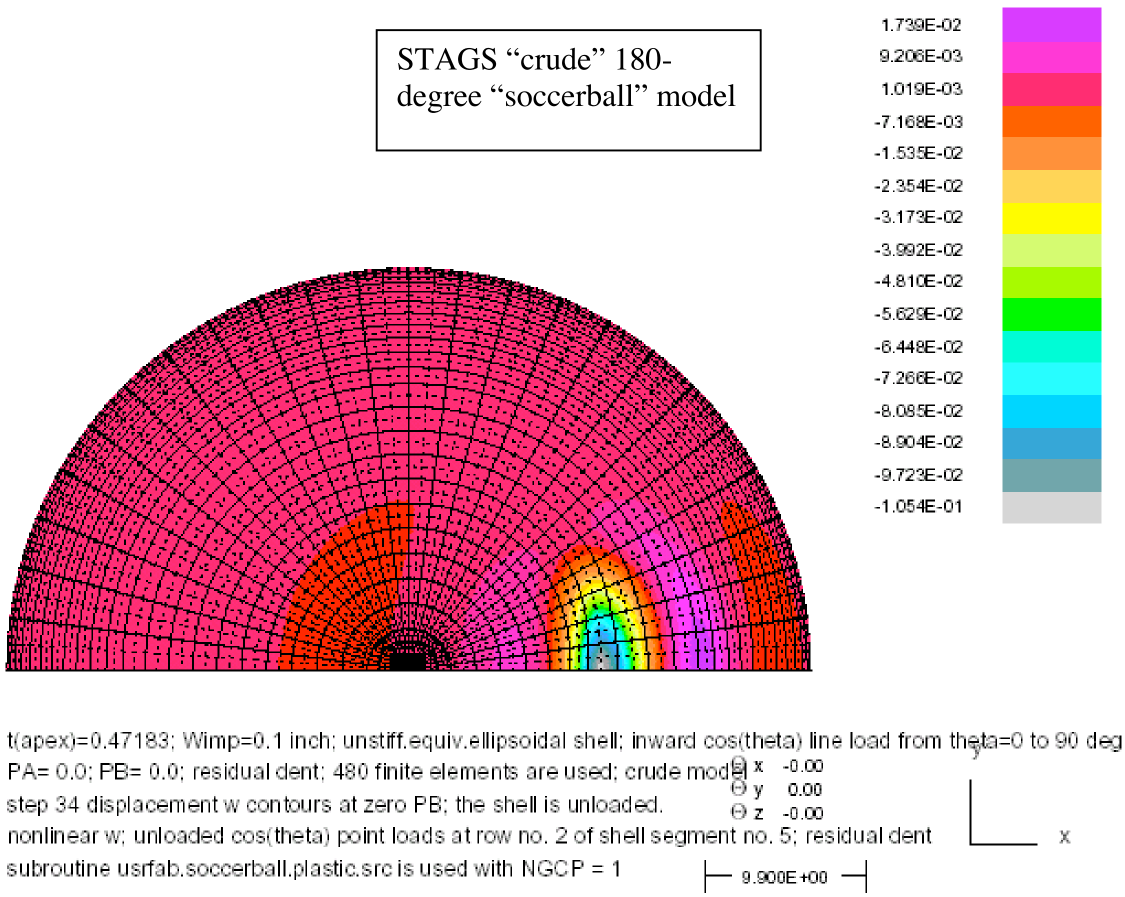

Fig. 224 Elastic-plastic analysis of the **optimized unstiffened equivalent ellipsoidal shell with the thick apex with t(apex) = 0.47183 inch; Wimp=0.1 inch**, half the amplitude, Wimp = 0.2 inch, that pertains to the results in Figs. 145 – 200 and Tables 78 – 88**; the optimum design is listed in Table 89.** State of the shell at load set B (PB) at the end of Run 9. This is the **residual dent** at the end of Run 9. (See Fig. 216). Load set B consists of a number of concentrated inward-directed normal **loads** applied along Row 2 of Shell Segment 5 (Figs. 2, 169, 205) distributed as cos(theta) from theta = 0 to 90 degrees in the circumferential coordinate. This load distribution is used because it generates a dent that **locally** resembles the negative of the deformation in Fig. 205, that is, the negative of the linear buckling modal imperfection with n = 1 circumferential wave. Note that now the maximum depth (the center) of the residual dent lies at the line of symmetry, as one would expect. This expected state is related to the monotonic nature of the unloading curve in Fig. 216 labeled “Run 9”. The depth of the residual dent is close to the amplitude, Wimp = 0.1 inch, of the axisymmetric linear buckling modal imperfections, mode 1 and mode 2 (Figs. 202 and 203), in the presence of which the optimum design listed in Table 89 was obtained. Compare this figure with Fig. 221, also with Fig. 182, which applies to a different optimum design: that listed in Table 78, for which Wimp = 0.2 inch.