

This n=5 mode shape is used as a "trigger" (Wimp=0.001 inch) for the next nonlinear collapse run
 STAGS nonlinear buckling mode 1, pcr=0.98217 x 460 psi
 step 13 eigenvector: deformed geometry of "trigger" imperfection
 nonlinear buckling of optimized thick-apex unstiffened shell with a +mode 2 axisymmetric imperfection shape

Θ x -35.84
 Θ y -13.14
 Θ z 35.63

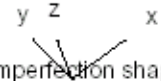


Fig. 213 Elastic-plastic analysis of the **optimized unstiffened equivalent ellipsoidal shell with thick apex, $t(\text{apex}) = 0.47183$ in; $W_{\text{imp}}=0.1$ inch; the optimum design is listed in Table 89.** This nonlinear bifurcation buckling mode shape with $n = 5$ circumferential waves (2.5 circumferential waves over 180 degrees of circumference) is used as a "trigger" imperfection with amplitude, $W_{\text{imp}}(\text{trigger}) = 0.001$ inch, in order to obtain the third trace in Fig. 211.