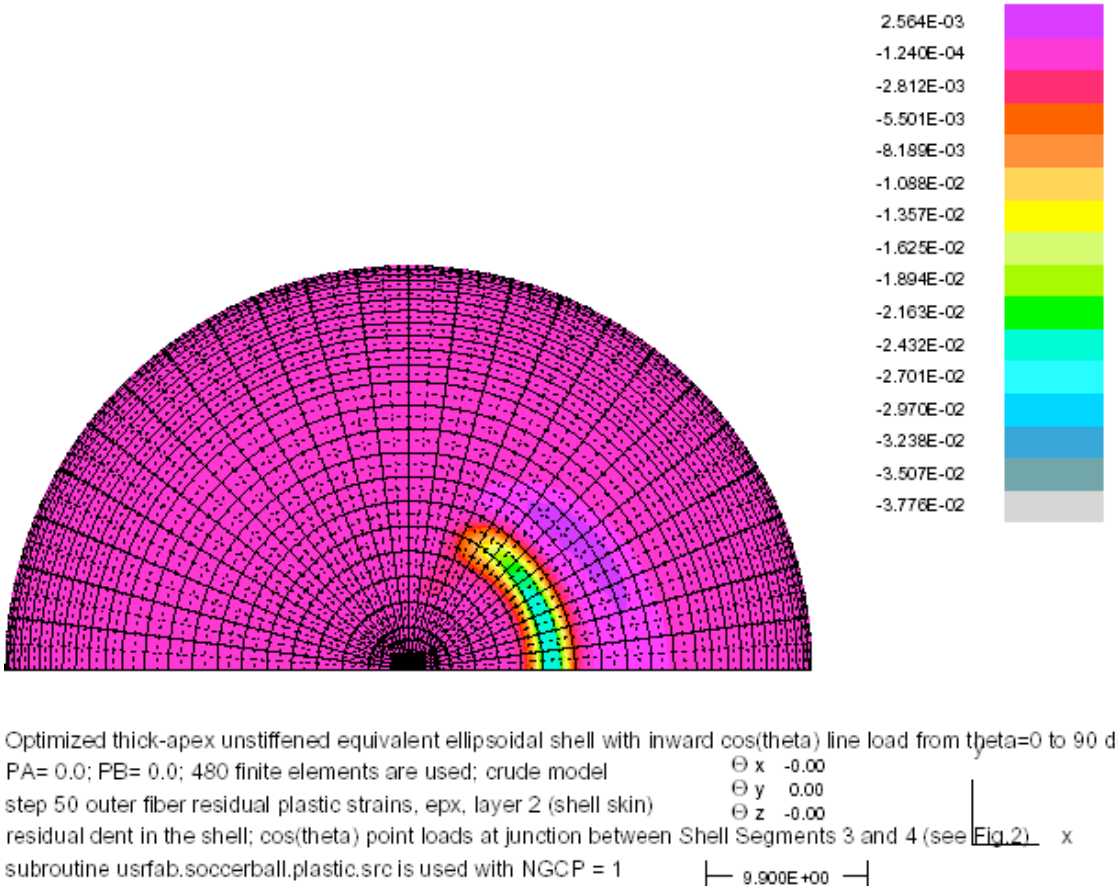

Fig. 187 Elastic-plastic analysis of the **optimized unstiffened equivalent ellipsoidal shell with the thick apex with t(apex) = 0.4 inch; Wimp=0.2 inch; the optimum design is listed in Table 78.** State of the shell at load set B (PB) step no. 50 at the end of Run 8. (See Fig. 180). This is the residual **outer fiber** meridional plastic strain, epx, in layer 2 of the shell, which in the STAGS model is the shell skin. This plastic strain remains in the shell after load set B has been removed, that is, when both PA and PB are zero. Compare with Fig. 199, for which the loading that produces the residual dent is by "cos(theta)" imposed normal inward displacements rather than by "cos(theta)" imposed normal inward-directed concentrated loads, as is the case here. Also, compare with Fig. 172 for which the dent is produced by a single concentrated load in the form of normal inward-directed pressure applied to a single finite element.