



AIR UNIVERSITY

THE INTELLECTUAL AND LEADERSHIP CENTER OF THE AIR FORCE
We make a difference, one student at a time.

Academic Year (AY) 2010

RESEARCH BULLETIN

Air University Commander's Welcome

By Lt Gen Allen G. Peck

The Air University (AU) exists for the benefit of the nation as the intellectual and leadership center of the Air Force. Its mission is to provide the full spectrum of Air Force education — from precommissioning to the highest levels of professional military education (PME), including degree-granting and professional continuing education for officers, enlisted, and civilian personnel. The university's PME programs educate USAF, joint, civilian, and international students on national and world security issues, with a special focus on the capabilities and roles of airpower across the air, space, and cyberspace domains. The programs focus on the knowledge and skills needed to develop, employ, and command airpower at the highest levels. As part of this educational process, AU conducts relevant, responsive, and forward-thinking research in the global war on terror, homeland defense, force development, the nuclear enterprise, intelligence, technology, strategic planning, cyberspace, as well as history and lessons learned.

Each year we ask senior leaders within the Interagency, Department of Defense, Air Force, major commands, combatant commands, and other services to provide topics that are of interest to them, their commands, and the broader national security community. For academic year (AY) 2010, on which this 10th Air University Research Bulletin reports, we received over 540 prioritized research topics. I thank the contributors for their efforts, which help the AU in-residence colleges build their research agendas. Those important topics became the subject of much of the research accomplished by the students of Air War College (AWC), Air Command and Staff College (ACSC), the School of Advanced Air and Space Studies (SAASS), and the Air Force Institute of Technology (AFIT), as well as the Air Force Fellows (AFF) who are assigned to leading civilian universities and think tanks. AU provides the completed research paper to the sponsor in the hope it sheds new light on the issue, and with the expectation for feedback to continue improving our university's research engagement with senior civilian and military leaders.

Air University graduates of the class of 2010 generated more than 550 high-quality research products that met or exceeded their institutions' standards for publication or posting on the Internet. This bulletin includes those research titles, identifies the award-winning papers, and also highlights the contributions of Air University's military and civilian faculty. The entries are organized by topical categories (listed under Contributions by AU Faculty and Contributions by AU Graduates in the table of contents to the left). All of AU's research can be viewed and downloaded online at the Air University Research Information Management System (AURIMS) site at <https://www.afresearch.org>

Inside This Issue: Selected Research and Publications from Air University (AU) Graduate-Level Schools

3 Research at Air University

6 Contributions by AU Faculty

Global War on Terror, Homeland Defense, & Other Urgent/Current Issues - 6

War Fighting & Operational Issues - 6

Force Development - 6

Strategy, Strategic Planning, & Security Studies - 7

Doctrine; Air, Space, & Cyberspace Power; History & Lessons Learned - 7

9 Award-Winning Authors

13 Contributions by AU Graduates

Global War on Terror, Homeland Defense, & Other Urgent/Current Issues - 13

War Fighting & Operational Issues - 14

Force Development - 19

Intelligence, Technology, Cyberspace Issues, & Combat Support - 23

Strategy, Strategic Planning, & Security Studies - 25

Doctrine; Air, Space, & Cyberspace Power; History & Lessons Learned - 29

33 AU Research at Maxwell & Wright-Patterson AFBs

OPR: Dr. Anthony Gould
Air Force Research Institute
155 N. Twining St.
Maxwell AFB, AL 36112
Research.Support@maxwell.af.mil

AIR UNIVERSITY RESEARCH CONTACTS

Affiliations/Organizations as of Oct 2008



Lt Gen Allen G. Peck
Commander, Air University (AU)
Allen.Peck@maxwell.af.mil



Gen John A. Shaud, PhD (USAF, Retired)
Director, Air Force Research Institute
Air University (AFRI/CC)
John.Shaud@maxwell.af.mil



Dr. Chris Cain
Deputy Director, Air Force Research
Institute, Air University (AFRI/DV)
Anthony.Cain@maxwell.af.mil



Col Daniel Baltrusaitis
Associate Dean for Academic Programs
Air War College (AWC)
Daniel.Baltrusaitis@maxwell.af.mil



Dr. Heidi R. Ries
Dean for Research
Air Force Institute of Technology (AFIT/ENR)
Heidi.Ries@afit.edu



Dr. Harold Winton
Director of Student Research
School of Advanced Air and Space Studies
(SAASS)
Harold.Winton@maxwell.af.mil



Lt Col Kyle Gresham
Director of Research, Air Command and
Staff College (ACSC)
Kyle.Gresham@maxwell.af.mil



Lt Col Ron Ruppel
Director, Air Force Fellows (AFRI/RIF)
Ronald.Ruppel@maxwell.af.mil



Mr. Stan Norris
Director, Spaatz Academic Centers
(Spaatz/AR)
Stan.Norris@maxwell.af.mil



Mr. Robyn Read
Chief, Outreach Division
Air Force Research Institute (AFRI/RIJ)
Robyn.Read@maxwell.af.mil

The *AU Research Bulletin* is distributed throughout the national security community in print form and is also available electronically at <https://www.afresearch.org/>.

