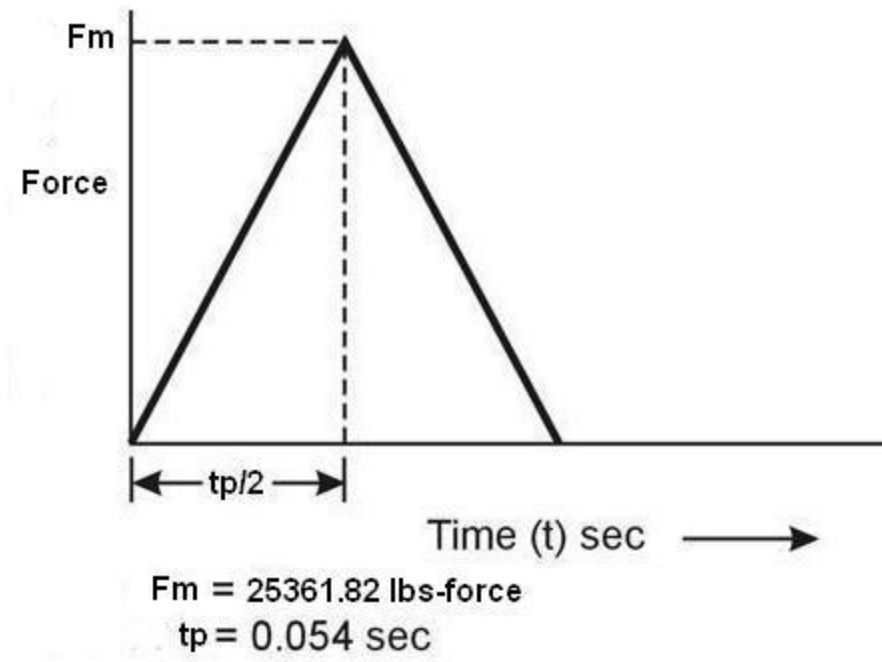
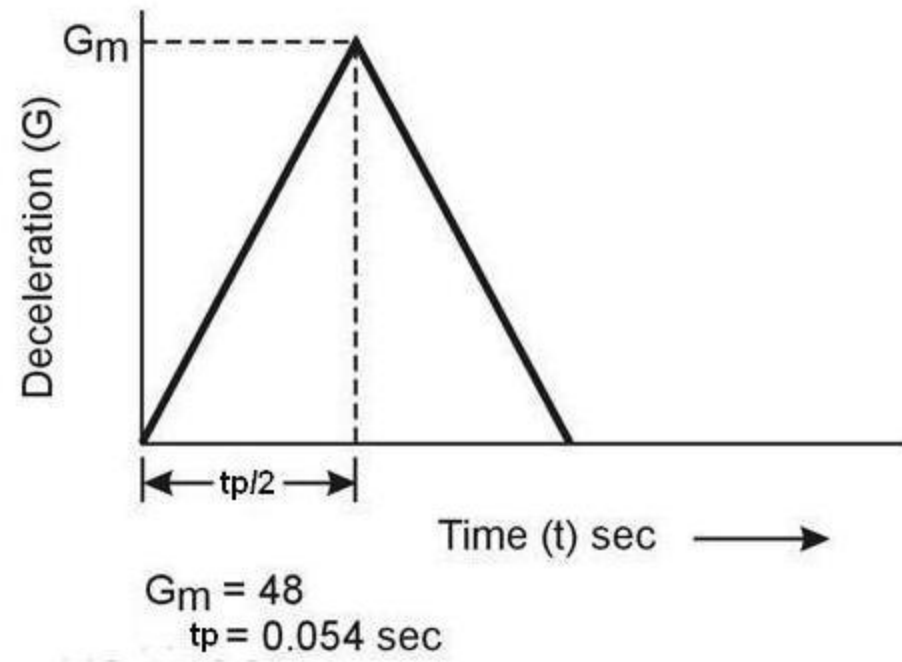


mass of aircraft = 11500 kg  
 Maximum force on system =  $11500 \times 9.81 = 112815 \text{ N} = 25371.82 \text{ lb-force}$   
 Thus  $F_m = 25361.82 \text{ lbs-force}$

