Table A10 List of the file, **equivellipse.NEW.**
This is the completed file after the GENOPT user's completion of
the "GENTEXT" interactive session. The FORTRAN statements in this file
become part of the begin.new library, in particular, part of
SUBROUTINE INPUT. GENOPT does this automatically.

```
=====================================================================
      CALL DATUM(IFILE,  5,0,0,   INT, REALL,CHARAC,IOUT,0,0,0,IPROMP)
      CALL DATUM(IFILE, 10,1,2,npoint  , REALL,CHARAC,IOUT,0,0,0,IPROMP)
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, xinput = '
      WRITE(6,'(A)')
     1 '  vector element number for xinput'
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, xinput = '
         WRITE(IFILE8,'(A)')
     1 '  vector element number for xinput'
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      REWIND IFILE
      CALL DATUM(IFILE, 15,1,1,Ixinpu ,REALL,CHARAC,IOUT,0,0,0,IPROMP)
      IF (Ixinpu .EQ.0) GO TO  16
      DO  15  I=1,Ixinpu
      REWIND IFILE
      CALL DATUM(IFILE, 20,1,2,
     1    INT,xinput(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     xinput(I),   IPAR,  PAR,WORDP)
   15 CONTINUE
   16 CONTINUE
      CALL DATUM(IFILE, 25,1,2,   INT,ainput  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     ainput  ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 30,1,2,   INT,binput  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     binput  ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 35,1,2,nodes   , REALL,CHARAC,IOUT,0,0,0,IPROMP)
      CALL DATUM(IFILE, 40,1,2,   INT,xlimit  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     xlimit  ,    IPAR,  PAR,WORDP)
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, THKSKN = '
      WRITE(6,'(A)')
     1 '  vector element number for xinput'
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
```

```
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, THKSKN = '
         WRITE(IFILE8,'(A)')
     1 '  vector element number for xinput'
         WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (Ixinpu .EQ.0) GO TO  46
       DO  45  I=1,Ixinpu
       REWIND IFILE
       CALL DATUM(IFILE, 45,1,2,
     1    INT,THKSKN(I),CHARAC,  IOUT,I,0,1,IPROMP)
       CALL GETVAR(I,0,     THKSKN(I),   IVAR,  VAR,WORDV)
    45 CONTINUE
    46 CONTINUE
C
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, HIGHST = '
       WRITE(6,'(A)')
     1 '  vector element number for xinput'
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, HIGHST = '
         WRITE(IFILE8,'(A)')
     1 '  vector element number for xinput'
         WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (Ixinpu .EQ.0) GO TO  51
       DO  50  I=1,Ixinpu
       REWIND IFILE
       CALL DATUM(IFILE, 50,1,2,
     1    INT,HIGHST(I),CHARAC,  IOUT,I,0,1,IPROMP)
       CALL GETVAR(I,0,     HIGHST(I),   IVAR,  VAR,WORDV)
    50 CONTINUE
    51 CONTINUE
       CALL DATUM(IFILE, 55,1,2,   INT,SPACNG  ,CHARAC,IOUT,0,0,0,IPROMP)
       CALL GETVAR(0,0,     SPACNG  ,    IVAR,  VAR,WORDV)
       CALL DATUM(IFILE, 60,1,2,   INT,THSTIF  ,CHARAC,IOUT,0,0,0,IPROMP)
       CALL GETVAR(0,0,     THSTIF  ,    IVAR,  VAR,WORDV)
       CALL DATUM(IFILE, 65,1,1,   INT,THKCYL  ,CHARAC,IOUT,0,0,0,IPROMP)
       CALL GETVAR(0,0,     THKCYL  ,    IPAR,  PAR,WORDP)
       CALL DATUM(IFILE, 70,1,1,   INT,RADCYL  ,CHARAC,IOUT,0,0,0,IPROMP)
       CALL GETVAR(0,0,     RADCYL  ,    IPAR,  PAR,WORDP)
       CALL DATUM(IFILE, 75,1,1,   INT,LENCYL  ,CHARAC,IOUT,0,0,0,IPROMP)
       CALL GETVAR(0,0,     LENCYL  ,    IPAR,  PAR,WORDP)
```

```
      CALL DATUM(IFILE, 80,1,2,   INT,WIMP    ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     WIMP    ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 85,1,1,   INT,EMATL   ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     EMATL   ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 90,1,1,   INT,NUMATL  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     NUMATL  ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE, 95,1,2,   INT,DNMATL  ,CHARAC,IOUT,0,0,0,IPROMP)
      CALL GETVAR(0,0,     DNMATL  ,    IPAR,  PAR,WORDP)
      CALL DATUM(IFILE,100,1,2,IMODE   , REALL,CHARAC,IOUT,0,0,0,IPROMP)
      MCASES = 1
      CALL DATUM(IFILE,105,1,1,NCASES ,REALL,CHARAC,IOUT,0,0,0,IPROMP)
      IF (NCASES .EQ.0) GO TO 111
      DO 110  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,110,1,1,
     1    INT,PRESS(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     PRESS(I),    ILAR, FLAR,WORDF)
  110 CONTINUE
  111 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS1 = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS1 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 116
      DO 115  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,115,0,0,
     1    INT,CLAPS1(I),CHARAC,  IOUT,I,0,1,IPROMP)
      PHRASE =
     1 'collapse pressure with imperfection mode 1: CLAPS1'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,0,     CLAPS1(I),   ICAR,  CAR,WORDB)
  115 CONTINUE
  116 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
```

```
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS1A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS1A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 121
      DO 120  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,120,1,1,
