



Fig. 276 The **optimized isogrid-stiffened equivalent ellipsoidal shell**; **Wimp=0.2 inch**; **the optimum design is listed in columns 2 and 3 of Table 33**. Shown here is the **post-collapse** deformation of the uniformly externally pressurized shell with the residual dent that exists at the STAGS load step labeled "Step 39" in the previous figure and in Fig. 263 and that is displayed in Fig. 267. The residual dent is produced by a  $\cos(\theta)$  distribution of normal inward-directed concentrated **loads** applied along Row 2 of Shell Segment 2 from  $\theta = 0$  to  $90$  degrees (Figs. 2, 169, 258, 259, and 264). This " $\cos(\theta)$ " load distribution is used because it generates a residual dent that **locally** resembles the negative of the buckling modal deformation in Fig. 262, that is, the negative of the first linear buckling modal imperfection with  $n = 1$  circumferential wave.