



ARROYO CENTER

CHILDREN AND FAMILIES
EDUCATION AND THE ARTS
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INFRASTRUCTURE AND
TRANSPORTATION
INTERNATIONAL AFFAIRS
LAW AND BUSINESS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
TERRORISM AND
HOMELAND SECURITY

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from www.rand.org as a public service of the RAND Corporation.

Skip all front matter: [Jump to Page 1](#) ▼

Support RAND

[Purchase this document](#)

[Browse Reports & Bookstore](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore the [RAND Arroyo Center](#)

View [document details](#)

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).

This report is part of the RAND Corporation research report series. RAND reports present research findings and objective analysis that address the challenges facing the public and private sectors. All RAND reports undergo rigorous peer review to ensure high standards for research quality and objectivity.

Lessons Learned from the Afghan Mission Network

Developing a Coalition Contingency Network

Chad C. Serena, Isaac R. Porche III, Joel B. Predd, Jan Osburg, Bradley Lossing

Prepared for the United States Army
Approved for public release; distribution unlimited

The research described in this report was sponsored by the United States Army under Contract No. W74V8H-06-C-0001.

Library of Congress Cataloging-in-Publication Data is available for this publication.

ISBN 978-0-8330-8511-5

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

Support RAND—make a tax-deductible charitable contribution at www.rand.org/giving/contribute.html

RAND® is a registered trademark.

© Copyright 2014 RAND Corporation

This document and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of RAND documents to a non-RAND website is prohibited. RAND documents are protected under copyright law. Permission is given to duplicate this document for personal use only, as long as it is unaltered and complete. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see the RAND permissions page (www.rand.org/pubs/permissions.html).

RAND OFFICES

SANTA MONICA, CA • WASHINGTON, DC

PITTSBURGH, PA • NEW ORLEANS, LA • JACKSON, MS • BOSTON, MA

CAMBRIDGE, UK • BRUSSELS, BE

www.rand.org

Summary

This report discusses key lessons learned from the development and evolution of the Afghanistan Mission Network (AMN) and the lessons born of this effort that are of relevance to the development of future coalition contingency networks. Increasingly, U.S. military operations depend on the support of coalition partners and the networks, like the AMN, that link them. The AMN, a coalition (NATO) funded, sustained, and maintained initiative, was implemented in 2010 and was created as a common network from a collection of national and NATO networks. The AMN is now the primary Coalition, Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C5ISR) network in the Afghanistan Combined Joint Operations Area (CJOA-A). By providing a common network² over which to share critical information, the AMN enabled a shift in information-sharing posture from “need to know” to “need to share,” resulting in an increase in situational awareness (SA) among International Security Assistance Force (ISAF) partners. The end result of this effort has been greater situational understanding and serves as an object lesson in how to approach coalition networking. Although the AMN is not an end-state, it provides valuable concepts and processes for future similar efforts.

OEF, ISAF, and Timeline

The following timeline (Table S.1) shows the major events that shaped the evolution of the AMN. It is critical to analyze the AMN in the context of ISAF’s progressively expanded mission. Our analysis fully takes this into account and evaluates the AMN from operational *and* technical perspectives. We determined that the AMN represents not only the physical communications network but also the operational context that drove network requirements and shaped the coalition’s approach to developing the network. Each of these elements of the AMN’s origin and evolution has important implications, discussed in subsequent chapters, on the development of future coalition networking efforts.

Methodology

The findings presented in this report are based upon the study team’s literature review, multiple site visits (including visits to operations centers in Afghanistan), presentations and briefings generated by the agencies involved in creating and maintaining the AMN (including

² We define a “common mission network” as a federation of partially self-governing networks that share data and data storage and have agreed to follow pre-established interoperability standards allowing real-time exchanges of information supporting shared situational awareness.

**Table S.1
OEF, ISAF, and AMN Timeline**

Year	Key Operational Events	Key AMN Events
2001	<ul style="list-style-type: none"> • OEF commences • Taliban ousted • Republic of Afghanistan Established 	
2003	<ul style="list-style-type: none"> • NATO assumes ISAF leadership • ISAF's mandate expanded beyond Kabul 	
2004	<ul style="list-style-type: none"> • ISAF expands into Northern Afghanistan 	
2006	<ul style="list-style-type: none"> • ISAF expands to Western Afghanistan • ISAF expands to Southern Afghanistan • ISAF expands to Eastern Afghanistan 	<ul style="list-style-type: none"> • Mail exchange between US CENTRIXS GCTF and ISAF-S • UK Overtask interoperability initiative
2008	<ul style="list-style-type: none"> • GEN David McKiernan assumes ISAF leadership • U.S. forces increased by 4,500 	<ul style="list-style-type: none"> • Genesis of federated AMN concept at Qatar NETOPS conference
2009	<ul style="list-style-type: none"> • U.S. forces increased by 17,000 • U.S. forces increased by 4,000 • GEN Stanley McChrystal assumes ISAF command • U.S. forces increased by 30,000 	<ul style="list-style-type: none"> • GEN McKiernan endorses AMN concept
2010	<ul style="list-style-type: none"> • NATO launches Operation Moshtarek in Helmand 	<ul style="list-style-type: none"> • GEN McChrystal orders coalition information sharing on single network • Stryker Brigade moved onto AMN prior to deployment • AMN Initial Operational Capability achieved • US CIAV receives USCENTCOM J2 funding
2011		<ul style="list-style-type: none"> • 48 NATO and Partner Nations operating on AMN

NOTE: This timeline is based upon information gleaned from various sources listed in Appendix A: OEF, ISAF, and AMN Timeline.

U.S. and NATO institutions), and information gleaned from interviews and discussions with numerous subject matter experts and organizations involved in the development of the AMN.

Overview of the Report

This report is divided into three chapters. Chapter One provides a short history of OEF (Afghanistan) and describes the formation of ISAF. Chapter Two provides a short history of and key milestones in the development of the AMN. Chapter Three presents our analysis of the evolution of the AMN and what we consider to be key takeaways when considering the development of future coalition contingency networks.