Table A7 List of the file, **equivellipse.CHA.**
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 change.new library, in particular, part of SUBROUTINE NEWPAR. GENOPT does this automatically.

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      IF (Ixinpu .EQ.0) GO TO  21
      DO  20 I=1,Ixinpu
      xinput(I) =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
   20 CONTINUE
   21 CONTINUE
      ainput   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      binput   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      xlimit   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      IF (Ixinpu .EQ.0) GO TO  46
      DO  45 I=1,Ixinpu
      THKSKN(I) =   VAR ( IVAR )
       IVAR  =  IVAR  + 1
   45 CONTINUE
   46 CONTINUE
      IF (Ixinpu .EQ.0) GO TO  51
      DO  50 I=1,Ixinpu
      HIGHST(I) =   VAR ( IVAR )
       IVAR  =  IVAR  + 1
   50 CONTINUE
   51 CONTINUE
      SPACNG   =   VAR ( IVAR )
       IVAR  =  IVAR  + 1
      THSTIF   =   VAR ( IVAR )
       IVAR  =  IVAR  + 1
      THKCYL   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      RADCYL   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      LENCYL   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      WIMP     =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      EMATL    =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      NUMATL   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
      DNMATL   =   PAR ( IPAR )
       IPAR  =  IPAR  + 1
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    IF (NCASES .EQ.0) GO TO 111
    DO 110 I=1,NCASES
    PRESS(I) =  FLAR ( ILAR )
     ILAR  =  ILAR  + 1
110 CONTINUE
111 CONTINUE
    IF (NCASES .EQ.0) GO TO 121
    DO 120 I=1,NCASES
    CLAPS1A(I) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
120 CONTINUE
121 CONTINUE
    IF (NCASES .EQ.0) GO TO 126
    DO 125 I=1,NCASES
    CLAPS1F(I) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
125 CONTINUE
126 CONTINUE
    IF (NCASES .EQ.0) GO TO 136
    DO 135 I=1,NCASES
    GENBK1A(I) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
135 CONTINUE
136 CONTINUE
    IF (NCASES .EQ.0) GO TO 141
    DO 140 I=1,NCASES
    GENBK1F(I) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
140 CONTINUE
141 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 156
    IF (NCASES .EQ.0) GO TO 156
    DO 155 J=1,JSKNBK1
    DO 155 I=1,NCASES
    SKNBK1A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
155 CONTINUE
156 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 161
    IF (NCASES .EQ.0) GO TO 161
    DO 160 J=1,JSKNBK1
    DO 160 I=1,NCASES
    SKNBK1F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
160 CONTINUE
161 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 171
    IF (NCASES .EQ.0) GO TO 171
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    DO 170 J=1,JSKNBK1
    DO 170 I=1,NCASES
    STFBK1A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
170 CONTINUE
171 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 176
    IF (NCASES .EQ.0) GO TO 176
    DO 175 J=1,JSKNBK1
    DO 175 I=1,NCASES
    STFBK1F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
175 CONTINUE
176 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 186
    IF (NCASES .EQ.0) GO TO 186
    DO 185 J=1,JSKNBK1
    DO 185 I=1,NCASES
    SKNST1A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
185 CONTINUE
186 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 191
    IF (NCASES .EQ.0) GO TO 191
    DO 190 J=1,JSKNBK1
    DO 190 I=1,NCASES
    SKNST1F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
190 CONTINUE
191 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 201
    IF (NCASES .EQ.0) GO TO 201
    DO 200 J=1,JSKNBK1
    DO 200 I=1,NCASES
    STFST1A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
200 CONTINUE
201 CONTINUE
    IF (JSKNBK1.EQ.0) GO TO 206
    IF (NCASES .EQ.0) GO TO 206
    DO 205 J=1,JSKNBK1
    DO 205 I=1,NCASES
    STFST1F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
205 CONTINUE
206 CONTINUE
    IF (NCASES .EQ.0) GO TO 216
    DO 215 I=1,NCASES
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    WAPEX1A(I) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
215 CONTINUE
216 CONTINUE
    IF (NCASES .EQ.0) GO TO 221
    DO 220 I=1,NCASES
    WAPEX1F(I) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
220 CONTINUE
221 CONTINUE
    IF (NCASES .EQ.0) GO TO 231
    DO 230 I=1,NCASES
    CLAPS2A(I) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
230 CONTINUE
231 CONTINUE
    IF (NCASES .EQ.0) GO TO 236
    DO 235 I=1,NCASES
    CLAPS2F(I) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
235 CONTINUE
236 CONTINUE
    IF (NCASES .EQ.0) GO TO 246
    DO 245 I=1,NCASES
    GENBK2A(I) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
245 CONTINUE
246 CONTINUE
    IF (NCASES .EQ.0) GO TO 251
    DO 250 I=1,NCASES
    GENBK2F(I) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
250 CONTINUE
251 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 266
    IF (NCASES .EQ.0) GO TO 266
    DO 265 J=1,JSKNBK2
    DO 265 I=1,NCASES
    SKNBK2A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
265 CONTINUE
266 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 271
    IF (NCASES .EQ.0) GO TO 271
    DO 270 J=1,JSKNBK2
    DO 270 I=1,NCASES
    SKNBK2F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
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270 CONTINUE
271 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 281
    IF (NCASES .EQ.0) GO TO 281
    DO 280 J=1,JSKNBK2
    DO 280 I=1,NCASES
    STFBK2A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
280 CONTINUE
281 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 286
    IF (NCASES .EQ.0) GO TO 286
    DO 285 J=1,JSKNBK2
    DO 285 I=1,NCASES
    STFBK2F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
285 CONTINUE
286 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 296
    IF (NCASES .EQ.0) GO TO 296
    DO 295 J=1,JSKNBK2
    DO 295 I=1,NCASES
    SKNST2A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
295 CONTINUE
296 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 301
    IF (NCASES .EQ.0) GO TO 301
    DO 300 J=1,JSKNBK2
    DO 300 I=1,NCASES
    SKNST2F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
300 CONTINUE
301 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 311
    IF (NCASES .EQ.0) GO TO 311
    DO 310 J=1,JSKNBK2
    DO 310 I=1,NCASES
    STFST2A(I,J) =  ALLOW(IALLOW)
    IALLOW = IALLOW + 1
310 CONTINUE
311 CONTINUE
    IF (JSKNBK2.EQ.0) GO TO 316
    IF (NCASES .EQ.0) GO TO 316
    DO 315 J=1,JSKNBK2
    DO 315 I=1,NCASES
    STFST2F(I,J) = FSAFE (IFACT )
    IFACT  = IFACT  + 1
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  315 CONTINUE
  316 CONTINUE
      IF (NCASES .EQ.0) GO TO 326
      DO 325 I=1,NCASES
      WAPEX2A(I) =  ALLOW(IALLOW)
      IALLOW = IALLOW + 1
  325 CONTINUE
  326 CONTINUE
      IF (NCASES .EQ.0) GO TO 331
      DO 330 I=1,NCASES
      WAPEX2F(I) = FSAFE (IFACT )
      IFACT  = IFACT  + 1
  330 CONTINUE
  331 CONTINUE
      WEIGHT   =  OAR  ( IOAR )
       IOAR  =  IOAR  + 1
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