO TO 1
14    WRITE(10,53)
53    FORMAT (12HAKTUALIZACJA)
      PAUSE
      CALL SSWTCH(1,T)
      IF(T-1)20,0,20
      CALL AKT11
20    CALL SWOFF(1)
      RETURN
      END
```

```
      SUBROUTINE SSS4
      INTEGER NAZWA(209),N(10),I,J,L,M,K(32),
     A TABL(20),T,W,W1,W2,Z,L1,L2,ROB,
     A      AA(448),BB(27),SYMB(29),TC(25),AT(25),AV(25),
     A      II,IN,KK(30),J6,V(3001),I6,M1,N6,
     A      NWZWW(297),SYMC(29),NIZWI(12P),KRYP(36),
     A      KLUCZ,ALE,
     A      III,A   (814),B(9),RBB(36)
      REAL A11(64),B11(162),B2(25),B1(25),H1(25),H2(25),
     A      Z1T,XX(41),YY(41),Z1,Z2,Z4,Z5
      COMMON /BRUK/AA,BB,A11,B11,SYMB,B2,B1,H1,H2,TC,AT,AV,
     A      II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A      KK,J6,V,I6,M1,N6,
     A      NWZWW,SYMC,NIZWI,KRYP,RBB,III,A,N,NAZWA,B,K
      COMMON /UUUO/KLUCZ
      PAUSE 44
      CALL DEFBUF(5,80,TABL)
1     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      CALL READT(TABL,ALE)
       READ(5,18) N(1)
      IF(KLUCZ)0,0,4
      IF(N(1)+1)0,27,0
      READ(5,18) (N(I),I=1,10)
      IF(KLUCZ)0,0,4
25     READ(ALE,18) (B(I),I=1,9)
      IF(KLUCZ)0,0,4
26    READ(ALE,18) (K(I),I=1,32)
      IF(KLUCZ)0,0,4
18    FORMAT (32I0)
      DO 31 I=1,10
            IF(N(I))40,0,0
            IF(N(I)-9)0,0,40
31    CONTINUE
      DO 32 I=1,9
            IF(B(I)-10)41,0,0
            IF(B(I)-90)0,0,41
32    CONTINUE
      DO 33 I=1,32
            IF(K(I))42,0,0
            IF(K(I)-99)0,0,42
33    CONTINUE
      GOTO 34
4     PAUSE 45
      KLUCZ=0
      GOTO 1
40    WRITE(10,60)
60    FORMAT (17HBLEDNE IND.PRZYN.)
      GOTO 1
41    WRITE(10,61)
61    FORMAT (17HBLEDNE IND.UZUPEL)
      GO TO 1
42    WRITE(10,62)
62    FORMAT (21HBLEDNE KODY SIATKI OP)
      GOTO 1
34    WRITE(10,54)
54    FORMAT (12HAKTUALIZACJA)
      PAUSE
      CALL SSWTCH(1,T)
      IF(T-1)0,1,0
27    RETURN
      END
```

```
      SUBROUTINE SSS6
      INTEGER M,N,X,Y,I,J,A(120),K,L,P,T,W,S,C,D,
     A      AA(448),BB(27),SYMB(29),TC(25),AT(25),AV(25),
     A      II,IN,KK(30),J6,V(3001),I6,M1,N6,TABL(20),
     A      NUZWW(297),SYMC(29),NIZWI(128),KRYP(36),
     A      RBB(36),III,AAA(814),NN(10),NUZWU(209),BBB(9),KKK(32),
     A      E,F,G,H,KLUCZ,ALE,S(16)
      REAL A1(40),ROB,ROBX0,ROBY,ROBX1,ROBY1,S1(8),
     A      A11(64),B11(162),D2(25),D1(25),H1(25),H2(25),
     A      Z11,XX(41),YY(41),Z1,Z2,Z4,Z5
      REAL ROB10,Z111,Z112
      COMMON /OBUB/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A      II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A      KK,J6,V,I6,M1,N6,
     A      NUZWW,SYMC,NIZWI,KRYP,RBB,III,AAA,NN,NUZWU,BBB,KKK,I,A,
     A      A1
      COMMON /UUUU/KLUCZ
      COMMON /UNUM/S,S1
      Z111=0.000001*S1(2)
      Z111=AINT(Z111)
      Z112=0.000001*S1(4)
      Z112=AINT(Z112)
         IF(Z111-Z112)0,105,105
      Z11=Z111
      CALL SS1(S1(3),S1(4),Z11)
      GO TO 104
105   Z11=Z112
      CALL SS1(S1(1),S1(2),Z11)
104   CALL SS1(S1(5),S1(6),Z11)
      CALL DEFBUF(5,80,TABL)
      PAUSE 55
16    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      X=-1
      Y=0
      DO 1 I=1,115,6
      CALL READT(TABL,ALE)
            READ(5,2) A(I)
            IF(KLUCZ)0,0,18
2           FORMAT (4I0,2F0.0,2I0)
            IF(A(I)+1)0,5,0
            L=I+4
            P=I+5
            X=X+2
            Y=Y+2
            J=I+1
            N=I+3
            READ(5,2) A(I),(A(K),K=J,N),A1(X),A1(Y),A(L),A(P)
            IF(KLUCZ)0,0,18
1     CONTINUE
      I=115
      GOTO 20
5     I=I-6
20    DO 6 K=1,I,6
      IF(A(K))11,11,0
       IF(A(K)-99)0,0,11
6     CONTINUE
21    DO 7 K=2,I,6
      IF(A(K))12,0,0
      IF(A(K)-99)0,0,12
7     CONTINUE
25    M =I+2
      DO 26 K=3,M,6
            IF(A(K))27,27,0
            IF(A(K)-99999)0,0,27
            IF(A(K+1))27,27,0
            IF(A(K+1)-99999)0,0,27
26    CONTINUE
22    DO 8 K=5,L,6
      IF(A(K))13,0,0
      IF(A(K)-999)0,0,13
8     CONTINUE
23    DO 9 K=6,P,6
      IF(A(K))14,0,0
      IF(A(K)-99)0,0,14
9     CONTINUE
      ROB=9999.999*1000
24    DO 10 K=1,Y
```

```
      IF(A1(X)-1000000)15,070
      IF(A1(X)-ROB)0,0215
10    CONTINUE
      GOTO 30
11    WRITE(10,121)
121   FORMAT (19HBLEDNE DANE W KOL.1)
            K=1
            GOTO 200
12    WRITE(10,122)
122   FORMAT (19HBLEDNE DANE W KOL.2)
            K=2
            GOTO 200
16    PAUSE 56
      KLUCZ=0
      GOTO 17
13    WRITE(10,123)
123   FORMAT (19HBLEDNE DANE W KOL.7)
            K=3
            GOTO 200
14    WRITE(10,124)
124   FORMAT (19HBLEDNE DANE W KOL.8)
            K=4
            GOTO 200
27    WRITE(10,28)
28    FORMAT (19HBLAD W KOL.3 ALBO 4)
            K=5
            GOTO 200
15    WRITE(10,125)
125   FORMAT (18HBLEDNE WSPOLRZEDNE)
            K=6
 200        PAUSE
            CALL ART10
            GOTO (20,21,22,23,25,24),K
30    X=-1
      Y=0
      ROBX=0
      ROBY=0
      ROB=0
      DO 31 K=1,I,6
            P=K+5
            X=X+2
            Y=Y+2
       ROB10=FLOAT(A(P))
      CALL SST(A1(X),A1(Y),Z11)
       ROBX1=ROB10*A1(X)
       ROBY1=ROB10*A1(Y)
            ROBX=ROBX+ROBX1
            ROBY=ROBY+ROBY1
       ROB=ROB+ROB10
31    CONTINUE
      S1(7)=ROBX/ROB
      S1(8)=ROBY/ROB
      WRITE(10,126)
126   FORMAT (12HAKTUALIZACJA)
      PAUSE
      CALL SSWTCH(1,T)
      IF(T-1)100,0,100
      CALL ART10
100   CALL SWOFF(1)
      RETURN
      END
```

```
      SUBROUTINE SSS5
      INTEGER A(486),K,I,W,
     A E,F,G,H,E1,F1,G1,H1,B(486),C(486),X(280),Y(240),
     A KLUCZ,ALE,ETYK,
     A V(264),Z(286)
      COMMON /DRUL/A,B,C,X,Y,V,Z
      COMMON /UUUU/KLUCZ
      PAUSE 61
      ASSIGN 70 TO ETYK
70    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,1) (A(K),K=1,486)
      IF(KLUCZ)0,0,73
1     FORMAT (48610)
3     DO 2 I=1,486
      IF(A(I))4,0,0
      IF(A(I)-99)0,0,4
2     CONTINUE
      GOTO 5
4     WRITE(10,81) I
81    FORMAT (17HBLAD DANYCH O NR.,I3)
      PAUSE
      READ(ALE,6) W
      IF(KLUCZ)0,0,73
6     FORMAT (I0)
      A(I)=W
      GOTO 3
5     PAUSE 62
      ASSIGN 74 TO ETYK
74    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,11) (B(K),K=1,486)
      IF(KLUCZ)0,0,73
11    FORMAT (48610)
13    DO 12 I=1,486
      IF(B(I))14,0,0
      IF(B(I)-99)0,0,14
12    CONTINUE
      GOTO 15
14     WRITE(10,81) I
      PAUSE
      READ(ALE,16) W
      IF(KLUCZ)0,0,73
16    FORMAT (I0)
      B(I)=W
      GOTO 13
15    PAUSE 63
      ASSIGN 77 TO ETYK
77    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,21) (C(K),K=1,486)
      IF(KLUCZ)0,0,73
21    FORMAT (48610)
23    DO 22 I=1,486
      IF(C(I))24,0,0
      IF(C(I)-99)0,0,24
22    CONTINUE
      GO TO 25
24     WRITE(10,81) I
      PAUSE
      READ(ALE,26) W
      IF(KLUCZ)0,0,73
26    FORMAT (I0)
      C(I)=W
      GOTO 23
25    PAUSE 64
      ASSIGN 43 TO ETYK
43    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,31) (X(I),I=1,280)
      IF(KLUCZ)0,0,73
31    FORMAT (28010)
34    DO 32 I=1,280
      IF(X(I))33,0,0
      IF(X(I)-99)0,0,33
32    CONTINUE
      GOTO 35
35     WRITE(10,81) I
```

```
      PAUSE
      READ(ALE,36) W
      IF(KLUCZ)0,0,73
36    FORMAT (I0)
      X(I)=W
      GOTO 34
35    PAUSE 65
      ASSIGN 46 TO ETYK
46    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,37) (Y(I),I=1,240)
      IF(KLUCZ)0,0,73
37    FORMAT (240I0)
38    DO 39 I=1,240
      IF(Y(I))40,0,0
      IF(Y(I)-99)0,0,40
39    CONTINUE
      GOTO 41
40     WRITE(10,81) I
      PAUSE
      READ(ALE,42) W
      IF(KLUCZ)0,0,73
42    FORMAT (I0)
      Y(I)=W
      GOTO 38
41    PAUSE 66
      ASSIGN 7 TO ETYK
7     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,50) (V(I),I=1,264)
      IF(KLUCZ)0,0,73
50    FORMAT (264I0)
51    DO 52 I=1,264
      IF(V(I))53,0,0
      IF(V(I)-99)0,0,53
52    CONTINUE
      GO TO 55
53     WRITE(10,81) I
      PAUSE
      READ(ALE,54) W
      IF(KLUCZ)0,0,73
54    FORMAT (I0)
      V(I)=W
      GO TO 51
55    PAUSE 67
      ASSIGN 10 TO ETYK
10    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,57) (Z(I),I=1,286)
      IF(KLUCZ)0,0,73
57    FORMAT (286I0)
58    DO 59 I=1,286
      IF(Z(I))60,0,0
      IF(Z(I)-99)0,0,60
59    CONTINUE
      GO TO 61
60     WRITE(10,81) I
      PAUSE
      READ(ALE,62) W
      IF(KLUCZ)0,0,73
62    FORMAT (I0)
      Z(I)=W
      GO TO 58
73    PAUSE 611
      KLUCZ=0
      GOTO ETYK
61    RETURN
      END
```

```
      SUBROUTINE SSS7
      INTEGER                    A(440),X(440),Y(420),V(420),U(378),Z(204),
     A      I,W,E,F,G,H,K,ALE,KLUCZ,ETYK,
     A      AA(486),B(486),C(486),XX(280),YY(240),VV(264),ZZ(286)
      COMMON /DRUC/AA,B,C,XX,YY,VV,ZZ,A,X,Y,V,U,Z
      COMMON /UUUU/KLUCZ
      PAUSE 71
      ASSIGN 1 TO ETYK
1     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,2) (A(I),I=1,440)
      IF(KLUCZ)0,0,10
2     FORMAT (44010)
7     DO 3 I=1,440
      IF(A(I))5,0,0
      IF(A(I)-99)0,0,5
3     CONTINUE
      GO TO 4
5     WRITE(10,102) I
102   FORMAT (17H#BLAD DANYCH O NR.,I3)
      PAUSE
      READ(ALE,6) W
      IF(KLUCZ)0,0,10
6     FORMAT (I0)
      A(I)=W
      GO TO 7
4     PAUSE 72
      ASSIGN 11 TO ETYK
11    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,14) (X(I),I=1,440)
      IF(KLUCZ)0,0,10
14    FORMAT (44010)
16    DO 15 I=1,440
      IF(X(I))17,0,0
      IF(X(I)-99)0,0,17
15    CONTINUE
      GO TO 18
17     WRITE(10,102) I
      PAUSE
      READ(ALE,19) W
      IF(KLUCZ)0,0,10
19    FORMAT (I0)
      X(I)=W
      GOTO 16
18    PAUSE 73
      ASSIGN 20 TO ETYK
20    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,26) (Y(I),I=1,420)
      IF(KLUCZ)0,0,10
26    FORMAT (42010)
27    DO 28 I=1,420
      IF(Y(I))29,0,0
      IF(Y(I)-99)0,0,29
28      CONTINUE
      GOTO 30
29     WRITE(10,102) I
      PAUSE
      READ(ALE,31) W
      IF(KLUCZ)0,0,10
31    FORMAT (I0)
      Y(I)=W
      GOTO 27
30    PAUSE 74
      ASSIGN 23 TO ETYK
23    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,36) (V(I),I=1,420)
      IF(KLUCZ)0,0,10
36    FORMAT (42010)
37    DO 38 I=1,420
      IF(V(I))39,0,0
      IF(V(I)-99)0,0,39
38    CONTINUE
      GOTO 40
39     WRITE(10,102) I
      PAUSE
```

```
      READ(ALE,41) W
      IF(KLUCZ)0,0,10
41    FORMAT (I0)
      V(I)=W
      GOTO 37
40    PAUSE 75
      ASSIGN 32 TO ETYK
32    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,46) (U(I),I=1,378)
      IF(KLUCZ)0,0,10
46    FORMAT (378I0)
47    DO 48 I=1,378
      IF(U(I))49,0,0
      IF(U(I)-99)0,0,49
48    CONTINUE
      GOTO 50
49     WRITE(10,102) I
      PAUSE
      READ(ALE,51) W
      IF(KLUCZ)0,0,10
51    FORMAT (I0)
      U(I)=W
      GOTO 47
50    PAUSE 76
      ASSIGN 35 TO ETYK
35    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,56) (Z(I),I=1,204)
      IF(KLUCZ)0,0,10
56    FORMAT (204I0)
57    DO 58 I=1,204
      IF(Z(I))59,0,0
      IF(Z(I)-99)0,0,59
58    CONTINUE
      GOTO 60
59     WRITE(10,102) I
      PAUSE
      READ(ALE,61) W
      IF(KLUCZ)0,0,10
61    FORMAT (I0)
      Z(I)=W
      GOTO 57
10    PAUSE 77
      KLUCZ=0
      GOTO ETYK
60    RETURN
      END
```

```
      SUBROUTINE OBRAZ(WW,SS,BZZX,BZZY,V,PRZ)
        INTEGER M5,M6,N,  N6,I1,I2,          PP(41),     G12,
     A                    WW,N7,K(30),I6,IS,P(41),V(3001),
     A                 G13,M1,M2,TTTT,
     A       SYMB(29),KAL,II,KALT,AA(448),KAL2,KAL3,
     A          K53,KOK,N,J6,K54,K55,I,T(41),T0,
     A          RT,NR,I5,I11,I4,     KSK,IN,KSK1,BB(27),K52,
     A          SYM1,BLOK1(1601),BLOK2,SS,IW,SK,BLOK3(120),
     A        UPRT,G,LL,TTT,C(3001),SK1,
     A        TC(25),AT(25),AV(25)
      REAL Z2,S,Z1,X(41),Y(41),BLOK4(40),
     A       Z11,Z7,Z8,S1,Z5,Z6,A11(64),R(41),D2(25),
     A          A,B,F,F1,    B11(162),A1,B1,A4,B4,A2,B2,
     A       Z9,Z10,Z22,Z3,Z4,BZZX,BZZY,
     A       D1(25),H1(25),H2(25),PRZ(4)
      COMMON /DRUK/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A        II,IN,Z11,X,Y,Z1,Z2,Z4,Z5,K,J6,C,I6,MT,N6,
     A        BLOK1,BLOK2,BLOK3,BLOK4
      DATA G12/4H    /
      DATA G13/4H0007/
      DATA SYM1/4H0000/
32    M3=50
      Z2=FLOAT(WW)
      Z2=Z2*100
      Z2=2.54/Z2
      M6=0
      N=0
      N7=0
      K(1)=1
      I6=1
      DO 1 IS=1,40
         P(IS)=0
1     CONTINUE
      S=FLOAT(SS)
      IF(S)31,31,0
      Z1=0.00254*S
      Z2=Z2*S
      X(1)=BZZX
      Y(1)=BZZY
      Z7=X(1)
      Z8=Y(1)
      M1=50
      M2=100
      N6=3000
      DO 2 IS=1,3001
         V(IS)=G12
2     CONTINUE
      S1=S+S
      S1=0.01*S1
      Z3=Z7+Z2
      Z4=Z8+Z1
      M=M2-1
      Z9=FLOAT(M)
      Z5=Z9*Z2
      Z5=Z7+Z5
      M=M1-1
      Z6=FLOAT(M)
      Z6=4*Z6
      Z6=Z8+Z1
      Z6=Z8+Z6
      M=0
      KAL2=-1
      KAL3=0
      PRZ(1)=Z1
      PRZ(2)=Z2
      PRZ(3)=Z6
      PRZ(4)=Z5
      DO 3 KAL=1,II,14
      KAL2=KAL2+2
      KAL3=KAL3+2
         KALT=KAL+13
         G=AA(KALT)/1000
         IF(G)0,4,0
         X(1)=A11(KAL2)
         Y(1)=A11(KAL3)
         CALL SS1(X(1),Y(1),Z11)
      A11(KAL2)=X(1)
      A11(KAL3)=Y(1)
```

```
      A=X(1)
      B=Y(1)
      RT=KAL+1
      RR=AA(RT)
      R(1)=DZ(RR)
R(1)=R(1)+1000
      P(1)=RM
 PP(1)=AA(KAL)
      N=N+1
      X(N+1)=A
      Y(N+1)=B
      R(N+1)=R(1)
      P(N+1)=P(1)
 PP(N+1)=PP(1)
      GOTO 3
4     N=N+1
      DO 5 I3=1,N
           IF(A-X(I3+1))5,0,5
           IF(B-Y(I3+1))5,0,5
           I11=I3+N
           I11=I11-1
           DO 6 I4=I3,I11
                X(I4+1)=X(2+I4)
                Y(I4+1)=Y(2+I4)
                R(I4+1)=R(2+I4)
                P(I4+1)=P(2+I4)
                K(1)=0
                F=Z1+Z1
                X(1)=X(1+I4)
                Y(1)=Y(1+I4)-F
                V(1)=SYMB(29)
CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
                Y(1)=Y(1+I4)+F
                V(1)=SYMB(29)
CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
                I=I4
CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I,I3,P,I6,M1,N6,KSK)
                Y(1)=Y(1+I4)
6          CONTINUE
           GOTO 7
5     CONTINUE
7     X(2+N)=0
      Y(2+N)=0
      P(2+N)=0
      R(2+N)=0
      F1=Z1/R(1)
      F1=F1+F1
      P(1)=SYMB(29)
CALL SS3(X,Y,P,R,K,V,A,B,T,F1,Z1,Z2,Z4,Z5,J6,N5,I6,M1,N6,T0)
      X(1)=A
      B=B-Z1
      B=B-Z1
      Y(1)=-Z1+B
      DO 8 KAL=1,5
      Y(1)=Y(1)+Z1
           V(1)=P(1)
CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
8     CONTINUE
      K(1)=1
3     CONTINUE
      K53=-16
      K52=-17
      DO 9 KSK=1,IN,3
      K52=K52+18
      K53=K53+18
      KSK1=KSK+1
      IF(BB(KSK1)-25)0,10,0
      IF(BB(KSK1)-26)0,11,0
      IF(BB(KSK1)-27)0,12,0
10    X(1)=B11(K52)
      Y(1)=B11(K53)
           CALL SS1(X(1),Y(1),Z11)
B11(K52)=X(1)
B11(K53)=Y(1)
      IF(M-20)0,13,13
      V(1)=SYMB(27)
CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      IF(J6)0,13,0
```

```
      M=M+1
      I=BB(KSK)
CALL SS2(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I,I3,P,I6,M1,N6,KSK)
13    X(1)=B11(K52+2)
      Y(1)=B11(K53+2)
      CALL SS1(X(1),Y(1),Z11)
B11(K52+2)=X(1)
B11(K53+2)=Y(1)
      A1=X(1)
      B1=Y(1)
      A4=X(1)
      B4=Y(1)
            K54=K52+2
            K55=K53+2
      DO 14 KUK=1,7
K54=K54+2
K55=K55+2
            X(1)=B11(K54)
            IF(X(1))0,15,0
            Y(1)=B11(K55)
      CALL SS1(X(1),Y(1),Z11)
B11(K54)=X(1)
B11(K55)=Y(1)
            A2=X(1)
            B2=Y(1)
CALL SS5(K,Z1,Z2,Z4,Z5,A1,A2,B1,B2,J6,I6,M1,N6,X,Y,V)
            A1=A2
            B1=B2
14    CONTINUE
15    A2=A4
      B2=B4
CALL SS5(K,Z1,Z2,Z4,Z5,A1,A2,B1,B2,J6,I6,M1,N6,X,Y,V)
      GOTO  9
11    X(1)=B11(K52)
      Y(1)=B11(K53)
            CALL SS1(X(1),Y(1),Z11)
B11(K52)=X(1)
B11(K53)=Y(1)
      IF(M-20)0,16,10
      V(1)=SYMB(27)
CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      IF(J6)0,16,0
      M=M+1
      I=BB(KSK)
CALL SS2(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I,I3,P,I6,M1,N6,KSK)
16    X(1)=B11(K52+2)
      Y(1)=B11(K53+2)
      CALL SS1(X(1),Y(1),Z11)
B11(K52+2)=X(1)
B11(K53+2)=Y(1)
      A1=X(1)
      B1=Y(1)
            K54=K52+2
            K55=K53+2
      DO 17 KUK=1,7
K54=K54+2
K55=K55+2
            X(1)=B11(K54)
            IF(X(1))0, 9,0
            Y(1)=B11(K55)
      CALL SS1(X(1),Y(1),Z11)
B11(K54)=X(1)
B11(K55)=Y(1)
            A2=X(1)
            B2=Y(1)
CALL SS5(K,Z1,Z2,Z4,Z5,A1,A2,B1,B2,J6,I6,M1,N6,X,Y,V)
            A1=A2
            B1=B2
17    CONTINUE
      GO TO  9
12    X(1)=B11(K52)
      Y(1)=B11(K53)
      CALL SS1(X(1),Y(1),Z11)
B11(K52)=X(1)
B11(K53)=Y(1)
      IF(M-20)0, 9, 9
      V(1)=SYMB(27)
CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
```

```
      IF(J6)9, 9,0
      M=M+1
      I=BB(KSK)
CALL SS2(X    ,Y    ,Z1,ZZ,Z4,Z5,K,J6,V,I,I3,P,I6,M1,N6,KSK)
9     CONTINUE
      KS2=-1
      KS3=0
      DO 23 KAL=1,BLOK2,6
        KS2=KS2+2
        KS3=KS3+2
        Y(1)=BLOK4(KS2)
        Y(1)=BLOK4(KS3)
        Y(1)=SYM1
        CALL SS4(X,Y,Z1,ZZ,Z4,Z5,K,J6,V,I6,M1,N6)
        IF(J6)0,23,0
        I=BLOK3(KAL)
        CALL SS2(X,Y,Z1,ZZ,Z4,Z5,K,J6,V,I,I3,P,I6,M1,N6,KSK)
23    CONTINUE
      IF(N)22,22,0
      DO 21 I3=1,N
        UPRT=I3+1
      CALL EXTRC(P(1),P(UPRT),4096)
        IF(P(1))0,0,21
        IF(R(I3+1))0,21,0
        F1=Z1/R(I3+1)
        F1=F1+F1
        P(1)=SYMB(28)
      A=X(I3+1)
      B=Y(I3+1)
        R(1)=R(I3+1)
      T0=P(I3+1)
      CALL SS3(X,Y,P,R,K,V,A,B,T,F1,Z1,ZZ,Z4,Z5,J6,N,I6,M1,N6,T0)
        X(1)=A
        Y(1)=B
        TTT=T0
      CALL EXTRC(Y(1),SYMB(TTT),613)
      Y(1)=Y(1)+Z1
      Y(1)=Y(1)+Z1
      CALL SS4(X    ,Y    ,Z1,ZZ,Z4,Z5,K,J6,V,I6,M1,N6)
      Y(1)=Y(1)-Z1
      CALL RSAIC(Y(1),SYMB(TTT),6)
      CALL SS4(X    ,Y    ,Z1,ZZ,Z4,Z5,K,J6,V,I6,M1,N6)
      Y(1)=Y(1)+Z1
84     I=PP(I3+1)
      CALL SS2(X    ,Y    ,Z1,ZZ,Z4,Z5,K,J6,V,I,I3,P,I6,M1,N6,KSK)
21    CONTINUE
      GO TO 22
31    PAUSE 111
      GOTO 32
22    RETURN
      END
```

```
      SUBROUTINE WYDR(V,SS,BZZX,BZZY,PRZ)
      INTEGER AA(942),BB(27),SYMB(29),TC(25),AT(25),AV(25),
     A        II,IN,SS,R(30),JO,V(3001),I0,M1,N6,
     A     NWZWU(297),SYMC(29),NIZWI(128),KRYP(36),RBB(36),
     A        III,AAA(814),NN(10),NUZWU(209),BBB(9),KK(32),
     A        I,A(120),C(3001),LL,I1,KKK,I2,G10,G11
      REAL A11(64),B11(162),D2(25),D1(25),H1(25),B2(25),
     A     BZZX,BZZY,Z11,X(41),Y(41),Z1(24,24,25,A1(40)
      REAL PRZ(4)
      DATA G10/4H0---/
       DATA G11/4HID00/
      WRITE(1,3) SS,BZZX,BZZY,PRZ(2),PRZ(1)
3     FORMAT (/////3X,37HZOBRAZOWANIE  SYTUACJI  POWIETRZNEJ  ,
     A        42HI  UGRUPOWANIA  JEDNOSTEK  LM , WR  I  ART,
     A        28H  OPK  ZA  OKRES  OD.  .DO.  .   /2H S,
     A        5H - 1:,I7,2X,3HXB=,F8.0,2X,5HYB=,F8.0,
     A        1X,10HPRZYROSTX=,F6.0,1X,10HPRZYROSTY=,F6.0/121(1H-))
      GOTO 10
      WRITE(1,4)
4     FORMAT      ( 121(1H=)/9H I   NR   :,4X,13H:    N A Z W A,4X,1H:,4X,
     A     17HP O L O Z E N I E,4X,1H:,4X,1H:,9X,
     A     32HOANE  EWIDENCYJNO  SPRAWOZDAWCZE,17X,1HI/2H I,6X,
     A     6H: R  :,10X,1H:,25(1H.),6H: C  :,58(1H.),1HI/2H I,2X,
     A     5HLW  :,4X,14H:  /KRYPTONIM/,3X,1H:,4X,1HX,4X,1H:,4X,1HY,
     A    4X,1H:,2X,1H2,2X,1H:,4X,1H:,2X,1H1,2X,1H:,2X,1H2,2X,1H:,2X,
     A     1H3,2X,1H:,2X,1H4,3H  :,2X,1H5,2X,1H:,2X,1H6,2X, 1H:,2X,1H7,
     A     2X,1H:,2X,1H8,2X,1H:,2X,1H9,2X,1H:,1X,1H0,2X,1HI/2H I,
     A     11(1H.),1HI/14H I  1   : 2  :,7X,1H3,8X,1H:,4X,1H4,4X,
     A     1H:,4X,1H5,4X,1H:,2X,1H6,2X,1H:,1X,1H7,2X,1H:,2X,
     A     1H8,2X,1H:,2X,1H9,2X,1H:,1X,2H10,2X,1H:,1X,2H11,2X,1H:,1X,
     A     2H12,2X,1H:,1X,2H13,2X,1H:,1X,2H14,2X,1H:,1X,
     A     2H15,2X,1H:,1X,2H16,2X,1H:,1X,2H17,1X,1HI/121(1H=))
10    LL=1
      DO 70 I1=1,100
         KKR=1
          DO 71 I2=1,30
                K(KKK)=V(LL+1)
                KKK=KKK+1
                LL=LL+1
71            CONTINUE
      CALL EXTRC(R(1),K(1),G10)
       K(1)=K(1)+G11
                 WRITE(1,27) K
27              FORMAT (1X,30A4)
70    CONTINUE
      WRITE(1,80)
80    FORMAT (121(1H-))
33    RETURN
      END
```