Research at Air University

Gen John A. Shaud (USAF, Retired), AU Dean of Research and Air Force Research Institute Director

Our goal at AU is to be the premier source of advanced airpower ideas for the United States Air Force. The CSAF formally established the Air Force Research Institute (AFRI) in 2008 to serve as a focal point for tackling the significant research issues that challenge the Air Force and the nation now and in the future. In addition, AU has outstanding faculties, students, and professional researchers on our campus at Maxwell AFB, as well as the Air Force Institute of Technology at Wright-Patterson AFB (WPAFB), who play key roles in AU's efforts.

This group of professionals brings together unparalleled academic credentials in science, technology, and liberal arts coupled with combat experience in military aviation and support areas. They bring in many unique operational experiences ranging from special forces in irregular warfare to the nuclear enterprise. This experience base contributes immeasurably to the quality of AU research.

The *Research Bulletin* is an example of AFRI's mission of research, outreach, and engagement (ROE). It publicizes AU's research on important topics solicited through our engagement with senior civilian and military leaders. Our primary objective in publishing the bulletin is to recognize the best of these research accomplishments. Accordingly, we highlight faculty and student research, the latest AU Press publications, and the activities of AU's specialized centers.

This publication's goal is to engage the larger national security community and foster communication about a broad range of matters related to research at AU. It is also designed to help recognize an important dimension of AU's service to the Air Force and the rest of the defense community.

AFIT Research Program

Dr. Heidi R. Ries, PhD, AFIT Dean for Research

Research at AU includes both technological research, undertaken primarily at the Air Force Institute of Technology at WPAFB in Dayton, Ohio, and research on doctrine, strategy, and the art of war, conducted at the schools at Maxwell AFB, Alabama.

Research accomplishments of AFIT's faculty and resident graduate students at WPAFB are reported separately from this *AU Research Bulletin* in the *AFIT Graduate School of Engineering and Management's Annual Report, Research Report, and Research News*.

Electronic versions of these publications are available at <http://www.afit.edu/en/enr/index.cfm>. Award-winning accomplishments are included in these publications as well. Questions may be addressed to research@afit.edu.

Air Force Research Institute

Dr. Chris Cain, AFRI Deputy Director

The Air Force Research Institute conducts independent research, outreach, and engagement to enhance national security and ensure the effectiveness of the US Air Force. AFRI also advances the theory and application of air, space, and cyberspace power through scholarly analysis, professional journals, printed and electronic media, and collaborative projects. The institute performs a number of missions. First, AFRI takes on assignments and generates ideas related to airpower that are developed and disseminated via a variety of research products. Second, AFRI manages and publishes three Air Force flagship outreach publications: *Strategic Studies Quarterly* (SSQ), the *Air and Space Power Journal* (ASPJ), and *The Wright Stuff*. *SSQ* is a refereed journal of ideas and issues that serves the greater defense community through scholarly debate about warfare, strategy, national and international security, and defense policy. *ASPJ* has served since 1947 as a forum for exchanging ideas about operational airpower and other matters relating to national defense. It is now published in six languages (English, Arabic, Chinese, French, Spanish, and Portuguese) and distributed to more than 90 countries worldwide. *The Wright Stuff*, with more than 30,000 subscribers worldwide, is an Air University electronic product published twice per month to disseminate ideas and promote AU-generated products. Third, AFRI facilitates AU student and faculty research by managing the AU Commander's Research Board process, the annual call for topics, and associated research management database and Web sites. Research support falls under the AFRI Engagement Division charged with hosting, cohosting, or sponsoring conferences on behalf of the AU commander or AFRI director. In addition, the Engagement Division formats and posts AU faculty and student research papers online for future reference and publishes the annual *AU Research Bulletin* to document each year's research activities. Of note, AFRI networks with other DOD research centers and staff agencies to provide both a stimulus for original research and multiple venues for disseminating/sharing key airpower ideas. It is through these diverse resources, programs, and services that the Air Force Research Institute generates and delivers high-quality intellectual throw weight in the key areas of research, outreach, and engagement.

AU Research Bulletin – AY 2010

AFRI Research and Publication Opportunities

By Dr. Daniel Mortensen, AFRI Dean

AFRI Papers and Quick Looks are occasional publications sponsored by the Air Force Research Institute. All are dedicated to promoting understanding of air, space, and cyberspace power theory, doctrine, and application. These studies are published by AU Press and are broadly distributed to the USAF, the Joint Staff and joint commands, DOD, and other governmental organizations, sister-service PME schools, selected universities, military and civilian think tanks, and leading scholars. All publications are available on the AU Research Information Management System at <https://www.afresearch.org/> or on the AU Press web site at <http://aupress.au.af.mil/>. The current series is also generally available in hard copy from the AU Press.

