
PREFACE

The High-Altitude Endurance Unmanned Aerial Vehicle (HAE UAV) Advanced Concept Technology Demonstration (ACTD) program incorporated a number of innovative elements into its development strategy. As a condition of conducting this ACTD, Congress required that an independent third party study its implementation. RAND was chosen for this role and has been following the HAE UAV ACTD program since its inception.¹

The flight test program and user demonstration are core components of the HAE UAV ACTD program. These are the activities through which the ACTD program objective—demonstrating military utility through early user participation and test—is accomplished.

The initial phases of our research were sponsored by the Defense Advanced Research Projects Agency (DARPA); the current research was sponsored by the U.S. Air Force. The core objective of the research was twofold: to understand how the innovative acquisition strategy used in the HAE UAV ACTD program has affected program execution and outcomes, and to draw lessons from this experience that would be applicable to the wider acquisition community.

¹See Geoffrey Sommer, Giles K. Smith, John L. Birkler, and James R. Chiesa, *The Global Hawk Unmanned Aerial Vehicle Acquisition Process: A Summary of Phase I Experience*, MR-809-DARPA, Santa Monica: RAND, 1997; and Jeffrey A. Drezner, Geoffrey Sommer, and Robert S. Leonard, *Innovative Management in the DARPA High Altitude Endurance Unmanned Aerial Vehicle Program: Phase II Experience*, MR-1054-DARPA, Santa Monica: RAND, 1999.

This report addresses flight test and user demonstration outcomes and issues relevant to the HAE UAV ACTD program. In it, we assess the extent to which the innovative acquisition strategy used in this effort affected the conduct of the flight test program. This report is one of three supporting documents resulting from the current research effort; the other two documents address the activity content of the program and issues associated with transition management. A separate executive summary draws broad lessons from the HAE UAV experience as a whole.

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Reports in this series are:

MR-1473-AF, *Innovative Development: Global Hawk and DarkStar—Their Advanced Concept Technology Demonstrator Program Experience, Executive Summary*, Jeffrey A. Drezner, Robert S. Leonard

MR-1474-AF, *Innovative Development: Global Hawk and DarkStar—HAE UAV ACTD Program Description and Comparative Analysis*, Robert S. Leonard, Jeffrey A. Drezner

MR-1475-AF, *Innovative Development: Global Hawk and DarkStar—Flight Test in the HAE UAV ACTD Program*, Jeffrey A. Drezner, Robert S. Leonard

MR-1476-AF, *Innovative Development: Global Hawk and DarkStar—Transitions Within and Out of the HAE UAV ACTD Program*, Jeffrey A. Drezner, Robert S. Leonard

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