```
      SUBROUTINE BAZ1A
      INTEGER S(10),I
      REAL S1(8)
      COMMON /UNUN/S,S1
      WRITE(1,1)
1     FORMAT (38X,26HB L O K  K O M U T A C J I/121(1H=)/2H I,3X,
     A        2HS1,3X,1H:,3X,3HXB1,3X,1H:,3X,2HS2,3X,1H:,3X,3HXB2,
     A        3X,1H:,3X,2HXP,4X,1H:,3X,2HXU,4X,6H:LDO :,1X,5HAN  :,
     A        40H D  :  K1:  K2:  K3:  K4:  K5:  K6:  K7:  K8:  K9:,
     A        10HK10:  K11  I/2H I,8X,1H:,3X,3HYB1,3X,1H:,3X,1H:,
     A        3X,3HYB2,3X,1H:,3X,2HYP,4X,1H:,3X,2HYU,4X,1H:,4X,
     A        1H:,5X,11(1H:,3X),1H:,5X,1HI/121(1H-)/2H I,3X,1H1,
     A        4X,1H:,4X,1H2,4X,1H:,3X,1H3,4X,1H:,4X,1H4,4X,1H:,
     A        4X,1H5,4X,1H:,4X,1H6,4X,1H:,1X,1H7,2X,1H:,
     A        2X,1H8,2X,1H:,10H 9 :  10:  11:
     A        40H1:  12:  13:  14:  15:  16:  17:  18:  19:  20   I/121(1H-))
      WRITE(1,2) S(1),S1(1),S(2),(S1(I),I=3,8,2),(S(I),I=3,16),
     A           S1(2),(S1(I),I=4,8,2)
2     FORMAT (2H 1,I7,4H  :  ,F8.0,I7,1X,1H.,3(2X,F8.0),
     A        1X,I2,1X,1H.,1X,I3,1X,11(1H.,1X,I1,1X),1H.,1X,I3,
     A        2H I/2H I,8X,1H.,9X,1H.,8X,1H.,3(9X,1H.),4X,1H.,5X,
     A        11(1H.,3X),1H.,5X,1HI/2H I,8X,1H.,2X,F8.0,8X,1H.,
     A        3(2X,F8.0),4X,1H.,5X,11(1H.,3X),1H.,5X,
     A        1HI/121(1H=)///)
      RETURN
      END
```

```
      SUBROUTINE BAZA1
      INTEGER AA(448),BB(27),SYMB(29),TC(25),AT(25),AV(25),
     A        II,IN,KK(30),JO,V(3001),I6,M1,N6,
     A     NWZWW(297),SYMC(29),NIZWI(128),KRYP(36),RBB(36),
     A        III,AAA(814),NN(10),NUZWU(209),BBB(9),KKK(32),
     A        IIII,A(120),Z,L,B,J,K,D,E,R,S,W,U,I1,N,C,
     A        M1,G,E1,F1,E2,F2,FF(2),VV(2),X,Y,O,R,I,B,F,V1
      REAL A11(64),B1T(162),D2(25),D1(25),H1(25),H2(25),
     A        Z11,XX(41),YY(41),Z1,Z2,Z4,Z5,A1(40)
      COMMON /DRUK/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A        II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A        KK,JO,V,I6,M1,N6,
     A        NWZWW,SYMC,NIZWI,KRYP,RBB,III,AAA,NN,NUZWU,BBB,KKK,IIII,A,
     A        A1
      WRITE(1,1 ) (NWZWW(I),I=1,11),SYMC(1),
     F            (NWZWW(I),I=12,22),SYMC(2)
1     FORMAT (////2H =,59(1H=),4X,59(1H=)/2H I,
     G            45X,1H:,4X,6H:SYMBI,4X,1HI,57X,
     H        1HI/2H I,10X,24HN A Z W A  Z E S T A W U,11X,11H:KOD :WYD-I,
     I            4X,1HI,5X,
     J            48HS T A B L E  P R O G R A M O W E - T A B E L A - S
     K            4X,
     L        1HI/2H I,45X,11H:     :RUKUI,4X,1HI,57X,
     M        1HI/2H =,56(1H=),4X,59(1H-)/3H I ,
     N            11A4,7H:  1 : ,A3,1HI,4X,
     O            52HI R  :  D1   :  D2   :  H1   :  H2   :  TC  :  A1  :,
     P            2X,5HA2  I/3H I ,
     R            11A4,7H:  2 : ,A3,1HI,4X,59(1H=))
      L=23
      M=32
      DO 3  I=1,25
      J=I+2
      WRITE(1, 2) (NWZWW(K),K=L,M),J,SYMC(J),I,D1(I),
     S            D2(I),H1(I),H2(I),TC(I),AT(I),AV(I)
      L=L+11
      M=M+11
2     FORMAT (3H I ,11A4,2H: ,I2,3H : ,A3,1HI,4X,2HI ,I2,2H :,
     T            4(F6.2,1H:),2(I6,1H:),I6,1HI)
3     CONTINUE
      WRITE(1,4 )
4     FORMAT (2H =,59(1H=),4X,59(1H=))
      IF(II-1)25,45,0
      WRITE(1,5)
5     FORMAT (////////38X,
     A 45HDANE EWIDENCYJNO - SPRAWOZDAWCZE - TABELA - E///2H =,
     A 110(1H=)/2H I,8X,1H:,4X,1H:,16X,1H:,25X,1H:,4X,1H:,49X,
     A 1HI/2H I,7H  NR  :,4X,1H:,3X,9HN A Z W A,4X,1H:,4X,
     A 17HP O L O Z E N I E,4X,1H:,4X,1H:,9X,
     A    52HDANE  EWIDENCYJNO  SPRAWOZDAWCZE,8X,1HI/2H I,6X,1H:,4X,1H:,
     A 16X,1H:,25X,1H:,4X,1H:,49X,1HI/2H I,6X,1H:,5H R  :,16X,1H:,
     A 25(1H.),1H:,4H C  ,1H:,49(1H.),1HI/14H I  JW  :    :,
     A 17H  /KRYPTONIM/  :,9X,1H:,9X,
     A 1H:,5X,1H:,4X,10(1H:,4X),1HI/2H I,6X,1H:,4X,
     A  1H:,16X,1H:,10H    X    :,10H    Y    :,6H  Z  :,4X,6H: 1  :,
     A  5H 2  :,5H 3  :,5H 4  :,5H 5  :,5H 6  :,5H 7  :,5H 8  :,5H 9  :,
     A 5H 5  I/2H I,6X,1H:,4X,1H:,16X,1H:,9X,1H:,9X,1H:,5X,11(1H:,4X),
     A 1HI/2H I,109(1H.),1HI/2H I,6H  1  ,6H: 2  :,7X,1H3,8X,1H:,4X,
     A 1H4,4X,11H:    5    :,6H  6  :,5H 7  :,5H 8  :,5H 9  :,5H 10 :,
     A 5H 11 :,5H 12 :,5H 13 :,5H 14 :,5H 15 :,5H 16 :,5H 17 I/2H =,
     A 110(1H=))
      J=1
      M=4
      D=3
      E=14
      R=5
      S=14
      W=1
      U=2
      DO  7 I1=1,II,14
      N=I1+1
      WRITE(1,6) AA(I1),AA(N),(NIZWI(X),K=J,M),
     A           A11(R),A11(U),(AA(C),C=D,E)
6     FORMAT (2H I,I5,2H :,I3,3H : ,3A4,A2,2H :,F9.0,1H:,F9.0,
     A 1H:,I4,2H :,I3,1X,10(1H:,I4),1HI/2H I,109X,1HI)
      J=J+4
      M=M+4
      D=D+14
      E=E+14
```

```
      R=R+14
      S=S+14
      U=U+2
      W=W+2
7     CONTINUE
      WRITE(1,8)
8     FORMAT (112(1H=),10(/))
25    IF(IN-1)26,26,9
      CALL TIME (VV(1))
      CALL DATE (FF(1))
      WRITE(1,9) FF(1),FF(2),VV(1),VV(2)
9     FORMAT (///73X,25HPOLOZENIE WOJSK NA DZIEN ,2A4,6H GODZ ,
     A  2A4///112(1H=)/2H I,6X,1H:,4X,1H:,16X,1H:,9X,1H:,63X,1H:,6X,
     A 1HI/2H I,7H  NR  :,4X,13H:   N A Z W A    :,10H WSPOLRZ.:,4X,
     A  33HWSPOLRZEDNE PUNKTOW ZARYSU UGRUPOWANIA,21X,1H:,6X,1HI/2H I,
     A 6X,1H:,4X,1H:,16X,11H:   SD    :,65X,1H:,6X,
     A 1HI/2H I,6X,6H: R  :,
     A 16X,1H:,73(1H.),1H:,6X,1HI/2H I,2X,5HJ   :,4X,
     A 18H:  /KRYPTONIM/   :,9X,1H:,8(7X,1H:),6X,1HI/2H I,6X,1H:,4X,
     A 1H:,16X,1H:,4X,14X,4X,1H:,8(3X,1HX,3X,1H:),2X,1HS,3X,1HI/2H I,
     A 6X,1H:,4X,1H:,16X,1H:,4X,1HY,4X,1H:,8(3X,1HY,3X,1H:),6X,
     A 1HI/2H I,6X,1H:,4X,1H:,16X,1H:,9X,1H:,8(7X,1H:),6X,1HI/2H I,
     A 109(1H.),1HI/2H I,12H  1   : 2  :,7X,1H3,8X,11H:    4    :,
     A 3X,1H5,3X,9H:   6   :,3X,1H7,3X,9H:   8   :,3X,1H9,3X,
     A 9H:  10   :,2X,2H11,3X,9H:  12   :,7H  13  I/112(1H=))
      J=1
      M=4
      D=1
      E=18
      DO 10 I1=1,IN,3
      N=I1+1
      N1=I1+2
      L=E-1
      G=D+1
      WRITE(1,11) BB(I1),BB(N),(KRYP(K),K=J,M),(B11(C),C=D,L,2),
     A            BB(N1),(B11(C),C=G,E,2)
11    FORMAT (2H I,I5,2H :,I3,3H : ,3A4,A2,2H :,
     A F8.0,2H :,8F8.0,I5,2H I/2H I,6X,1H:,4X,1H:,16X,1H:,
     A F8.0,2H :,8F8.0,6X,1HI/2H I,109X,1HI)
      J=J+4
      M=M+4
      E=E+18
      D=D+18
10    CONTINUE
      WRITE(1,36)
36    FORMAT (112(1H=))
26    IF(III-1)27,27,0
      WRITE(1,12) RBB
12    FORMAT (7/31X,10HT A B E L A  K A
     A 40H T O W  Z A K R Y C I A  SNR  I  PN(RLS)//120(1H=)/5H I ST,
     A 6HOPNIE ,18(1H:,5X),1HI/4H I ,7X,18(1H:,5X),1HI/5H I  ,
     A 4X,18(1H:,5X),1HI/6H I    ,5X,1H:,17(I4,2H :),I4,
     A 2H I/7H I     ,4X,1H:,107(1H.),1HI/8H I     ,5X,1H:,17(I4,2H :),
     A I4,2H I/11H I  NR  ,  ,18(1H:,5X),1HI/11H I SNR,  ,18(1H:,5X),
     A 1HI/11H IPN(RLS) ,18(1H:,5X),1HI/120(1H=))
      III=III-37
      E1=2
      F1=19
      E2=20
      F2=37
      DO 13 I1=1,III,37
      WRITE(1,14) (AAA(K),K=E1,F1),AAA(I1),(AAA(K),K=E2,F2)
14    FORMAT (2H I,9X,1H:,17(I4,2H :),I4,2H I/2H I,I6,4H   :,107(1H.),
     A 1HI/2H I,9X,1H:,17(I4,2H :),I4,2H I/120(1H-))
      E1=E1+37
      F1=F1+37
      E2=E2+37
      F2=F2+37
13    CONTINUE
      III=III+37
      WRITE(1,16) (AAA(K),K=E1,F1),AAA(I1),(AAA(K),K=E2,F2)
16    FORMAT (2H I,9X,1H:,17(I4,2H :),I4,2H I/2H I,I6,4H   :,107(1H.),
     A 1HI/2H I,9X,1H:,17(I4,2H :),I4,2H I/120(1H=))
27    IF(NR(1)+1)0,28,0
      WRITE(1,17)
17    FORMAT (///111(1H=)/2H I,
     E                    108X,1HI /2H I,108X,
     F      1HI/2H I,4X,44H1. INDEKSY PRZYNALEZNOSCI CELOW POWIETRZNYCH,
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      G 60X,1HI/2H I,108X,1HI/2H I,4X,99(1H.),5X,1HI/2H I,4X,9H: CYFRA :,
      H 20X,17HZ N A C Z E N I E,52X,1H:,5X,1HI/2H I,4X,99(1H.),5X,
      I 1HI/2H I,4X,9H:          :,89X,1H:,5X,1HI)
        L=1
        M=11
      DO 19 I=1,10
      WRITE(1,18) NN(I),(NUZWU(J),J=L,M)
18    FORMAT (2H I,4X,2H: ,2X,I1,3X,1H:,6X,11A4,39X,1H:,5X,1HI)
        L=L+11
        M=M+11
19    CONTINUE
      WRITE(1,20)
20    FORMAT (2H I,4X,99(1H.),5X,1HI/2H I,108X,1HI/2H I,4X,
     A 24HZ. INDEKSY UZUPELNIAJACE,80X,1HI/2H I,108X,1HI/2H I,4X,
     B 99(1H.),5X,1HI/2H I,4X,9H: CYFRA :,20X,
     C17HZ N A C Z E N I E,52X,1H:,5X,1HI/2H I,4X,99(1H.),5X,1HI/2H I,
     D 4X,9H:          :,89X,1H:,5X,1HI)
        L=111
        M=121
      DO 21 I=1,9
      WRITE(1,22) BBB(I),(NUZWU(J),J=L,M)
22    FORMAT (2H I,4X,3H:  ,I2,3X,1H:,6X,11A4,39X,1H:,5X,1HI)
        L=L+11
        M=M+11
21    CONTINUE
      WRITE(1,23)
23    FORMAT (2H I,4X,99(1H.),5X,1HI/2H I,108X,1HI/2H I,4X,
     A 16HS. KOD SIATKI OP,88X,1HI/2H I,108X,1HI/2H I,4X,99(1H.),5X,
     B 1HI/2H I,4X,15H: S T R E F Y :,24H      S E K T O R Y      :,10X,
     C 24HO U Z E  K W A D R A T Y,25X,1H:,5X,1HI/2H I,4X,99(1H.),5X,
     D 1HI)
      WRITE(1,24) (KKK(I),I=1,32)
24    FORMAT (2H I,4X,1H:,I4,3H  :,I4,3H  :,14(I3,3H  :),5X,1HI/2H I,
     A 4X,99(1H.),5X,1HI/2H I,
     A                4X,1H:,I4,3H  :,I4,3H  :,14(I3,3H  :),5X,1HI/2H I,
     A 4X,99(1H.),5X,1HI/2H I,108X,1HI/111(1H=))
28    IF(IIII-1)100,100,0
      IF(IIII-61)0,0,32
      WRITE(1,40)
40    FORMAT (//6X,
     A 47HTABELA DANYCH O BRONIONYCH OBIEKTACH (REJONACH)//59(1H=)/2H I,
     A 6X,1H:,4X,1H:,7X,1H:,7X,1H:,17X,1H:,5X,1H:,4X,1HI/2H I,
     A 2X,2HNR,2X,1H:,4X,1H:,7X,1H:,7X,1H:,4X,9HPOLOZENIE,4X,
     A 1H:,5X,1H:,4X,1HI/2H I,6HOBIEKT,6H:RODZ:,2X,11HDZ   :  DA ,
     A 2X,1H:,17(1HR),1H:,5H PROM,6H:CENAI/2H I,6X,1H:,4X,1H:,7X,1H:,
     A 7X,1H:,3X,1HX,4X,1H:,3X,1HY,4X,1H:,5X,1H:,4X,1HI/59(1H-)/2H I,
     A 2X,1H1,3X,1H:,5H 2  :,3X,1H3,3X,1H:,3X,1H4,3X,1H:,3X,1H5,4X,
     A 1H:,3X,1H6,4X,1H:,6H  7  :,5H 8  I/59(1H=))
      X=1
      Y=2
      DO 41 W=1,IIII,0
      J=W+1
      N=W+3
      L=W+4
      P=W+5
      WRITE(1,42) A(W),(A(M),M=J,N),A1(X),A1(Y),A(L),A(P)
42    FORMAT (2H I,I5,2H .,I3,2H .,1X,I5,1X,1H.,1X,I5,1X,
     A 1H.,2H%.0,I4,2H .,I3,2H I/2H I,6X,1H.,4X,1H.,7X,1H.,7X,1H.,
     A 2(8X,1H.),5X,1H.,4X,1HI)
      X=X+2
      Y=Y+2
41    CONTINUE
      WRITE(1,44)
44    FORMAT (59(1H=))
      GOTO 100
32    WRITE(1,50)
50    FORMAT (//10X,46HT A B E L A  D A N Y C H  O  B R O N I O N Y C,
     A 40H Y  O B I E K T A C H  (R E J O N A C H)//59(1H=),4X,
     A 58(1H=)/2H I,6X,1H:,4X,1H:,7X,1H:,7X,1H:,17X,1H:,5X,1H:,
     A 4X,1HI,4X,1HI,6X,1H:,4X,1H:,7X,1H:,7X,1H:,17X,1H:,5X,1H:,4X,
     A 1HI/2H I,2X,2HNR,2X,1H:,4X,1H:,7X,1H:,7X,1H:,4X,9HPOLOZENIE,
     A 4X,1H:,5X,1H:,4X,1HI,4X,1HI,2X,2HNR,2X,1H:,4X,1H:,7X,1H:,7X,
     A 1H:,4X,9HPOLOZENIE,4X,1H:,5X,1H:,4X,1HI/2H I,6HOBIEKT,
     A 6H:RODZ:,2X,11HDZ   :  DA ,2X,1H:,17(1HR),1H:,5H PROM,
     A 6H:CENAI,4X,1HI,6HOBIEKT,6H:RODZ:,2X,11HDZ   :  DA ,2X,1H:,
     A 17(1H.),1H:,5H PROM,6H:CENAI/2H I,6X,1H:,4X,1H:,7X,1H:,7X,1H:,
     A 3X,1HX,4X,1H:,3X,1HY,4X,1H:,5X,1H:,4X,1HI,4X,1HI,6X,1H:,4X,1H:,
     A 7X,1H:,7X,1H:,3X,1HX,4X,1H:,3X,1HY,4X,1H:,5X,1H:,4X,1HI/59(1H-),
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     A 4X,58(1H-)/2H I,2X,1H1,3X,1H:,5H 2  :,3X,1H3,3X,1H:,
     A 3X,1H4,3X,1H:,3X,1H5,4X,1H:,3X,1H6,4X,1H:,6H  7  :,
     A 5H 8  I,4X,1HI,2X,1HI,3X,1H:,5H 2  :,3X,1H3,3X,1H:,3X,1H4,3X,
     A 1H:,3X,1H5,4X,1H:,3X,1H6,4X,1H:,6H  7  :,5H 8  I/59(1H=)/
     A 4X,58(1H=)/
      X=1
      Y=2
      B=61
      C=62
      F=21
      G=22
      H=65
      V1=66
      DO 51 W=1,55,6
      J=W+1
      N=W+3
      B=B+3
      L=W+4
      P=W+5
      WRITE(1,52) A(W),(A(H),H=J,N),A1(X),A1(Y),A(L),A(P),
     A   A(B),(A(K),K=C,D),A1(F),A1(G),A(H),A(V1)
52    FORMAT (2H I,I5,2H ,I3,2H ,1X,I5,1X,1H.,1X,I5,1X,1H.,
     A 2F9.0,I4,2H ,I3,2H I,4X,1HI,I5,2H ,I3,2H ,1X,
     A I5,1X,1H.,1X,I5,1X,1H.,2F9.0,I4,2H ,I3,2H I/2H I,6X,1H.,
     A 4X,1H.,7X,1H.,7X,1H.,2(8X,1H.),5X,1H.,4X,1HI,4X,1HI,
     A 6X,1H.,4X,1H.,7X,1H.,7X,1H.,2(8X,1H.),5X,1H.,4X,1HI)
      X=X+2
      Y=Y+2
      C=C+6
      H=H+6
      V1=V1+6
      G=G+2
      F=F+2
      IF(B-IIII)0,0,60
      B=B+6
51    CONTINUE
      WRITE(1,101)
101   FORMAT (59(1H=),4X,58(1H=))
      GOTO 100
60    W=W+6
      DO 55 U=W,55,6
      J=U+1
      L=U+4
      P=U+4
      N=U+3
      WRITE(1,61) A(U),(A(K),K=J,N),A1(X),A1(Y),A(L),A(P)
61    FORMAT (2H I,I5,2H ,I3,2H ,1X,I5,1X,1H.,1X,I5,1X,1H.,
     A 2F9.0,I4,2H ,I3,2H I,4X,58(1H=)/2H I,6X,1H.,4X,1H.,
     A 7X,1H.,7X,1H.,2(8X,1H.),5X,1H.,4X,1HI)
      X=X+2
      Y=Y+2
55    CONTINUE
      WRITE(1,103)
103   FORMAT (59(1H=))
100   RETURN
      END
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```
      SUBROUTINE BAZA2
      INTEGER A(486),B(486),C(486),X(280),Y(240),V(264),Z(286),
     A        P1(440),P2(440),P3(420),P4(420),P5(378),P6(204),
     A        J1(2),L(9),M(9),J2(9),J3(9),J4(21),J5(9),J(9),J10(9),
     A        J6(9),J7(17),J8(9),J9(6),D(27),D1(8),D2(8),
     A        E,F,G,H,I,K,E1,F1,G1,H1,D3(14),D4(9),D5(13),D6(12)
      REAL D7(10)
      COMMON /BRUL/A,B,C,X,Y,V,Z,P1,P2,P3,P4,P5,P6
      DATA J/2,8,12,14,16,20,24,28,31/
      DATA J10/7,11,13,15,19,23,27,30,32/
      DATA J1/1,27
      DATA L/5,8,12,14,17,20,23,26,28/
      DATA M/7,11,13,16,19,22,25,27,30/
      DATA J2/2,8,12,14,17,20,23,26,28/
      DATA J3/7,11,13,16,19,22,25,27,30/
      DATA J4/0,2,4,6,8,10,11,12,13,14,16,18,20,21,22,26,28,30,32,34,36/
      DATA J5/5,8,11,14,17,20,23,26,28/
      DATA J6/7,10,13,16,19,22,25,27,30/
      DATA J7/0,5,10,11,14,16,20,22,24,26,28,30,32,34,36,38,40/
      DATA J8/13,16,19,22,25,28/
      DATA J9/15,18,21,24,27,30/
      DATA D/0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,
     A 32,34,36,38,40,42,44,46,48,50,52/
      DATA D1/3,7,11,15,19,23,27,31/
      DATA D2/6,10,14,18,22,26,30,33/
      DATA D3/0,2,4,6,7,8,9,10,11,12,13,14,15,16/
      DATA D4/2,4,6,8,10,12,14,16,18/
      DATA D5/0,2,4,6,8,9,10,11,12,13,14,15,16/
      DATA D6/0,2,4,6,8,10,11,12,13,14,15,16/
      DATA D7/0.5,5.0,8.0,10.0,12.0,14.0,15.0,16.0,17.0,18.0/
      WRITE(1,115) (D(K),K=1,20)
115   FORMAT (//10X,17H2.1.100.300.0.90//9X,101(1H=)/9X,1HI,
     A 19(I3,2H :),I3,2H I/110(1H=))
      E=1
      F=20
      G=21
      H=40
      DO 116 I=1,6
      WRITE(1,100) (P1(K),K=E,F),J1(I),(P1(K),K=G,H)
100   FORMAT (2H I,7X,1H:,19(I3,2H :),I3,2H I/2H I,I4,3X,1H:,99(1H.),
     A 1HI/2H I,7X,1H:,19(I3,2H :),I3,2H I/110(1H-))
      E=E+40
      F=F+40
      G=G+40
      H=H+40
116   CONTINUE
      DO 11 I=1,8
      WRITE(1,101) (P1(K),K=E,F),L(I),M(I),(P1(K),K=G,H)
101   FORMAT (2H I,7X,1H:,19(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 99(1H.),1HI/2H I,7X,1H:,19(I3,2H :),I3,2H I/110(1H-))
      E=E+40
      F=F+40
      G=G+40
      H=H+40
11    CONTINUE
      WRITE(1,102) (P1(K),K=401,420),L(9),M(9),(P1(K),K=421,440)
102   FORMAT (2H I,7X,1H:,19(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 99(1H.),1HI/2H I,7X,1H:,19(I3,2H :),I3,
     A 2H I/110(1H=)////////////////////////////////////)
      WRITE(1,117) (D(K),K=1,20)
117   FORMAT (//10X,17H2.2.1.300.420.0.70//9X,101(1H=)/9X,1HI,
     A 19(I3,2H :),I3,2H I/110(1H=))
      E=1
      F=20
      G=21
      H=40
      DO 21 I=1,2
      WRITE(1,103) (P2(K),K=E,F),J1(I),(P2(K),K=G,H)
103   FORMAT (2H I,7X,1H:,19(I3,2H :),I3,2H I/2H I,I4,3X,1H:,99(1H.),
     A 1HI/2H I,7X,1H:,19(I3,2H :),I3,2H I/110(1H-))
      E=E+40
      F=F+40
      G=G+40
      H=H+40
21    CONTINUE
      DO 23 I=1,8
      WRITE(1,104) (P2(K),K=E,F),L(I),M(I),(P2(K),K=G,H)
104   FORMAT (2H I,7X,1H:,19(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
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```
     A 99(1H.),1HI/2H I,7X,1H:,19(I3,2H :),I3,2H I/110(1H-))
      E=E+40
      F=F+40
      G=G+40
      H=H+40
25    CONTINUE
      WRITE(1,105) (P2(K),K=401,420),L(9),M(9),(P2(K),K=421,440)
105   FORMAT (2H I,7X,1H:,19(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 99(1H.),1HI/2H I,7X,1H:,19(I3,2H :),I3,
     A 2H I/110(1H=)//////////////////////////////////////////)
      WRITE(1,106) (D(K),K=1,20),(P3(K),K=1,42)
106   FORMAT (//10X,19H2.5.1H420.560.0.55.//9X,106(1H=)/9X,6HI  0 :,
     A 19(I3,2H :),I3,2H I/115(1H=)/2H I,7X,1H:,20(I3,2H :),I3,
     A 2H I/10H I   2    :,104(1H.),1HI/2H I,7X,1H:,20(I3,2H :),
     A I3,2H I)
      E=43
      F=63
      G=64
      H=84
      DO 33 I=1,9
      WRITE(1,107) (P3(K),K=E,F),J2(I),J3(I),(P3(K),K=G,H)
107   FORMAT (115(1H-)/2H I,
     A                7X,1H:,20(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 104(1H.),1HI/2H I,7X,1H:,20(I3,2H :),I3,2H I)
      E=E+42
      F=F+42
      G=G+42
      H=H+42
33    CONTINUE
      WRITE(1,35)
35    FORMAT (115(1H=)/////////////////////////////////////////////)
      WRITE(1,108) (D(K),K=1,20),(P4(K),K=1,42)
108   FORMAT (//10X,19H2.4.2H420.560.0.55.//9X,106(1H=)/9X,6HI  0 :,
     A 19(I3,2H :),I3,2H I/115(1H=)/2H I,7X,1H:,20(I3,2H :),I3,
     A 2H I/10H I   2    :,104(1H.),1HI/2H I,7X,1H:,20(I3,2H :),
     A I3,2H I)
      E=43
      F=63
      G=64
      H=84
      DO 112 I=1,9
      WRITE(1,109) (P4(K),K=E,F),J(I),J10(I),(P4(K),K=G,H)
109   FORMAT (115(1H-)/2H I,
     A                7X,1H:,20(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 104(1H.),1HI/2H I,7X,1H:,20(I3,2H :),I3,2H I)
      E=E+42
      F=F+42
      G=G+42
      H=H+42
112   CONTINUE
      WRITE(1,119)
119   FORMAT (115(1H=)/////////////////////////////////////////////)
      WRITE(1,73) (J4(K),K=1,3),J5(1),J2(1),(J4(K),K=6,21)
73    FORMAT (//10X,19H2.5.1H560.700.0.55.//9X,106(1H=)/9X,1HI,
     A 20(I3,2H :),I3,2H I/115(1H=))
      E=1
      F=21
      G=22
      H=42
      DO 53 I=1,8
      WRITE(1,110) (P5(K),K=E,F),J5(I),J6(I),(P5(K),K=G,H)
110   FORMAT (2H I,7X,1H:,20(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 104(1H.),1HI/2H I,7X,1H:,20(I3,2H :),I3,2H I/115(1H-))
      E=E+42
      F=F+42
      G=G+42
      H=H+42
53    CONTINUE
      WRITE(1,111) (P5(K),K=337,357),J5(9),J6(9),(P5(K),K=358,378)
111   FORMAT (2H I,7X,1H:,20(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 104(1H.),1HI/2H I,7X,1H:,20(I3,2H :),I3,
     A 2H I/115(1H=)/////////////////////////////////////////////)
      WRITE(1,62) (J7(K),K=1,17)
62    FORMAT (//10X,20H2.6.1H700.1000.0.50.//9X,86(1H=)/9X,1HI,
     A 16(I3,2H :),I3,2H I/95(1H=))
      E=1
      F=17
      G=18
```