SECAF, CSAF, and Senior AF Leaders Commission AFRI Research

Conceived to provide independent analysis of a wide range of issues related to airpower theory, doctrine, and employment, the AFRI Papers additionally emphasize concepts of operations. The purpose of the papers is to provide research products that will underwrite mature decision making by the Air Force and joint war fighters, as well as support education, doctrine development, and research at AU.

In AY 2010, AFRI researchers prepared briefings for high-level decision makers and wrote dozens of journal articles, with many published in several foreign languages. AFRI solicits and edits publications to further its research agenda.

Following are samples of AFRI publications in AY 2010:

1. James Parco and David Levy, *Attitudes Aren't Free: Thinking Deeply about Diversity in the US Armed Forces*.
2. Lloyd R. Leavitt, *Following the Flag: An AF Officer Provides an Eyewitness View of Major Events and Policies during the Cold War*.
3. AFRI Research Study, *Air Force Strategic Concept for 2020-2030*
4. Dr. Adam Lowther, *Air Diplomac: The United States Air Force Contribution to American Diplomacy*

Quick Looks and Blue Darts

Air University produces two types of short-impact papers. The first, used mostly by staff researchers assigned to AFRI, are one- to two-page papers, called Quick Looks (QL). QLs help analysts and researchers conceptualize their ideas. Through selective distribution of QLs, analysts gain feedback to guide continuing research. These short products are written early in the writing process and follow an established formula: they identify a problem or issue, provide a short historically based background discussion, and provide actionable recommendations in bullet format. Supplementing QLs, but written at the completion of a research project or paper, are Air University Blue Darts (BD). BDs are written in the style of an opinion/editorial (op-ed) piece—to pass along one's opinion and to entice readers to follow up by reading the completed research paper, article, or book. BDs are limited to 750 words and targeted for civilian media audiences. The AU commander has directed that all research submissions longer than 19 pages be accompanied by a publishable Blue Dart. These op-ed pieces are sent to interested parties, including paper sponsors, and also selectively appear in *The Wright Stuff*, AU's biweekly electronic newsletter.

Publication Opportunities

All faculty and students assigned to AU, as well as individuals throughout the Air Force, are invited to submit unclassified manuscripts to AFRI for publication consideration. Manuscripts should pertain to USAF and airpower doctrine, strategy, concepts of operations, and items of particular interest to the leadership of the Air Force and other primary decision makers.

AY 2010 Fellows and Intern Programs

Lt Col Ronald Ruppel, Air Force Fellows Director

Each of AY 2009–2010 Air Force Fellows (AFF) had a major impact on the military, academia and industry as well as the executive and legislative branches of government. In their role as Air Force ambassadors to their respective institutions, the Fellows skillfully provided defense insights on a wide spectrum of issues such as national security policy, cutting-edge technology, and doctrine. Their involvement included:

- Participating in national security forums and working groups
- Providing media interviews, lectures, and speeches
- Hosting seminars, workshops, and war games

Air Force Fellows also had unique access to senior civilian and military leaders across the globe. This enabled them to increase their national security policy or DOD/Air Force doctrinal expertise as well as the opportunity to broaden their leadership skills while championing Air Force capabilities and influencing future policy initiatives across all services. Finally, their professionalism and dedication greatly strengthened defense partnerships with the academic, industry, and policy communities.

In addition, each AFF also conducted cutting-edge research on issues vital to national security, impacting doctrine implementation and addressing questions by the fast pace of cutting-edge technology development inside and outside the DOD. Their research represented significant scholarly advancement of thought on crucial defense policy and strategy developments. Furthermore, their evaluation of processes and policy proved invaluable to future US national security issues. Finally, AFFs were also instrumental in furthering work at prestigious private research institutions, academic institutions, and centers of excellence. These include the Brookings Institution, the Weatherhead Center for Strategic and International Studies, Harvard University, federally funded research and development centers such as RAND, Department of Energy (DOE) Labs at Oak Ridge, Los Alamos, Argonne, and Livermore, and various SECDEF corporate fellowships at *Fortune* 500 industry organizations.

For the sixth year in a row, the 2010 AFF program will honor the top three research papers with the coveted Walker Series award. The Walker Series is dedicated to Brig Gen Kenneth Walker and recognizes the contributions each Fellow has made to research supporting air, space, and cyberspace power.

→ The research support team at AFRI posts graduate papers and other publications on the Air University Research Information Management System (AURIMS). AURIMS allows AU to quickly post to the public research Web site all unclassified papers that meet school standards for publication and pass AU security and policy review. You are invited to visit that site, which contains over 5,800 research studies consisting of papers, monographs and books—the best of AU research!

→ AURIMS is available 99.9 percent of the time, 24 hours a day and seven days a week, from any commercial or military Internet connection. Our data indicates approximately 20,000 people visit AURIMS annually. AURIMS, *Air and Space Power Journal*, *Strategic Studies Quarterly*, and *The Wright Stuff* are all important and valuable sources for timely and insightful information on air, space, and cyberspace.

