



Fig. 192 Elastic-plastic analysis of the **optimized unstiffened equivalent ellipsoidal shell with thick apex, $t(\text{apex})=0.4$ inch; $W_{\text{imp}}=0.2$ inch; the optimum design is listed in Table 78.** Shown here is the state of the imperfect shell under uniform external pressure in its **post-collapse** phase. **The shell has a linear buckling modal imperfection shape with amplitude, $W_{\text{imp}} = 0.2$ inch, and with $n = 1$ circumferential wave.** This imperfection shape is shown in the previous two figures. This post-collapse nonlinear equilibrium state corresponds to the last point in the fourth trace in Fig. 188. Compare the deformation shown here with that depicted in Fig. 189, for which the imperfection is a “cos(theta)” residual dent generated by a “cos(theta)” distribution of normal inward-directed concentrated loads distributed over a circumference from theta = 0 to 90 degrees.