```
      H=34
      DO 121 I=1,2
      WRITE(1,112) (P6(K),K=E,F),J8(I),J9(I),(P6(K),K=G,H)
112   FORMAT (2H I,7X,1H:,16(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 84(1H.),1HI/2H I,7X,1H:,16(I3,2H :),I3,2H I/95(1H-))
      E=E+34
      F=F+34
      G=G+34
      H=H+34
121   CONTINUE
      WRITE(1,113) (P6(K),K=171,187),J8(6),J9(6),(P6(K),K=188,204)
113   FORMAT (2H I,7X,1H:,16(I3,2H :),I3,2H I/2H I,I3,1H-,I2,2H :,
     A 84(1H.),1HI/2H I,7X,1H:,16(I3,2H :),I3,2H I/95(1H=))
      WRITE(1,7) (D(K),K=1,27),(A(K),K=1,54)
7     FORMAT (/////10X,17H1.2.0.640.0.55.//9X,109(1H=)/9X,1HI,
     A 26(I3,1H:),I3,1HI/118(1H=)/2H I,7X,1H:,26(I3,1H:),I3,
     A 1HI/9H I 0.3-2 ,108(1H.),1HI/2H I,7X,1H:,26(I3,1H:),I3,
     A 1HI)
      E=55
      F=81
      G=82
      H=108
      DO 8 I=1,8
      WRITE(1,9) (A(K),K=E,F),D1(I),D2(I),(A(K),K=G,H)
9     FORMAT (118(1H-)/2H I,
     A                7X,1H:,26(I3,1H:),I3,1HI/2H I,I3,1H-,I2,2H :,
     A 107(1H.),1HI/2H I,7X,1H:,26(I3,1H:),I3,1HI)
      E=E+54
      F=F+54
      G=G+54
      H=H+54
8     CONTINUE
      WRITE(1,10)
10    FORMAT (118(1H=)//////////////////////////////////////////////////)
      WRITE(1,17) (D(K),K=1,27),(B(K),K=1,54)
17    FORMAT (/////10X,17H1.2.1.0.640.0.70.//9X,109(1H=)/9X,1HI,
     A 26(I3,1H:),I3,1HI/118(1H=)/2H I,7X,1H:,26(I3,1H:),I3,1HI/3H I ,
     A 6H0.3-2 ,108(1H.),1HI/2H I,7X,1H:,26(I3,1H:),I3,1HI)
      E=55
      F=81
      G=82
      H=108
      DO 18 I=1,8
      WRITE(1,9) (B(K),K=E,F),D1(I),D2(I),(B(K),K=G,H)
      E=E+54
      F=F+54
      G=G+54
      H=H+54
18    CONTINUE
      WRITE(1,20)
20    FORMAT (118(1H=)//////////////////////////////////////////////////)
      WRITE(1,27) (D(K),K=1,27),(C(K),K=1,54)
27    FORMAT (/////10X,17H1.3.1.0.300.0.90.//9X,109(1H=)/9X,1HI,
     A 26(I3,1H:),I3,1HI/118(1H=)/2H I,7X,1H:,26(I3,1H:),I3,
     A 1HI/9H I 0.3-2 ,108(1H.),1HI/2H I,7X,1H:,26(I3,1H:),I3,
     A 1HI)
      E=55
      F=81
      G=82
      H=108
      DO 28 I=1,8
      WRITE(1,29) (C(K),K=E,F),D1(I),D2(I),(C(K),K=G,H)
29    FORMAT (118(1H-)/2H I,
     A                7X,1H:,26(I3,1H:),I3,1HI/2H I,I3,1H-,I2,
     A 2H :,107(1H.),1HI/2H I,7X,1H:,26(I3,1H:),I3,1HI)
      E=E+54
      F=F+54
      G=G+54
      H=H+54
28    CONTINUE
      WRITE(1,30)
30    FORMAT (118(1H=)//////////////////////////////////////////////////)
      WRITE(1,43) (D3(K),K=1,14),(D6(K),K=1,12),(X(K),K=1,14),
     A (Y(K),K=1,12),(X(K),K=15,28),(Y(K),K=13,24)
43    FORMAT (//////7X,18H3.1.1.0.300.0.160.,48X,
     A 17H3.2.2.0.560.0.60.//6X,57(1H=),9X,49(1H=)/6X,1HI,
     A 13(I3,1H:),I3,1HI,9X,1HI,11(I3,1H:),I3,1HI/63(1H=),4X,
     A 54(1H=)/2H I,4X,1H:,13(I3,1H:),I3,1HI,4X,1HI,4X,1H:,11(I3,1H:),
```

```
     A  I3,1HI/7H I0.05 :,55(1H.),1HI,4X,6HI0.05 :,47(1H.),1HI/2H I,4X,
     A  1H:,13(I3,1H:),I3,1HI,4X,1HI,4X,1H:,11(I3,1H:),
     A  I3,1HI)
      DO 44 I=1,9
      E=29
      F=42
      G=43
      H=56
      E1=25
      F1=36
      G1=37
      H1=48
      WRITE(1,45) (X(K),K=E,F),(Y(K),K=E1,F1),D4(I),D7(I),
     A  (X(K),K=G,H),(Y(K),K=G1,H1)
45    FORMAT (63(1H-),4X,54(1H-)/2H I,
     A                 4X,1H:,13(I3,1H:),I3,1HI,4X,1HI,4X,1H:,11(I3,1H:),
     A  I3,1HI/2H I,I3,1X,1H:,55(1H.),1HI,4X,1HI,F4.1,1H:,47(1H.),
     A  1HI/2H I,4X,1H:,13(I3,1H:),I3,1HI,4X,1HI,4X,1H:,11(I3,1H:),I3,
     A  1HI)
      E=E+28
      F=F+28
      G=G+28
      H=H+28
      E1=E1+24
      F1=F1+24
      G1=G1+24
      H1=H1+24
44    CONTINUE
      WRITE(1,46)
46    FORMAT (63(1H=),4X,54(1H=),50(/))
      WRITE(1,63) (D6(K),K=1,12),(D5(K),K=1,13),(V(K),K=1,12),
     A  (Z(K),K=1,13),(V(K),K=13,24),(Z(K),K=14,26)
63    FORMAT (/////9X,19H3.2.1.0300.700.0.60.,41X,
     A  17H3.3.1.0.560.0.60.//8X,49(1H=),4X,7X,53(1H=)/8X,1HI,11(I3,1H:),
     A  I3,1HI,4X,7X,1HI,12(I3,1H:),I3,1HI/57(1H=),4X,60(1H=)/2H I,
     A  6X,1H:,11(I3,1H:),I3,1HI,4X,1HI,6X,
     A  1H:,12(I3,1H:),I3,1HI/9H I 0.05 :,
     A  47(1H.),1HI,4X,8HI 0.05 :,51(1H.),1HI/2H I,6X,1H:,11(I3,1H:),
     A  I3,1HI,4X,1HI,6X,1H:,12(I3,1H:),I3,1HI)
      DO 64 I=1,10
      E=25
      F=36
      G=37
      H=48
      E1=27
      F1=39
      G1=40
      H1=52
      WRITE(1,65) (V(K),K=E,F),(Z(K), K=E1,F1),D7(I),D7(I),
     A  (V(K),K=G,H),(Z(K),K=G1,H1)
65    FORMAT (57(1H-),4X,60(1H-)/2H I,
     A                 6X,1H:,11(I3,1H:),I3,1HI,4X,1HI,6X,
     A  1H:,12(I3,1H:),I3,
     A  1HI/2H I,F5.1,2H :,47(1H.),1HI,4X,1HI,F5.1,2H :,51(1H.),1HI/2H I,
     A  6X,1H:,11(I3,1H:),I3,1HI,4X,1HI,6X,1H:,12(I3,1H:),I3,1HI)
      E=E+24
      F=F+24
      G=G+24
      H=H+24
      E1=E1+26
      G1=G1+26
      H1=H1+26
64    CONTINUE
      WRITE(1,66)
66    FORMAT (57(1H=),4X,60(1H=))
      RETURN
      END
```

```
      SUBROUTINE DANE
      INTEGER K(34),I,KLUCZ,ALE
      REAL WO,W(102),Z(180)
      COMMON /DDDD/K,WO,W,Z
      COMMON /UUUU/KLUCZ
      WRITE(10,1)
1     FORMAT (34HPRZYGOT.STALE DO PROGR.CELE I CEL1)
      PAUSE
2     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      READ(ALE,3) (K(I),I=21,34),WO,(W(I),I=1,102),(Z(I),I=6,180),
     A       (K(I),I=1,20)
3     FORMAT (14I0,27F0.0,20I0)
      IF(KLUCZ)0,5,0
      PAUSE 7(1
      KLUCZ=0
      GO TO 2
4     RETURN
      END
```

```
      SUBROUTINE CEL2
      INTEGER KLUCZ,MM1(165),MM4(165),CZAS(165),
     A        II,TABL(20),ALE,M(6),
     A        TO,PO,AO,I,BB(10)
      REAL X(165),Y(165),MM5(165)
      COMMON /DRDR/MM1,X,Y,MM4,MM5,CZAS,II
      COMMON /UUUU/KLUCZ
      WRITE(10,7)
7     FORMAT (25HPRZYGOT.MELDUNKI O CELACH)
      PAUSE
      CALL OPEBUF(5,80,TABL)
1     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      II=1
20    CALL READT(TABL,ALE)
      TO=1
      READ(5,106) M(1),M(2),AO
      IF(KLUCZ)0,0,2
106   FORMAT (3I0)
      IF(M(1)+1)0,126,0
      PO=3
      IF(AO)0,0,0
      IF(AO-1000)0,12,12
      M(4)=AO
      PO=5
      GO TO 10
12    M(3)=AO
      PO=4
10    READ(5,108) M(1),M(2),AO, (BB(I),I=1,TO)
      IF(KLUCZ)0,0,2
      TO=TO+1
108   FORMAT (12I0)
      IF(BB(TO-1))13,0,0
      IF(PO-6)0,0,15
      M(PO)=BB(TO-1)
      PO=PO+1
      GO TO 10
8     M(6)=AO
      GO TO 14
13    M(6)=BB(TO-1)
14    IF(PO-6)0,17,19
      M(PO)=0
      PO=PO+1
      GO TO 14
15    WRITE(10,16) M(1)
16    FORMAT (25HBLEDNY MELDUNEK O NR CELU,I4)
18    READ(5,17) M(1),M(2),AO,(BB(I),I=1,TO)
      IF(KLUCZ)0,0,2
      TO=TO+1
17    FORMAT (10I0)
      IF(BB(TO-1))20,18,18
19    MM1(II)=M(1)
      X(II)=FLOAT(M(2))
      Y(II)=FLOAT(M(3))
      MM5(II)=FLOAT(M(5))
      MM4(II)=M(4)
      CZAS(II)=-M(6)
      II=II+1
      IF(II-165)20,20,0
126   II=II-1
      WRITE(1,88)
88    FORMAT (//58(1H-)/2H I,55X,1HI/2H I,5X,
     A        25HMELDUNEK OKRESLAJACY POLOZENIE CELU,15X,1HI/2H I,
     A        5X,36HWG.WSPOLRZEDNYCH PROSTOKATNYCH (X,Y),
     A        14X,1HI/2H I,55X,1HI/58(1H-))
      DO 130 I=1,II
      WRITE(1,201) MM1(I),X(I),Y(I),MM4(I),MM5(I),CZAS(I)
201   FORMAT (2H I,3X,I4,5X,F8.0,2X,F8.0,5X,I3,
     A        2X,F6.0,I6,9X,1HI)
130   CONTINUE
      WRITE(1,127)
127   FORMAT (58(1H-))
      GO TO 222
2     PAUSE 222
      KLUCZ=0
      GOTO 1
222   RETURN
      END
```

```
      SUBROUTINE SSSIB
      INTEGER ALE,ETYK,TABL(20),LR,KLUCZ,I,L(3),S3,DT,GM,CZAS,
     A        TO,KK,K,T(3),Z1(27),G1(27),T1,II,S(16)
      REAL X1,Y1,A(3),D11(27),X2(3),Y2(3),VO(3),HO(3),
     A     V1(27),H1(27),T4,XX,S1(8)
      COMMON /UUUU/KLUCZ
      COMMON /UNUM/S,S1,T,X1,Y1,D11,X2,Y2,
     A            VO,HO,V1,H1,LR,S3,GM,DT,A,Z1,G1,CZAS,L
      CALL DEFBUF(5,80,TABL)
22    WRITE(10,23)
23    FORMAT (30HPRZYGOT.DANE DO SYM.MOD.NALOTU)
      PAUSE
      ASSIGN 24 TO ETYK
24    CALL SSWTCH(8,ALE)
      ALE=ALE+1
37    CALL READT(TABL,ALE)
      READ(5,26) LR
26    FORMAT (I0,2F0.0,3I0)
      IF(KLUCZ)0,0,30
      IF(LR)35,35,0
      IF(LR-3)0,0,35
      READ(5,26) LR, X1    ,Y1,(L(I),I=1,LR)
      IF(KLUCZ)0,0,30
      READ(ALE,27) S3,DT,GM,CZAS
27    FORMAT (4I0)
      IF(KLUCZ)0,0,30
      TO=0
      DO 1 I=1,3
         T(I)=0
1     CONTINUE
      DO 28 I=1,LR
      CALL READT(TABL,ALE)
         KK=TO+1
         TO=TO+1
29       READ(5,85) A(I),(D11(K),K=KK,TO)
         IF(KLUCZ)0,0,30
85       FORMAT (30F0.0)
         IF(D11(TO)+1)0,31,0
      IF(TO-27)0,3,3
         TO=TO+1
         GO TO 29
31       TO=TO-1
3        READ(ALE,33) X2(I),Y2(I),VO(I),HO(I)
33       FORMAT (4F0.0)
         IF(KLUCZ)0,0,30
         IF(T(I)-TO)0,28,0
         READ(ALE,76) (Z1(K),K=KK,TO)
76     FORMAT (9I0)
       IF(KLUCZ)0,0,30
       READ(ALE,76) (G1(K),K=KK,TO)
       IF(KLUCZ)0,0,30
       READ(ALE,85) (V1(K),K=KK,TO)
       IF(KLUCZ)0,0,30
       READ(ALE,85) (H1(K),K=KK,TO)
       IF(KLUCZ)0,0,30
         T(I)=TO
28    CONTINUE
      T4=9999.999*1000000
42       IF(X1    -1000000)39,0,0
         IF(X1    -T4)0,0,39
         IF(Y1    -1000000)40,0,0
         IF(Y1    -T4)0,0,40
46    IF(S3-S(1))0,48,0
      IF (S3-S(2)) 44,0,44
48    DO 47 I=1,LR
      IF(L(I))0,81,0
      IF(L(I)-1)82,0,82
81       IF(A(I))49,49,0
         IF(A(I)-360)0,0,49
         IF(X2(I)-1000000)50,0,0
         IF(X2(I)-T4)0,0,50
         IF(Y2(I)-1000000)51,0,0
         IF(Y2(I)-T4)0,0,51
         IF(VO(I))52,52,0
         IF(VO(I)-999)0,0,52
         IF(HO(I))53,53,0
         IF(HO(I)-999)0,0,53
47    CONTINUE
```

```
      IF(T0)0,2,0
58    DO 59 I=1,T0
            IF(Q11(I))60,60,0
            IF(Q11(I)-99999)0,0,60
            IF(Z1(I))54,0,0
            IF(Z1(I)-9)0,0,54
            IF(G1(I))55,55,0
            IF(G1(I)-99)0,0,55
            IF(V1(I))56,56,0
            IF(V1(I)-999)0,0,56
            IF(H1(I))57,57,0
            IF(H1(I)-999)0,0,57
59    CONTINUE
2     WRITE(10,21)
21    FORMAT (12HAKTUALIZACJA)
      PAUSE
      CALL SSWTCH(10,T1)
      IF(T1-1)63,0,63
      DO 62 I=1,LR
            READ(ALE,26) II,XX
            IF(KLUCZ)0,0,30
            IF(II+1)0,63,0
            A(II)=XX
62    CONTINUE
35    WRITE(10,36)
36    FORMAT (12HBLEDNA LICZ.RUBIEZY)
      PAUSE
      GOTO 37
39    WRITE(10,41)
41    FORMAT (12HBLEDNY WSP X)
      PAUSE
      READ(ALE,33) XX
      IF(KLUCZ)0,0,30
      X1=XX
      GOTO 42
82    WRITE(10,83)
83    FORMAT (40HBLEDNA INF.DOTYCZACA ROZPOZNANIA RUBIEZY)
      PAUSE
      READ (ALE,26) I,II
      IF(KLUCZ)0,0,30
      L(I)=II
      GOTO 42
40    WRITE(10,43)
43    FORMAT (12HBLEDNY WSP Y)
      PAUSE
      READ(ALE,33) XX
      IF(KLUCZ)0,0,30
      Y1=XX
      GOTO 42
44    WRITE(10,45)
45    FORMAT (12HBLEDNA SKALA)
      PAUSE
      READ(ALE,26) I
      IF(KLUCZ)0,0,30
      S3=I
      GOTO 42
49    WRITE(10,64)
64    FORMAT (21HBLEDNY AZYMUT RUBIEZY)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      A(I)=XX
      GOTO 42
50    WRITE(10,65)
65    FORMAT (34HBLEDNY WSPX PIERW.P-TOW BAZ.W RUB.)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      X2(I)=XX
      GOTO 42
51    WRITE(10,66)
66    FORMAT (34HBLEDNY WSPY PIERW.P-TOW BAZ.W RUB.)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      Y2(I)=XX
      GOTO 42
52    WRITE(10,67)
```

```
67    FORMAT (34HØLEDNA PRED.PIERW.P-TOW BAZ.W RUB.)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      V0(I)=XX
      GOTO 40
53    WRITE(10,68)
68    FORMAT (35HØLEDNA WYSOK.PIERW.P-TOW BAZ.W RUB.)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      H0(I)=XX
      GOTO 40
54    WRITE(10,69)
69    FORMAT (20HØLEDNY RODZ.ZAKLOCEN)
      PAUSE
      READ(ALE,27) I,II
      IF(KLUCZ)0,0,30
      Z1(I)=II
      GOTO 40
55    WRITE(10,70)
70    FORMAT (24HØLEDNA LICZ.CEL.W GRUPIE)
      PAUSE
      READ(ALE,27) I,II
      IF(KLUCZ)0,0,30
      G1(I)=II
      GOTO 40
56    WRITE(10,71)
71    FORMAT (21HØLEDNA PRED.PUN.W RUB)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      V1(I)=XX
      GOTO 40
57    WRITE(10,72)
72    FORMAT (22HØLEDNA WYSOK.PUN.W RUB)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      H1(I)=XX
      GOTO 40
60    WRITE(10,73)
73    FORMAT (31HØLEDNE ODSTEPY MIEDZY CEL.W RUB)
      PAUSE
      READ(ALE,26) I,XX
      IF(KLUCZ)0,0,30
      D11(I)=XX
      GOTO 50
30    PAUSE 773
      KLUCZ=0
      GOTO ETYK
65    RETURN
      END
```

```
      SUBROUTINE BAZIS
      INTEGER S(10),LR,T2,T1,DD2,DD1,I,Z1(27),IS,
     A        G1(27),II,SPAC,T3,T0,LL(3),LL1(9),LL3(9),
     A        S3,DT,GM,LR1,T(3),DD(9),CZAS,L(3)
      INTEGER CC
      REAL   S1(9),X1,Y1,V1(27),H1(27),
     A       X2(3),Y2(3),V0(3),H0(3),A(3),
     A       D11(27),LL2(9),LL4(9),LL5(9)
      COMMON /DATE/CC
      COMMON /UNUN/S,S1,T,X1,Y1,D11,X2,Y2,V0,H0,V1,H1,
     A            LR,S3,GM,DT,A,Z1,G1,CZAS,L
      DATA SPAC/4H    /
      CALL DEFBUF(8,4,CC)
      WRITE(1,20)
20    FORMAT (20X,18HDANE WYJSCIOWE DO ,
     A        24HSYMULATORA MODELU NALOTU/94(1H=)/8H I LR  :,3X,2HX1,
     A        4X,1H:,3X,2HY1,4X,1H:,3X,2HL1,4X,1H:,3X,2HL2,4X,
     A        1H:,3X,2HL3,4X,1H:,3X,2HS3,3X,1H:,3X,2HDT,3X,
     A        1H:,3X,2HGM,3X,1H:,2X,4HCZAS,2X,1HI/94(1H-))
      IF(LR-3)21,0,0
      WRITE(1,22) LR, X1    ,Y1,(L(I),I=1,LR),S3,DT,GM,CZAS
22    FORMAT (2H I,2X,I1,2X,2(1H:,1X,F8.0),3(1H:,1X,I6,2X),
     A        4(1H:,1X,I6,1X),1HI)
      GOTO 26
21    DO 25 I=1,LR
         CALL DOD(LL(I),L(I))
25    CONTINUE
      LR1=LR+1
      DO 23 I=LR1,3
         LL(I)=SPAC
23    CONTINUE
      WRITE(1,24) LR,X1,Y1,(LL(I),I=1,3),S3,DT,GM,CZAS
24    FORMAT (2H I,2X,I1,2X,2(1H:,1X,F8.0),3(1H:,4X,A4,1X),
     A        4(1H:,1X,I6,1X),1HI)
26    DD1=10
      DD2=41
      T1=1
      T0=0
      DO 27 I=1,LR
      T2=I*9
         DO 28 II=1,9
            DD(II)=DD1+II
28       CONTINUE
         WRITE(1,29)  I,(DD(II),II=1,9)
29       FORMAT (94(1H-)/4H I A,I1,2X,5(1H:,3X,1HD,I2,3X),
     A        4(1H:,2X,1HD,I2,3X),1HI)
      IF(T0-T(I))0,1,0
         T0=T(I)
30    IS=0
      DO 33 II=T1,T0
         IS=IS+1
         LL2(IS)=D11(II)
         LL1(IS)=Z1(II)
         LL3(IS)=G1(II)
         LL4(IS)=V1(II)
         LL5(IS)=H1(II)
33    CONTINUE
1     IF(IS-9)0,2,2
      IS=IS+1
      LL2(IS)=0
      LL1(IS)=0
      LL3(IS)=0
      LL4(IS)=0
      LL5(IS)=0
      GO TO 1
      IF(T(I)-T2)2,0,0
         WRITE(1,31) A(I),(D11(II),II=T1,T0)
31       FORMAT (94(1H-)/3H I ,F4.0,5(1H:,2X,F6.0,1X),
     A        4(1H:,1X,F6.0,1X),1HI)
         GOTO 32
2        WRITE(1,35) A(I),(LL2(II),II=1,9)
35       FORMAT (94(1H-)/3H I ,F4.0,5(1H:,F8.0,1X),
     A        4(1H:,F8.0),1HI)
32       WRITE(1,36) DD2,X2(I),DD2,Y2(I),I,V0(I),I,H0(I)
36       FORMAT (94(1H-)/2H I,5X,5H:    X,I2,3X,2H: ,F8.0,5H:    Y,I2,3X,
     A          2H: ,F8.0,1H:,3X,1HV,I1,4X,1H:,2X,F4.0,2X,1H:,3X,1HH,I1,
     A          3X,1H:,2X,F4.0,2X,1H:,8X,1HI)
      WRITE(1,3) I,(LL1(II),II=1,9),I,(LL3(II),II=1,9),
```

```
     A          I,(LL4(II),II=1,9),I,(LL5(II),II=1,9)
3     FORMAT (94(1H-)/4H I Z,I1,2X,5(1H:,I5,4X),4(1H:,I4,4X),
     A        1HI/94(1H-)/4H I G,I1,2X,5(1H:,I5,4X),4(1H:,I4,4X),
     A        1HI/94(1H-)/4H I V,I1,2X,5(1H:,F7.0,2X),4(1H:,F7.0,1X),
     A        1HI/94(1H-)/4H I H,I1,2X,5(1H:,F7.0,2X),4(1H:,F7.0,1X),1HI)
        D01=D01+10
        D02=D02+11
        T1=T0+1
27    CONTINUE
      WRITE(1,4)
4     FORMAT (94(1H=))
40    RETURN
      END
```

```
      SUBROUTINE ANSAL
      INTEGER N(165),SG(165),CZ(165),
     L        MN(40),MSG(40),MCZ(40),
     I        DN(165),DSG(165),DCZ(165),
     N        WN(165),WO(20),DOAR(4800),WTD(30),WZC(165),WPD(250),
     I        LMW,LCO,LCD,LC1(20),IO,ID,I,J,K,L,WWA,EMC,R,R1,R2,R3,WH,
     E        FM(16),FN(160),FD(160),F,F1,DB,DD,
     K        W11(448),W12(27),W41(25),W42(25),W43(25),W44,W45,
     O        W61(30),W62,W63(3001),W64,W65,W66,W67(297),W68(29),
     N        W69(128),W691(36),W692(36),W693,W694(814),W695(280),
     .        W2(29),II,A(120)
      INTEGER LCP,LG,LP,LZ,LH,LL,LR,LNA,LDW,LD1
      INTEGER KL(16),WEKDR(16),TC(16),DP     ,TOP(16)
      INTEGER LN(165),LC2PC,KOD(5)
      INTEGER IC,SRR,LRP(165)
            INTEGER KK
      REAL     S1(8),SPP,PRC(165)
      REAL     X(165),Y(165),MX(40),MY(40),DX(165),DY(165),DXE(165),
     L        DYE(165),DC1(165),VC1(165),DCS(165),VCS(165),
     I        H(165),MH(40),DH(165),
     N        DLX,DLY,DC,VC,D,P,RA,RB,RC,RD,RE,DDSK,DBSK,DO,DLDS,
     .        PO,CPS,
     K        W111(64),W112(162),W31(25),W32(25),W33(25),W34(25),
     O        W5(87),AT(40)
      COMMON /DRDR/N,X,Y,SG,H,CZ,I
      COMMON /DRUK/W11,W12,W111,W112,W2,W51,W52,W33,W34,W41,W42,W43,W44,
     L             W45,W5,W61,W62,W63,W64,W65,W66,W67,W68,W69,W691,W692,
     K             W693,W694,W695,II,A,A1
      COMMON /ANAL/DOAR,WTD
      COMMON /GSOJA/SPP,WP,IC,SRR
      COMMON /TABL/MN,MSG,MCZ,DN,DSG,DCZ,LN,WZC,TOP,LCO,LMW,WWA,
     L             MX,MY,MH,DX,DY,DH,P,DC1,VC1,DCS,VCS,DXE,DYE
      COMMON /FORD/F,FM,FN,FD
      COMMON/UNUN/KL,S1
      COMMON /DRTB/WPD
      DATA KOD(1)/20H    P    T    K    M    /
104   FORMAT(////25X,67(1H=)/25X,13HI NR. DOAR    ,I5,8H        S=,I5,
     -35(1H ),1HI/25X,1HI,65(1H-),1HI/25X,7HI N    :,9(I5,1H:),I5,
     L1HI/25X,1HI,
     I10(6H------:),6H-----I/25X,7HI KZG  :,9(I5,1H:),I5,1HI/25X,1HI,
     N10(6H------:),6H-----I/25X,7HI T    :,9(I5,1H:),I5,1HI/25X,1HI,
     I10(6H------:),6H-----I/25X,7HI D    :,9(I5,1H:),I5,1HI/25X,1HI,
     F10(6H------:),6H-----I/25X,7HI DBZ  :,9(I5,1H:),I5,1HI/25X,1HI,
     K10(6H------:),6H-----I/25X,7HI H    :,9(I5,1H:),I5,1HI/25X,1HI,
     O10(6H------:),6H-----I/25X,7HI L    :,9(I5,1H:),I5,1HI/25X,1HI,
     N10(6H------:),6H-----I/25X,7HI I    :,9(I5,1H:),I5,1HI/25X,1HI,
     T10(6H------:),6H-----I/25X,7HI TPS  :,9(I5,1H:),I5,1HI/25X,1HI,
     Y10(6H------:),6H-----I/25X,7HI TDO  :,9(I5,1H:),I5,1HI/25X,1HI,
     N10(6H------:),6H-----I/25X,7HI V    :,9(I5,1H:),I5,1HI/25X,1HI,
     U10(6H------:),6H-----I/25X,7HI Q    :,9(I5,1H:),I5,1HI/25X,1HI,
     A10(6H------:),6H-----I/25X,7HI P    :,9(I5,1H:),I5,1HI/25X,1HI,
     C10(6H------:),6H-----I/25X,7HI DBO  :,9(I5,1H:),I5,1HI/25X,1HI,
     Y10(6H------:),6H-----I/25X,7HI DBS  :,9(I5,1H:),I5,1HI/25X,1HI,
     J10(6H------:),6H-----I/25X,7HI DDO  :,9(I5,1H:),I5,1HI/25X,1HI,
     N10(6H------:),6H-----I/25X,7HI DDS  :,9(I5,1H:),I5,1HI/25X,1HI,
     E10(6H------:),6H-----I/25X,7HI M    :,9(1X,A4,1H:),1X,A4,1HI/25X,
     11HI,10(6H------:),6H-----I/25X,7HI W    :,9(I5,1H:),I5,1HI)
105   FORMAT( 25X,1HI,
     L10(6H------:),6H-----I/25X,7HI TDS  :,9(I5,1H:),I5,1HI/25X,1HI,
     I10(6H------:),6H-----I/25X,7HI DLT  :,9(I5,1H:),I5,1HI/25X,1HI,
     N10(6H------:),6H-----I/25X,7HI DDZ  :,9(I5,1H:),I5,1HI/25X,1HI,
     K10(6H------:),6H-----I/25X,7HI TBO  :,9(I5,1H:),I5,1HI/25X,1HI,
     O10(6H------:),6H-----I/25X,7HI      :,9(I5,1H:),I5,1HI/25X,1HI,
     N10(6H------:),6H-----I/25X,7HI      :,9(I5,1H:),I5,1HI/25X,67(1H=))
106   FORMAT(50I0)
107   FORMAT(7//25X,9HDOAR O NR,I5,33H    NIE WCHODZI W RELACJE Z CELAMI)
109   FORMAT(9HBLAD W FF)
C     PIERWSZE WEJSCIE W ANALIZE
      IF (EMC) 0,2000,2000
      CALL REWIN
 2000 DO 506 K=1,165
      WPD(K)=0
506     CONTINUE
      IF (WWA) 0,0,1
      LCO=0
      LMW=0
      DO 2 J=1,I
         RJ=N(J)/100
```

```
      IF (R1-10) 0,102,102
      LMW=LMW+1
      MN(LMW)=N(J)
      MX(LMW)=X(J)
      MY(LMW)=Y(J)
      MSG(LMW)=SG(J)
      MH(LMW)=H(J)
      MCZ(LMW)=CZ(J)
      GO TO 2
102   LCO=LCO+1
      DN(LCO)=N(J)
      DX(LCO)=X(J)
      DY(LCO)=Y(J)
      DSG(LCO)=SG(J)
      DH(LCO)=H(J)
      DCZ(LCO)=CZ(J)
  2 CONTINUE
    WHA=1
    P=17453.29252E-6
    DO 500 J=1,165
      QC1(J)=0
      QCS(J)=0
      VC1(J)=0
      VCS(J)=0
      WZC(J)=0
500 CONTINUE
    DO 600 J=1,16
      TC(J)=0
      TOP(J)=0
600 CONTINUE
      NP=0
      IC=0
      SPR=0
      SRR=0
    RETURN
C   ANALIZA  MELDUNKOW
C   MYSLIWCE WLASNE
  1 DO 3 J=1,I
      R1=N(J)/100
      IF (R1-10) 0,103,103
      IF (R1) 0,3,0
      DO 4 K=1,LMW
        IF (N(J)-MN(K)) 4,0,4
        MX(K)=X(J)
        MY(K)=Y(J)
        MSG(K)=SG(J)
        MH(K)=H(J)
        MCZ(K)=CZ(J)
        GO TO 3
  4   CONTINUE
      IF (LMW-40) 0,5,5
      LMW=LMW+1
      K=LMW
  7   MN(K)=N(J)
      MX(K)=X(J)
      MY(K)=Y(J)
      MSG(K)=SG(J)
      MH(K)=H(J)
      MCZ(K)=CZ(J)
      GO TO 3
  5   R1=500000
      DO 6 L=1,40
      IF (MCZ(L)-R1) 0,6,6
      R1=MCZ(L)
      K=L
  6   CONTINUE
      GO TO 7
C   CELE  OBCE
103   DO 9 K=1,LCO
        IF (N(J)-DN(K)) 8,0,8
        IF (WPO(K)) 3,0,3
        WPO(K)=1
        DLX=X(J)-DX(K)
        DLY=Y(J)-DY(K)
        CALL OBLDO(DLX,DLY,D,QC,P)
        CALL ZAMCZ(CZ(J),R1,100)
        CALL ZAMCZ(DCZ(K),R,100)
        R1=R1-R
```