FIG 1 INPUT ACCELERATION ON IMPACT



Mass of occupant,  
 $m = 170 \text{ lbs}$

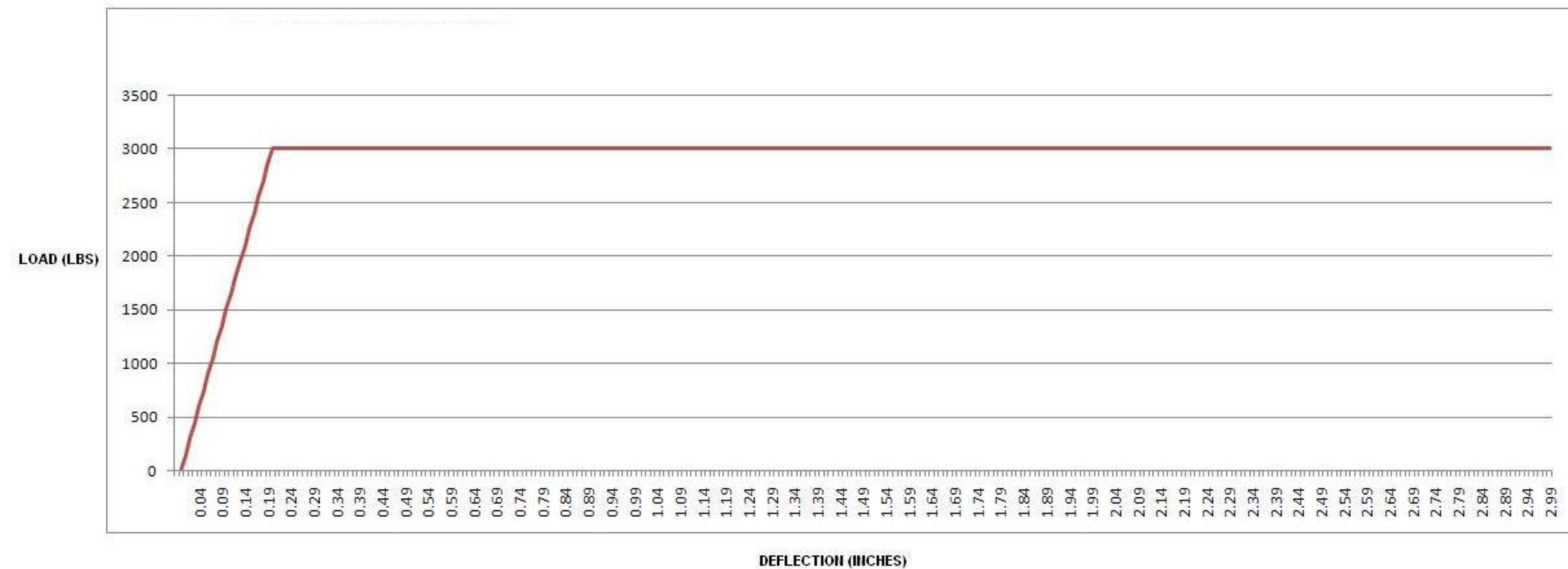
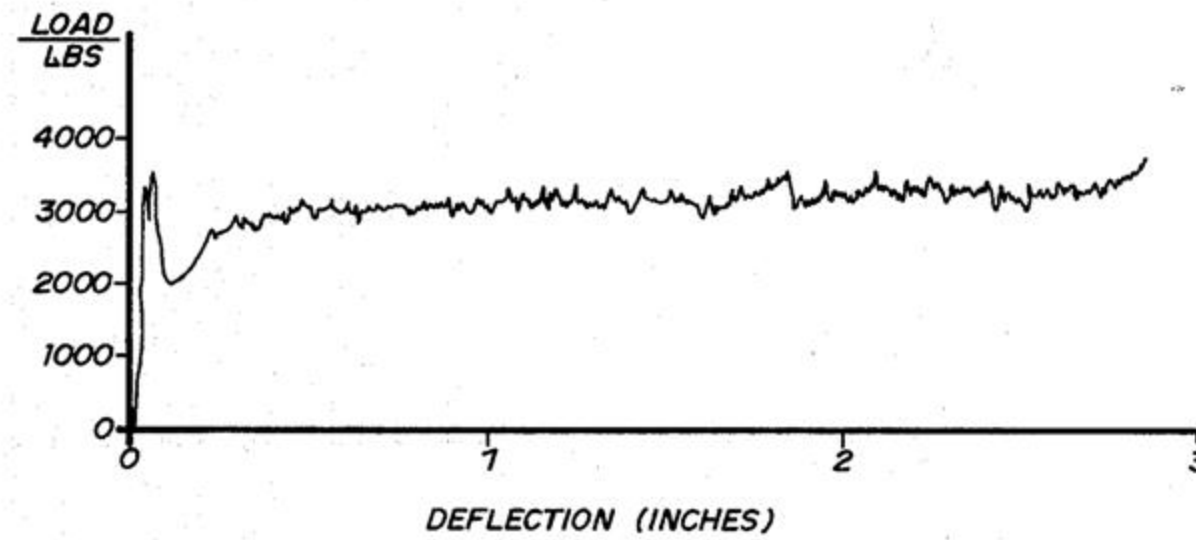
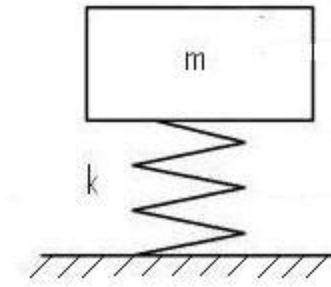


FIG 2. LOAD - DEFLECTION CURVE OF COMPOSITE TUBE