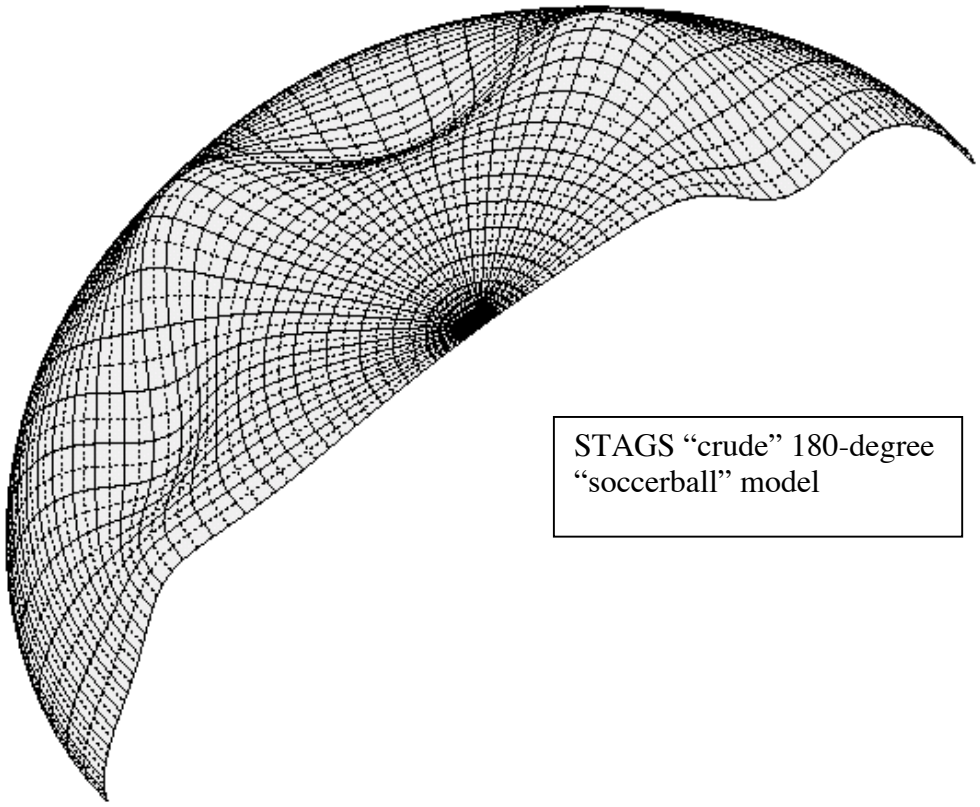

This nonlinear bifurcation buckling mode shape with n=5 circ. waves agrees with that predicted by BIGBOSOR4
STAGS nonlinear buckling mode; pcr=1.0746x460=494.3 psi; BIGBOSOR4=492.6 psi
step 17 eigenvector deformed geometry; Wimp = 0.2 inch
nonlinear buckling of optimized unstiffened shell; t(apex)=0.61996 inch; -mode 2 axisymmetric imperfection shape

Θ x -35.84
Θ y -13.14
Θ z 35.63

y z x

Fig. 238 Elastic-plastic analysis of the **optimized unstiffened equivalent ellipsoidal shell with thick apex, t(apex) = 0.61996 in; Wimp=0.2 inch; the optimum design is listed in Table 93.** This nonlinear bifurcation buckling mode shape from STAGS can be used as a "trigger" imperfection with amplitude, Wimp(trigger) = 0.001 inch, in order to obtain a load-deflection curve analogous to that shown as the seventh trace in Fig. 209 (upside-down triangles), for example. Non-axisymmetric post-buckling is not shown in the previous figure, however.