     1    INT,CLAPS1A(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     CLAPS1A(I),IALLOW,ALLOW,WORDA)
  120 CONTINUE
  121 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS1F = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS1F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 126
      DO 125  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,125,1,1,
     1    INT,CLAPS1F(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     CLAPS1F(I), IFACT,FSAFE,WORDS)
  125 CONTINUE
  126 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK1 = '
      WRITE(6,'(A)')
```

```
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK1 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 131
      DO 130  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,130,0,0,
     1    INT,GENBK1(I),CHARAC,  IOUT,I,0,1,IPROMP)
      PHRASE =
     1 'general buckling load factor, mode 1: GENBK1'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,0,     GENBK1(I),   ICAR,  CAR,WORDB)
  130 CONTINUE
  131 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK1A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK1A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 136
      DO 135  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,135,1,2,
     1    INT,GENBK1A(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     GENBK1A(I),IALLOW,ALLOW,WORDA)
  135 CONTINUE
  136 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK1F = '
```

```
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK1F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 141
      DO 140  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,140,1,2,
     1    INT,GENBK1F(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     GENBK1F(I), IFACT,FSAFE,WORDS)
  140 CONTINUE
  141 CONTINUE
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK1 = '
      WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
      WRITE(6,'(A)')'   '
      REWIND IFILE
      CALL DATUM(IFILE,145,1,1,JSKNBK1,REALL,CHARAC,IOUT,0,0,0,IPROMP)
C
      IF (JSKNBK1.EQ.0) GO TO 151
      DO 150  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK1 = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK1'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK1 = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
```

```
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK1'
         ENDIF
       ENDIF
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK1 = '
       WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK1 = '
          WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 151
       DO 150  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,150,0,0,
     1    INT,SKNBK1(I,J),CHARAC,IOUT,I,J,2,IPROMP)
       PHRASE =
     1 'local skin buckling load factor, mode 1: SKNBK1'
       CALL BLANKX(PHRASE,IBLANK)
       CALL GETVAR(I,J,   SKNBK1(I,J),   ICAR,  CAR,WORDB)
   150 CONTINUE
   151 CONTINUE
C
       IF (JSKNBK1.EQ.0) GO TO 156
       DO 155  J=1,JSKNBK1
       IF (JSKNBK1.GT.1) THEN
          WRITE(6,'(A)')'   '
          WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK1A = '
          WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK1A'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK1A = '
           WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
```

```
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK1A'
         ENDIF
       ENDIF
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK1A = '
       WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK1A = '
          WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 156
       DO 155  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,155,1,1,
     1    INT,SKNBK1A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
       CALL GETVAR(I,J,   SKNBK1A(I,J),IALLOW,ALLOW,WORDA)
   155 CONTINUE
   156 CONTINUE
C
       IF (JSKNBK1.EQ.0) GO TO 161
       DO 160  J=1,JSKNBK1
       IF (JSKNBK1.GT.1) THEN
          WRITE(6,'(A)')'   '
          WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK1F = '
          WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK1F'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK1F = '
           WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK1F'
```

```
         ENDIF
       ENDIF
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
      1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK1F = '
       WRITE(6,'(A)')
      1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
      1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK1F = '
          WRITE(IFILE8,'(A)')
      1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 161
       DO 160  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,160,1,1,
      1    INT,SKNBK1F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
       CALL GETVAR(I,J,   SKNBK1F(I,J), IFACT,FSAFE,WORDS)
  160 CONTINUE
  161 CONTINUE
C
       IF (JSKNBK1.EQ.0) GO TO 166
       DO 165  J=1,JSKNBK1
       IF (JSKNBK1.GT.1) THEN
          WRITE(6,'(A)')'   '
          WRITE(6,'(A)')
      1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK1 = '
          WRITE(6,'(A)')
      1 '  number of regions for computing behavior'
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
      1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK1'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
