

solution scale = 0.1290E+02

PA= 1.00000E+01 PB= 0.00000E+00 PX= 0.00000E+00

step 459 strains , ex, layer 1, inner fiber

Fig.a2 nonlinear axial strain - inner fiber; case=allflat

Minimum value = -3.11156E-03, Maximum value = 2.15376E-03

Θ x 24.00

Θ y -22.00

Θ z 30.00

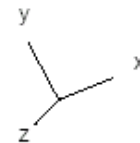


Fig. a2 STAGS prediction of inner fiber axial strain in the flat panel skin at the design load, PA = 10.0 (Nx = -1000 lb/in). In the STAGS model the value of skin end shortening at x=0 at the third stringer, numbering stringers from the bottom right-hand edge, is 0.023172 inch at the design load, PA = 10.0. This end shortening corresponds to an average axial strain, $\text{epsx}(\text{ave}) = 0.023172/9.7793 = 0.0023694$. This value of $\text{epsx}(\text{ave})$ seems a bit too small when compared with the average of inner fiber ex along x at the midwidth of the region where the finite elements are concentrated in the expanded insert.