```
          IF (R1) 560,0,560
          WRITE(10,561)
561       FORMAT(10HCEL ZAWISL)
          GO TO 3
560       RA=FLOAT(R1)
          RA=D/RA
          VC=ABS(RA)
          IF (VC1(K)) 0,18,0
          RA=QC+QC1(K)
          QCS(K)=RA/2
          RA=VC+VC1(K)
          VCS(K)=RA/2
          DLDS=VCS(K)*60
          RA=QCS(K)/P
          CALL NEWXY(X(J),Y(J),RA,DLDS,DXE(K),DYE(K))
18        QC1(K)=QC
          VC1(K)=VC
          DX(K)=X(J)
          DY(K)=Y(J)
          DSG(K)=SG(J)
          DH(K)=H(J)
          DCZ(K)=CZ(J)
          GO TO 3
8       CONTINUE
        IF (LCO-165) 0,9,9
        LCO=LCO+1
        K=LCO
10      DN(K)=N(J)
        DX(K)=X(J)
        DY(K)=Y(J)
        DSG(K)=SG(J)
        DH(K)=H(J)
        DCZ(K)=CZ(J)
      VC1(K)=0
      QC1(K)=0
      VCS(K)=0
      QCS(K)=0
        GO TO 3
9       R1=1
        K=0
        DO 11 L=1,165
          IF (WZC(L)-R1) 11,11,0
          R1=WZC(L)
          K=L
11      CONTINUE
        IF (K) 0,0,10
        DO 12 L=1,165
          IF (WZC(L)-1) 12,0,12
          K=L
          GO TO 10
12      CONTINUE
3     CONTINUE
      DO 13 J=1,LCO
        DO 14 K=1,1
          IF (DN(J)-N(K)) 14,0,14
          WZC(J)=0
          GO TO 13
14      CONTINUE
        WZC(J)=WZC(J)+1
13    CONTINUE
      DO 130 J=1,LCO
        IF (WZC(J)-3) 130,0,130
        DN(J)=0
130   CONTINUE
      J=1
1111    IF (DN(J)) 1113,0,1113
      LCO=LCO-1
        DO 1112 K=J,LCO
          KK=K+1
          DN(K)=DN(KK)
          DX(K)=DX(KK)
          DY(K)=DY(KK)
          DSG(K)=DSG(KK)
          DH(K)=DH(KK)
          DCZ(K)=DCZ(KK)
          DXE(K)=DXE(KK)
          DYE(K)=DYE(KK)
          QC1(K)=QC1(KK)
```

```
            VC1(K)=VC1(KK)
            QCS(K)=QCS(KK)
            VCS(K)=VCS(KK)
            WZC(K)=WZC(KK)
1112      CONTINUE
      J=J-1
1113  J=J+1
      IF (J-LCU) 1111,1111,0
C     RELACJA  CEL  OBIEKT  BRONIONY
      IF (QCS(1)) 15,0,15
      RETURN
 15   RA=FLOAT(II)
      RA=RA/6
      RA=RA+1
      IO=INT(RA)
      R1=0
      DOAR(1)=0
      IF (EMC) 0,501,0
      R=4829
      GO TO 502
501   R=2414
502   CALL FMOVE(DOAR(1),DOAR(2),R)
      DO 503 J=1,20
         LC1(J)=0
         WO(J)=0
503   CONTINUE
      DO 504 J=1,105
         WN(J)=0
         WPD(J)=0
         LN(J)=0
         PRC(J)=0
         LBR(J)=0
504   CONTINUE
      LCP=0
      LG=0
      LP=0
      LZ=0
      LH=0
      LL=0
      LP=0
      LNA=0
      LOW=0
      LO1=0
      DO 50 J=1,LCO
         IF (VCS(J))0,360,0
         R=0
         R2=0
         IF (DH(J)-5) 0,0,88
         LH=LH+1
 88      R3=ASG(J)/100
         IF (R3-1) 89,0,0
         LZ =LZ+1
 89      R3=R3+100
         R3=ASG(J)-R3
         IF (R3-2) 0,90,90
         LP=LP+1
         GO TO 460
 90      LG=LG+1
460      DO 37 K=1,10
            DLX=A1(K+R)-DXE(J)
            R=R+1
            DLY=A1(K+R)-DYE(J)
            CALL OBLDQ(DLX,DLY,D,QC,P)
            RA=QC-QCS(J)
            RA=ABS(RA)
            RB=90*P
            IF (RA-RB) 0,46,46
            RA=SIN(RA)
            D=D/1000
            RU=D*RA
            R3=R2+3
            RA=FLOAT(A(R3+K))
            R5=R2+2
            RB=FLOAT(A(R5+K))
            IF (RU-RA) 0,0,46
            IF (D-RA) 46,0,0
            IF (D-RB) 0,0,46
            R3=R2+5
```

```
            DOAR(R1+K)=A(R3+K)
 46         R2=R2+5
 37      CONTINUE
360      R1=R1+IO
 36   CONTINUE
C     WAGI  CELOW
      R=1
      R1=1
      DO 49 J=1,LCO
         IF (VCS(J))0,490,0
         L=0
         IF (J-2) 52,0,0
         R1=J-1
         R=R1*R
         R=R+1
 52      R2=J*IO
         DO 51 K=R,R2
            IF (DOAR(K)) 0,51,0
            L=L+DOAR(K)
 51      CONTINUE
         WN(J)=L
         R2=DSG(J)/100
         R3=R2*100
         R5=DSG(J)-R3
         R2=R2+R3
         WN(J)=WN(J)+R2
490      R=IO
 49   CONTINUE
C     WAGI  OBIEKTOW
         R2=LCO*IO
      DO 47 J=1,IO
         L=0
         R=0
         R1=0
         DO 48 K=J,R2,IO
            R1=R1+1
            IF (DOAR(K)) 0,48,0
            L=L+1
            R=R+WN(R1)
 48      CONTINUE
         LC1(J)=L
         WO(J)=R
 47   CONTINUE
C     RELACJA  CEL  DOAR  (MARROALG. ANALIZY)
      RA=FLOAT(W45)
      RA=RA/14
      RA=RA+1
      ID=INT(RA)
      R=0
      R3=0
      LCD=0
      F1=0
      DOAR(1)=0
      IF (EMC) 0,40,0
      R1=4020
      GO TO 41
 40   R1=2416
 41   CALL FMOVE(DOAR(1),DOAR(2),R1)
      WWA=1
      DO 54 J=1,IO
         R2=R+1
         L=W11(R2+J)
         IF (L-3) 0,0,21
         IF (WWA-16) 0,0,21
         WEKOR(WWA)=W11(R+J)
         TC(WWA)=W41(L)
         WWA=WWA+1
 94      R2=R+13
         R1=W11(R2+J)/1000
         IF (R1-1) 21,0,21
         LD1=LD1+1
         DO 55 K=1,LCO
            IF (VCS(K)) 0,55,0
         R3=J-1
            DLX=W111(R3+J)-DXE(K)
         R3=J
            DLY=W111(R3+J)-DYE(K)
            CALL OBLDQ(DLX,DLY,D,QC,P)
```

```
      D=D/1000
      IF (D-200) 0,0,55
      IF (DH(K)-W34(L)) 0,0,55
      IF (VCS(K)) 55,55,0
      IF (VCS(K)-900) 0,0,55
      RB=DH(K)/10
      RA=RB/D
      EPS=ASIN(RA)
      WTD(1)=W11(J+R)
      DO 16 DB=1,8814,37
         IF (WTD(1)-W694(DB)) 16,0,16
         RB=DC/P
         RB=RB/10
         R2=NINT(RB)
         IF (R2) 17,0,17
         R2=36
17       RB=FLOAT(W694(R2+DB))
         GO TO 19
16    CONTINUE
      RB=0
19    IF (RB-EPS) 0,0,55
      DD=DC-DCS(K)
      DD=ABS(DD)
      DD=SIN(DD)
      DD=PD*D
      DD=PD*PD
      EPS=EPS/P
      DD=DD/P
      RA=DH(K)/10
      WM=DSG(K)/100
      CALL WDBDD(L,VCS(K),DD,EPS,RA    ,PD,WM,DB,DD)
      IF (WM) 91,0,91
      IF (WPD(K)) 55,0,0
      WPD(K)=-2
      GO TO 55
91    IF (WPD(K)) 0,552,552
      IF (WPD(K)+2) 551,0,551
552   WPD(K)=-1
      GO TO 553
551   WPD(K)=-3
C     DDL.  DDS I DDZ
553   RA=FLOAT(DD)
      RB=DH(K)/10
      RA=RA*RA
      RB=RB*RB
      RA=RA+RB
      RE=SQRT(RA)
      WTD(18)=NINT(RE)
      RC=RE-S
      IF (L-2) 0,57,58
      RC=RC/0.75
      RC=RC+14.67
      GO TO 59
57    RC=RC/0.865
      RC=RC+14
      GO TO 59
58    RC=RC/0.9
      RC=RC+12
59    WTD(12)=NINT(RC)
      RC=RC+2
      RC=VCS(K)*RC
      RC=RC/1000
      RD=SQRT(RD)
      RE=RA-RB
      RE=RE-RD
      IF (RE) 550,0,0
550   RE=SQRT(RE)
      RE=2*RE
      RE=RE*RC
      RC=RC*RC
      RC=RC+RE
      DDSK=RC+RA
      RC=SQRT(DDSK)
      RE=DH(K)/10
      IF (RC-RE) 550,550,0
      WTD(19)=NINT(RC)
      RA=DDSK-RB
      RA=RA-RD
```

```
      Q=Q/1000
      IF (Q-200) 0,0,55
      IF (DH(K)-W34(L)) 0,0,55
      IF (VCS(K)) 55,55,0
      IF (VCS(K)-900) 0,0,55
      RB=DH(K)/10
      RA=RB/Q
      EPS=ASIN(RA)
      WTD(1)=W11(J+R)
      DO 16 DB=1,8814,37
         IF (WTD(1)-W694(DB)) 16,0,16
         RB=QC/P
         RB=RB/10
         R2=NINT(RB)
         IF (R2) 17,0,17
         R2=36
17       DB=FLOAT(W694(R2+DB))
         GO TO 19
16    CONTINUE
      RB=0
19    IF (RB-EPS) 0,0,55
      QO=QC-QCS(K)
      QO=ABS(QO)
      QO=SIN(QO)
      PO=PO*Q
      PO=PO*PO
      EPS=EPS/P
      QO=QO/P
      RA=DH(K)/10
      WM=DSG(K)/100
      CALL WDBDD(L,VCS(K),QO,EPS,RA    ,PO,WM,DB,DD)
      IF (WM) 91,0,91
      IF (WPD(K)) 55,0,0
      WPD(K)=-2
      GO TO 55
91    IF (WPD(K)) 0,552,552
      IF (WPD(K)+2) 551,0,551
552   WPD(K)=-1
      GO TO 553
551   WPD(K)=-3
C     OBL.  DDS I DDZ
553   RA=FLOAT(DD)
      RB=DH(K)/10
      RA=RA*RA
      RB=RB*RB
      RA=RA+RB
      RE=SQRT(RA)
      WTD(18)=NINT(RE)
      RC=RE-5
      IF (L-2) 0,57,58
      RC=RC/0.75
      RC=RC+14.67
      GO TO 59
57    RC=RC/0.885
      RC=RC+14
      GO TO 59
58    RC=RC/0.9
      RC=RC+12
59    WTD(12)=NINT(RC)
      RC=RC+2
      RC=VCS(K)*RC
      RC=RC/1000
      RD=SQRT(RD)
      RE=RA-RB
      RE=RE-RD
      IF (RE) 550,0,0
550   RE=SQRT(RE)
      RE=2*RE
      RE=RE*RC
      RC=RC*RC
      RC=RC+RE
      DDSK=RC+RA
      RC=SQRT(DDSK)
      RE=DH(K)/10
      IF (RC-RE) 550,550,0
      WTD(19)=NINT(RC)
      RA=DDSK-RB
      RA=RA-RD
```

```
            IF (RA) 550,0,0
571         RA=SQRT(RA)                                                ZM D
            RC=FLOAT(W41(L))
            RC=VCS(K)*RC
            RC=RC/1000
            RA=RA+RC
            RA=RA*RA
            RA=RA+RD
            RC=SQRT(RA)
            IF (RC-D) 550,0,0
            RA=RA+RB
            RA=SQRT(RA)
            UTD(24)=NINT(RA)
C     OBL.  DBS I DBZ
            RA=FLOAT(DB)
            RA=RA*RA
            RC=RA+RB
            RE=SQRT(RC)
            UTD(10)=NINT(RE)
            RA=RE-5.5
            IF (L-2) 0,60,61
            RA=RA/0.75
            RA=RA+14.6
            GO TO 62
 60         RA=RA/0.885
            RA=RA+14
            GO TO 62
 61         RA=RA/0.9
            RA=RA+12
 62         UTD(25)=NINT(RA)
            RA=RA+2
            RA=VCS(K)*RA
            RA=RA/1000
            RE=RC-RB
            RE=RE-RD
            IF (RE) 550,0,0
620         RE=SQRT(RE)                                                ZM D
            RE=2*RE
            RE=RE*RA
            RA=RA*RA
            RA=RA+RE
            DBSK=RA+RC
            RE=SQRT(DBSK)
            RC=DH(K)/10
            IF (RE-RC) 550,550,0
            UTD(17)=NINT(RE)
            RA=DBSK-RB
            RA=RA-RD
            IF (RA) 550,0,0
641         RA=SQRT(RA)                                                ZM D
            RC=FLOAT(W41(L))
            RC=VCS(K)*RC
            RC=RC/1000
            RA=RA+RC
            RA=RA*RA
            RA=RA+RD
            RC=SQRT(RA)
            IF (RC-D) 0,0,550
            RA=RA+RB
            RA=SQRT(RA)
            UTD(7)=NINT(RA)
C     OBL.  TPS I TDS
            RA=DBSK-RB
            RA=RA-RD
            IF (RA) 550,0,0
            RA=SQRT(RA)
            RC=DBSK-RB
            RC=RC-RD
            IF (RC) 550,0,0
            RC=SQRT(RC)
            RA=RA-RC
            RA=RA*1000
            RA=RA/VCS(K)
            UTD(11)=NINT(RA)
            RA=0.0
            RA=RA-RD
            IF (RA) 550,0,0
            RA=SQRT(RA)
```

```
      RC=DDSK-RD
      IF (RC) 550,0,0
      RC=SQRT(RC)
      RA=RA-RC
      RA=RA*1000
      RA=RA/VCS(K)
      WTD(22)=NINT(RA)
C     OBL.  FUNKCJI  CELU  (WAGA)
      RA=DH(K)/10
      IF (RA-7.5) 0,0,63
      RB=7.5-RA
      RC=0.0121*RB
      RD=0.27*RB
      RC=RC+RD
      RC=RC*RC
      GO TO 64
63    RB=RA-7.5
      RC=0.108*RB
      RD=0.58*RB
      RC=RC+RD
      RC=RC*RC
64    RC=122.4-RC
      RC=RC*RC
      RB=D*800
      RB=RB*1000
      RD=VCS(K)+800
      RB=RB/RD
      RB=RB/1000
      IF (WM-2) 0,65,0
      RB=RB*0.55
      GO TO 66
65    RB=RB*0.57
66    WTD(20)=WM
      RD=0.55*RB
      RB=RB*RB
      RB=2*RB
      RE=RC+RB
      RD=RD*RD
      RD=RD/RE
      RD=-RD
      RD=EXP(RD)
      RB=RC/RE
      RB=RB*RD
      RI=WTD(11)
      IF (RI-1) 67,0,0
      IF (RI-6) 0,0,68
      DD=1
      GO TO 69
68    IF (RI-12) 0,0,70
      DD=2
      GO TO 69
70    DD=3
69    RB=1-RB
      RC=1
      DO 72 DB=1,DD
         RC=RC*RB
72    CONTINUE
      RB=1-RC
      GO TO 73
67    RB=0
73    RB=RB*0.8
      DB=DSG(K)/100
      IF (DB-1) 730,0,731
      RB=RB*0.8
      GO TO 730
731   IF (DB-2) 0,0,732
      RB=RB*0.6
      GO TO 730
732   RB=RB*0.4
730   RC(K)=RB
      LRR(K)=DD
      RB=10*RB
      IF (RA-1) 0,0,74
      IF (RA-5) 0,0,74
      RB=RB+10
74    DD=NINT(RB)
      WTD(21)=WN(K)+DD
C     UZUPELNIENIE  WTD
```

```
            R2=R+13
            WTD(2)=W11(R2+J)
            WTD(3)=DN(K)
            WTD(4)=DSG(K)
            RB=DC/P
            WTD(5)=NINT(RB)
            WTD(6)=NINT(D)
            WTD(8)=NINT(DH(K))
            WTD(9)=0
            WTD(13)=NINT(VCS(K))
            WTD(14)=NINT(QO)
            WTD(15)=NINT(PO)
            R2=DSG(K)/100
            R2=R2*100
            WTD(10)=DSG(K)-R2
            WTD(25)=WTD(13)
            CALL DDOAR
            GO TO 55
550         IF (WPD(K)+1) 55,0,0
            WPD(K)=-2
 55       CONTINUE
 21       R=R+13
 54    CONTINUE
       DO 75 J=1,4501,500
          IF (DOAR(J)) 0,508,0
          F1=F1+1
          DO 70 K=1,9
             R=30*K
             R1=K-1
             R1=R1*30
             R2=R1+21
             R1=R+21
             R3=R+22
             IF (DOAR(R3+J)) 0,75,0
             DOAR(R3+J)=DOAR(R1+J)-DOAR(R2+J)
 70       CONTINUE
 75    CONTINUE
C      TWORZENIE TABLICY PW
508    K=0
       DO 86 J=1,LCO
          IF (WPD(J)) 0,86,86
          IF (WPD(J)+2) 0,87,0
          LR=LR+1
          GO TO 86
 87       LL=LL+1
          K=K+1
          LR(K)=N(J)
 86    CONTINUE
       LCD=LL+LR
       LNA=LCO-LCD
       LCP=LCO-LR
C      DRUK TABLIC DOAR
       DO 85 K=1,30
          WTD(K)=0
 85    CONTINUE
       IF (KL(9)-1) 0,0,850
       DB=0
850    READ(2,106)DD
       IF (DD) 0,108,0
       DB=DB+1
       WTD(DB)=DD
       GO TO 850
108    IF (DB) 0,80,0
       IF (F1) 0,20,0
       R=F1-1
       R=R*300
       R=R+1
       DO 81 K=1,DB
          DO 82 J=1,R,300
             IF (WTD(K)-DOAR(J)) 82,0,82
             R1=J+300
             R1=R1-1
             R3=0
       DO 83 L=2,20
          DO 84 DD=J,R1,30
          R3=R3+1
             WPD(R3)=DOAR (L+DD)
 84       CONTINUE
```

```
 83     CONTINUE
        DO 110 L=171,180
           IF (WPD(L)) 0,111,0
           DD=WPD(L)
           WPD(L)=KOD(DD)
           GO TO 110
111        WPD(L)=KOD(5)
110     CONTINUE
        R2=J+1
        WRITE(1,104)DOAR(J),DOAR(R2),(WPD(R2),R2=1,190)
        WRITE(1,105)(WPD(R2),R2=191,250)
        GO TO 81
 82        CONTINUE
           WRITE(1,107)WTD(K)
 81     CONTINUE
           GO TO 80
 20     WRITE(1,120)
120     FORMAT(///25X,21HBRAK RELACJI CEL-DOAR)
        GO TO 505
C       TWORZENIE  TABLIC  DLA  FORDA-FULKERSONA
 60     IF (F1) 0,505,0
        F=F1
        R=0
        DO 77 J=1,F1
           FN(J)=DOAR(R+J)
           R3=J-1
           R3=R3*10
           R3=R3+1
           DO 78 K=0,9
              R1=K*29
              R1=R1+R
              R1=R1+K
              R2=R1+2
              IF (DOAR(R2+J)) 0,79,0
              FN(R3+K)=DOAR(R2+J)
              R2=R1+20
              FD(R3+K)=32767-DOAR(R2+J)
              GO TO 78
 79           FN(R3+K)=0
              FD(R3+K)=32767
 78        CONTINUE
           R=R+299
 77     CONTINUE
        DO 770 J=1,9
           IF (FN(J))0,771,0
           R=J+1
           DO 772 K=R,10
              IF (FD(K)-32767) 0,770,0
              IF (FD(K)-FD(J)) 0,772,772
              R1=FN(J)
              FN(J)=FN(K)
              FN(K)=R1
              R1=FD(J)
              FD(J)=FD(K)
              FD(K)=R1
772        CONTINUE
770     CONTINUE
771     CALL FF
505     DO 56 J=1,105
           WPD(J)=0
 56     CONTINUE
C       PRZESŁANIE  DANYCH  DLA  PW  DO  WPD
        WPD(97)=LCO
        WPD(98)=LCD
        WPD(99)=LCP
        WPD(100)=LG
        WPD(101)=LP
        WPD(102)=LZ
        WPD(103)=LH
        WPD(104)=LR
        WPD(105)=LL
        WPD(106)=LNA
        WPD(107)=LHW
        WPD(114)=ID
        WPD(115)=LDI
        R1=116
        R2=136
        DO 95 J=1,20
```

```
      WPD(R1+J)=LC1(J)
      WPD(R2+J)=WO(J)
 95   CONTINUE
C     ANALIZA  WYNIKOW   F-F
      IF (F1) 0,507,0
      R=0
      WM=F1*LR
      DO 200 J=1,F1
      R1=0
         DO 201 K=J,WM,F1
            R1=R1+1
            IF (FD(K)) 0,201,0
            R2=J-1
            R2=R2*300
            DD=FD(K)*1000
            R3=R2+3
            DO 202 L=0,9
               DB=L+30
               IF (FN(R1)-DOAR(R3+DB)) 202,0,202
               R3=R2+4
               DOAR (R3+DB)=DOAR(R3+DB)+DD
               WWA=0
               DO 203 DD=1,16
               IF (WEKDR(DD)-DOAR(R2+1)) 203,0,203
               R=DD-1
               R=R*6
               R3=R2+DB
               DO 204 LNA=3,8
                  IF (LNA-4) 0,204,0
                  WWA=WWA+1
                  WPD(R+WWA)=DOAR(R3+LNA)
204            CONTINUE
                  WWA=WWA+1
                  WPD(R+WWA)=DOAR(R3+4)
                  LDW=LDW+1
                  IF (KL(6)-4) 201,0,201
                                 DO 210 F=1,LCO
                                    IF (FN(R1)-DN(F)) 210,0,210
                                    CALL ZAMCZ(DCZ(F),KK,100)
                                    IF (TOP(DD)) 211,0,211
                                    TOP(DD)=KK
                                    SPR=SPR+PRC(F)
                                    SRR=SRR+LPR(F)
                                    DN(F)=0
                                    WP=WP+1
                                    DO 212 WWA=1,I
                                       IF (N(WWA)-FN(R1)) 212,0,212
                                       N(WWA)=0
                                       GO TO 201
212                                 CONTINUE
                                    PAUSE 123
                                    GO TO 201
211                                 WWA=KK-TOP(DD)
                                    IF (WWA-TC(DD)) 201,0,0
                                    TOP(DD)=KK
                                    SPR=SPR+PRC(F)
                                    SRR=SRR+LPR(F)
                                    DN(F)=0
                                    WP=WP+1
                                    DO 213 WWA=1,I
                                       IF (N(WWA)-FN(R1)) 213,0,213
                                       N(WWA)=0
                                       GO TO 201
213                                 CONTINUE
                                    PAUSE 123
                                    GO TO 201
210                              CONTINUE
                                 WRITE(10,109)
               GO TO 201
203            CONTINUE
               GO TO 201
202         CONTINUE
            WRITE (10,109)
201      CONTINUE
200   CONTINUE
      WPD(116)=LDW
      IC=IC+LR
      WPD(106)=LR-LDW
```

```
      LR=LDW
      LCP=LCO-LR
      WPD(104)=LR
      WPD(99)=LCP
      WWA=1
507   IF (RL(11)-1) 93,0,93
      CALL SSSB
 93   RETURN
            END
```

```
      SUBROUTINE EFEKT(V,PRZ,BAZA)
      INTEGER V(3001),S(10),INTE(7),N,EFEKT(36),I,K,CELE(36),AA(448),
     + BB(27),SYMB(29),L,KK(30),INTE1(77),J6,VV(3001),I6,M1,N6,ILRAK(36)
      REAL PRZ(4),BAZA(2),S1(8),XXX(3),AZYM(36),Q,ROB,X(37),Y(37),X0,Y0,
     + PRAWD(36),XA,YA,XB,YB,R,R1,R2,R3,R4,A(4),A11(64),B11(162),Z1,Z2,
     + Z4,Z5,LALA,REAL1(100),REAL2(87)
      COMMON /DRUK/ AA,BB,A11,B11,SYMB,REAL1,INTE1,REAL2,KK,J6,VV,I6,
     + M1,N6
      COMMON /UNUN/ S,S1
      COMMON /GSOJA/ LALA,INTE,N,EFEKT,CELE,ILRAK,XXX,AZYM,PRAWD
      Q= 17453.29252E-6
      IF (N) 100,100,0
      K=0
      DO 1 I=1,N
        ROB = FLOAT(EFEKT(I))
        X(I)= 1000.0E3*ROB
        K   = K+EFEKT(I)
1     CONTINUE
      IF (K) 191,191,0
      Z1 = PRZ(1)
      Z2 = PRZ(2)
      Z4 = PRZ(3)
      Z5 = PRZ(4)
      XA = 50.0 * Z2
      XA = BAZA(1)+XA
      YA = 50.0 * Z1
      YA = BAZA(2)+YA
      XB = 95.0*Z2
      XB = BAZA(1)+XB
      YB = 115.0*Z1
      YB = BAZA(2)+YB
      X0=S1(7)
      Y0=S1(8)
      R1=XB-X0
      R2=YB-Y0
      R3=X0-XA
      R4=Y0-YA
          R=R2/R1
          R=ATAN(R)
      A(1) =R/Q
          R=R2/R3
          R=ATAN(R)
          R=R/Q
      A(2) =180.0-R
          R=R4/R3
          R=ATAN(R)
          R=R/Q
      A(3)=180.0+R
          R=R4/R1
          R=ATAN(R)
          R=R/Q
      A(4) =360.0-R
      DO  10   I=1,N
         R=AZYM(I)
         IF (R-360.0) 2,0,0
         R = R-360.0
2        AZYM(I) = R
         DO  3   K=1,4
            IF (R-A(K)) 4,4,0
3        CONTINUE
         K = 1
4        GOTO (0,5,6,7) , K
         ROB = R1
             GOTO 8
5        ROB = R2
         R   = R-90.0
             GOTO 8
6        ROB = R3
         R   = R-180.0
             GOTO 8
7        ROB = R4
         R   = R-270.0
8        R = R * Q
         R = COS(R)
         R = ROB/R
         IF (X(I)-R) 10,10,0
         R = R/X(I)
         DO  9   K=1,N
```

```
          X(K)=R*X(K)
 9        CONTINUE
10     CONTINUE
       DO  11  I=1,N
          R=X(I)
          CALL NEWXY(X0,Y0,AZYM(I),R,X(I),Y(I))
11     CONTINUE
       R=YA
      DO 12 I=5,115
        V(1)=30
        CALL SS4(X0,R,Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
        R=R+Z1
12    CONTINUE
       R=XA
      DO 13 I=5,95
        V(1)=10
        CALL SS4(R,Y0,Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
        R=R+Z2
13    CONTINUE
      IF (R-Z)  15,15,0
      X(N+1)=X(1)
      Y(N+1)=Y(1)
      SYMB(26)=26
      K=1
      DO 14 I=1,N
        K=K+1
        CALL SS5(KK,Z1,Z2,Z4,Z5,X(I),X(K),Y(I),Y(K),J6,I6,M1,N6,R1,R2,V)
14    CONTINUE
      SYMB(26)=28
15    V(1)=27
        KK(1)=0
      CALL SS4(X0,Y0,Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
      DO 19 I=1,N
        K=EFEKT(I)
        IF (K) 19,19,0
        V(1)=26
        R1=X(I)
        R2=Y(I)+Z1
        CALL SS4(R1,Y(I),Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
        V(1)=K/100
        L=100*V(1)
        K=K-L
        L=K/10
        IF (V(1)) 16,16,0
        CALL SS4(R1,R2,Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
        R2=R2+Z1
        GO TO 17
16      IF (L)  18,18,0
17      V(1)=L
        CALL SS4(R1,R2,Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
        R2=R2+Z1
18      L=10*L
        V(1)=K-L
        CALL SS4(R1,R2,Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
        R2=R2+Z1
        V(1)=16
        CALL SS4(R1,R2,Z1,Z2,Z4,Z5,KK,J6,V,I6,M1,N6)
19    CONTINUE
191   WRITE(1,20)
20    FORMAT(//////////37H TABELA WSKAZNIKOW OCENY EFEKTYWNOSCI /1X,
     + 54HODPARCIA NALOTU PRZEZ UGRUPOWANIE ODDZIAŁU (ZT) WR OPK  /)
      WRITE(1,21)
21    FORMAT(1X,70(1H=))
      WRITE(1,22)
22    FORMAT(1X,44HI AZYMUT ILO. MOZLIWYCHIL. CELOW I EFEKTYW- I  ,
     +25H SREDNIE    ILO. MOZLIWYCHI/1X,23HIKIERUNKUIDO OSTRZELA-I ,
     +47HPRZ PUSZ-INOSC ODPARIP-STWO ZNISZIDO WYSTRZELEI /1X,8HI NALOTU,
     +62H I NIA CELOW  I CZONYCH ICIA NALOTUI CZENIA CELUI NIA RAKIET I)
      WRITE(1,23)
23    FORMAT(2H I,8(1H-),1HI,12(1H-),1HI,9(1H-),1HI,10(1H-),1HI,12(1H-),
     +1HI,12(1H-),1HI)
      L=0
      DO 27 I=1,N
        K=CELE(I)-EFEKT(I)
        R1=FLOAT(EFEKT(I))
        R2=FLOAT(CELE(I))
        R=0
        IF (R2)  24,24,0
```

```
      R=R1/R2
24    R2=0
      IF (RT) 25,25,0
      R2=PRAWD(I)/RT
25    WRITE(1,26) AZYM(I),EFEKT(I),K,R,R2,ILRAK(I)
26  FORMAT(2H I,F6.1,3H   I,I2,4X,1HI,I6,4H    I,F8.3,3H   I,F9.3,
     4H    I,I8,5H     I)
      L=L+EFEKT(I)
27  CONTINUE
    WRITE(1,21)
    WRITE(1,28)
28   FORMAT(//////////)
    IF (L) 0,100,0
    RETURN
100         STOP 74
    END
```