      1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK1 = '
           WRITE(IFILE8,'(A)')
      1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
      1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK1'
          ENDIF
       ENDIF
```

```
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK1 = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK1 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 166
      DO 165  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,165,0,0,
     1    INT,STFBK1(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      PHRASE =
     1 'buckling load factor, isogrid member, mode 1: STFBK1'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,J,   STFBK1(I,J),   ICAR,  CAR,WORDB)
  165 CONTINUE
  166 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 171
      DO 170  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK1A = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK1A'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK1A = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK1A'
         ENDIF
```

```
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK1A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK1A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 171
      DO 170  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,170,1,1,
     1    INT,STFBK1A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   STFBK1A(I,J),IALLOW,ALLOW,WORDA)
  170 CONTINUE
  171 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 176
      DO 175  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK1F = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK1F'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK1F = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK1F'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
```

```
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK1F = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK1F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 176
      DO 175  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,175,1,1,
     1    INT,STFBK1F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   STFBK1F(I,J), IFACT,FSAFE,WORDS)
  175 CONTINUE
  176 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 181
      DO 180  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST1 = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST1'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST1 = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST1'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST1 = '
```

```
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST1 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 181
      DO 180  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,180,0,0,
     1    INT,SKNST1(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      PHRASE =
     1 'maximum stress in the shell skin, mode 1: SKNST1'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,J,   SKNST1(I,J),   ICAR,  CAR,WORDB)
  180 CONTINUE
  181 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 186
      DO 185  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST1A = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST1A'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST1A = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST1A'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
```

```
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST1A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST1A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 186
      DO 185  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,185,1,1,
     1    INT,SKNST1A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   SKNST1A(I,J),IALLOW,ALLOW,WORDA)
  185 CONTINUE
  186 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 191
      DO 190  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST1F = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST1F'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST1F = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST1F'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST1F = '
      WRITE(6,'(A)')
```

```
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST1F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 191
      DO 190  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,190,1,1,
     1    INT,SKNST1F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   SKNST1F(I,J), IFACT,FSAFE,WORDS)
  190 CONTINUE
  191 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 196
      DO 195  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST1 = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST1'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST1 = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST1'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST1 = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
```

```
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST1 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 196
      DO 195  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,195,0,0,
     1    INT,STFST1(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      PHRASE =
     1 'maximum stress in isogrid stiffener, mode 1: STFST1'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,J,   STFST1(I,J),   ICAR,  CAR,WORDB)
