



Fig. 175 **Optimized unstiffened equivalent ellipsoidal shell with thick apex, $t(\text{apex})=0.4$ inch; $W_{\text{imp}}=0.2$ inch; the optimum design is listed in Table 78.** The dent is produced by a concentrated load. Shown here are the load cycles for load set B (load factor PB) that produce residual dents of various depths. The traces identified by the string, "wall.F", were generated with use of the user-written SUBROUTINE WALL and the traces with the string, "usrfab.F", were generated with use of the user-written SUBROUTINE USRFAB. SUBROUTINE WALL leads to load cycles that cannot produce deep enough residual dents, that is, residual dents with depths of 0.2 inch or more. The cause of this anomalous behavior is unknown. The last trace (upside-down triangles) corresponds to the results displayed in Figs. 170 – 173. Compare with Fig.180.