STAGS "crude" 180-degree "soccerball" model

7.591E-02
-3.844E-02
-1.528E-01
-2.671E-01
-3.815E-01
-4.958E-01
-6.102E-01
-7.245E-01
-8.389E-01
-9.532E-01
-1.068E+00
-1.182E+00
-1.296E+00
-1.411E+00
-1.525E+00
-1.639E+00

t(apex)=0.61996; Wimp=0.2 inch; unstiff.equiv.ellipsoidal shell; inward cos(theta) line load from theta=0 to 90 deg.
PA= 0.0; PB= 2187.23; 480 finite elements are used; crude model
step 42 displacement w contours at maximum PB
nonlinear w; cos(theta) point loads at row no. 2 of shell segment no. 3 (see Fig.2)
subroutine usrfab.soccerball.plastic.src is used with NGCP = 1

Θ x   -0.00
Θ y   0.00
Θ z   -0.00

9.900E+00

Fig. 242 The **optimized unstiffened equivalent ellipsoidal shell with the thick apex with t(apex) = 0.61996 inch; Wimp=0.2 inch; the optimum design is listed in Table 93. Case 1:** State of the shell at load set B (PB) step no. 42 in Run 2. (See Fig. 240). Load set B consists of a number of concentrated inward directed normal loads applied along row 2 of shell segment 3 (Figs. 2, 169, 232 and 233) distributed in the circumferential direction as cos(theta) from theta = 0 to 90 degrees. This "cos(theta)" load distribution is used because it generates a dent that **locally** resembles the negative of the deformation in Fig. 232, that is, the negative of the linear buckling modal imperfection with n = 1 circumferential wave. Compare with Fig. 181, which pertains to the design listed in Table 78.