  195 CONTINUE
  196 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 201
      DO 200  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST1A = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST1A'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST1A = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST1A'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST1A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
```

```
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST1A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 201
      DO 200  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,200,1,1,
     1    INT,STFST1A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   STFST1A(I,J),IALLOW,ALLOW,WORDA)
  200 CONTINUE
  201 CONTINUE
C
      IF (JSKNBK1.EQ.0) GO TO 206
      DO 205  J=1,JSKNBK1
      IF (JSKNBK1.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST1F = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST1F'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST1F = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST1F'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST1F = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
```

```
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST1F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 206
      DO 205  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,205,1,1,
     1    INT,STFST1F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   STFST1F(I,J), IFACT,FSAFE,WORDS)
  205 CONTINUE
  206 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX1 = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX1 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 211
      DO 210  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,210,0,0,
     1    INT,WAPEX1(I),CHARAC,  IOUT,I,0,1,IPROMP)
      PHRASE =
     1 'normal (axial) displacement at apex, mode 1: WAPEX1'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,0,     WAPEX1(I),   ICAR,  CAR,WORDB)
  210 CONTINUE
  211 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX1A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
```

```
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX1A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 216
      DO 215  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,215,1,1,
     1    INT,WAPEX1A(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     WAPEX1A(I),IALLOW,ALLOW,WORDA)
  215 CONTINUE
  216 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX1F = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX1F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 221
      DO 220  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,220,1,1,
     1    INT,WAPEX1F(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     WAPEX1F(I), IFACT,FSAFE,WORDS)
  220 CONTINUE
  221 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS2 = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
```

```
         WRITE(IFILE8,'(A)')
        1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS2 = '
         WRITE(IFILE8,'(A)')
        1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
        ENDIF
        IF (NCASES .EQ.0) GO TO 226
        DO 225  I=1,NCASES
        REWIND IFILE
        CALL DATUM(IFILE,225,0,0,
        1    INT,CLAPS2(I),CHARAC,  IOUT,I,0,1,IPROMP)
        PHRASE =
        1 'collapse pressure with imperfection mode 2: CLAPS2'
        CALL BLANKX(PHRASE,IBLANK)
        CALL GETVAR(I,0,     CLAPS2(I),   ICAR,  CAR,WORDB)
  225 CONTINUE
  226 CONTINUE
C
        WRITE(6,'(A)')'   '
        WRITE(6,'(A)')
        1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS2A = '
        WRITE(6,'(A)')
        1 '  Number of load cases (number of environments) '
        WRITE(6,'(A)')'   '
        IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
        1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS2A = '
         WRITE(IFILE8,'(A)')
        1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
        ENDIF
        IF (NCASES .EQ.0) GO TO 231
        DO 230  I=1,NCASES
        REWIND IFILE
        CALL DATUM(IFILE,230,1,1,
        1    INT,CLAPS2A(I),CHARAC,  IOUT,I,0,1,IPROMP)
        CALL GETVAR(I,0,     CLAPS2A(I),IALLOW,ALLOW,WORDA)
  230 CONTINUE
  231 CONTINUE
C
        WRITE(6,'(A)')'   '
        WRITE(6,'(A)')
        1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS2F = '
        WRITE(6,'(A)')
        1 '  Number of load cases (number of environments) '
        WRITE(6,'(A)')'   '
        IF (IPROMP.GT.1) THEN
```

```
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, CLAPS2F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 236
      DO 235  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,235,1,1,
     1    INT,CLAPS2F(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     CLAPS2F(I), IFACT,FSAFE,WORDS)
  235 CONTINUE
  236 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK2 = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK2 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 241
      DO 240  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,240,0,0,
     1    INT,GENBK2(I),CHARAC,  IOUT,I,0,1,IPROMP)
      PHRASE =
     1 'general buckling load factor, mode 2: GENBK2'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,0,     GENBK2(I),   ICAR,  CAR,WORDB)