```
      SUBROUTINE IKAR
      INTEGER SKALA,DT
      REAL S1(8),PRT(2)
      INTEGER ICEL,IRUB,K,I,N,CZYJ(3),T(3),L,NGRUP,J,VV,Q,R,R1,R2,S(10),
     -        CZAS,CZASK,NC(165),TC(165),          GC(165),Z(27),G(27)
      REAL POPAZ(8),X,Y,X1,Y1,X2,Y2,ROB,R3,R4,R5,AS,DES,A(3),AO(3),
     -     VO(3),XO(3),YO(3),XC(165),YC(165),HC(165),D(27),V(27),H(27)
                                  INTEGER CZAS1,CZAS2,CZAS3,INDEF,AZYM,
     + EF,EFEKT(36),ALI,ALA(36),SRAK,ILRAK(36)
      REAL PSTWO,AZ(3),AZEF(36),PRAWD(36)
      COMMON /GSOJA/PSTWO,EF,ALI,SRAK,CZAS1,CZAS2,CZAS3,AZYM,
     +     INDEF,EFEKT,ALA,ILRAK,AZ,AZEF,PRAWD
      COMMON /UNUN/ S,S1,T,PRT,D,XO,YO,VO,HO,V,H,IRUB,SKALA,CZAS,DT,A,
     -                 Z,G,CZASK,CZYJ
      COMMON /DRDR/       NC,XC,YC,    GC,HC,TC,ICEL
      DATA POPAZ/0.,-90.,-45.,3*90./
      IF (ICEL)  0,0,100
       CALL ITIME(CZAS1)
       CALL ZAMCZ(CZAS,CZAS2,100)
       CALL ZAMCZ(CZASK,CZAS3,100)
       CZAS3=CZASK+CZAS3
       DO 10 I=1,IRUB
         AZ(I)=A(I)
10     CONTINUE
      ICEL=0
      K=0
      DO 90  I=1,IRUB
        ICEL=ICEL+1
        XC(ICEL)=XO(I)
        YC(ICEL)=YO(I)
        GC(ICEL)=T
        HC(ICEL)=HO(I)
        N=10*CZYJ(I)
        N=N+1
        N=100*N
        NC(ICEL)=N+1
        TC(ICEL)=CZAS
        AS = A(I)+POPAZ(4)
        L  = T(I)-K
        IF (L) 90,90,0
        DES = 0
        NGRUP = 0
        DO 80  J=1,L
          VV = K+J
          DES=DES+D(VV)
          R1=Z(VV) *100
          R1=R1+1
          R2=G(VV)
          R3=H(VV)
          CALL NEWXY(XO(I),YO(I),AS,DES,X,Y)
          ICEL = ICEL+1
          XC(ICEL)=X
          YC(ICEL)=Y
          GC(ICEL)=R1
          HC(ICEL)=R3
          NGRUP = NGRUP+10
          VV = NGRUP + N
          TC(ICEL)=CZAS
          NC(ICEL)=VV+1
          IF (R2-1) 80,80,0
          R5 = 5000
          R4 = AS
          DO 70  Q=2,R2
            R4 = R4+POPAZ(Q)
            ICEL=ICEL+1
            CALL NEWXY(X,Y,R4,R5,XC(ICEL),YC(ICEL))
            NC(ICEL)=VV+Q
            GC(ICEL)=R1
            HC(ICEL)=R3
            TC(ICEL)=CZAS
            R5=4000
70        CONTINUE
80      CONTINUE
        K=T(I)
90    CONTINUE
      RETURN
100    CALL ITIME(L)
       I=L-CZAS1
```

```
      CZAS1=L
      IF (I) 0,0,101
      I=30
101   CZAS2=CZAS2+I
      IF (CZAS2 - CZAS3) 0,0,200
      CALL ZAMCZ(CZAS2,R4,60)
      R5=FLOAT(I)
     L=-1
     DO 190  I=1,ICEL
       K=RC(I)
     IF(K)190,190,0
       L=K/1000
       Q=1000*L
       K=K-Q
       R=K/100
       N=100*R
       N=K-N
       N=N/10
       L=0
       IF (R-2) 110,0,0
       L=T(R-1)
110    IF ( N ) 0,0,120
       ROB=YO(R)
       GOTO 130
120    ROB=Y(L+N)
130   ROB=R5*ROB
       CALL NEWXY(XC(I),YC(I),A(R),ROB,XC(I),YC(I))
      TC(I)=R2
190  CONTINUE
     IF(L)200 ,0,0
     RETURN
200   IF (INDEF) 0,0,300
      AZYM=0
      INDEF=0
300   ICEL=-1
      INDEF=INDEF+1
      EFEKT(INDEF)=EF
     ALA(INDEF)=ALI
     PRAWD(INDEF)=PSTWO
     ILRAK(INDEF)=SRAK
      R4=0
      ROB=FLOAT(S(4))
      X2=S1(7)
      Y2=S1(8)
      DO 310  I=1,IRUB
        X = XO(I) - X2
        Y = YO(I) - Y2
        X1= X*X
        Y1= Y*Y
        R3= X1+Y1
        R3= SQRT(R3)
        R5= X/R3
        R5= ASIN(R5)
        R5= R5/17453.29252E-6
        IF (Y) 0,0,301
        R5=270.0+R5
        GO TO 302
301     R5=90.0-R5
302     R4=R4+R5
        R5=R5+ROB
        CALL NEWXY(X2,Y2,R5,R3,XO(I),YO(I))
        A(I)=AZ(I)+ROB
310  CONTINUE
      R5=FLOAT(IRUB)
      AZEF(INDEF)=R4/R5
      AZYM=AZYM+S(4)
                                                    RETURN
     END
```

```
      SUBROUTINE CELE
      INTEGER A11,A12,I,E,A(265),K(34),M(9),P(96),A0,K0,M0,P0,T0
     A      F,G,TABL(20),AA,BB(10),T0,MM1(165),MM2(165),
     A      MM4(165),CZAS(165),II,
     A      KLUCZ,ALE,
     A      M1(165),M2(165),M3(165),M4(165),M5(165),M6(165),
     A      CZAS0,I1,I2,I3,ROB,ROB1,ROB2
      REAL W(102),Z(180),W0,Z0,X(165),Y(165),MM5(165)
      COMMON /DROM/MM1,X,Y,MM4,MM5,CZAS,II
      COMMON /0000/K,W0,W,Z
      COMMON /UUUU/KLUCZ
      DATA A(15)/1/,A(16)/2/,A(17)/3/,A(18)/4/,A(19)/5/,A(20)/6/,
     A      A(21)/7/,A(22)/8/,A(23)/9/
      WRITE(10,7)
7     FORMAT (25HPRZYGOT.MELDUNKI O CELACH)
      PAUSE
      CALL DEFSUF(5,80,TABL)
1     CALL SSWTCH(8,ALE)
      ALE=ALE+1
      DO 6 K0=26,95
         A(K0)=0
6     CONTINUE
      II=1
20    CALL READT(TABL,ALE)
      T0=1
      READ(5,106) M(1),M(2),A0
      IF(KLUCZ)0,0,2
106   FORMAT (3I0)
      IF(M(1)-1)0,126,0
      P0=3
      IF(A0)5,0,0
      IF(A0-1000)0,12,12
      M(4)=A0
      P0=5
      GO TO 10
12    M(3)=A0
      P0=4
10    READ(5,108) M(1),M(2),A0,(BB(I),I=1,T0)
      IF(KLUCZ)0,0,2
      T0=T0+1
108   FORMAT (12I0)
      IF(BB(T0-1))13,0,0
      IF(P0-6)0,0,15
      M(P0)=BB(T0-1)
      P0=P0+1
      GO TO 10
8     M(6)=A0
      GOTO 14
13    M(6)=BB(T0-1)
14    IF(P0-6)0,19,19
      M(P0)=0
      P0=P0+1
      GOTO 14
15    WRITE(10,16) M(1)
16    FORMAT (25HBLEDNY MELDUNEK O NR CELU,I4)
18    READ(5,17) M(1),M(2),A0,(BB(I),I=1,T0)
      IF(KLUCZ)0,0,2
      T0=T0+1
17    FORMAT (10I0)
      IF(BB(T0-1))20,18,18
19    M(3)=0
      MM1(II)=M(1)
      MM2(II)=M(2)
      MM4(II)=M(4)
      MM5(II)=FLOAT(M(5))
      CZAS(II)=-M(6)
21    A(1)=0
      A0=0
      K0=1
22    IF(A(1))102,0,23
      IF(A(25+K0))0,0,23
      A(1)=1
      A(2)=K0
      GOTO 24
23    IF(A(25+K0)-M(1))0,26,0
24    IF(K0-40)0,25,102
      K0=K0+1
      GOTO 22
```

```
25      IF(M(2)-1000000)102,0,0
        K0=A(2)
        A11=25+K0
        A(A11)=A(1)
        GOTO 29
26      IF(M(4))0,28,0
        IF(M(4)-100)0,28,28
        IF(M(4)-K(17))0,27,0
        IF(M(4)-K(18))0,27,0
        IF(M(4)-K(19))0,27,0
        IF(M(4)-K(20))28,0,28
27      A0=1
28      IF(M(2)-1000000)30,0,0
29      A11=M(2)/1000000
        A12=A11/100
        A12=A12*100
        A(1)=A11-A12
        A11=M(2)/100000
        A12=A11/10
        A12=A12*10
        A(2)=A11-A12
        IF(A(1)-K(1))33,31,33
30      IF(M(2)-100000)39,0,0
        A11=M(2)/100000
        A12=A11/10
        A12=A12*10
        A(2)=A11-A12
31      IF(A(2)-K(3))0,34,0
        IF(A(2)-K(4))0,35,0
32      IF(A(2)-K(5))0,36,0
        IF(A(2)-K(6))102,37,102
33      IF(A(1)-K(2))102,32,102
34      A11=65+K0
        A(A11)=K(26)
        A11=105+K0
        A(A11)=K(27)
        A11=225+K0
        A(A11)=1
        GOTO 38
35      A11=65+K0
        A(A11)=K(28)
        A11=105+K0
        A(A11)=K(29)
        A11=225+K0
        A(A11)=2
        GOTO 38
36      A11=65+K0
        A(A11)=K(30)
        A11=105+K0
        A(A11)=K(31)
        A11=225+K0
        A(A11)=3
        GOTO 38
37      A11=65+K0
        A(A11)=K(32)
        A11=105+K0
        A(A11)=K(33)
        A11=225+K0
        A(A11)=4
38      A11=65+K0
        A(1)=A(A11)
        CALL PP1(A(1),A(2))
        A11=65+K0
        A(A11)=A(2)
        A11=105+K0
        A(1)=A(A11)
        CALL PP1(A(1),A(2))
        A11=105+K0
        A(A11)=A(2)
39      IF(A(225+K0)-K(21))40,40,0
        A(1)=K(24)
        CALL PP1(A(1),A(2))
        A(8)=A(2)
        A(1)=K(25)
        CALL PP1(A(1),A(2))
        A(13)=A(2)
        GOTO 41
40      A(1)=K(22)
```

```
      CALL PP1(A(1),A(2))
      A(8)=A(2)
      A(1)=K(23)
      CALL PP1(A(1),A(2))
      A(13)=A(2)
41    A(3)=4
      CALL PP2(A(8),A(3))
      A(3)=6
      CALL PP3(A(2),A(13))
      IF(H(2)-1000)46,0,0
      A11=85+K0
      A(5)=A(A11)
      A11=105+K0
      A(10)=A(A11)
      A11=H(2)/10000
      A12=A11/10
      A12=A12*10
      A(1)=A11-A16
      P0=7
42    IF(A(1)-K(P0))0,43,0
      IF(P0-10)0,102,102
      P0=P0+1
      GOTO 42
43    A(2)=P0-7
      A(2)=A(2)*A(8)
      A(5)=A(5)+A(2)
      A11=H(2)/1000
      A12=A11/10
      A12=A12*10
      A(1)=A11-A16
      P0=11
44    IF(A(1)-K(P0))0,45,0
      IF(P0-16)0,102,102
      P0=P0+1
      GOTO 44
45    A(2)=P0-11
      A(2)=A(2)*A(13)
      A(10)=A(10)+A(2)
      A12=145+K0
      A(A12)=A(5)
      A12=185+K0
      A(A12)=A(10)
      GOTO 47
46    A12=145+K0
      A(5)=A(A12)
      A12=185+K0
      A(10)=A(A12)
47    A(3)=3
      CALL PP2(A(8),A(3))
      A(3)=3
      CALL PP3(A(2),A(13))
      P0=0
      A11=H(2)/100
      A12=A11/10
      A12=A12*10
      A(1)=A11-A16
48    DO 150 I=1,9
      IF(A(1)-A(15+I))150,0,150
      A(3)=I
      GOTO 151
150   CONTINUE
      A(3)=0
151   IF(A(3))102,102,0
      A(3)=A(5)+36
      AA=A(3)+12
      T=0
      DO 209 I=49,57
      T=T+1
      IF(AA-I)209,0,209
      GOTO (49,50,51,52,53,54,55,56,57),T
209   CONTINUE
49    A(4)=2*A(8)
      A(2)=0
      GOTO 58
50    A(4)=A(8)*2
      A(2)=A(13)
      GOTO 58
51    A(4)=2*A(8)
```

```
      A(2)=2*A(13)
      GOTO 58
52    A(4)=A(8)
      A(2)=2*A(13)
      GOTO 58
53    A(4)=0
      A(2)=2*A(13)
      GOTO 58
54    A(4)=0
      A(2)=A(13)
      GOTO 58
55    A(4)=0
      A(2)=0
      GOTO 58
56    A(4)=A(8)
      A(2)=0
      GOTO 58
57    A(4)=A(8)
      A(2)=A(13)
58    A(5)=A(5)+A(4)
      A(10)=A(10)+A(2)
      IF(PO)102,0,59
      PO=1
      A(3)=3
      CALL PP2(A(8),A(3))
      CALL PP3(A(5),A(13))
      A11=A(2)/10
      A12=A11/10
      A12=A12*10
      A(1)=A11-A12
      GOTO 40
59    A(3)=2
      CALL PP2(A(8),A(3))
      CALL PP3(A(5),A(13))
      A12=A(2)/10
      A12=A12*10
      A(1)=A(2)-A12
      IF(A(1))102,60,0
      DO 153 I=1,4
      IF(A(1)-A(12+I))153,0,153
      A(3)=I
      GOTO 154
153   CONTINUE
      A(3)=0
154   IF(A(3))102,102,0
      A(3)=40+A(3)
      AA=A(3)+12
      T=0
      DO 310 I=61,69
      T=T+1
      IF(AA-I)310,0,310
      GOTO (61,62,63,64,65,66,67 ,68,69),T
310   CONTINUE
60    A(5)=A(5)+A(8)
      A(10)=A(10)+A(13)
      GOTO 65
61    A(5)=A(5)+A(8)
      GOTO 65
62    A(5)=A(5)+A(8)
      A(10)=A(10)+A(13)
      GOTO 64
63    A(10)=A(10)+A(13)
64    A(3)=2
      CALL PP2(A(8),A(3))
      CALL PP3(A(5),A(13))
      A(5)=A(5)+A(8)
      A(10)=A(10)+A(13)
65    A(8)=A(10)
      CALL PP4(A(8),A(6),A(7))
      A(10)=A(6)
      A(11)=A(7)
      A(12)=A(8)
      A(8)=A(5)
      CALL PP4(A(8),A(6),A(7))
      A(5)=A(6)
      A(6)=A(7)
      A(7)=A(8)
      A(3)= INT(WO)
```

```
      IF(A(6)-30)66,0,0
      A(1)=A(6)
      A(1)=A(1)-30
      A(1)=A(1)*60
      A(1)=A(1)+A(7)
      P0=A(5)
      P0=P0-A(3)
      P0=P0*2
      P0=P0+1
      GOTO 67
66    A(1)=A(6)
      A(1)=A(1)*60
      A(1)=A(1)+A(7)
      P0=A(5)
      P0=P0-A(3)
      P0=P0*2
67    P0=P0*6
      Z(1)=FLOAT(A(1))
      A(3)=1
      A(2)=K(34)
68    A(1)=A(2)*6
      IF(A(10)-A(1))69,0,0
      IF(A(3)-4)0,102,102
      A(3)=A(3)+1
      A(2)=A(2)+1
      GOTO 68
69    A(3)=A(1)-3
      M(3)=A(2)
      M(3)=M(3)*1000000
      M(3)=M(3)+500000
      A(1)=A(10)
      A(1)=A(1)-A(3)
      A(1)=A(1)+3000
      A(3)=A(11)
      A(3)=A(3)*60
      A(1)=A(1)+A(3)
      A(1)=A(1)+A(12)
      Z(2)=FLOAT(A(1))
      Z(2)=Z(2)/10000
      A11=P0+2
      Z(3)=W(A11)
      Z(3)=Z(3)*Z(1)
      A11=P0+1
      Z(3)=Z(3)+W(A11)
      A11=P0+4
      Z(4)=W(A11)
      Z(4)=Z(4)*Z(1)
      Z(4)=-Z(4)
      A11=P0+3
      Z(4)=Z(4)+W(A11)
      Z(4)=Z(4)*Z(2)
      Z(4)=Z(4)*Z(2)
      Z(3)=Z(3)+Z(4)
      M(2)=INT(Z(3))
      Z(3)=FLOAT(M(3))
      A11=P0+6
      Z(4)=W(A11)
      Z(4)=Z(4)*Z(1)
      Z(4)=-Z(4)
      A11=P0+5
      Z(4)=Z(4)+W(A11)
      Z(4)=Z(4)*Z(2)
      Z(3)=Z(3)+Z(4)
      M(3)=INT(Z(3))
      X(II)=FLOAT(M(2))
      Y(II)=FLOAT(M(3))
      M1(II)=A(5)
      M2(II)=A(6)
      M3(II)=A(7)
      M4(II)=A(10)
      M5(II)=A(11)
      M6(II)=A(12)
      II=II+1
      IF(II-165)0,0,120
      IF(A0)0,20,0
      A11=25+K0
      A(A11)=0
      GOTO 20
```

```
102     WRITE(10,16) MM1(II)
        GOTO 2
2       PAUSE 7(4
        KLUCZ=0
        GOTO 1
126     II=II-1
300     WRITE(1,88)
88      FORMAT (//108(1H-)/2H I,39X,1HI,25X,1HI,39X,1HI/2H I,2X,
     A        35HMELDUNEK OKRESLAJACY POLOZENIE CELU,2X,1HI,2X,
     A        19HWSPOLRZEDNE (FI,LA),4X,1HI,2X,
     A        35HMELDUNEK OKRESLAJACY POLOZENIE CELU,2X,1HI/2H I,5X,
     A        28HWG.WSPOLRZEDNYCH SIATKI OPL ,6X,1HI,10X,4HCELU,11X,
     A        1HI,1X,37HWG.WSPOLRZEDNYCH PROSTOKATNYCH (X,Y) ,
     A        2H I/2H I,39X,1HI,25X,1HI,39X,1HI/108(1H-))
        DO 130 I=1,II
        WRITE(1,201) MM1(I),MM2(I),MM4(I),        MM5(I),CZAS(I),
     A       M1(I),M2(I),M3(I),M4(I),M5(I),M6(I),
     A                MM1(I),X(I),Y(I),MM4(I),MM5(I),CZAS(I)
130     CONTINUE
201     FORMAT (2H I,1X,I4,1X,I8,1X,I8,1X,4X,F4.0,I6,
     A        1X,5HI FI=,I2,1X,I2,1X,I2,1X,3HLA=,I2,
     A        1X,I2,1X,I2,1X,2HI ,I4,1X,F8.0,1X,F8.0,1X,
     A        I3,1X,F4.0,I6,1X,1HI/2H I,39X,1HI,25X,
     A        1HI,39X,1HI)
        WRITE(1,127)
127     FORMAT (108(1H-))
        RETURN
        END
```

```
      SUBROUTINE MELD
      INTEGER KLUCZ,ALE,NO,TABL(20),I,SGO,N(165),SG(165),
     A        I1,CZASO,CZAS(165),I2,I3,ROB,ROB1,ROB2,S(16)
      REAL TO,DO,HO,T(165),D(165),H(165),D1,D2,A,XX,YY,
     A     X(165),Y(165),S1(8)
      COMMON /UMUN/S,S1
      COMMON /DROB/N,X,Y,SG,H,CZAS,I
      COMMON /UUUO/KLUCZ
      CALL DEFBUF(5,80,TABL)
      WRITE(10,30)
30    FORMAT (25HPRZYGOT.MELDUNKI O CELACH)
      PAUSE
31    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      I=1
4     CALL READY(TABL,ALE)
         READ(5,8) NO
      IF(KLUCZ)0,0,32
8     FORMAT (I0,2F0.0,I0,F0.0,I0)
         IF(NO+1)0,3,0
      READ(5,8) NO,TO,DO,SGO,HO,CZASO
      IF(KLUCZ)0,0,32
      IF(NO)10,0,0
      IF(NO-999)0,0,10
      IF(TO)10,0,0
      IF(TO-359)0,0,10
      IF(DO)10,0,0
      IF(DO-999)0,0,10
      IF(SGO)10,0,0
      IF(SGO-999)0,0,10
      IF(HO)10,0,0
      IF(HO-999)0,0,10
      D1=DO*1000
         D1=D1*D1
      D2=HO*100
         D2=D2*D2
         D1=D1-D2
      IF(D1)6,6,0
         D1=SQRT(D1)
      CALL NEWXY(S1(5),S1(6),TO,D1,XX,YY)
5        N(I)=NO
         T(I)=TO
         D(I)=DO
         SG(I)=SGO
         H(I)=HO
      CZAS(I)=CZASO
      X(I)=XX
      Y(I)=YY
      I=I+1
      IF(I-165)4,4,3
6     WRITE(10,26)
26    FORMAT (30HROZNICA KWADR.ODL I WYS UJEMNA)
      GOTO 4
32    PAUSE 775
      KLUCZ=0
      GOTO 31
10    WRITE(10,25) NO
25    FORMAT (26HBLEDNY MELDUNEK O NR.CELU ,I4)
         GOTO 4
3     I=I-1
      WRITE(1,20)
20    FORMAT (//85(1H-)/2H I,36X,1HI,45X,1HI/2H I,
     A        1X,35HMELDUNEK OKRESLAJACY POLOZENIE CELU,
     A        1HI,2X,35HMELDUNEK OKRESLAJACY POLOZENIE CELU,
     A        8X,1HI/2H I,5X,27HWG.WSPOLRZEDNYCH SIATKI TDH,4X,1HI,1X,
     A        36HWG.WSPOLRZEDNYCH PROSTOKATNYCH (X,Y),8X,
     A        1HI/2H I,36X,1HI,45X,1HI/85(1H-))
      DO 21 I1=1,I
         WRITE(1,22) N(I1),T(I1),D(I1),SG(I1),H(I1),CZAS(I1),
     A               N(I1),X(I1),Y(I1),SG(I1),H(I1),CZAS(I1)
22       FORMAT (2H I,2X,I4,1X,F4.0,1X,F5.0,2X,I3,1X,
     A           F4.0,2X,I6,2H I,2X,I4,1X,F8.0,1X,F8.0,
     A           2X,I3,1X,F4.0,2X,I6,2X,2H I)
21    CONTINUE
      WRITE(1,23)
23    FORMAT (85(1H-))
      RETURN
      END
```

```
      SUBROUTINE OBR1(V,PRZ)
      INTEGER I7,K(30),J6,V(3001),C(3001),I6,M1,N6,I2,
     A        II,XO,YO,S,INI,J,IS,I1,S1,I,AA(448),BB(27),
     A        SYMB(29),TC(25),AT(25),SG(165),CZAS(165),
     A        AV(25),JJ,IN,MMT(165)
      REAL Z1,Z2,Z4,Z5,Z11,X(41),Y(41),Z,Z9,Z10,A,
     A       D2(25),XX(165),YY(165),HH(165),
     A       A11(64),B11(162),D1(25),H1(25),D2(25)
      REAL PRZ(4),Z22
      COMMON /DRUK/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A       JJ,IN,Z11,X,Y,Z1,Z2,Z4,Z5,K,J6,C,I6,M1,N6
      COMMON /OSOS/I7
      COMMON /DRDR/MM1,XX,YY,SG,HH,CZAS,II
      Z1=PRZ(1)
      Z2=PRZ(2)
      Z4=PRZ(3)
      Z5=PRZ(4)
      DO 1 I2=1,II
      X(1)=XX(I2)
      Y(1)=YY(I2)
      I=MM1(I2)
            IF(I)0,1,0
        CALL SS1(X(1),Y(1),Z11)
        XX(I2)=X(1)
        YY(I2)=Y(1)
        Z=4*Z1
        Z9=Y(1)+Z
        Z10=Z+Z1
        A=Z9+Z10
        DO 10 INI=1,2
              A=A-Z10
              I6=0
              Y(1)=A+Z1
              DO 11 J=1,4
                    Y(1)=Y(1)-Z1
                    CALL SS4(X,Y,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
                    IF(I7)0,10,0
11            CONTINUE
              I6=1
              Y(1)=A+Z1
              DO 12 J=1,4
                    Y(1)=Y(1)-Z1
                    IS=I/10
                    I1=10*IS
                    I1=I-I1
                    I=IS
                    Y(1)=I1
                    CALL SS4(X,Y,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
12            CONTINUE
              GO TO 15
10      CONTINUE
15      I6=1
1     CONTINUE
      RETURN
      END
```

```
      SUBROUTINE CEL1
      INTEGER A11,A12,I,E,A(265),K(34),M(6),P(96),A0,K0,N0,P0,T,
     A     KLUCZ,ALE,
     A     LOL(240),F,G,D(6),TABL(20),AA,BB(10),T0
      REAL W(102),Z(180),W0,Z0
      COMMON /DDDD/K,N0,W,Z
      COMMON /UUUU/KLUCZ
      WRITE(10,202)
202   FORMAT (26H PRZEL.WSP.PROSTK.NA WSP.OPL)
      PAUSE
1     CALL SWTCH(8,ALE)
      ALE=ALE+1
      F=-5
      G=0
      CALL DEFBUF(5,80,TABL)
      WRITE(1,203)
203   FORMAT (/108(1H-)/2H I,39X,1HI,25X,1HI,39X,1HI/2H I,2X,
     A        35HMELDUNEK OKREŚLAJĄCY POŁOŻENIE CELU,2X,1HI,
     A        2X,19HWSPOŁRZĘDNE (FI,LA),4X,1HI,2X,
     A        35HMELDUNEK OKREŚLAJĄCY POŁOŻENIE CELU,2X,1HI/2H I,1X,
     A        36HWG.WSPOŁRZĘDNYCH PROSTOKĄTNYCH (X,Y),2X,1HI,
     A        10X,4HCELU,11X,1HI,5X,
     A        27HWG.WSPOŁRZĘDNYCH SIATKI OPL,7X,1HI/2HII,39X,1HI,
     A        25X,1HI,39X,1HI/108(1H-))
72    CALL READT(TABL,ALE)
      T0=1
      READ(5,7) M(1),M(2),A0
      IF(KLUCZ)0,0,2
7     FORMAT (3I0)
      P0=5
      IF(A0)8,0,0
      IF(A0-1000)0,9,9
      M(4)=A0
      P0=5
      GO TO 11
9     M(3)=A0
      P0=4
11    READ(5,12) M(1),M(2),A0,(BB(I),I=1,T0)
      IF(KLUCZ)0,0,2
      T0=T0+1
12    FORMAT (12I0)
      IF(BB(T0-1))13,0,0
      IF(P0-6)0,16,16
      M(P0)=BB(T0-1)
      P0=P0+1
      GO TO 11
8     M(6)=A0
      GO TO 14
13    M(6)=BB(T0-1)
14    IF(P0-6)0,19,19
      M(P0)=0
      P0=P0+1
      GO TO 14
16    READ(5,17) M(1),M(2),A0,(BB(I),I=1,T0)
      IF(KLUCZ)0,0,2
      T0=T0+1
17    FORMAT (12I0)
      IF(BB(T0-1))72,18,18
19    DO 205 I=1,6
        D(I)=M(I)
205   CONTINUE
      D(6)=-D(6)
      IF(M(6)+1)0,126,0
73    A11=D(2)/1000
      A12=A11/10000
      A12=A12*10000
      A(3)=A11-A12
      Z(2)=FLOAT(A(3))
      IF(Z(6)-Z(2))0,0,138
      IF(Z(2)-Z(174))0,0,138
      Z(2)=Z(2)*1000
      Z(1)=-1000*Z(6)
      Z(1)=Z(1)+Z(2)
      Z(1)=Z(1)/50000
      A(3)=INT(Z(1))
      P0=A(3)*7
      P0=P0+5
      A12=M(3)/1000000
```

```
      A12=A12*1000000
      A(2)=M(3)-A12
      A(2)=A(2)-500000
      Z(1)=FLOAT(A(2))
      Z(1)=Z(1)/100000
      A11=P0+1
      Z(2)=-1000*Z(A11)
      A(2)=M(2)
      Z(3)=FLOAT(A(2))
      Z(2)=Z(2)+Z(3)
      Z(2)=Z(2)/1000
      A11=P0+2
      Z(3)=Z(A11)
          A(2)=NINT(Z(3))                                              L
      A(1)=A(2)
      CALL PP1(A(1),A(2))
      A(5)=A(2)
      A11=P0+3
      Z(3)=Z(A11)*Z(2)
          A(2)=NINT(Z(3))                                              L
      A(5)=A(5)+A(2)
      A11=P0+5
      Z(3)=Z(A11)*Z(2)
      A11=P0+4
      Z(3)=Z(3)+Z(A11)
      Z(3)=Z(3)*Z(1)
      Z(3)=Z(3)*Z(1)
          A(2)=NINT(Z(3))                                              L
      A(5)=A(5)-A(2)
      A11=M(3)/1000000
      A12=A11/10
      A12=A12*10
      A(10)=A11-A12
      A(10)=A(10)*6
      A(10)=A(10)-5
      A(10)=A(10)*3600
      A11=P0+7
      Z(3)=Z(A11)*Z(2)
      A11=P0+6
      Z(3)=Z(3)+Z(A11)
      Z(3)=Z(3)*Z(1)
      Z(3)=Z(3)+0.5
      IF(Z(3))74,0,0
      A(2)=NINT(Z(3))
      A(10)=A(10)+A(2)
      GOTO 75
74    Z(3)=ABS(Z(3))
      A(2)=NINT(Z(3))
      A(10)=A(10)-A(2)
75    A(3)=1
      A0=26
      P0=27
70    A(1)=K(A0)
      CALL PP1(A(1),A(2))
      A(6)=A(2)
      A(1)=K(P0)
      CALL PP1(A(1),A(2))
      A(11)=A(2)
      IF(A(3)-K(21))0,0,77
      A(1)=K(22)
      CALL PP1(A(1),A(2))
      A(8)=A(2)
      A(1)=K(23)
      CALL PP1(A(1),A(2))
      A(13)=A(2)
      GOTO 78
77    A(1)=K(24)
      CALL PP1(A(1),A(2))
      A(8)=A(2)
      A(1)=K(25)
      CALL PP1(A(1),A(2))
      A(13)=A(2)
78    A(7)=A(6)+A(8)
      A(12)=A(11)+A(13)
      IF(A(5)-A(6))79,0,0
      IF(A(5)-A(7))0,72,79
      A(2)=0
      GOTO 80
```