Editor:

Mrs. Johnalyn E. Whaley

Technical Editor and Layout:

Ms. Demorah Hayes

Disclaimer: Opinions, conclusions, and recommendations expressed or implied within are solely those of the authors and do not necessarily represent the views of Air University, the United States Air Force, the Department of Defense, or any other US government agency. Cleared for public release: distribution unlimited.

Contributions by AU Faculty

Global War on Terror, Homeland Defense, and Other Urgent/Current Issues

*Produced by
Sponsored by, Publication Venue*

An Arsenal We Can All Live With

By Dr. James Forsyth and Dr. Gary Schaub
SAASS/AWC, Op-Ed in *The New York Times*

The Art of Military Discovery: Chinese Air and Space Power Implications for the USAF

By Col Sean McClung and Dr. Xiaoming Zhang
AWC, Article in *Strategic Studies Quarterly*

As Good as Gold

By Dr. Mark Duckenfield
AWC, Article in *The Majalla*

Coalition Politics and the Iraq War

By Col (Dr.) Daniel Baltrusaitis
AWC, Lynne Rienner Publishers

The Enduring Value of Nuclear Weapons

By Dr. James Forsyth, Dr. Gary Schaub, and Col B.
Chance Saltzman
SAASS/AWC/HQ USAF, Article in *Strategic Studies
Quarterly*

Gambling on Greenbacks

By Dr. Mark Duckenfield
AWC, Article in *The Majalla*

The Global Financial Crisis and National Defense Spending: The Cases of United States, Taiwan, and Israel

By Dr. David Sorenson
AWC, Presentation at American Political Science
Association (1–3 Sept 10)

Global Security Watch: Lebanon

By Dr. David Sorenson
AWC, Praeger Publishers

Interpreting the Middle East: Essential Themes

By Dr. David Sorenson
AWC, West View Press

Non-Kinetic Air Power against Insurgency

By Dr. Michael May
ACSC, Chapter in *Canadian Forces College “Silver
Dart” Volume*

Political Islam and Radical Islam

By Dr. Steve Burgess
AWC, Chapter in *The World’s Most Threatening
Terrorist Networks and Criminal Gangs*

Post 9/11: A New Paradigm for a Derailed US-Muslim Dialogue

By Dr. Evelyn Early
AWC, Conference Paper at ISSS/ISAC 2010

The Prism of Just War (Justice, International Law and Global Security)

By Dr. Howard Hensel
AWC, Ashgate

Return of the King

By Dr. Mark Duckenfield
AWC, Article in *The Majalla*

Sovergnty and the Foreign Fighter Problem

By Maj Ian Bryan
AWC, Article in *Orbis*

War Fighting and Operational Issues

*Produced by
Sponsored by, Publication Venue*

An Arsenal We Can All Live With

By Dr. Gary Schaub
AWC, Article in *The New York Times*

Force Development

*Produced by
Sponsored by, Publication Venue*

An Elephant Named Morality: the Unspoken Argument over “Don’t Ask, Don’t Tell”

Coauthorized By Lt Col James Parco
ACSC, Article in *Armed Forces Journal, Sept 2010*

Attitudes Aren’t Free: Thinking Deeply about Diversity in the US Armed Forces

Coedited By Lt Col James Parco
ACSC, AU Press

Contractors as Military Professionals?

By Dr. Gary Schaub
AWC, Article in *Parameters*

Contributions by AU Faculty

Educating Critical Thinkers for the Air Force: Assessing USAF Graduate-Level PME Two Decades after the Skelton Panel

By Dr. Kathleen Mahoney-Norris
ACSC, Conference Paper for International Security and
Arms Control/International Security Studies Sections
Joint Annual Conference, *October 2010*

Heterogeneous Engineering and JPATS: Leadership, Logic, and Acquisition Requirements

By Dr. Steve Chiabotti
SAASS, Chapter in *Concepts for Air Force Leadership*

The Military Industrial Complex and American Society

Edited by Dr. S. Michael Pavelec
SAASS, ABC-Clio

Strategy, Strategic Planning, and Security Studies

*Produced by
Sponsored by, Publication Venue*

The Global Arms Sales of the George W. Bush Administration

By Dr. David Sorenson
AWC, Chapter in *The George W. Bush Defense
Program: Policy, Strategy & War*

India as a Regional Power: Identifying the Impact of Roles and Foreign Policy Orientation on the South Asian Security Order

By Dr. Derrick Frazier and Robert Stewart-Ingersoll
SAASS, Article in *Asian Security*

The India Diaspora as a Strategic Asset

By Dr. Amit Gupta
AWC, Chapter in *Interpreting the Indian Diaspora:
Lessons from History and Contemporary Politics*

India's Military Aviation Market: Opportunities for the United States

By Dr. Amit Gupta
AWC, Article in *Strategic Studies Quarterly*

Letters to AFRICOM

By Dr. John Ackerman
ACSC, Article in *Air and Space Power Journal*, Africa
and Francophonie edition

The PLAAF's Evolving Influence within the PLA and in China's National Policymaking

By Dr. Xiaoming Zhang
AWC, Presentation at the 2010 International
Conference on PLA Affairs

Regional Powers and Security: A Framework for Understanding Order within Regional Security Complexes

By Dr. Derrick Frazier and Robert Stewart-Ingersoll
SAASS, Article in *European Journal of International
Relations*

What's Wrong with Zero?