  240 CONTINUE
  241 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK2A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
```

```
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK2A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 246
      DO 245  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,245,1,1,
     1    INT,GENBK2A(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     GENBK2A(I),IALLOW,ALLOW,WORDA)
  245 CONTINUE
  246 CONTINUE
C
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK2F = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, GENBK2F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 251
      DO 250  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,250,1,2,
     1    INT,GENBK2F(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     GENBK2F(I), IFACT,FSAFE,WORDS)
  250 CONTINUE
  251 CONTINUE
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK2 = '
      WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
      WRITE(6,'(A)')'   '
      REWIND IFILE
      CALL DATUM(IFILE,255,1,1,JSKNBK2,REALL,CHARAC,IOUT,0,0,0,IPROMP)
C
```

```
      IF (JSKNBK2.EQ.0) GO TO 261
      DO 260  J=1,JSKNBK2
      IF (JSKNBK2.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK2 = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK2'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK2 = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK2'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK2 = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK2 = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 261
      DO 260  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,260,0,0,
     1    INT,SKNBK2(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      PHRASE =
     1 'local skin buckling load factor, mode 2: SKNBK2'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(I,J,   SKNBK2(I,J),   ICAR,  CAR,WORDB)
  260 CONTINUE
  261 CONTINUE
```

```
C
      IF (JSKNBK2.EQ.0) GO TO 266
      DO 265  J=1,JSKNBK2
      IF (JSKNBK2.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK2A = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK2A'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK2A = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK2A'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK2A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK2A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 266
      DO 265  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,265,1,1,
     1    INT,SKNBK2A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   SKNBK2A(I,J),IALLOW,ALLOW,WORDA)
  265 CONTINUE
  266 CONTINUE
C
      IF (JSKNBK2.EQ.0) GO TO 271
```

```
      DO 270  J=1,JSKNBK2
      IF (JSKNBK2.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK2F = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK2F'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNBK2F = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNBK2F'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK2F = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNBK2F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 271
      DO 270  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,270,1,1,
     1    INT,SKNBK2F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   SKNBK2F(I,J), IFACT,FSAFE,WORDS)
  270 CONTINUE
  271 CONTINUE
C
      IF (JSKNBK2.EQ.0) GO TO 276
      DO 275  J=1,JSKNBK2
      IF (JSKNBK2.GT.1) THEN
```

```
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK2 = '
      WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
      WRITE(6,'(A)')'   '
      CALL CONVR2(J,CJ)
      WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK2'
      IF (IPROMP.GT.1) THEN
       WRITE(IFILE8,'(A)')'  '
       WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK2 = '
       WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
       WRITE(IFILE8,'(A)')'  '
       WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK2'
      ENDIF
     ENDIF
     WRITE(6,'(A)')'   '
     WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK2 = '
     WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
     WRITE(6,'(A)')'   '
     IF (IPROMP.GT.1) THEN
        WRITE(IFILE8,'(A)')'   '
        WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK2 = '
        WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
        WRITE(IFILE8,'(A)')'   '
     ENDIF
     IF (NCASES .EQ.0) GO TO 276
     DO 275  I=1,NCASES
     REWIND IFILE
     CALL DATUM(IFILE,275,0,0,
     1    INT,STFBK2(I,J),CHARAC,IOUT,I,J,2,IPROMP)
     PHRASE =
     1 'buckling load factor for isogrid member, mode 2: STFBK2'
     CALL BLANKX(PHRASE,IBLANK)
     CALL GETVAR(I,J,   STFBK2(I,J),   ICAR,  CAR,WORDB)
  275 CONTINUE
  276 CONTINUE
C
      IF (JSKNBK2.EQ.0) GO TO 281
      DO 280  J=1,JSKNBK2
```

```
      IF (JSKNBK2.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK2A = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK2A'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK2A = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK2A'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK2A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK2A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 281
      DO 280  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,280,1,1,