```
79    A(2)=1
80    IF(A(2))139,0,81
      IF(A(10)-A(11))82,0,0
      IF(A(10)-A(12))0,82,82
      A(2)=0
      GOTO 83
82    A(2)=1
83    IF(A(2))139,84,0
81    IF(A(3)-40)0,140,140
      A(3)=A(3)+1
      A0=A0+2
      P0=P0+2
      GOTO 79
84    IF(A(3)-K(21))0,0,85
      M(2)=K(1)*1000000
      GOTO 86
85    M(2)=K(2)*1000000
86    P0=A(3)
      P0=2+P0
      A(3)=K(P0)*100000
      M(2)=M(2)+A(3)
      A(3)=4
      CALL PP2(A(9),A(3))
      A(3)=6
      CALL PP3(A(3),A(13))
      P0=7
      A(1)=10
90    A(7)=A(9)+A(8)
      IF(A(5)-A(6))87,0,0
      IF(A(5)-A(7))0,87,87
      A(2)=0
      GOTO 88
87    A(2)=1
88    IF(A(2))139,89,0
      IF(P0-A(1))0,139,139
      P0=P0+1
      A(6)=A(7)
      GOTO 90
89    A(3)=K(P0)*10
      P0=11
      A(1)=16
91    A(12)=A(11)+A(13)
      IF(A(10)-A(11))92,0,0
      IF(A(10)-A(12))0,92,92
      A(2)=0
      GOTO 93
92    A(2)=1
93    IF(A(2))139,94,0
      IF(P0-A(1))0,139,139
      P0=P0+1
      A(11)=A(12)
      GOTO 91
94    A(3)=A(3)+K(P0)
      A(3)=A(3)*1000
      M(2)=M(2)+A(3)
      A(3)=3
      CALL PP2(A(9),A(3))
      CALL PP3(A(3),A(13))
      K0=0
95    P0=1
      A(1)=3
96    A(7)=A(9)+A(8)
      IF(A(5)-A(6))97,0,0
      IF(A(5)-A(7))0,97,97
      A(2)=0
      GOTO 98
97    A(2)=1
98    IF(A(2))139,99,0
      IF(P0-A(1))0,139,139
      P0=P0+1
      A(6)=A(7)
      GOTO 96
99    A(3)=P0
      P0=1
      A(1)=3
100   A(12)=A(11)+A(13)
      IF(A(10)-A(11))100,0,0
      IF(A(10)-A(12))0,100,100
```

```
      A(2)=0
      GOTO 170
100   A(2)=1
170   IF(A(2))139,171,0
      IF(P0-A(1))0,139,139
      P0=P0+1
      A(11)=A(12)
      GOTO 176
171   IF(A(3)-2)0,174,173
      P0=8-P0
173   GOTO 177
174   IF(P0-2)0,175,176
      P0=8
      GOTO 177
175   P0=9
      GOTO 177
176   P0=4
177   IF(K0)139,0,178
      P0=100+P0
      M(2)=M(2)+P0
      A(3)=3
      CALL PP2(A(6),A(3))
      CALL PP3(A(3),A(13))
      K0=1
      GOTO 95
178   P0=P0*10
      M(2)=M(2)+P0
      A(3)=2
      CALL PP2(A(6),A(3))
      CALL PP3(A(3),A(13))
      P0=1
      A(1)=2
179   A(7)=A(9)+A(8)
      IF(A(5)-A(6))180,0,0
      IF(A(5)-A(7))0,180,180
      A(2)=0
      GOTO 181
180   A(2)=1
181   IF(A(2))139,182,0
      IF(P0-A(1))0,139,139
      P0=P0+1
      A(6)=A(7)
      GOTO 179
182   A(3)=P0
      P0=1
      A(1)=2
183   A(12)=A(11)+A(13)
      IF(A(10)-A(11))184,0,0
      IF(A(10)-A(12))0,184,184
      A(2)=0
      GOTO 185
184   A(2)=1
185   IF(A(2))139,186,0
      IF(P0-A(1))0,139,139
      P0=P0+1
      A(11)=A(12)
      GOTO 183
186   IF(A(3)-1)139,0,187
      P0=5-P0
187   M(2)=M(2)+P0
      M(3)=0
      A(8)=A(10)
      CALL PP4(A(8),A(9),A(7))
      A(10)=A(9)
      A(11)=A(7)
      A(12)=A(8)
      A(8)=A(5)
      CALL PP4(A(9),A(9),A(7))
      A(5)=A(8)
      A(6)=A(7)
      A(7)=A(8)
      F=F+9
      G=G+9
      T=1
      M(6)=-M(9)
      DO 6 I=F,G
      LOL(I)=B(T)
      T=T+1
```

```
6       CONTINUE
        WRITE(1,201) (D(I),I=1,6),
     A               (A(I),I=5,7),(A(I),I=10,12),(M(I),I=1,6)
201     FORMAT (2H I,1X,I4,1X,I8,1X,I8,1X,I5,1X,I3,1X,I6,
     A          1X,5HI FI=,I2,1X,I2,1X,I2,1X,3HLA=,I2,
     A          1X,I2,1X,I2,1X,2HI ,I4,1X,I8,1X,I8,1X,
     A          I3,1X,I3,1X,I6,1X,1HI/2H I,39X,1HI,25X,
     A          1HI,39X,1HI)
        GO TO 72
138     WRITE(1,214) (D(I),I=1,6)
214     FORMAT (2H I,1X,I4,1X,I8,1X,I8,1X,I5,1X,I3,1X,I6,1X,1HI,
     A       39HUSPRFI POZA OBSZAREM DZIALANIA/2H I,
     A       39X,1HI,25X,1HI,39X,1HI)
        GOTO 72
139     WRITE(1,103) (D(I),I=1,6)
103     FORMAT (2H I,1X,I4,1X,I8,1X,I8,1X,I5,1X,I3,1X,I6,1X,1HI,
     A          12HPRZEKLAMANIE/2H I,39X,1HI,25X,1HI,39X,1HI)
        GOTO 72
140     WRITE(1,215) (D(I),I=1,6)
215     FORMAT (2H I,1X,I4,1X,I8,1X,I8,1X,I5,1X,I3,1X,I6,1X,1HI,
     A       27HCEL POZA OBSZAREM DZIALANIA/2H I,
     A       39X,1HI,25X,1HI,39X,1HI)
        GOTO 72
2       PAUSE 776
        KLUCZ=0
        GOTO 1
126     WRITE(1,127)
127     FORMAT (108(1H-))
        RETURN
         END
```

```
      SUBROUTINE AKT9
      INTEGER ALE,I,TABL(20),II,KLUCZ,K,KK,ROB,S(16)
      REAL XX,YY,S1(8)
      COMMON /UUUU/KLUCZ
      COMMON /UNUN/S,S1
      CALL DEFBUF(5,80,TABL)
15    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      DO 1 I=1,20
      CALL READT(TABL,ALE)
            READ(5,3) II
3           FORMAT (2I0)
            IF(KLUCZ)0,0,20
            IF(II+1)0,4,0
            IF(II-1)0,5,0
            IF(II-2)0,6,0
            IF(II-3)0,7,0
            DO 8 K=4,6
                IF(II-K)0,8,0
8           CONTINUE
            DO 10 K=7,20
                IF(II-K)0,11,0
10          CONTINUE
            WRITE(10,12)
12          FORMAT (11HBLEDNE DANE)
            GOTO 15
5           READ(5,3) II,KK
            IF(KLUCZ)0,0,20
            S(1)=KK
            GOTO 1
6           READ(5,14) II,XX,YY
14          FORMAT (I0,2F0.0)
            IF(KLUCZ)0,0,20
            S1(1)=XX
            S1(2)=YY
            GOTO 1
7           READ(5,3) II,KK
            IF(KLUCZ)0,0,20
            S(2)=KK
            GOTO 1
9           READ(5,14) II,XX,YY
            IF(KLUCZ)0,0,20
            ROB=2*K
            ROB=ROB-5
            S1(ROB)=XX
            S1(ROB+1)=YY
            GOTO 1
11          READ(5,3) II,KK
            IF(KLUCZ)0,0,20
            ROB=K-4
            S(ROB)=KK
            GOTO 1
20    PAUSE 222
            KLUCZ=0
            GOTO 15
1     CONTINUE
4     RETURN
      END
```

```
      SUBROUTINE AKTUL
      INTEGER A(448),W,W1,W2,L,Z,K10,L1,TABL(20),L2,ROB,Z2,B(27)
      INTEGER KLUCZ,ALE
      REAL A1(64),W3,B1(102)
      COMMON /DRUK/A,B,A1,B1
      COMMON /UUUO/KLUCZ
10    CALL SSWTCH(6,ALE)
      ALE=ALE+1
      CALL DEFBUF(5,80,TABL)
6     DO 1 L=1,30
      READ(ALE,2) W
      IF(KLUCZ)0,0,19
2     FORMAT (I0)
      IF(W+2)0,3,0
      K10=0
      DO 4 Z=1,433,14
      IF(W-A(Z))0,5,0
      K10=K10+1
4     CONTINUE
      WRITE(10,40)
40    FORMAT (27HBŁĘDNE DANE PODR LUB AKTUAL)
      PAUSE
      GOTO 6
5     DO 7 L1=1,19
      CALL READT(TABL,ALE)
      READ(5,9) W1
      IF(KLUCZ)0,0,19
9     FORMAT (I0)
      IF(W1+1)0,1,0
      IF(W1-1)0,11,0
      IF(W1-2)0,12,0
      IF(W1-3)0,13,0
      IF(W1-5)0,14,0
      DO 15 L2=6,17
      IF(W1-L2)0,16,0
15    CONTINUE
      WRITE(10,40)
      PAUSE
      GOTO 6
11    READ(5,17) W1,W2
      IF(KLUCZ)0,0,19
17    FORMAT (2I0)
      A(Z)=W2
      GOTO 7
12    READ(5,17) W1,W2
      IF(KLUCZ)0,0,19
      ROB=Z+1
      A(ROB)=W2
      GOTO 7
13    READ(5,18) W1,W3
      IF(KLUCZ)0,0,19
18    FORMAT (I0,F0.0)
      ROB=12*K10
      ROB=Z-ROB
      A1(ROB)=W3
      GOTO 7
14    READ(5,18) W1,W3
      IF(KLUCZ)0,0,19
      ROB=12*K10
      Z2=Z+1
      ROB=Z2-ROB
      A1(ROB)=W3
      GOTO 7
19    PAUSE 353
      KLUCZ=0
      GOTO 10
16    READ(5,17) W1,W2
      IF(KLUCZ)0,0,19
      ROB=L2-4
      ROB=Z+ROB
      A(ROB)=W2
7     CONTINUE
1     CONTINUE
3     RETURN
      END
```

```
      SUBROUTINE ACT1
      INTEGER TABL(20),L,W,K10,K11,Z,B(27),A(448),
     A KLUCZ,ALE,
     A L1,W1,I2,ROB,W2,L2,ROB1,L3,ROB2
      REAL B1(162),W3,A1(64),W4
      COMMON /BRUK/A,B,A1,B1
      COMMON /UUUU/KLUCZ
21    CALL SSWTCH(8,ALE)
      ALE=ALE+1
      CALL DEFBUF(5,80,TABL)
6     DO 1 L=1,9
      READ(ALE,2) W
      IF(KLUCZ)0,0,22
2     FORMAT (I0)
      IF(W+2)0,3,0
      K11=0
      K10=0
      DO 4 Z=1,25,3
      IF(W-B(Z))0,5,0
      K10=K10+1
      K11=K11+3
4     CONTINUE
      WRITE(10,40)
40    FORMAT (27HBŁĘDNE DANE POPR LUB AKTUAL)
      PAUSE
      GOTO 6
5     DO 7 L1=1,24
      CALL READT(TABL,ALE)
      READ(5,9) W1
      IF(KLUCZ)0,0,22
9     FORMAT (I0)
      IF(W1+1)0,1,0
      IF(W1-1)0,11,0
      IF(W1-2)0,12,0
      IF(W1-13)0,13,0
      DO 15 L2=4,12
      IF(W1-L2)0,16,0
15    CONTINUE
      WRITE(10,40)
      PAUSE
      GOTO 6
11    READ(5,17) W1,W2
      IF(KLUCZ)0,0,22
17    FORMAT (2I0)
      B(Z)=W2
      GOTO 7
12    READ(5,17) W1,W2
      ROB=Z+1
      B(ROB)=W2
      GOTO 7
13    READ(5,17) W1,W2
      IF(KLUCZ)0,0,22
      ROB=Z+2
      B(ROB)=W2
      GOTO 7
22    PAUSE 444
      KLUCZ=0
      GOTO 21
16    READ(5,18) W1,W3,W4
      IF(KLUCZ)0,0,22
18    FORMAT (I0,4F0.0)
20    ROB=K10*18
      ROB2=2*L2
      ROB=ROB+ROB2
      ROB=ROB-7
      B1(ROB)=W3
      ROB1=ROB+1
      B1(ROB1)=W4
7     CONTINUE
1     CONTINUE
3     RETURN
      END
```

```
      SUBROUTINE AKT11
      INTEGER TABL(20),L,A(814),W,L1,W1,W2,L2,Z,ROB,
     A        NWZWW(297),SYMC(29),NAZWA(128),KRYP(36),RBB(36),I,
     A        AA(448),BB(27),SYMB(29),TC(25),AT(25),AV(25),
     A        KLUCZ,ALE,
     A        II,IN,KK(30),J6,V(3001),I0,N1,N6
      REAL A11(64),B11(162),D2(25),D1(25),H1(25),H2(25),
     A        Z11,XX(41),YY(41),Z1,Z2,Z4,Z5
      COMMON /ORUKZAA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A        II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A        KK,J6,V,I0,N1,N6,
     A        NWZWW,SYMC,NAZWA,KRYP,RBB,I,A
      COMMON /UUUU/KLUCZ
15    CALL SSWTCH(6,ALE)
      ALE=ALE+1
      CALL DEFBUF(5,80,TABL)
1     DO 2 L=1,22
      READ(ALE,3) W
      IF(KLUCZ)0,0,14
3     FORMAT (I0)
      IF(W+2)0,4,0
      DO 5 Z=1,778,37
      IF(W-A(Z))0,6,0
5     CONTINUE
      WRITE(10,54)
54    FORMAT (21HBLEDNE DANE DO AKTUAL)
      PAUSE
      GOTO 1
6     DO 7 L1=1,38
21    CALL READT(TABL,ALE)
      READ(5,8) W1
      IF(KLUCZ)0,0,14
      IF(W1+1)0,2,0
      READ(5,8) W1,W2
      IF(KLUCZ)0,0,14
8     FORMAT (2I0)
      IF(W1-1)0,9,0
      IF(W1)0,10,0
      DO 11 L2=10,350,10
      IF(W1-L2)0,12,0
11    CONTINUE
      WRITE(10,54)
      PAUSE
      GOTO 1
9     A(Z)=W2
      GOTO 7
10    ROB=Z+10
      A(ROB)=W2
      GO TO 7
14    PAUSE 555
      KLUCZ=0
      GOTO 13
12    ROB=L2/10
      ROB=ROB+Z
      A(ROB)=W2
7     CONTINUE
2     CONTINUE
4     RETURN
      END
```

```
      SUBROUTINE AKT10
      INTEGER L,W1,K10,Z,L1,W2,W3,ROB,A(120),U2,ZZ,TABL(20),
     A        AA(448),BB(27),SYMB(29),TC(25),AT(25),AV(25),
     A        NUZWU(297),SYMC(29),NIZWI(128),KRYP(36),
     A        RBB(36),III,AAA(814),NN(10),NUZWU(209),BBB(9),KKK(32),
     A        I,KLUCZ,ALE,II,IN,KK(30),J6,V(5001),I6,M1,N6
      REAL W4,A1(40),
     A        A11(64),B11(162),D2(25),D1(25),H1(25),H2(25),
     A        Z11,XX(41),YY(41),Z1,Z2,Z4,Z5
      COMMON /OPUK/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,AT,AV,
     A        II,IN,Z11,XX,YY,Z1,Z2,Z4,Z5,
     A        KK,J6,V,I6,M1,N6,
     A        NUZWU,SYMC,NIZWI,KRYP,RBB,III,AAA,NN,NUZWU,BBB,KKK,I,A,
     A        A1
      COMMON /UUUU/KLUCZ
1     CALL SSWTCH(6,ALE)
      ALE=ALE+1
      CALL DEFBUF(5,80,TABL)
105   DO 100 L=1,20
      READ(ALE,101) W1
      IF(KLUCZ)0,0,2
101   FORMAT (I0)
      IF(W1+2)0,102,0
      K10=0
      DO 103 Z=1,115,6
      IF(W1-A(Z))0,104,0
      K10=K10+1
103   CONTINUE
      WRITE(10,127)
127   FORMAT (28HBLEDNE DANE POPR LUB AKTUAL.)
      PAUSE
      GOTO 105
104   DO 106 L1=1,8
      CALL READT(TABL,ALE)
      READ(5,107) W2
      IF(KLUCZ)0,0,2
107   FORMAT (I0)
      IF(W2+1)0,100,0
      IF(W2-5)0,109,0
      IF(W2-6)0,116,0
      READ(5,110) W2,W3
      IF(KLUCZ)0,0,2
110   FORMAT (2I0)
      IF(W2-1)0,111,0
      IF(W2-2)0,112,0
      IF(W2-3)0,113,0
      IF(W2-4)0,114,0
      IF(W2-7)0,3,0
      IF(W2-8)0,4,0
      WRITE(10,127)
      PAUSE
      GO TO 105
3     ROB=Z+4
      A(ROB)=W3
      GOTO 106
4     ROB=Z+5
      A(ROB)=W3
      GOTO 106
111   A(Z)=W3
      GO TO 106
112   ROB=Z+1
      A(ROB)=W3
      GOTO 106
113   ROB=Z+2
      A(ROB)=W3
      GOTO 106
114   ROB=Z+3
      A(ROB)=W3
      GOTO 106
109   READ(5,117) W2,W4
      IF(KLUCZ)0,0,2
117   FORMAT (I0,F0.0)
      ROB=4*K10
      ROB=Z-ROB
      A1(ROB)=W4
      GOTO 106
2     PAUSE 666
      KLUCZ=0
```

```
      GOTO 1
110   READ(5,121) W2,W4
      IF(KLUCZ)0,0,2
121   FORMAT (I0,E0.0)
      ROB=4*K10
      ZZ=Z +1
      ROB=ZZ-ROB
      A1(ROB)=W4
106   CONTINUE
100   CONTINUE
102   RETURN
      END
```

```
      SUBROUTINE NEWXY(XO,YO,A,D,X,Y)
C          WE:XO,YO  - WSP.PKTU BAZOWEGO
C                A   - AZYMUT [STOP]
C                D   - ODLEGLOSC
C          WY:X,Y    - WYZNACZONE WSPG
      REAL XO,YO,A,D,X,Y,R,S
      R = 17453.29252E-6 * A
      S=COS(R)
      S=D*S
      X=XO+S
      S=SIN(R)
      S=S*D
      Y=YO+S
      RETURN
      END
```

```
      SUBROUTINE ZAMCZ(T1,T2,D)
      INTEGER*4 T1,T2,D,D1,D2,R,RO,S,T
C      D=100  ZAMIANA T1[GGMMSS] NA T2[S]
C      D=60   ZAMIANA T1[S] NA T2[GGMMSS]
      D1=100-D
      D2=D*D
      R=T1
      S=R/D2
      RO=S*D2
      R=R-RO
      T=R/D
      RO=T*D
      T2=R-RO
      R=S*D1
      R=R+T
      R=R*D1
      T2=R+T2
      RETURN
      END
```

```
      SUBROUTINE OBLDQ(X,Y,D,Q,P)
      REAL X,Y,D,Q,P,A,B
      A=X*X
      B=Y*Y
      A=A+B
      D=SQRT(A)
      IF (D) 0,3,0
      A=X/D
      A=ASIN(A)
      A=A/P
      IF (Y) 0,0,1
      B=270+A
      GO TO 2
1     B=90-A
2     Q=B*P
3     RETURN
      END
```

```
      SUBROUTINE UDOAR
      INTEGER I,J,K,L,DOAR(4600),WTD(30),R,R1,R2
      COMMON/ANAL/DOAR,WTD
      DO 1 I=1,4501,300
         IF (DOAR(I)) 2,0,2
         DO 3 J=1,30
            R=J-1
            DOAR(R+I)=WTD(J)
 3       CONTINUE
         GO TO 100
 2       IF (DOAR(I)-WTD(1)) 1,0,1
            DO 5 K=0,9
               R=30*K
               R1=R+21
               IF (DOAR(R1+I)) 0,11,0
               IF(DOAR(R1+1)-WTD(22)) 5,5,0
               DO 10 L=1,30
                  R1=L-1
                  R1=R1+R
                  R2=DOAR(R1+I)
                  DOAR(R1+I)=WTD(L)
                  WTD(L)=R2
 10            CONTINUE
 5          CONTINUE
            GO TO 100
 11         DO 12 L=1,30
               R1=L-1
               R1=R1+R
               DOAR(R1+I)=WTD(L)
 12         CONTINUE
            GO TO 100
 1    CONTINUE
      WRITE(10,101)
101   FORMAT(32HPRZEKROC ZAKRES TABL. DOAR - M>16)
100   RETURN
      END
```

```
      SUBROUTINE WDBDD(R,V,Q,EPS,H,P,W,DB,DD)
      INTEGER R,W,Z,DB,DD,R1,R2,E,
     L        BD1(440),BD2(440),BD3(420),BD4(420),BD5(378),BD6(204),
     X        BD7(486),BD8(486),BD9(486),BD10(280),BD11(240),BD12(264),
     .        BD13(286)
      REAL     V,Q,EPS,P,H,HH,PP
      COMMON /DRUL/BD7,BD8,BD9,BD10,BD11,BD12,BD13,BD1,BD2,BD3,BD4,BD5,
     L             BD6
      Z=W
      IF (R-2) 2,0,3
      IF (H-30) 0,0,80
      IF (V-300) 0,0,4
      IF (EPS-65) 0,0,80
      IF (Q-90) 0,0,80
      IF (P-38) 0,0,80
      P=P/2
      P=P+1
      R1=NINT(P)
      ASSIGN 5 TO E
      GO TO 61
 5    R2=R2*40
      DB=BD1(R2+R1)
      IF (DB) 0,80,0
      R2=R2+20
      DD=BD1(R2+R1)
11    IF (Z-2) 7,0,0
24    W=2
      GO TO 100
 7    IF (H-0.5) 0,0,8
      W=3
      GO TO 100
 8    W=1
      GO TO 100
 4    IF (V-420) 0,0,9
      IF (EPS-60) 0,0,80
      IF (Q-70) 0,0,80
      IF (P-38) 0,0,80
      P=P/2
      P=P+1
      R1=NINT(P)
      ASSIGN 10 TO E
      GO TO 61
10    R2=R2*40
      DB=BD2(R2+R1)
      IF (DB) 0,80,0
      R2=R2+20
      DD=BD2(R2+R1)
      GO TO 11
 9    IF (V-560) 0,0,12
      IF (P-18) 0,0,80
      IF (Z-2) 0,13,13
      IF (EPS-60) 0,0,80
      IF (Q-55) 0,0,80
      P=P/2
      P=P+1
      R1=NINT(P)
      ASSIGN 14 TO E
      GO TO 62
14    R2=R2-1
      R2=R2*42
      DB=BD3(R2+R1)
      IF (DB) 0,80,0
      R2=R2+21
      DD=BD3(R2+R1)
      GO TO 7
13    IF (Q-55) 0,0,80
      IF (EPS-45) 0,0,80
      IF (H-0.3) 80,0,0
      P=P/2
      P=P+1
      R1=NINT(P)
      IF (H-0.3) 80,0,0
      IF (H-2) 0,0,15
      R2=0
      GO TO 30
15    IF (H-7) 0,0,16
      R2=1
      GO TO 30
```

```
16    IF (H-11) 0,0,17
      R2=2
      GO TO 30
17    IF (H-15) 0,0,18
      R2=3
      GO TO 30
18    IF (H-15) 0,0,19
      R2=4
      GO TO 30
19    IF (H-19) 0,0,20
      R2=5
      GO TO 30
20    IF (H-25) 0,0,21
      R2=6
      GO TO 30
21    IF (H-27) 0,0,22
      R2=7
      GO TO 30
22    IF (H-30) 0,0,23
      R2=8
      GO TO 30
23    IF (H-34) 0,0,80
      R2=9
30    R2=R2*42
      DB=BD4(R2+R1)
      IF (DB) 0,80,0
      R2=R2+21
      DD=BD4(R2+R1)
      GO TO 24
12    IF (V-700) 0,0,25
      IF (EPS-60) 0,0,80
      IF (Q-55) 0,0,80
      IF (P-36) 0,0,80
      IF (P-6) 26,0,27
31    R1=5
      GO TO 28
27    IF (P-8) 31,0,29
      R1=6
      GO TO 28
29    IF (P-14) 0,0,32
      P=P-4
      R1=NINT(P)
      GO TO 28
32    IF (P-21) 0,0,33
34    P=P/2
      P=P+3
      R1=NINT(P)
      GO TO 28
33    IF (P-22) 34,0,34
      R1=15
      GO TO 28
26    P=P/2
      P=P+1
      R1=NINT(P)
28    IF (R-0.5)80,0,0
      ASSIGN 41 TO E
      GO TO 63
41    R2=R2-3
      R2=R2*42
      DB=BD5(R2+R1)
      IF (DB) 0,80,0
      R2=R2+21
      DD=BD5(R2+R1)
      GO TO
25    IF (V-1000) 0,0,80
      IF (EPS-90) 0,0,80
      IF (Q-50)   0,0,80
      IF (P-40) 0,0,80
      IF (P-2) 0,0,42
      R1=1
      GO TO 50
42    IF (P-7) 0,0,43
      R1=2
      GO TO 50
43    IF (P-11) 0,44,45
      R1=3
      GO TO 50
44    R1=4
```

```
      GO TO 50
45    IF (P-12) 44,44,0
      IF (P-15) 0,46,46
      R1=5
      GO TO 50
46    IF (P-18) 0,0,47
      R1=0
      GO TO 50
47    P=P/2
      P=P-3
      R1=NINT(P)
50    IF (H-13) 80,0,0
      IF (H-15) 0,0,48
      R2=0
      GO TO 60
48    IF (H-18) 0,0,49
      R2=1
      GO TO 60
49    IF (H-21) 0,0,51
      R2=2
      GO TO 60
51    IF (H-24) 0,0,52
      R2=3
      GO TO 60
52    IF (H-27) 0,0,53
      R2=4
      GO TO 60
53    IF (H-30) 0,0,80
      R2=5
60    R2=R2*34
      DB=BD6(R2+R1)
      IF (DB) 0,80,0
      R2=R2+17
      DD=BD6(R2+R1)
      GO TO
 2    IF (V-1000) 0,0,80
      IF (P-52) 0,0,80
      IF (H-33) 0,0,80
      IF (Z-2) 54,54,0
      IF (Q-55) 0,0,54
      ASSIGN 56 TO E
      GO TO 72
56    DB=BD7(R2+R1)
      IF (DB) 0,80,0
      R2=R2+27
      DD=BD7(R2+R1)
      GO TO 24
54    IF (Q-90) 0,0,55
      ASSIGN 57 TO E
      GO TO 72
57    DB=BD8(R2+R1)
      IF (DB) 0,80,0
      R2=R2+27
      DD=BD8(R2+R1)
      GO TO 7
55    IF (Q-60) 0,0,80
      ASSIGN 58 TO E
      GO TO 72
58    DB=BD9(R2+R1)
      IF (DB) 0,80,0
      R2=R2+27
      DD=BD9(R2+R1)
      GO TO 7
 3    IF (P-10) 0,0,80
      PP=P
      IF (Z-2) 59,59,0
      IF (H-8) 0,0,59
      IF (P-11) 0,0,59
      IF (V-560) 0,0,86
      IF (Q-60) 0,0,59
      P=P/2
      P=P+1
      R1=NINT(P)
      ASSIGN 81 TO E
      GO TO 73
81    R2=R2*24
      DB=BD11(R2+R1)
      IF (DB) 0,59,0
```

```
      R2=R2+12
      DD=BD11(R2+R1)
      GO TO 94
59    IF (V-300) 0,0,82
      IF (Q-100) 0,0,80
      IF (P-7) 0,0,83
      P=PP
      P=P/2
      P=P+1
      R1=NINT(P)
      GO TO 84
83    P=PP-2
      R1=NINT(P)
84    ASSIGN 85 TO E
      GO TO 73
85    R2=R2+28
      DB=BD10(R2+R1)
      IF (DB) 0,80,0
      R2=R2+14
      DD=BD10(R2+R1)
90    IF (R-0.1) 0,0,8
      W=4
      GO TO 100
82    IF (V-500) 0,0,86
      IF (Q-60) 0,0,80
      IF (P-9) 0,0,87
      P=PP
      P=P/2
      P=P+1
      R1=NINT(P)
      GO TO 88
87    P=PP-3
      R1=NINT(P)
88    ASSIGN 89 TO E
      GO TO 73
89    R2=R2+26
      DB=BD13(R2+R1)
      IF (DB) 0,80,0
      R2=R2+15
      DD=BD13(R2+R1)
      GO TO 90
86    IF (V-700) 0,0,80
      IF (Q-60) 0,0,80
      IF (P-11) 0,0,91
      P=PP
      P=P/2
      P=P+1
      R1=NINT(P)
      GO TO 92
91    P=PP-4
      R1=NINT(P)
92    ASSIGN 93 TO F
      GO TO 73
93    R2=R2+24
      DB=BD12(R2+R1)
      IF (DB) 0,80,0
      R2=R2+12
      DD=BD12(R2+R1)
      GO TO 90
61    IF (H-0.3) 80,0,0
      IF (H-1) 0,0,62
      R2=0
      GO TO 5
62    IF (H-2) 0,0,63
      R2=1
      GO TO 5
63    IF (H-7) 0,0,64
      R2=2
      GO TO 5
64    IF (H-11) 0,0,65
      R2=3
      GO TO 5
65    IF (H-13) 0,0,66
      R2=4
      GO TO 5
66    IF (H-16) 0,0,67
      R2=5
      GO TO 5
```

