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**Impact Studies with Glass Bars** RODNEY RUSSELL, STEPHAN BLESS, TIM BENO, Institute for Advanced Technology — In these bar impact tests, steel plates struck glass bars at about 300 m/s. Compressive failure waves were observed propagating from the projectile face. There were also failure waves in the tensile region produced by shock reflection from the free end of the bar. Measurement of the velocity of the free end of the bar produced an estimate of the tensile strength in this 1-D stress geometry. It was substantially less than the tensile strength of intact glass in 1-D strain. There was a central region of the bar in which fracture occurred very late or not at all. Material was recovered from the different fracture regions, and the nature of the fragments is compared. Modeling with the JH-2 glass model did not reproduced the observed failure regions.

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