By Dr. Charles Costanzo
ACSC, Article in *Strategic Studies Quarterly*

When Is Deterrence Necessary? Gauging Adversary Intent

By Dr. Gary Schaub
AWC, Article in *Strategic Studies Quarterly*

Doctrine; Air, Space, and Cyberspace Power; History and Lessons Learned

*Produced by
Sponsored by, Publication Venue*

Absorbing the First Blow: Truman and the Cold War

By Dr. John Schuessler
AWC, Article in *White House Studies*

The Air War in the Pacific, 1941-1945

By Dr. Richard Muller
SAASS, Chapter in *A History of Air Warfare*

America's Captives: Treatment of POWs from the Revolution to the War on Terror

By Dr. Paul Springer
ACSC, University Press of Kansas

Arming the Pacific Rim: Asian Arms Sales Patterns after the Cold War

By Dr. David Sorenson
AWC, Presentation at the 4th Oceanic Conference on
International Studies

The Deception Dividend: FDR's Undeclared War

By Dr. John Schuessler
AWC, Article in *International Security*

Deng Xiaoping and China's 1979 War Decision against Vietnam

By Dr. Xiaoming Zhang
AWC, Article in *Journal of Cold War Studies*

The Globalization of Sports, the Rise of Non-Western Nations, and the Impact on International Sporting Events

By Dr. Amit Gupta
AWC, Article in *International Journal of the History of
Sport*

Contributions by AU Faculty

Guard Wars: The 28th Infantry Division in World War II

By Dr. Michael Weaver
ACSC, Indiana University Press

HALPRO: The Halverson Detachment in the Middle East, June–July 1942

By Dr. John Reese
ACSC, Article in *Air Power History*

The Israeli-Palestinian Conflict

By Dr. Chris Hemmer
AWC, Chapter in *Interpreting the Middle East: Essential Themes*

Prisoners of War in Film and Memory

By Dr. Paul Springer
ACSC, Article in *Orbis*

Remembrance of Things Past: The Enduring Value of Nuclear Weapons

By Dr. Gary Schaub (coauthor with Col B. Chance Saltzman and James Forsyth)
AWC, Article in *Strategic Studies Quarterly*

Targeting the Third Reich: Air Intelligence and the Allied Bombing Campaign

By Col Robert Ehlers
SAASS, University Press of Kansas

Wanting War: Why the Bush Administration Invaded Iraq

By Dr. Jeffrey Record
AWC, Potomac Books, Inc.

What Airmen Do

By Col Tim Schultz
SAASS, Article in *The Wright Stuff*

Why America Needs an Independent Air Force

By Dr. Hal Winton
SAASS, Article in *The Wright Stuff*

Why Does the Nation Need an Independent Air Force?

By Dr. Richard Muller
SAASS, Article in *The Wright Stuff*



Award-Winning Authors



Author (School-Advisor)
Title
Award(s)
 - Award Sponsor
 Publishing Venue



Capt Joel Anderson, USAF (AFIT)
Monocular Passive Ranging by an Optical System with Band Pass Filtering
Louis F. Polk Award

Maj Matthew Baugh, USAF (ACSC–Dr. Edwina Campbell)
Ethanol: Are US Policies Consistent with National Security Strategy?
Deputy Undersecretary of the Air Force for International Affairs Award
 - SAF/IA

Lt Col David Baylor, USAF (AWC–Dr. Barry Schneider)
Considerations for U.S. Nuclear Force Structure below a 1,000 Warhead Limit
Thomas "Dutch" Miller Award
 - USAF/CPC
 Maxwell Papers

Lt Col Julie Boit, USAF (AWC–Dr. Stef Eisen)
Ready or Not? Repeal of "Don't Ask, Don't Tell"
AWC Excellence Award
 - Air University Foundation
 Maxwell Papers

Maj Lincoln Bonner, USAF (ACSC–Col Brett Morris)
Remotely Piloted Aerial System of Systems Survivability: A Defense-In-Depth Approach
National Military Intelligence Association Award for Military Intelligence

Jonathan Boston, ASC/EN (AFIT)
Experiments with Geometric Non-Linear Coupling for Analytical Validation
Distinguished Graduate Winner
 - Association of Old Crows

Capt Adam Brooks, USAF (AFIT)
Improved Multispectral Skin Detection and Its Application to Search Space Reduction for Dismount Detection Based on Histograms of Oriented Gradients
Best of Thesis for Mechanics and Materials
 - Department of Aeronautics and Astronautics

