Abstract Submitted for the SHOCK05 Meeting of The American Physical Society

The Behaviour of a Carbon-Fibre Epoxy Composite Under Shock Loading R. VIGNEJVIC, J.C.F. MILLETT, Cranfield University, N.K. BOURNE, University of Manchester, A. LUKYANOV, Cranfield University — Previous work in a glass-fibre epoxy composite has indicated that damage accumulates behind the shock front, and thus some of the shock-induced mechanical properties are pulse duration dependent. In this paper, we extend this work to a carbon-fibre epoxy composite. The shock response is investigated in terms of its equation of state (shock stress, shock velocity and particle velocity) and release wave speeds.

J.C.F. Millett Cranfield University

Date submitted: 08 Apr 2005 Electronic form version 1.4