

Abstract Submitted  
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**On the importance of the 7.62 mm FFV bullet jacket during penetration** ANDREW ROBERTS, Cranfield University, PAUL HAZELL, The University of New South Wales, GARETH APPLEBY-THOMAS, AMER HAMEED, MICHAEL GIBSON, Cranfield University — While a critical part of the bullet structure, relatively little attention has traditionally been paid to the effects of the jacket during penetration. Recent work has suggested that the jacket of a 7.62 mm FFV projectile measurably affects penetration into ceramic-faced targets. In this study a series of both forwards and reverse ballistics shots employing 7.62 mm FFV rounds accelerated into at c.a. 830 m/s (and vice-versa) were undertaken. The various FFV rounds were prepared with differing degrees of jacket modification about their tip. Penetration mechanisms were interrogated using a multi-channel flash X-ray system; while a series of depth-of-penetration tests provided a route to quantitatively assess the contribution of the jacket to penetration.

Gareth Appleby-Thomas  
Cranfield University

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