Maj Michelle Bruemmer, USAF (ACSC–Lt Col Terry Bullard)
Finding the Enemy: Using 3-D Laser Radar (LADAR) Imaging for Real Time Combat Identification of Targets in an Obscured Environment
Strategic Air Command Museum's Research Excellence Award

Col Rolanda Burnett, USAF (AWC–Gp Capt Raymond Goodall)
Articulation beyond the Bumper Sticker: Revamping an Incomplete and Confusing Master Tenet
Red River Valley Fighter Pilots Association Award
 - Air University Foundation
 Maxwell Papers

Capt Samuel Butler, USAF (AFIT)
Calculation of Collisional Cross Sections for the 2P3/2 2P1/2 Transition in Alkali-Noble Gas systems
Melvin Gross Award

Michael Chesterman (AFIT)
Collateral Damage Effects of Directed Energy Weapons
2010 Dean's Award
Best of Thesis for Fluids
 - Department of Aeronautics and Astronautics
American Institute of Aeronautics and Astronautics Dayton-Cincinnati Graduate Student Award for Research Excellence

Maj Ann-Marie Contreras, USAF (ACSC–Col Zoë Hale)
How Small Is Too Small? True Microrobots and Nanorobots for Military Applications in 2035
Armed Forces Communications and Electronics Association Award
 - AFCEA

Maj Ann-Marie Contreras, USAF (ACSC–Lt Col Kris Bauman)
Stereotypes and Reality: Working Relationships between Muslim Men and Western Women
Spring Short Research Paper Award
 - Dean of Education

Maj Aaron Cowley, USAF (ACSC–Dr. Kimberly Hudson and Dr. Rebecca Oxford)
The US Role in the Israeli-Palestinian Peace Process
Fall Short Research Paper Award
 - Dean of Education

Award-Winning Authors

Lt Col Kevin Coyne, USAF
(AWC–Mr. Michael Ivanovsky)
Developing a USEUCOM Intelligence, Surveillance and Reconnaissance Strategy for Fiscal Years 2010 thru 2015
Douhet-Mitchell International Airpower Trophy
 - Order Sons of Italy in America (OSIA)
Maxwell Papers

Maj Anthony DeGregoria, USAF (AFIT)
Gravity Gradiometry and Map Matching: An Aid to Aircraft Inertial Navigation Systems
Best of Thesis for Controls
 - Department of Aeronautics and Astronautics

Maj Beatrice Dolihite, USAF
(ACSC–Maj Christopher Paige)
Preparing Air Force Nurses to Deliver Health Care in a Unique Operational Environment: Detainee Operations
Air Force Surgeon General’s Award
 - AFSG

James Doolin, DAF
(AWC–Col Al Lowry)
Developing a Situation Awareness Environment for the Distribution Process Owner: Recommendations for United States Transportation Command
Global Reach Award
 - Airlift/Tankers Association
Maxwell Papers

Maj Jeffrey Donnithorne
(SAASS–Dr. Stephen Chiabotti)
USAF Culture Wars: The Impact of Organizational Culture on American Civil-Military Relations
Best SAASS Security Studies Thesis
Air University Foundation
Drew Papers

Maj Jeffrey Donnithorne, USAF
(SAASS–Dr. Stephen Chiabotti)
Building a Potemkin Village: A Taliban Strategy to Reclaim the Homeland
CJCS Strategy Article 2nd Prize
Joint Forces Quarterly

Maj Jon Eberlan, USAF
(ACSC–Col Brett Morris)
Is It Built to Last? An Examination of the Implementation of the USAF AFSO 21 Program
Office of the Secretary of Defense Award for Force Transformation

SQN LDR Christopher Ellison, Royal Australian AF
(ACSC– Dr. Sebastian Lukasik)
The Morotai Mutiny: Leadership and Morale in Australia’s Pacific Air War
Air Force Historical Foundation Award
 - AFHF
Military History Studies Award
 - Dean of Education

1st Lt Nicholas Estep, USAF (AFIT)
High Power Microwave (HPM) and Ionizing Radiation Effects on CMOS Devices
IEEE Dayton Section Student Award

Maj Ian Fairchild, USAF (AFIT)
Securing Information Exchange between the 618 TACC and Its Civilian Airlift Partners
2010 Lt Edwin E. Aldrin, Sr. Award

Maj Stephen Fino, USAF
(SAASS–Col Timothy Schultz)
“All the Missiles Work” Technological Dislocations and Military Innovation: US Air Force Air-to-Air Armament, Post-World War II through Operation Rolling Thunder
Best Technology, Space, or Cyberspace Thesis
Air University Foundation
Drew Papers

Maj William Fry, USAF
(SAASS–Col. Robert Ehlers)
Putting on the Blindfold: The Truncation of Intelligence from World War II to Today
CJCS Strategy Essay Finalist