     1    INT,STFBK2A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   STFBK2A(I,J),IALLOW,ALLOW,WORDA)
  280 CONTINUE
  281 CONTINUE
C
      IF (JSKNBK2.EQ.0) GO TO 286
      DO 285  J=1,JSKNBK2
      IF (JSKNBK2.GT.1) THEN
         WRITE(6,'(A)')'   '
```

```
          WRITE(6,'(A)')
     1     ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK2F = '
          WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK2F'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
     1     ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFBK2F = '
           WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFBK2F'
          ENDIF
       ENDIF
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK2F = '
       WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFBK2F = '
          WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 286
       DO 285  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,285,1,1,
     1    INT,STFBK2F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
       CALL GETVAR(I,J,   STFBK2F(I,J), IFACT,FSAFE,WORDS)
   285 CONTINUE
   286 CONTINUE
C
       IF (JSKNBK2.EQ.0) GO TO 291
       DO 290  J=1,JSKNBK2
       IF (JSKNBK2.GT.1) THEN
          WRITE(6,'(A)')'   '
          WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST2 = '
```

```
          WRITE(6,'(A)')
        1 '  number of regions for computing behavior'
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
        1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST2'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
        1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST2 = '
           WRITE(IFILE8,'(A)')
        1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
        1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST2'
          ENDIF
         ENDIF
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
        1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST2 = '
         WRITE(6,'(A)')
        1 '  Number of load cases (number of environments) '
         WRITE(6,'(A)')'   '
         IF (IPROMP.GT.1) THEN
            WRITE(IFILE8,'(A)')'   '
            WRITE(IFILE8,'(A)')
        1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST2 = '
            WRITE(IFILE8,'(A)')
        1 '  Number of load cases (number of environments) '
            WRITE(IFILE8,'(A)')'   '
         ENDIF
         IF (NCASES .EQ.0) GO TO 291
         DO 290  I=1,NCASES
         REWIND IFILE
         CALL DATUM(IFILE,290,0,0,
        1    INT,SKNST2(I,J),CHARAC,IOUT,I,J,2,IPROMP)
         PHRASE =
        1 'maximum stress in the shell skin, mode 2: SKNST2'
         CALL BLANKX(PHRASE,IBLANK)
         CALL GETVAR(I,J,   SKNST2(I,J),   ICAR,  CAR,WORDB)
  290 CONTINUE
  291 CONTINUE
C
         IF (JSKNBK2.EQ.0) GO TO 296
         DO 295  J=1,JSKNBK2
         IF (JSKNBK2.GT.1) THEN
            WRITE(6,'(A)')'   '
            WRITE(6,'(A)')
```

```
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST2A = '
          WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST2A'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST2A = '
           WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST2A'
          ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST2A = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST2A = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 296
      DO 295  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,295,1,1,
     1    INT,SKNST2A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   SKNST2A(I,J),IALLOW,ALLOW,WORDA)
  295 CONTINUE
  296 CONTINUE
C
      IF (JSKNBK2.EQ.0) GO TO 301
      DO 300  J=1,JSKNBK2
      IF (JSKNBK2.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST2F = '
         WRITE(6,'(A)')
```

```
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
         CALL CONVR2(J,CJ)
         WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST2F'
         IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, SKNST2F = '
          WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(IFILE8,'(A)')'  '
          WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY SKNST2F'
         ENDIF
      ENDIF
      WRITE(6,'(A)')'   '
      WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST2F = '
      WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
      WRITE(6,'(A)')'   '
      IF (IPROMP.GT.1) THEN
         WRITE(IFILE8,'(A)')'   '
         WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, SKNST2F = '
         WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 301
      DO 300  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,300,1,1,
     1    INT,SKNST2F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
      CALL GETVAR(I,J,   SKNST2F(I,J), IFACT,FSAFE,WORDS)
  300 CONTINUE
  301 CONTINUE
C
      IF (JSKNBK2.EQ.0) GO TO 306
      DO 305  J=1,JSKNBK2
      IF (JSKNBK2.GT.1) THEN
         WRITE(6,'(A)')'   '
         WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST2 = '
         WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
         WRITE(6,'(A)')'   '
```

```
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST2'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
     1     ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST2 = '
           WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST2'