```
67    IF (H-19) 0,0,68
      R2=6
      GO TO 5
68    IF (H-24) 0,0,69
      R2=7
      GO TO 5
69    IF (H-25) 0,0,70
      R2=8
      GO TO 5
70    IF (H-27) 0,0,71
      R2=9
      GO TO 5
71    IF (H-30) 0,0,80
      R2=10
      GO TO 5
72    P=P/2
      P=P+1
      R1=NINT(P)
      IF (H-0.3) 80,0,0
      HH=H/4
      R2=INT(HH)
      R2=R2*54
      GO TO 5
73    IF (H-0.05) 80,0,74
      R2=0
      GO TO 5
74    IF (H-0.5) 0,0,75
      R2=1
      GO TO 5
75    IF (H-5) 0,0,76
      HH=H/2
      R2=INT(HH)
      GO TO 5
76    IF (H-15) 0,0,77
      HH=H/2
      HH=HH-1
      R2=NINT(HH)
      GO TO 5
77    IF (H-18) 0,0,80
      HH=H/2
      R2=NINT(HH)
      GO TO 5
80    W=0
100   RETURN
      END
```

```
      SUBROUTINE SSS8
      INTEGER AA(445),BB(27),SYMB(29),TC(25),AT(25),KL(16),
     A        AV(25),II,IN,DD(5),KK,I,J,V,M(32),
     A        L,L1,L2,MAM,MAM1,S,CC,JJ1(176),WPD(156)
      REAL A11(64),D2(25),B11(162),D1(25),H1(25),H2(25),KL1(8)
      COMMON /DRUK/AA,BB,A11,B11,SYMB,D2,D1,H1,H2,TC,
     A        AT,AV,II,IN
      COMMON /DATE/CC
      COMMON /DRTB/WPD
      COMMON /UNUN/KL,KL1
      DATA KK/4H    /
      DATA DD/4H N  ,4H I  ,4H D  ,4H DD ,4H H  /
      CALL DEFBUF(8,4,CC)
      CALL SSWTCH(2,I)
      IF (I-1) 100,0,0
      CALL SSWTCH(3,I)
      IF (I-2) 0,101,101
100   WRITE(1,102)
102   FORMAT(////////////////////)
101   DO 11 I=1,34
         M(I)=KK
11    CONTINUE
      DO 47 I=1,100
      JJ1(I)=KK
47    CONTINUE
      S=0
      DO 7 I=1,II,14
         DO 8 J=1,3
            IF(AA(I+1)-J)8,9,8
8     CONTINUE
      GO TO 7
9     S=S+1
      IF(S-16)0,0,12
      M(S)=AA(I)
      MAM=S+16
      MAM1=I+13
      M(MAM)=AA(MAM1)
      CALL DOD(M(S),M(S))
      CALL DOD(M(MAM),M(MAM))
7     CONTINUE
12    DO 1 I=1,96
         IF(WPD(I))5,0,5
         WPD(I)=KK
         GOTO 1
5        CALL DOD(WPD(I),WPD(I))
1     CONTINUE
      IF(KL(12)-1)0,15,0
      S=-10
      DO 2 I=1,II,14
         DO 3 J=21,24
            IF(AA(I+1)-J)3,4,3
3        CONTINUE
         GO TO 2
4     S=S+11
      IF(S-100)0,0,14
         V=I+13
      JJ1(S)=AA(I)
      JJ1(S+1)=AA(V)
      L1=S+1
      CALL DOD(JJ1(S),JJ1(S))
      CALL DOD(JJ1(L1),JJ1(L1))
2     CONTINUE
14    WRITE(1,40) (M(I),I=1,8),(JJ1(I),I=1,11),
     A            (M(L),L=17,24),(JJ1(I),I=12,22)
40    FORMAT (//1X,40HTABLICA KIEROWANIA DZIALALNOSCIA BOJOWA ,
     A        23HLH I PN WOPK /TABELA-P/76X,
     A        41HTABLICA KIEROWANIA OGNIEM JEDN.OGN.I ART.,
     A        10HOPK/TAB-N//68(1H=),2X,49(1H=)/2H I,2X,1HN,2X,1H:,
     A        2X,1HS,2X,1H:,2X,1HN,2X,1H:,1X,2HIR,2X,1HI,2X,1HK,
     A        2X,1H:,2X,1HV,2X,1H:,1X,2HTS,2X,1H:,1X,2HPN,2X,1H:,
     A        2X,1HT,2X,1H:,2X,1HD,2X,1H:,2X,1HH,2X,1HI,2X,
     A        5HI M :,8(A4,1H:),4H M I/68(1H=),2X,49(1H-)/2H I,
     A        10(A4,1X,1H:),A4,1X,1HI,2X,   5HI S :,8(A4,1H:),
     A        4H S I/2H I,10(A4,1X,1H:),A4,1X,1HI,2X,
     A        49(1H-))
      L1=1
      L2=43
      MAM=23
```

```
      MAM1=33
      DO 41 I=1,5
      WRITE(1,42) (JJ1(L),L=MAM,MAM1),DD(I),(WPD(L),L=L1,L2,6),DD(I)
42    FORMAT (2H I,10(A4,1X,1H:),A4,1X,1HI,
     A        2X,1HI,A3,1H:,8(A4,1H:),A3,1HI)
      L1=L1+1
      L2=L2+1
      MAM=MAM+11
      MAM1=MAM1+11
41    CONTINUE
      WRITE(1,43) (JJ1(I),I=78,99),(WPD(L),L=6,48,6),
     A            (JJ1(I),I=100,143),(M(I),I=9,16),
     A            (JJ1(I),I=144,165),(M(I),I=25,32),(JJ1(I),I=166,176)
43    FORMAT (2H I,10(A4,1X,1H:),A4,1X,1HI,2X,
     A        49(1H-)/2H I,10(A4,1X,1H:),A4,1X,1HI,2X,
     A        5HIKZG:,8(A4,1H:),4HKZGI/2H I,10(A4,1X,1H:),
     A        A4,1X,1HI,2X,49(1H=)/2H I,10(A4,1X,1H:),A4,
     A        1X,1HI/2H I,10(A4,1X,1H:),A4,1X,1HI,2X,
     A        49(1H=)/2H I,10(A4,1X,1H:),A4,1X,1HI,2X,
     A        5HI M :,8(A4,1H:),4H M I/2H I,10(A4,1X,1H:),A4,
     A        1X,1HI,2X,49(1H-)/2H I,10(A4,1X,1H:),A4,1X,
     A        1HI,2X,5HI S :,8(A4,1H:),4H S I/2H I,10(A4,1X,1H:),
     A        A4,1X,1HI,2X,49(1H-))
      L1=49
      L2=91
      DO 44 I=1,5
      WRITE(1,45) DD(I),(WPD(L),L=L1,L2,6),DD(I)
45    FORMAT (2H I,10(5X,1H:),5X,1HI,2X,1HI,A3,
     A        1H:,8(A4,1H:),A3,1HI)
      L1=L1+1
      L2=L2+1
44    CONTINUE
      WRITE(1,46) (WPD(L),L=54,96,6)
46    FORMAT (2H I,10(5X,1H:),5X,1HI,2X,
     A        49(1H-)/2H I,10(5X,1H:),5X,1HI,2X,5HIKZG:,
     A        8(A4,1H:),4HKZGI/68(1H=),2X,49(1H=))
      GOTO 50
15    WRITE (1,20)(M(J),J=1,8),(WPD(J),J=97,106),(M(J),J=17,24),
     L            (WPD(J),J=1,48,6),(WPD(J),J=2,48,6),
     I            (WPD(J),J=107,116),(WPD(J),J=3,48,6),
     N            (WPD(J),J=4,48,6),(WPD(J),J=5,48,6),
     K            (WPD(J),J=117,126),(WPD(J),J=6,48,6),
     O            (WPD(J),J=137,146),(M(J),J=9,16),(WPD(J),J=127,136),
     O            (M(J),J=25,32),(WPD(J),J=147,156),(WPD(J),J=49,96,6),
     N            (WPD(J),J=50,96,6)
      WRITE (1,21)(WPD(J),J=51,96,6),(WPD(J),J=52,96,6),
     L            (WPD(J),J=53,96,6),(WPD(J),J=54,96,6)
20    FORMAT(////16X,30HDANE DO OKREŚLENIA PLANU WALKI,24X,
     L51HTABLICA RIEROWANIA OGNIEM JEDN.OGN.I ART.OPK/TAB-N//1X,61(1H=),
     I8X,49(1H=)/1X,
     N61HI   LG : LCO : LCP :  LG :  LP :  LZ :  LH :  LR :  LL : LNA I,
     I8X,5HI M :,8(A4,1H:),4H M I/2H I,9(6H-----:),6H-----I,8X,49(1H-),
     F1X/2H I,9(I5,1H:),I5,1HI,8X,5HI S :,8(A4,1H:),4H S I/1X,61(1H=),
     K8X,49(1H-)/1X,
     O61HI   LM : LM-1: LMW : LMG : LMP : LMZ : LMH : LDO : LD-1: LDW I,
     N8X,5HI N :,8(A4,1H:),4H N I/2H I,9(6H-----:),6H-----I,8X,5HI T :,
     T8(A4,1H:),4H T I/2H I,9(I5,1H:),I5,1HI,8X,5HI D :,8(A4,1H:),
     Y4H D I/1X,61(1H=),8X,5HI D':,8(A4,1H:),4H D'I/1X,
     N61HI   1 :   2 :   3 :   4 :   5 :   6 :   7 :   8 :   9 :  10 I,
     U8X,5HI M :,8(A4,1H:),4H M I/1X,61(1H=),8X,49(1H-)/2H I,9(I5,1H:),
     A15,1HI,8X,5HIKZG:,8(A4,1H:),4HKZGI/2H I,9(6H-----:),6H-----I,8X,
     C49(1H=) /2H I,9(I5,1H:),I5,1HI/1X,61(1H=),8X,49(1H=)/1X,
     Y61HI  11 :  12 :  13 :  14 :  15 :  16 :  17 :  18 :  19 :  20 I,
     J8X,5HI M :,8(A4,1H:),4H M I/1X,61(1H=),8X,49(1H-)/2H I,9(I5,1H:),
     N15,1HI,8X,5HI S :,8(A4,1H:),4H S I/2H I,9(6H-----:),6H-----I,8X,
     E49(1H-)/2H I,9(I5,1H:),I5,1HI,8X,5HI N :,8(A4,1H:),4H N I/1X,
     Z61(1H=),8X,5HI T :,8(A4,1H:),4H T I)
21    FORMAT(70X,5HI D :,8(A4,1H:),4H D I/70X,5HI D':,8(A4,1H:),
     L4H D'I/70X,5HI M :,8(A4,1H:),4H M I/70X,49(1H-)/70X,5HIKZG:,
     K8(A4,1H:),4HKZGI/70X,49(1H=))
50    WRITE(1,22)
22    FORMAT(//////////////////////////////////////////)
      RETURN
      END
```

```
      SUBROUTINE FF
      INTEGER NO,M(33),NO,N(480),AO,A(177),CO,C(5280),
     A        I13,I14,N10(20),SS,NN,LL,PR,T,TABL(20),
     A        I1,I2,I3,I4,I5,I6,I7,I8,I9,I10,I11,I12,
     A        DO,D(160),PO,P(354),F,K,LO,L1,L2,L3,IO,
     A        DD,DDD(16),II,IL,NNN,I15,BUF,SUFT
      INTEGER ID,ND(16),NC(160),WE(160),BLOK(16)
      COMMON /UNUN/BLOK
      COMMON /FORD/ID,ND,NC,WE
      DATA BUF/4H X00/
      DATA BUF1/4H1X00/
      M(33)=1
      L1=ID
      I2=1
      I3=10
      DO 1 IO=1,L1
           M(IO)=ND(IO)
           RR=16+IO
           M(RR)=ND(IO)
           DO 2 I15=I2,I3
              N(I15)=NC(I15)
              D(I15)=WE(I15)
2          CONTINUE
           I2=I2+10
           I3=I3+10
1     CONTINUE
      IF(L1-1)15,1800
      DO 16 NN=0,16
           IO=L1-NN
           I2=IO-1
           DO 17 I1=1,I2
                IF(M(16+I1)-M(16+IO))17,17,0
                LL=M(16+IO)
                M(16+IO)=M(16+I1)
                M(16+I1)=LL
17         CONTINUE
           IF(IO-2)0,18,0
16    CONTINUE
18    CO=0
      DO=0
      LL=10+L1
      DO 19 I1=1,LL,10
           CO=CO+1
           A(CO)=0
           IO=I1
           DO 20 NN=1,10
              IF(D(IO)-32767)0,21,15
              A(CO)=1
              GO TO 22
21            IO=IO+1
20         CONTINUE
22         DO=DO+A(CO)
19    CONTINUE
      DO 23 IO=1,10
           RR=160+IO
           N(RR)=N(IO)
           IF(M(33)-1)15,0,23
           RR=320+IO
           N(RR)=N(IO)
23    CONTINUE
      I14=10
      IF(L1-1)15,2700
      L2=L1-1
      I1=11
      DO 25 NN=1,L2
           IO=I1
           DO 25 SS=1,10
                DO 26 I9=1,I14
                     IF(N(IO)-N(160+I9))0,51,0
26              CONTINUE
                I14=I14+1
                RR=160+I14
                N(RR)=N(IO)
                IF(M(33)-1)15,0,51
                RR=320+I14
                N(RR)=N(IO)
51              IO=IO+1
25         CONTINUE
```

```
          I1=I1+I0
24      CONTINUE
27      CO=I14
        DO 28 I0=1,I14
              IF(N(160+I0))15,0,28
              CO=CO-1
28      CONTINUE
        IF(M(33)-1)15,0,40
        I0=I14
        DO 29 NN=1,16
            I2=I0-1
            DO 30 I1=1,I2
            IF(N(320+I1)-N(320+I0))30,30,0
                    LL=N(320+I0)
                    N(320+I0)=N(320+I1)
                    N(320+I1)=LL
30      CONTINUE
        IF(I0-2)0,133,0
        I0=I0-1
29      CONTINUE
133     I12=CO
        I13=L1
        MO=CO+L1
        DO 32 I0=1,MO
              C(2720+I0)=0
32      CONTINUE
        I1=I14-CO
        DO 33 I0=1,I12
                    RR=320+I0
                    N(320+I0)=N(RR+I1)
35      CONTINUE
        I4=0
        LL=10+L1
        DO 34 I0=1,LL,10
            I4=I4+1
            DO 35 NN=1,I13
                    IF(M(I4)-N(16+NN))35,0,35
                    I2=NN
                    GO TO 36
35          CONTINUE
            I2=0
36          SS=10+I0
            SS=SS-1
            DO 37 I1=I0,SS
              IF(N(I1))15,37,0
               DO 38 NN=1,I12
                      IF(N(I1)-N(320+NN))38,0,38
                      I3=NN
                      GOTO 39
38             CONTINUE
               I3=0
39             I3=I3-1
               I3=L1+I3
               I3=I2+I3
                    C(2720+I3)=32767-D(I1)
37          CONTINUE
34      CONTINUE
40      IF(L1-1)15,0,46
        IF(CO-1)15,0,46
        DO 41 NN=1,I13
            IF(M(1)-D(10+NN))41,0,41
            I2=NN
            GO TO 42
41      CONTINUE
        I2=0
42      DO 43 I0=1,10
            IF(N(I0))15,43,0
            DO 44 NN=1,I12
            IF(N(I0)-N(320+NN))44,0,44
                    I3=NN
                    GOTO 45
44          CONTINUE
            I3=0
45          I3=I3-1
            I3=I13+I3
            I3=I2+I3
            CALL LSHIC(I1,M(33),15)
                    RR=2720+I3
```

```
                C(2720+I3)=C(RR+I1)
        GOTO 61
45    CONTINUE
46    L3=C0-D0
        IF(L3)0,48,48
      M0=L1
      N0=I14+1
      CALL FF2(I14,M0,A,N)
                A(M0+N0)=-L3
      CALL FF1(N0,M0,C,D,L1,N,I14)
      NN=N0*M0
      NN=NN+N0
      NN=NN-1
      DO 47 I0=N0,NN,N0
        C(I0)=0
47    CONTINUE
      GOTO 70
48    M0=L1+1
      N0=I14+1
      CALL FF2(I14,M0,A,N)
        A(M0)=C0
        A(M0+N0)=D0
        CALL FF1(N0,M0,C,D,L1,N,I14)
        I1=L1*N0
        LL=N0+I1
        LL=LL-1
        DO 55 I0=I1,LL
            C(I+I0)=32766
55      CONTINUE
        LL=N0*M0
        LL=LL+N0
        LL=LL-1
        DO 50 I0=N0,LL,N0
            C(I0)=0
50      CONTINUE
      GOTO 70
56    NN=N0*M0
      DO 57 I1=1,NN,N0
        SS=N0+I1
        SS=SS-1
        DO 58 I0=I1,SS
            CALL  RSHIC(C(I0),C(I0),15)
58      CONTINUE
57    CONTINUE
      I2=1
      I3=0
      P0=0
      DO 59 I0=1,L1
        NN=I0+I2
        NN=NN-1
        DO 60 I1=I2,NN
            IF(R(I1))15,0,60
60      CONTINUE
        GO TO 130
61      P0=P0+1
        P(P0)=I0
        I4=I3
        DO 62 SS=1,I13
            IF(M(I0)-M(I6+SS))62,0,62
            I5=SS
            GOTO 63
62      CONTINUE
        I5=0
63      DO 64 I1=1,I14
            I4=I4+1
            IF(C(I4)-1) 64,0,64
            DO 65 SS=1,I12
                IF(M(160+I1)-M(320+SS))65,0,65
                I6=SS
                GOTO 66
65          CONTINUE
            I6=0
66          I6=I6-1
            I6=I13*I6
            I6=I5+I6
            CALL  LSHIC(I5,M(35),15)
                C(2720+I6)=C(2720+I6)+I5
            P0=P0-1
```

```
              GOTO 150
64          CONTINUE
130         I2=I2+10
            I3=I3+N0
59      CONTINUE
        IF (BLOK(10)-1) 67,0,67
        IF(P0)15,67,0
        L1=P0
        I2=0
        NN=L1*10
        DO 68 I0=1,NN,10
            I2=I2+1
            P0=P(I2)-1
            P0=10*P0
            I3=P(I2)
            N(I2)=N(I3)
            I3=0
            SS=I0+9
            DO 69 I1=I0,SS
                I3=I3+1
                RR=P0+I3
                N(I1)=N(RR)
                D(I1)=D(RR)
69          CONTINUE
68      CONTINUE
        N(33)=N(33)+1
        GOTO 18
70      I7=N0
        I8=1
        DO 71 I0=1,6
            NN=N0*I7
            DO 72 I1=1,NN,I7
                A0=32767
                SS=N0*I8
                SS=SS+I1
                SS=SS-1
                DO 73 I0=I1,SS,I8
                    IF(C(I0)-A0)0,73,73
                    A0=C(I0)
73              CONTINUE
                DO 74 I0=I1,SS,I8
                    IF(C(I0)-32767)0,74,0
                    C(I0)=C(I0)-A0
74              CONTINUE
72          CONTINUE
            LL=N0
            N0=M0
            M0=LL
            LL=I8
            I8=I7
            I7=LL
71      CONTINUE
        I6=M0+N0
        I11=0
        DO 75 I1=1,16
            CALL LSHIC(A(I1),A(I1),15)
75      CONTINUE
        I2=0
        I7=0
        NN=M0*N0
        DO 76 I1=1,NN,N0
            I2=I2+1
            A0=A(I2)
            I4=N0
            SS=N0+I1
            SS=SS-1
            DO 77 I0=I1,SS
                I4=I4+1
                IF(C(I0))77,0,77
                P0=A(I4)
                F=P0
                IF(A0-F)0,78,78
                F=A0
78              C(I0)=F
                A0=A0-F
                A(I4)=P0-F
77          CONTINUE
            A(I2)=A0
```

```
      I7=I7+A0
76    CONTINUE
      IF(I7)15,56,0
79    DO 80 I1=1,I6
      P(I1)=-1
80    CONTINUE
      DO 81 I1=1,N0
      A0=A(I1)
      IF(A0)15,81,0
      P(I1)=0
      RR=177+I1
      P(RR)=A0
81    CONTINUE
82    I10=0
      DO 83 I9=1,N0
      IF(P(I9))83,0,0
      I0=I9-1
      I0=N0*I0
      DO 84 I1=1,N0
      I0=I0+1
      CALL EXTRC(C0,C(I0),32767)
      IF(C0)15,0,84
      I2=N0+I1
      IF(P(I2))0,15,84
      P(I2)=I9
      P(177+I2)=P(177+I9)
      I10=1
      IF(A(I2))15,0,89
84    CONTINUE
83    CONTINUE
      IF(I10)15,92,0
      I2=N0
      DO 85 I1=1,N0
      I2=I2+1
      P0=P(I2)
      IF(P0)85,15,0
      I3=I1
      DO 86 I9=1,N0
      IF(P(I9))0,88,88
      CALL EXTRC(F,C(I3),BUF)
      RR=177+I2
      A0=P(RR)
      IF(F)15,88,0
      IF(A0-F)0,87,87
      F=A0
87    P(I9)=I1
      RR=177+I9
      P(RR)=F
88    I3=I3+N0
86    CONTINUE
85    CONTINUE
      GOTO 32
89    F=A(I2)
      RR=177+I9
      A0=P(RR)
      IF(A0-F)0,90,90
      F=A0
90    I0=1
      I4=0
      A(I2)=A(I2)-F
      I9=N0
      P(178)=I1
91    I0=I0+1
      I4=1-I4
      RR=I9+I1
      I1=P(RR)
      I9=N0-I9
      RR=177+I0
      P(RR)=I1
      IF(A(I1))15,91,0
      IF(I4)15,91,0
      A(I1)=A(I1)-F
      I7=I7-F
      DO 92 I1=2,I0,2
      RR=177+I1
      I2=P(RR)-1
      I2=N0*I2
      RR=176+I1
```

```
            I2=P(RR)+I2
            C(I2)=C(I2)+F
92    CONTINUE
      IF(I0-2)15,94,0
      DO 93 I1=4,10,2
            RR=175+I1
            I2=P(RR)-1
            I2=N0*I2
            RR=176+I1
            I2=I2+P(RR)
            C(I2)=C(I2)-F
93    CONTINUE
94    I11=I11+1
      IF(I7)15,56,79
95    I2=0
      F=32767
      DO 96 I1=1,M0
            I3=I2
            IF(P(I1))98,0,0
            NN=N0+M0
            NN=NN-1
            DO 97 I0=M0,NN
                  I3=I3+1
                  IF(P(1+I0))0,15,97
                  CALL EXTRC(C0,C(I3),32767)
                  IF(C0-F)0,97,97
                  F=C0
97          CONTINUE
98          I2=I2+N0
96    CONTINUE
      I3=0
      DO 99 I1=1,M0
            IF(P(I1))0,102,102
            NN=N0+M0
            NN=NN-1
            DO 100 I0=M0,NN
                  I3=I3+1
                  IF(P(1+I0))100,0,0
                  CALL EXTRC(C0,C(I3),32767)
                  IF(C0-32767)0,100,0
                  C(I3)=C(I3)+F
100         CONTINUE
            GOTO 99
102         NN=N0+M0
            NN=NN-1
            DO 101 I0=M0,NN
                  I3=I3+1
                  IF(P(1+I0))0,15,101
                  CALL EXTRC(C0,C(I3),32767)
                  IF(C0-32767)0,101,0
                  C(I3)=C(I3)+F
101         CONTINUE
99    CONTINUE
      GOTO 79
67    IF(I13-1)15,0,109
      I2=2721
      I15=0
      DO 131 I0=1,I12
            CALL EXTRC(DD,C(I2),32767)
            NN=320+I0
      NC(I0)=N(NN)
       IF(I12-1)199,0,199
       DD=1
       GOTO 136
199    CALL EXTRC(DD,C(I2),BUF1)
      IF(DD)15,136,0
      CALL PSRIC(DD,DD,15)
136    I15=I15+1
      WE(I15)=DD
139         I2=I2+I13
131   CONTINUE
      GOTO 129
109   NN=I13+16
      I2=2721
      I15=0
      DO 118 I0=1,I12
            NN=I13+I2
            NN=NN-1
```

```
          T=0
          DO 119 I1=I2,NN
                CALL EXTRC(DD,C(I1),32,67)
                T=T+1
                DDD(T)=DD
119       CONTINUE
          NNN=320+I0
          NC(I0)=N(NNN)
          T=0
          DO 124 I1=I2,NN
     CALL EXTRC(DD,C(I1),BUF1)
                T=T+1
     IF(DD)15,125,0
     CALL RSAIC(DD,DD,15)
125  DDD(T)=DD
124       CONTINUE
     DO 3 II=1,T
          I15=I15+1
          W(I15)=DDD(II)
3    CONTINUE
          I2=I2+I13
118  CONTINUE
     GOTO 129
15   PAUSE 444
     GOTO 1
129  RETURN
     END
```

```
SUBROUTINE SS1(X    ,Y    ,Z11)
INTEGER*2
REAL X     ,Y     ,A(51),C,Z11,Z1
Z=1000000
Z1=FLOAT(Z)
IF(X    -Z1)1,1,0
IF(Y    -Z1)1,1,0
A(12)=Y    /Z1
C=AINT(A(12))
A(6)=1
IF(Z11-C)2,2,0
A(6)=-1
A(11)=Y
A(13)=A(11)/636(558.5
A(14)=A(13)
A(15)=A(14)+A(14)
A(16)=A(15)*A(15)
A(17)=SIN(A(15))
A(18)=SIN(A(16))
A(19)=0.001*A(17)
A(19)=0.51847+A(19)
A(19)=A(19)*A(18)
A(20)=0.000264*A(18)
A(20)=0.01*A(20)
A(19)=A(19)-A(20)
A(21)=A(19)-A(14)
A(21)=ABS(A(21))
A(14)=A(19)
IF(A(21)-0.000001)0,0,4
A(21)=A(19)
A(14)=COS(A(21))
A(15)=SIN(A(21))
A(16)=0.05236*A(14)
A(17)=A(16)*A(16)
A(16)=A(17)/6
A(16)=1-A(16)
A(16)=A(15)*A(16)
A(1)=0.05236*A(6)
A(22)=A(16)*A(1)
A(16)=A(15)*A(15)
A(16)=0.669342*A(16)
A(16)=0.01*A(16)
A(16)=1-A(16)
A(16)=SQRT(A(16))
A(17)=A(1)*A(14)
A(17)=6578245*A(17)
A(17)=A(17)/A(16)
A(18)=A(1)*A(14)
A(18)=A(18)*A(16)
A(18)=A(18)/6
A(19)=A(14)*A(14)
A(19)=0.0067385*A(19)
A(19)=0.1*A(19)
A(19)=A(19)+1
A(20)=A(15)/A(14)
A(21)=A(20)*A(20)
A(21)=A(21)*A(21)
A(19)=A(21)+A(19)
A(18)=A(19)*A(18)
A(18)=A(18)+1
A(23)=A(17)*A(18)
A(16)=A(15)*A(15)
A(16)=0.669342*A(16)
A(16)=0.01*A(16)
A(16)=1-A(16)
A(24)=6556865*A(16)
A(16)=A(12)-C
A(16)=Z1*A(16)
A(25)=A(16)-500000
A(16)=A(23)+A(25)
A(17)=A(16)*A(23)
A(24)=A(24)*A(24)
A(17)=A(17)/A(24)
A(17)=A(17)+1
A(26)=A(17)*A(16)
A(16)=A(22)*A(22)
A(17)=SIN(A(16))
A(18)=COS(A(16))
```

```
A(27)=A(17)*A(29)
A(28)=A(18)*A(26)
A(17)=3*A(23)
A(17)=A(17)-A(28)
A(17)=A(27)*A(17)
A(17)=A(17)/A(24)
A(29)=A(17)/6
A(16)=A(22)+A(22)
A(16)=A(29)+A(16)
A(17)=SIN(A(16))
A(17)=A(26)+A(17)
X    =A(11)+A(17)
A(17)=COS(A(16))
A(17)=A(26)*A(17)
A(17)=A(17)+500000
A(14)=A(17)+A(25)
A(15)=(-A(6)
A(16)=A(14)/Z1
IF(A(16)-1)5,0,0
A(16)=0.1*A(16)
Y    =A(16)+A(15)
Y=Z1*Y
GO TO 3
PAUSE 2222
RETURN
END
```

```
      SUBROUTINE SS2(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I,I3,P,I6,M1,N6,KSK)
      INTEGER I,IT,I2,I3,J6,V(3001),K(30),KSK,
     A     AA(448),BB(27),SYMB(29),P(41),I6,M1,N6
      REAL Y(41),Z1,X(41),Z2,Z4, Z5,A11(64),B11(162),D2(25)
      COMMON /ORUK/AA,BB,A11,B11,SYMB,D2
      I1=I/10
      I2=10*I1
      I2=I-I2
      V(1)=I2
      Y(1)=Y(1)+Z1
      IF(I1)1,0,1
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      IF(J6)2,0,2
      Y(1)=Y(1)-Z1
      Y(1)=Y(1)-Z1
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      GOTO 2
1     Y(1)=Y(1)+Z1
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      Y(1)=Y(1)-Z1
      IF(J6)0,3,0
      V(1)=I1
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      GOTO 2
3     Y(1)=Y(1)-Z1
      Y(1)=Y(1)-Z1
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      IF(J6)0,2,0
      Y(1)=Y(1)-Z1
      V(1)=I1
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
2     RETURN
      END
```