Maj Matthew Getty, USAF
(ACSC–Dr. John Farrell)
Corruption in Indonesia
Col Gail “Candy Bomber” Halvorsen Cultural Studies Award
 - Dean of Education

Maj Erin Gulden, USAF
(ACSC–Lt Col Lavern Curry)
The Benevolent Hegemon: The United States National Space Protection Strategy Anchored in Cooperation not Technology
Space Research Award

Maj Ryan Gulden, USAF
(ACSC–Mr. Michael Ivanovsky)
Near-Space Airships: The Solution to Persistent ISR
Defense Intelligence Agency Award
 - DIA

Award-Winning Authors

Col Kenneth Hall, USAF

(AWC–Col Gilbert Hansen)

The Dangerous Decline in the United States Military's Infectious Disease Vaccine Program

General Charles A. Horner Award

- USAF/CPC

Maxwell Papers

Lt Col Lars Helmrich, Swedish Air Force

(AWC–Dr. Chris Hemmer)

US National Security and Environmental Change in the Arctic

General Charles G. Boyd Award

- Air University Foundation

Maxwell Papers

1st Lt Nicholas Herr, USAF (AFIT)

AFM-Patterned 2-D Thin-Film Photonic Crystal

Analyzed by Complete Angle Scatter

2010 Dean's Award

- Department of Engineering Physics

Maj Richard Holifield, USAF

(ACSC–Lt Col Terry Bullard)

Tracking Next-Generation Automatic Identification

Technology (AIT) into 2035

SOLE – The International Society of Logistics Award

Maj Scott Hopper, USAF

(ACSC–Lt Col James Kockler)

An Ounce of Prevention Beats a Pound of Cure:

Resourcing the State Department to Defend the Nation

Chief of Staff of the Air Force Political Advisor Award

- CSAF

Capt Michael Horezniak, USAF (AFIT)

Low Dose Sarin Leads to Murine Cardiac Dysfunction

2010 Dean's Award

- Department of Systems and Engineering Management

Capt Greg Jeong, USAF (AFIT)

A Multi-Objective Approach to a Bipartite Assignment

Matching Problem using Weighted Values from Multiple Constraints

2010 Military Operations Research Society Award

- MORS

Col Rebecca Keller, USAF

(AWC–Lt Col Michael Masterson)

Influence Operations and the Internet: A 21st Century

Issue - Legal, Doctrinal and Policy Challenges in the Cyber World

Air Force Cyber Award

- Eighth Air Force

Maxwell Papers

Evren Kimaz (AFIT)

Fuel Efficiency Assessment with DEA

2010 Jerome G. Peppers, Jr. Outstanding Student Award

- International Society of Logistics

Capt Douglas Macdonald, USAF (AFIT)

Passive Ranging Using Infra-Red Atmospheric

Attenuation

Measurement and Signatures Intelligence Committee Award of Academic Excellence

- MASINT

Maj David Meier, USAF (AFIT)

Application of Satellite-Derived Wind Profiles to Joint

Precision Airdrop System (JPADS) Operations

Lt Edwin E. Aldrin, Sr. Award

Maj Kevin McGowan, USAF

(ACSC–Mr. Budd Jones)

Unmanned Intra-Theater Airlift

Commandant's Award for Research Excellence

- ACSC Commandant

Airlift Tanker Association "Global Reach" Award

- ATA

Maj Philip Morrison, USAF (AFIT)

Reballasting the KC-135 Fleet for Fuel Efficiency

2010 Military Operations Research Society Award

- MORS

Maj Jeffrey O'Grady, USAF

(ACSC–LTC Kyle Feger)

From "Whack-a-Mole" to Three-Dimensional Chess:

Leveraging Airpower to Defeat the Improvised Explosive Device

Air Force Association General Carl A. "Tooley" Spaatz Award

- AFA

Joint Warfare and Air & Space Operations Award

- Dean of Education

Maj Galen Ojala, USAF

(ACSC–Dr. Kevin Holzhammer)

Virtual Wingman: Harnessing the Future Unstructured

Information Environment to Achieve Mission Success

Leadership, Command, and Communications Studies Award

- Dean of Education

Capt Casey Pellizzari, USAF (AFIT)

Phase Unwrapping in the Presence of Strong Turbulence

2010 Commandant's Award

Award-Winning Authors

**Lt Col Michael Rafter, Canadian Air Force
(AWC–Col Eric Smith)**
Legal and Ethical Aspects of the Decision for War: A Case Study

**Military Officers Association of America
Leadership Award**
- MOAA
Maxwell Papers

**Maj Jonathan Riley, USAF
(SAASS–Dr. Everett Dolman)**
At the Fulcrum of Air Force Identity: Balancing the Internal and External Pressures of Image and Culture
**Best SAASS Leadership or Ethics Thesis
First Command Financial Planning**
Drew Papers