          ENDIF
       ENDIF
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST2 = '
       WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST2 = '
          WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 306
       DO 305  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,305,0,0,
     1    INT,STFST2(I,J),CHARAC,IOUT,I,J,2,IPROMP)
       PHRASE =
     1 'maximum stress in isogrid stiffener, mode 2: STFST2'
       CALL BLANKX(PHRASE,IBLANK)
       CALL GETVAR(I,J,   STFST2(I,J),   ICAR,  CAR,WORDB)
  305 CONTINUE
  306 CONTINUE
C
       IF (JSKNBK2.EQ.0) GO TO 311
       DO 310  J=1,JSKNBK2
       IF (JSKNBK2.GT.1) THEN
          WRITE(6,'(A)')'   '
          WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST2A = '
          WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
```

```
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
          WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST2A'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
     1     ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST2A = '
           WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST2A'
          ENDIF
       ENDIF
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST2A = '
       WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST2A = '
          WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 311
       DO 310  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,310,1,1,
     1    INT,STFST2A(I,J),CHARAC,IOUT,I,J,2,IPROMP)
       CALL GETVAR(I,J,   STFST2A(I,J),IALLOW,ALLOW,WORDA)
  310 CONTINUE
  311 CONTINUE
C
       IF (JSKNBK2.EQ.0) GO TO 316
       DO 315  J=1,JSKNBK2
       IF (JSKNBK2.GT.1) THEN
          WRITE(6,'(A)')'   '
          WRITE(6,'(A)')
     1    ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST2F = '
          WRITE(6,'(A)')
     1 '  number of regions for computing behavior'
          WRITE(6,'(A)')'   '
          CALL CONVR2(J,CJ)
```

```
          WRITE(6,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST2F'
          IF (IPROMP.GT.1) THEN
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A)')
     1     ' DEFINITION OF THE COLUMN INDEX OF THE ARRAY, STFST2F = '
           WRITE(IFILE8,'(A)')
     1 '  number of regions for computing behavior'
           WRITE(IFILE8,'(A)')'  '
           WRITE(IFILE8,'(A,A,A)')
     1 '   INPUT FOR COL. NO. ',CJ,' OF THE ARRAY STFST2F'
          ENDIF
       ENDIF
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST2F = '
       WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, STFST2F = '
          WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 316
       DO 315  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,315,1,1,
     1    INT,STFST2F(I,J),CHARAC,IOUT,I,J,2,IPROMP)
       CALL GETVAR(I,J,   STFST2F(I,J), IFACT,FSAFE,WORDS)
   315 CONTINUE
   316 CONTINUE
C
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX2 = '
       WRITE(6,'(A)')
     1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
     1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX2 = '
          WRITE(IFILE8,'(A)')
     1 '  Number of load cases (number of environments) '
```

```
         WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 321
       DO 320  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,320,0,0,
      1    INT,WAPEX2(I),CHARAC,  IOUT,I,0,1,IPROMP)
       PHRASE =
      1 'normal (axial) displacement at apex, mode 2: WAPEX2'
       CALL BLANKX(PHRASE,IBLANK)
       CALL GETVAR(I,0,     WAPEX2(I),   ICAR,  CAR,WORDB)
  320 CONTINUE
  321 CONTINUE
C
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
      1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX2A = '
       WRITE(6,'(A)')
      1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
      1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX2A = '
          WRITE(IFILE8,'(A)')
      1 '  Number of load cases (number of environments) '
          WRITE(IFILE8,'(A)')'   '
       ENDIF
       IF (NCASES .EQ.0) GO TO 326
       DO 325  I=1,NCASES
       REWIND IFILE
       CALL DATUM(IFILE,325,1,1,
      1    INT,WAPEX2A(I),CHARAC,  IOUT,I,0,1,IPROMP)
       CALL GETVAR(I,0,     WAPEX2A(I),IALLOW,ALLOW,WORDA)
  325 CONTINUE
  326 CONTINUE
C
       WRITE(6,'(A)')'   '
       WRITE(6,'(A)')
      1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX2F = '
       WRITE(6,'(A)')
      1 '  Number of load cases (number of environments) '
       WRITE(6,'(A)')'   '
       IF (IPROMP.GT.1) THEN
          WRITE(IFILE8,'(A)')'   '
          WRITE(IFILE8,'(A)')
      1 ' DEFINITION OF THE ROW INDEX OF THE ARRAY, WAPEX2F = '
          WRITE(IFILE8,'(A)')
```

```
     1 '  Number of load cases (number of environments) '
         WRITE(IFILE8,'(A)')'   '
      ENDIF
      IF (NCASES .EQ.0) GO TO 331
      DO 330  I=1,NCASES
      REWIND IFILE
      CALL DATUM(IFILE,330,1,1,
     1    INT,WAPEX2F(I),CHARAC,  IOUT,I,0,1,IPROMP)
      CALL GETVAR(I,0,     WAPEX2F(I), IFACT,FSAFE,WORDS)
  330 CONTINUE
  331 CONTINUE
      CALL DATUM(IFILE,335,0,0,   INT,WEIGHT  ,CHARAC,IOUT,0,0,0,IPROMP)
      PHRASE =
     1 'weight of the equivalent ellipsoidal head: WEIGHT'
      CALL BLANKX(PHRASE,IBLANK)
      CALL GETVAR(0,0,     WEIGHT  ,    IOAR, OAR,WORDOB)
=====================================================================
```