```
      SUBROUTINE SST(X,Y,P,R,K,V,A,B,TMF1,Z1,Z2,Z4,Z5,J6,N1,N6,T0)
      INTEGER N,N1,I,L,T(41),I0,V(3001),IL,II,NN1,LL,P(41),TT,T0,
     A X(30),J6,AA(448),BB(27),SYMB(29),I6,M1,N6
      REAL A,B,X(41),Y(41),R(41),F,F1,Z9,Z10,Z1,Z2,Z4,Z5,
     A     A11(64),B11(162),DZ(25)
      COMMON /DRUK/AA,BB,A11,B11,SYMB,DZ
      N1=0
      DO 4 I=1,N
         IF(A-X(I+1))1,0,1
         IF(B-Y(I+1))0,2,0
1        IL=I+1
      L=P(IL)
      IF(T0-L)2,0,2
         X(1)=X(I+1)-A
         Y(1)=Y(I+1)-B
         X(1)=X(1)*X(1)
         Y(1)=Y(1)*Y(1)
         X(1)=X(1)+Y(1)
         X(1)=SQRT(X(1))
         Y(1)=R(1)+R(I+1)
         IF(X(1)-Y(1))0,2,2
         N1=N1+1
         T(N1+1)=I
2     CONTINUE
      F=6.283185/F1
         I0=MIN1(F)
      F=-F1
      DO 5 LL=1,I0
      F=F+F1
         X(1)=SIN(F)
         Y(1)=COS(F)
         X(1)=R(1)*X(1)
         Y(1)=R(1)*Y(1)
         X(1)=A+X(1)
         Y(1)=B+Y(1)
         IF(N1)0,4,0
         NN1=N1+1
         DO 5 I=2,NN1
            TT=T(I)
         Z9=X(1)-X(TT+1)
         Z10=Y(1)-Y(TT+1)
         Z9=Z9*Z9
         Z10=Z10*Z10
         Z9=Z9+Z10
         Z9=SQRT(Z9)
         Z9=Z9-0.1
         IF(Z9-R(TT+1))5,0,0
5        CONTINUE
4        V(1)=P(1)
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
3     CONTINUE
      RETURN
      END
```

```
      SUBROUTINE SS5(A,B,Z1,Z2,Z4,Z5,A1,A2,B1,B2,J6,I6,M1,N6,X,Y,V)
      INTEGER I8,V(3001),YY,XX,K(36),J6,AA(448),BB(27),SYMB(26),
     A        B11,A11,F11,F22,I6,M1,N6
      REAL A,B,A1,B1,A2,B2,A3,Z1,Z2,F,F1,F2,X(41),Y(41),Z4,Z5,
     A     A11(64),B11(162),D2(25)
      COMMON /DRUG/AA,BB,A11,B11,SYMB,D2
      A=0
      F1=Z1
      F2=Z2
      IF(A1-A2)0,1,0
      IF(B1-B2)0,4,0
      A=A2-A1
      B=B2-B1
      A=A/B
      A3=ABS(A)
      IF(A3-1)0,0,3
1     IF(B1-B2)2,0,0
      F1=-F1
2     X(1)=A1
      F=A*F1
      B=B2-B1
      B=B/F1
      B=ABS(B)
            I8=NINT(B)
      Y(1)=B1
      DO 7 YY=1,I8
            V(1)=SYMB(26)
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
            X(1)=X(1)+F
            Y(1)=Y(1)+F1
7     CONTINUE
      GOTO 6
3     A=1/A
4     IF(A1-A2)5,0,0
      F2=-F2
5     Y(1)=B1
      F=A*F2
      B=A2-A1
      B=B/F2
      B=ABS(B)
            I8=NINT(B)
      X(1)=A1
      DO 8 XX=1,I8
      V(1)=SYMB(26)
      CALL SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      Y(1)=Y(1)+F
            X(1)=X(1)+F2
8     CONTINUE
6     RETURN
      END
```

```
SUBROUTINE FP1(A1,A2)
INTEGER A,B,A1,A2,A9
A=A1/10000
B=A/100
B=B*100
A9=A-B
A2=A9*3600
A=A1/100
B=A/100
B=B*100
A9=A-B
A9=A9*60
A2=A2+A9
B=A1/100
B=B*100
A9=A1-B
A2=A2+A9
RETURN
END
```

```
SUBROUTINE KPZ(A8,A5)
INTEGER*A8,A5
REAL Z4,Z5
Z4=FLOAT(A8)
Z5=FLOAT(A5)
Z4=Z4/Z5
      A8=NINT(Z4)
RETURN
END
```

```
SUBROUTINE HP3(A3,A13)
INTEGER A3,A13
REAL Z4,Z5
Z4=FLOAT(A13)
Z5=FLOAT(A3)
Z4=Z4/Z5
      A13=NINT(Z4)
RETURN
END
```

```
SUBROUTINE RP4(A8,A9,A7)
INTEGER A9,A8,A7,A6
A9=A8/3600
A7=A9*3600
A7=A8-A7
A6=A9
A9=A7/60
A8=A9*60
A8=A7-A8
A7=A9
RETURN
END
```

```
      SUBROUTINE EE1(NO,MO,C,D,L1,N,I14)
      INTEGER NO,MO,N(400),L1,C(5286),D(100),I0,I1,NN,SS,I14,L2,L0,I9
      NN=MO*NO
      DO 1 I1=1,NN,NO
           SS=NO+I1
           SS=SS-1
           DO 2 I0=I1,SS
                C(I0)=32767
2          CONTINUE
1     CONTINUE
      DO 3 I0=1,10
           C(I0)=D(I0)
3     CONTINUE
      L0=NO
      I14=10
      IF(L1-1)15,6,6
      L2=L1-1
      NN=L2*10
      NN=NN+10
      DO 4 I1=11,NN,10
           SS=10+I1
           SS=SS-1
           DO 5 I0=I1,SS
                DO 6 I9=1,I14
                     IF(N(I0)-N(100+I9))6,6,6
                  C(L0+I9)=D(I0)
                     GOTO 5
6               CONTINUE
                I14=I14+1
                  C(L0+I14)=D(I0)
5          CONTINUE
           L0=L0+NO
4     CONTINUE
      GOTO 7
15    PAUSE 3533
7     RETURN
      END
```

```
      SUBROUTINE FF2(I14,MO,A,N)
          INTEGER IO,I14,A(177),MO,N(480)
      DO 1 IO=1,I14
                A(MO+IO)=1
          IF(N(100+IO))15,0,1
                A(MO+IO)=0
1     CONTINUE
      GOTO 2
15    PAUSE 4444
2     RETURN
      END
```

```
      SUBROUTINE MOD(W,M)
      INTEGER W,M,CC
      COMMON /DATE/CC
      WRITE(8,100) M
100   FORMAT (I4)
      W=CC
      RETURN
      END
```

```
      SUBROUTINE SS4(X    ,Y    ,Z1,Z2,Z4,Z5,K,J6,V,I6,M1,N6)
      INTEGER I7,I6,J,J1,J2,J3,J4,J6,J5,
     A        V(3001),G(11),K(30),JJ,JJ1,JJ2,JJ3,
     A    AA(448),BB(27),SYMB(29),M1,N6
      REAL X(41),Y(41),S2,Z,Z2,Z4,Z5,Z1,A11(64),B11(192),D2(25)
      COMMON /DRUK/AA,BB,A11,B11,SYMB,D2
      COMMON /OSDS/I7
      DATA G/4H-000,4H0-00,4H00-0,4H000-,
     A     4H0---,4H-0--,4H--0-,4H---0,
     A     4H    ,4H    ,4H    ,4H    /
      I7=0
      J6=0
      Z=Z5-X(1)
      J=0
      IF(Z)5,1,0
      Z=Z/Z2
         J=NINT(Z)
      J=M1*J
      IF(J-N6   )0,5,5
1     Z=Y(1)-Z4
      J1=0
      IF(Z)5,4,0
      Z=Z/Z1
      Z=Z/4
      J1=INT(Z)
      IF(J1-M1)0,5,5
2     J=J+J1
      JJ=J+2
      S2=AINT(Z)
      Z=Z-S2
      Z=4*Z
      J1=INT(Z)
      IF(K(1))3,3,0
      JJ1=J1+1
      CALL EXTRC(J3,V(JJ),G(JJ1))
      I7=1
      DO 6 J4=8,10
         JJ2=J4+1
       CALL EXTRC(J5,G(JJ2),G(JJ1))
         IF(J3-J5)0,3,0
6     CONTINUE
      I7=0
      GOTO 5
3     IF(I6)0,5,0
      JJ3=J1+5
      CALL EXTRC(V(JJ),V(JJ),G(JJ3))
      J1=3-J1
      IF(J1)0,4,0
      DO 7 J2=1,J1
         CALL LSHIC(V(1),V(1),6)
7     CONTINUE
4     V(Z+J)=V(2+J)+V(1)
      J6=1
5     RETURN
      END
```

```
      SUBROUTINE READT(TABL,KAN)
      INTEGER TABL(20),I,KAN,SPAC,K
      DATA SPAC/4H    /
1     READ(KAN,3) TABL
3     FORMAT (20A4)
      DO 2 I=1,20
         CALL MODULO2C(K,SPAC,TABL(I))
         IF(K)10,0,10
2     CONTINUE
      GOTO 1
10    RETURN
      END
```

```
11
0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0 0
12
0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0 0
13
0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0 0
14
0 0 0 0 0 0 0 0 0 1 1 2 2 2 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0
15
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
16
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 1 1 1 2 2 2 2 2 2 1 1 1 1 0 0 0 0
17
0 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1 1 1
1 1 2 2 2 2 1 1 1 1 1 1 1 2 2 2 1 0
18
1 2 2 2 2 2 3 3 3 3 3 3 2 2 2 2 1 1
1 1 1 1 2 2 2 2 3 3 3 3 2 2 2 2 1 1
19
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 2
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2
20
0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1
1 1 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0
-1 0

1 2 3 4 5 6 7 8 9 0
10 20 30 40 50 60 70 80 90
17 18 1 2 3 4 1 2 3 4 5 6 7 8 9 0
15 16 7 4 5 6 3 2 1 4 5 6 0 9 8 7

1 1 70 10 6059000 4358600 4 6
2 1 70 10 6048500 4340000 6 10
3 2 70 10 6048000 4339200 10 5
4 3 60 5 6049200 4338100 6 7
5 2 70 10 6033000 4348400 6 5
6 4 80 20 6030000 4347000 7 5
7 4 80 20 6050000 4341200 5 6
8 6 70 10 6074000 3664500 3 3
9 6 70 10 6077000 4334200 3 3
10 4 70 10 6050000 3678000 3 3
11 4 70 10 6056500 4323000 3 3
12 7 60 5 6059400 4315700 1 8
13 7 60 5 6050000 4320000 2 6
14 4 70 10 6009000 4333000 3 4
15 7 60 5 6057200 4339000 4 7
16 5 60 5 6074100 4313200 1 4
17 8 60 5 6028000 4354000 1 5
18 8 60 5 6053500 3692500 1 4
19 4 70 10 6049200 4328500 2 3
20 7 60 5 6057100 3664200 1 6
.
*****************************************************************
```

121c

TED BY XRLP2-MINSK 32 DATE 12.02.1975 TIME 00.53

```
2 6059400 4313200 1 1
500000 211174 83010 340
130 12000 12000 1500 1400 -1
6156495 3015650 300 3
0 1 3 0
3 4 3 2
250 250 250 250
3 20 5 4
90 13000 11000 13000 15000 -1
6080000 3541450 500 10
0 3 1 0
3 4 2 1
500 400 400 400
10 25 25 25
```

****

G11

FORTRAN COMPILATION BY MIFOR MK 3E DATE 11/02/75 TIME 10/40/35

```
      LIST
      PROGRAM (IKAR)
       INPUT  1=CRO
       INPUT  2=TRO
       OUTPUT 3=LPO
       OUTPUT 4=TPO
      OUTPUT 5=TYU
                    LEADER
      END

      MASTER  WRAM
      INTEGER IN,OUT,ER
      INTEGER SKALA,DT
      REAL S1(8),PRT(2)
      INTEGER ICEL,IRUB,K,IGN,CZYJ(3),T(3),L,NGRUP,J,VV,Q,R,R1,R2,S(16),
     -        CZAS,CZASK,NC(165),TC(165),          GC(165),Z(27),G(27)
      REAL POPAZ(9),X,Y,X1,Y1,X2,Y2,ROB,R3,R4,R5,AST,DES,A(3),HO(3),
     -     VO(3),XO(3),YO(3),XC(165),YC(165),HC(165),D(27),V(27),H(27)
      COMMON /ERR/ ER
      COMMON /UNUN/ S,S1,T,PRT,D,XO,YO,VO,HO,V,H,IRUB,SKALA,CZAS,DT,A,
     -                  Z,G,CZASK,CZYJ
      COMMON /DROR/       NC,XC,YC,    GC,HC,TC,ICEL
       ER=0
       EXTERNAL  ERROR
       CALL ETRAP(ERROR)
1      CALL SSWTCH(1,IN)
                                CALL SSWTCH(8,S(16))
       ASSIGN 2 TO Q
2      READ (IN,500) PRT,CZAS,CZASK,DT,S(2),IRUB
       IF (ER)  99,0,99
       WRITE(5 ,501) PRT,CZAS,CZASK,DT,S(2),IRUB
                                CALL RTEST(PRT(1),1000000.0,9999999.0)
                                CALL RTEST(PRT(2),1000000.0,9999999.0)
                                CALL ITEST(CZAS,0,240000)
                                CALL ITEST(CZASK,1,240000)
                                CALL ITEST(DT,1,10000)
                                CALL ITEST(S(2),0,1)
                                CALL ITEST(IRUB,1,3)
                                IF (ER) 88,0,88
       K=0
       DO  9  I=1,IRUB
          ASSIGN 2 TO Q
3         READ (IN,502) XO(I),YO(I),A(I),CZYJ(I),VO(I),HO(I),T(I)
          IF (ER) 99,0,99
          WRITE(3 ,503)XO(I),YO(I),A(I),CZYJ(I),VO(I),HO(I),T(I)
                                CALL RTEST(XO(I),1000000.0,9999999.0)
```

```
                                CALL RTEST(YO(I),1000000.0,9999999.0)
                                CALL RTEST( A(I),0,360.0)
                                CALL ITEST(CZYJ(I),0,1)
                                CALL RTEST(VO(I),100.0,1000.0)
                                CALL RTEST(HO(I),1.0,500.0)
                                CALL ITEST(T(I),0,9)
                                IF (ER) 88,0,88
      T(I)=T(I)+8
                    IF (T(I)-K) 0,9,0
      K=K+1
      L=T(I)
      ASSIGN 4 TO Q
4     READ(IN,504) (D(J),J=K,L)
      IF (ER) 99,0,99
      WRITE(3,505) (D(J),J=K,L)
                                DO  41  J=K,L
                                  CALL RTEST(D(J),1000.0,100000.0)
41                              CONTINUE
                                IF (ER) 88,0,88
      ASSIGN 5 TO Q
5     READ(IN,504) (Z(J),J=K,L)
      IF (ER) 99,0,99
      WRITE(3,505) (Z(J),J=K,L)
                                DO  51  J=K,L
                                  CALL ITEST(Z(J),0,3)
51                              CONTINUE
                                IF (ER) 88,0,88
      ASSIGN 6 TO Q
6     READ(IN,504) (G(J),J=K,L)
      IF (ER) 99,0,99
      WRITE(3,505) (G(J),J=K,L)
                                DO  61  J=K,L
                                  CALL ITEST(G(J),1,6)
61                              CONTINUE
                                IF (ER) 88,0,88
      ASSIGN 7 TO Q
7     READ(IN,504) (V(J),J=K,L)
      IF (ER) 99,0,99
      WRITE(3,505) (V(J),J=K,L)
                                DO  71  J=K,L
                                  CALL RTEST(V(J),100.0,1000.0)
71                              CONTINUE
                                IF (ER) 88,0,88
      ASSIGN 8 TO Q
8     READ(IN,504) (H(J),J=K,L)
      IF (ER) 99,0,99
      WRITE(3,505) (H(J),J=K,L)
                                DO  81  J=K,L
                                  CALL RTEST(H(J),1.0,500.0)
81                              CONTINUE
                                IF (ER) 88,0,88
      K=L
9     CONTINUE
      WRITE(3,501)
      CALL SSWTCH(2,OUT)
      OUT=OUT+2
```

```
      Q=7-OUT
      CALL RLEASE(Q)
                                  CALL ZAMCZ(DT,DT,100)
       SKALA=-1
       ASSIGN 10 TO Q
       GO TO 12
 10    READ(IN,509) (POPAZ(I),I=1,IRUB)
       IF (EB) 99,0,99
                                  DO 101  I=1,IRUB
                                    CALL RTESI(POPAZ(I),0,360.0)
101                               CONTINUE
                                  IF (EB) 88,0,88
       DO  11 I=1,IRUB
         IF (POPAZ(I)) 11,11,0
         A(I)=POPAZ(I)
 11    CONTINUE
 12    CALL LUTNA
       IF (ICEL) 100,100,0
                 N=0
       DO  16  I=1,ICEL
         IF (S(2)) 13,0,15
         WRITE(5,300)
         GO TO 100
300   FORMAT(30 H BRAK PODPRZAMC.(X,Y) NA (OPL)    )
 13      X=XC(I)-PRT(1)
         Y=YC(I)-PRT(2)
         X1=X*X
         Y1=Y*Y
         R3=X1+Y1
         R3=SQRT(R3)
         R5=X/R3
         R3=R5/1000.0
       R5= ASIN(R5)
         R5=R5/17453.29252E-6
         IF (Y) 0,0,14
         R5=270.0+R5
         GO TO 141
 14      R5=90.0-R5
141                               IF (S(16)-2) 0,150
                                  R=GC(I)/100
                                  R1=1
                                  IF (N-20) 142,0,142
                                  CALL RUNOUT(OUT)
                                  N=0
142                               WRITE(OUT,510) NC(I),R5,R3,HC(I),R1,R
                                  N=N+1
                                  GO TO 16
 15      WRITE(OUT,508) NC(I),R5,R3,GC(I),HC(I),TC(I)
 16    CONTINUE
                                  IF (S(16)-2) 0,161,0
                                  I=-TC(1)
                                  WRITE(OUT,509) I
101    WRITE(OUT,502)SKALA
       CALL RUNOUT(OUT)
       GO TO 10
 88                               PAUSE 20202
```

```
                                ER=0
                                GO TO 9
 99   PAUSE 1010
      ER=0
      GO TO 9
 100  CALL RLEASE(IN)
      ENDFILE OUT
      CALL SWOFF(1)
      CALL SWOFF(2)
      CALL RLEASE(OUT)
      PAUSE 66
      GO TO 1
500   FORMAT(2F0.0,5I0)
501   FORMAT(/////2F11.1,I8,3I7,I4)
502   FORMAT(3F0.0,I0,2F0.0,I0)
503   FORMAT(//2F11.1,F8.1,I7,2F7.1,I4/)
504   FORMAT(9F0.0)
505   FORMAT(9F8.1)
506   FORMAT(9I0)
507   FORMAT(9I8)
508   FORMAT(I5,F6.2,F8.3,I4,F7.2,I7)
509   FORMAT(I8////)
510   FORMAT(I5,F6.2,F8.3,F7.2,2I4)
      END
```

```
      TRACE 0
      SUBROUTINE ITEST(I,M,N)
      INTEGER I,M,N,K
      COMMON /ERR/ K
      IF (M-I) 0,0,1
      IF (I-N) 2,2,0
1     WRITE(3,3) I,M,N
      K=1
2     RETURN
3     FORMAT(50X,I13,5X,18HSPOZA PRZEDZIAŁU ( ,I13,1H,,I13,1H))
      END
```

```
      SUBROUTINE HTEST(X,A,B)
      INTEGER K
      REAL X,A,B
      COMMON /ERR/ K
       IF (A-X) 0,0,1
       IF (X-B) 2,2,0
1      WRITE(3,3) X,A,B
       K=1
2     RETURN
3     FORMAT(20X,F13.3,3X,18HSPOZA PRZEDZIALU ( ,F13.3,1H,,F13.3,1H))
      END
```

```
SUBROUTINE ERROR(I)
 INTEGER I,K
 COMMON /ERR/ K
 K=-I
RETURN
END
```

```
      SUBROUTINE LOTNA
      INTEGER SKALA,DT
      REAL S1(8),PRT(2)
      INTEGER ICEL,IRUB,K,I,N,CZYJ(3),T(3),L,NGRUP,J,VV,Q,R,R1,R2,S(16),
     -        CZAS,CZASK,NC(165),TC(165),          GC(165),Z(27),G(27)
      REAL POPAZ(9),X,Y,X1,Y1,X2,Y2,ROB,R3,R4,R5,AS,DES,A(3),HO(3),
     -     VO(3),XO(3),YO(3),XC(165),YC(165),HC(165),D(27),V(27),H(27)
      COMMON /UNUR/ S,S1,T,PRT,D,XO,YO,VO,HO,V,H,IRUB,SKALA,CZAS,DT,A,
     -                    Z,G,CZASK,CZYJ
      COMMON /DRUB/       NC,XC,YC,    GC,HC,TC,ICEL
      DATA POPAZ/0,-900,-450,3*90./
      IF (ICEL)  0,0,100
      ICEL=0
      K=0
      DO 90  I=1,IRUB
        ICEL=ICEL+1
        XC(ICEL)=XO(I)
        YC(ICEL)=YO(I)
        GC(ICEL)=1
        HC(ICEL)=HO(I)
        N=10*CZYJ(I)
        N=N+I
        N=100*N
        NC(ICEL)=N+1
        TC(ICEL)=CZAS
        AS = A(I)+POPAZ(4)
        L  = T(I)-K
        IF (L) 90,90,0
        DES = 0
        NGRUP = 0
        DO 80  J=1,L
          VV = K+J
          DES=DES+D(VV)
          R1=Z(VV) *100
          R1=R1+1
          R2=G(VV)
          R3=H(VV)
          CALL NEWXY(XO(I),YO(I),AS,DES,X,Y)
          ICEL = ICEL+1
          XC(ICEL)=X
          YC(ICEL)=Y
          GC(ICEL)=R1
          HC(ICEL)=R3
          NGRUP = NGRUP+10
          VV = NGRUP + N
          TC(ICEL)=CZAS
          NC(ICEL)=VV+1
          IF (R2-1) 80,80,0
          R5 = 5000
          R4 = AS
          DO 70  Q=2,R2
            R4 = R4+POPAZ(Q)
            ICEL=ICEL+1
            CALL NEWXY(X,Y,R4,R5,XC(ICEL),YC(ICEL))
            NC(ICEL)=VV+Q
            GC(ICEL)=R1
```

```
          NC(ICEL)=R3
          TC(ICEL)=CZAS
          R5=4000
70      CONTINUE
80    CONTINUE
      K=T(I)
90  CONTINUE
    CALL ZAMCZ(CZAS,K,100)
    CALL ZAMCZ(CZASK,L,100)
    K=K+L
    CALL ZAMCZ(K,CZASK,60)
    RETURN
100 CALL ZAMCZ(CZAS,K,100)
    K=K+DT
    CALL ZAMCZ(CZASK,L,100)
    IF (K-L) 0,0,200
    CALL ZAMCZ(K,CZAS,60)
    R5=FLOAT(DT)
    DO 190  I=1,ICEL
      K=NC(I)
      L=K/1000
      Q=1000*L
      K=K-Q
      R=K/100
      N=100*R
      N=K-N
      N=N/10
      L=0
      IF (R-2) 110,0,0
      L=T(R-1)
110   IF ( N ) 0,0,120
      ROB=V0(R)
      GOTO 130
120   ROB=V(L+N)
130   ROB= R5*ROB
      CALL NEWXY(XC(I),YC(I),A(R),ROB,XC(I),YC(I))
      TC(I)=CZAS
190 CONTINUE
    RETURN
200  ICEL  =  -ICEL
     RETURN
    END
```

```
SUBROUTINE NEWXY(X0,Y0,A,D,X,Y)
      WE:X0,Y0 - WSP.PKTU BAZOWEGO
         A     - AZYMUT [STOP]
         D     - ODLEGLOSC
      WY:X,Y   - WYZNACZONE WSP.
REAL X0,Y0,A,D,X,Y,R,S
R = 17453.29252E-6 * A
S=COS(R)
S=D*S
X=X0+S
S=SIN(R)
S=S*D
Y=Y0+S
RETURN
END
```

```
SUBROUTINE ZAMCZ(T1,T2,D)
INTEGER T1,T2,D,D1,D2,R,R0,S,T
 D=100 ZAMIANA T1[GGHMSS] NA T2[S]
 D=60  ZAMIANA T1[S] NA T2[GGMMSS]
D1=160-D
D2=D*D
R=T1
S=R/D2
R0=S*D2
R=R-R0
T=R/D
R0=T*D
T2=R-R0
R=S*D1
R=R+T
R=R*D1
T2=R+T2
RETURN
END
```

C2III

5000000.0 3490000.0 121015 500 40 1 2

5720350.0 3480220.0 160.0 1 400.0 200.0 2

3500.0 4000.0
0 1
2 3
350.0 450.0
100.0 150.0

5700250.0 3500180.0 200.0 0 300.0 50.0 1

6000.0
2
5
500.0
70.0

1101	355.35	120.727	1	200.00	121015
1111	353.74	119.848	1	100.00	121015
1112	354.33	114.997	1	100.00	121015
1121	351.87	118.961	101	150.00	121015
1122	352.38	114.075	101	150.00	121015
1123	353.51	116.825	101	150.00	121015
201	5.80	100.769	1	50.00	121015
211	2.54	102.403	201	70.00	121015
212	1.66	97.645	201	70.00	121015
213	3.61	98.874	201	70.00	121015
214	0.52	100.616	201	70.00	121015
215	1.54	105.969	201	70.00	121015
	-1				

1101	357.66	105.383	1	200.00	121055
1111	355.53	106.300	1	100.00	121055
1112	356.29	101.492	1	100.00	121055
1121	353.96	101.413	101	150.00	121055
1122	354.68	96.569	101	150.00	121055
1123	355.94	99.410	101	150.00	121055
201	3.91	89.181	1	50.00	121055
211	358.42	83.540	201	70.00	121055
212	357.09	78.914	201	70.00	121055
213	359.56	79.885	201	70.00	121055
214	355.86	82.034	201	70.00	121055
215	357.38	87.225	201	70.00	121055
	-1				

C216

TED BY XRLP2-MINSK 32 DATE 12.02.1975 TIME 00.50

500000 6005730 3590250 1000000 5956500 3488020 6059400 4313200 20 90 8 4 1 1 1 1 1 1 1 0 0 0

1 1 LEW
6077000 4330600 41 7 1140 0 0 0 0 0 0 0 0 1316
2 1 TYGRYS
6057100 4358600 20 7 1150 0 0 0 0 0 0 0 0 1316
3 1 WILK
6063950 3637050 29 10 1160 0 0 0 0 0 0 0 0 1316

4 1 LAMPART
6077950 3677900 29 10 1160 0 0 0 0 0 0 0 0 1316
5 1 LIS
6040050 3693050 58 6 1160 0 0 0 0 0 0 0 0 1316
6 1 PIES
6021550 4355200 1 6 1160 0 0 0 0 0 0 0 0 1316
7 1 BORSUK
6022800 4328500 29 10 1160 0 0 0 0 0 0 0 0 1316
8 1 DELFIN
6073600 3660800 29 5 1150 0 0 0 0 0 0 0 0 1316
9 1 SZOP
6062200 4318350 17 10 1160 0 0 0 0 0 0 0 0 1316
10 1 SZAKAL
6051100 3670400 60 6 1150 0 0 0 0 0 0 0 0 1316
11 3 SZPAK
6063100 4354200 18 7 1170 0 0 0 0 0 0 0 0 1318
12 3 WRONA
6073000 4340600 12 7 1170 0 0 0 0 0 0 0 0 1318
13 3 SROKA
6067800 4348400 1 7 1170 0 0 0 0 0 0 0 0 1318
14 3 KRUK
6076850 3692150 45 8 1180 0 0 0 0 0 0 0 0 1318
15 3 GAWRON
6069300 3671850 69 8 1190 0 0 0 0 0 0 0 0 1318
16 3 ORZEL
6059400 3656600 79 8 1160 0 0 0 0 0 0 0 0 1318
17 2 SZCZUPAK
6063050 3686100 100 4 1150 0 0 0 0 0 0 0 0 1316
18 2 DORSZ
6060700 4322400 101 4 1140 0 0 0 0 0 0 0 0 1316
19 2 SUM
6051850 4341200 69 5 1120 0 0 0 0 0 0 0 0 1316
20 2 KARP
6037100 4338400 133 5 1170 0 0 0 0 0 0 0 0 1316
21 21 BRATEK
6065150 3677200 100 10 0 0 0 0 0 0 0 0 0 1000
22 22 TULIPAN
6045400 3660200 95 8 0 0 0 0 0 0 0 0 0 1000

```
23 23 GOZDZIK
6030200 3677050 107 4 0 0 0 0 0 0 0 0 0 1000
24 24 BEZ
6050800 4313400 114 10 0 0 0 0 0 0 0 0 0 1000
25 13 ANTENA
6059400 4313200 118 10 0 0 0 0 0 0 0 0 0 1000
26 27 RABA
6092500 3664000 500 10 0 0 0 0 0 0 0 0 0 1000
27 27 DUNAJEC
6095400 4318200 400 8 0 0 0 0 0 0 0 0 0 1000
28 27 SAN
6077900 4352700 500 5 0 0 0 0 0 0 0 0 0 1000
29 27 BANDERA
6059400 4315700 118 10 0 0 0 0 0 0 0 0 0 1000
-1 0

1 25 RABA
6092500 3664000 6090600 3649400 6096800 3663800 6000400 3673200
6094000 3676800 6089500 3667050 6083650 3652600 0 0 0 0 1000
2 25 DUNAJEC
6095400 4318200 6001800 3685600 6098600 4319200 6095400 4334300
6088600 4331800 6092000 4316400 6093800 3683800 0 0 0 0 1000
3 25 SAN
6077900 4352700 6098000 4344400 6081700 4355900 6069200 4370000
6068700 4359850 6075200 4349600 6087750 4337400 0 0 0 0 1000
4 25 TOPOLA
6044000 3654200 6061800 3643200 6044600 3643200 6030000 3643200 0 0 0 0 0 0 0 0 0 0 1000
-1 0

1
0 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0 1 1
2 2 3 3 2 2 2 3 2 1 0 0 0 0 0 0 1 1
2
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3
0 0 0 0 0 0 1 2 3 2 2 2 2 2 2 2 2 2
1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4
0 0 0 0 0 0 0 2 2 1 1 1 1 1 1 1 1 1
0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0
5
3 3 2 2 2 2 2 2 2 2 2 2 2 3 3 4 4 3
3 3 2 2 2 2 1 1 1 1 1 1 1 2 2 3 3 3
6
2 2 2 2 2 1 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2
7
0 0 0 0 0 0 0 0 0 0 0 1 1 1 2 2 2 2
2 2 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0
8
0 0 0 0 0 0 0 1 2 3 2 1 1 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9
0 0 0 0 0 0 0 0 0 2 2 1 0 0 0 0 0 0
0 1 2 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0
10
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1 1 2 2 2 1 1 1 1 1 1 0 0 0 0 0 0 0
```