Curved panel, no edge warping, axial bending allowed, input data for STAGSUNIT listed in Table 14
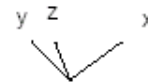PA= 1.00000E+01 PB= 0.00000E+00 PX= 0.00000E+00

step 15   displacement w   contours

Fig.22 nonlinear w same view as linear buckling mode; case=allenrngs

Minimum value = -7.90966E-02, Maximum value = 4.33160E-02

Θ x -35.84
Θ y -13.14
Θ z   35.63

2.905E+00

Fig. 22 STAGS prediction of the state of the locally post-buckled panel at the design load, PA = 10.0 (Nx = -1000 lb/in), for the curved panel in which overall axial bending is permitted (IBCX0XL = 0 in the *.STG file that, via execution of the PANDA2 processor, STAGSUNIT, generates the *.bin and *.inp input files for STAGS) in the post-local-buckling loading regime. Overall axial bending is permitted when the new index, IBCX0XL = 0, in the *.STG file, that is, in the input file for the PANDA2 processor, STAGSUNIT. In this STAGS model in-plane warping of all four edges is prevented. Note that the maximum inward (negative) buckling deflection is much greater than the maximum outward (positive) buckling deflection. This difference between inward and outward amplitudes of buckles cannot be predicted by PANDA2's local post-buckling theory [3,22], which is based on the assumption that the axial variation of post-buckling deflection is sinusoidal, such as is shown in Fig. 7, for example.