**Maj Karl R. Schrader, USAF
(SAASS–Dr. Richard Muller)**
A Giant in the Shadows: Major General Benjamin Foulois and the Rise of the Army Air Service in World War I
**Best SAASS History Thesis
Air Force Historical Foundation**
Drew Papers

**Lt Col Carl Schaefer, USAF
(AWC–Col Norman Potter)**
Getting War Fighters What They Need When They Need It
Lt Gen John Nowak Award for Logistics
- Lt Gen Nowak
Maxwell Papers

**Maj Lynn Schmidt, USAF
(ACSC–Col Brett Morris and Lt Col Terry Bullard)**
Examining the Content and Implementation of the New US Air Force Policy of Recording Suspect Interviews
Research Methodology Award
- Dean of Education

MSgt Wesley Schuler, USAF (AFIT)
Nuclear Forensics: Measurements of Uranium Oxides using Time-of-Flight Secondary Ion Mass Spectrometry
**Secretary James G. Roche Award;
Advanced Technical Intelligence Association
Outstanding Student Award;
American Nuclear Society’s Thesis Award;
Air Force Institute of Technology’s 2009 Non-
Commissioned Officer of the Year**

**Maj Thomas Seymour, USAF
(ACSC–Col Fred Stone)**
Algae-Based Jet Fuel: The Renewable Alternative to the Air Force’s Focus on Coal-to-Liquid Synthetic Fuel
Lieutenant General John Nowak Award for Logistics

**Maj Tony Simmons, USAF
(ACSC–Mr. Richard “Kemo” Perry)**
Operationalizing Cyberspace for Today’s Combat Air Force
Lieutenant General Michael Hayden Award for Info Ops

**Col Stella Smith, USAF
(AWC–Mr. Ted Hailes)**
Science and Technology Intellectual Capital: A Critical US Asset
Homeland Security Award
- USNORTHCOM
Maxwell Papers

**Lt Col Matthew Smitham, USAF
(AWC–Mr. Allen Sexton)**
The Need for a Global Space-Traffic-Control Service: An Opportunity for US Leadership
Air Force Space Command Award
- AF Space Command
Maxwell Papers

Lt Col Amie Stryker, USAF (AFIT)
Development of Measures to Assess Product Modularity and Reconfigurability
Best Paper at the 2010 Conference on Systems Engineering Research

1st Lt Murat Toydas, TUAFA (AFIT)
Fuel Savings Opportunities from Air Refueling
2010 Dean’s Award
- Department of Operational Sciences

**Maj Mark Walsh, USAF
(ACSC– Dr. William Dean III)**
Education Foreign Internal Defense
Major General Edward G. Lansdale Award for Joint Special Operations

**Maj Todd Walton, ANG
(ACSC–Lt Col Joyce Guthrie)**
Essential to Future Force Development: ANG Participation in Officer In-Residence PME
Reserve Component Award

**MAJ Ben Zweibelson, USA
(ACSC–LTC Kyle Feger)**
Asymmetrical Gain of Irregular Forces: A Proposed Doctrinal Method for Irregular Force Recruitment, Utilization, and Subsequent Reintegration into the Target Populations for Conflict Environments
Outstanding Military Studies Award
- Dean of Education



Contributions by AU Graduates — AY 2010

Global War on Terror, Homeland Defense, and Other Urgent/Current Issues

*Produced by
Sponsored by*

Above the Influence: The Strategic Effects of Airpower in Irregular Warfare

By Maj Rob Masaitis
SAASS

Acknowledging Origins of Somali Piracy: A Long- Term Strategy to Turn the Tide

By Maj John Newton
ACSC, USEUCOM

Acquiring Needed Satellite Communications: The Need to Better Balance Military and Commercial

By Lt Col Jeffrey Granger
AWC, AFSPC

The Arctic Nations: An Opportunity to Lead By Example- Military Forces Used in Peaceful Collaboration towards Arctic Human and Environmental Security

By Maj Marianne Knutsen, RNAF
ACSC, Canadian Forces

Are Terrorist Attacks Fulfilling Strategic Objectives or Merely Targets of Opportunity? An In-depth Analysis of the History of Al Qaida

By Maj Andrew Reardon
ACSC

Air Force Special Operations Training Center: Does 3-Level Maintenance Training Belong?

By Col Robert Miglionico
AWC, AFSOC/A3

American Overstretch and the End of Hegemony

By Maj Reid Rasmussen
SAASS, ANG

Analysis of Pacification in Vietnam and Relevance to Afghanistan

By MAJ Andrew Lyman
ACSC

Arctic Insecurity: Avoiding Conflict

By Lt Col David Johnson
AWC, USNORTHCOM

Assessing the Emerging US Military Basing Posture in the Mideast

By Col Robert Webb
AWC, USAFA/DF

Assessing the Nation's Need for a National Center of Excellence for Radiological Dispersal Devices & the Feasibility of Locating It at Argonne National Laboratory

By Maj Christopher Bishop
AFF

Asymmetrical Gain of Irregular Forces: A Proposed Doctrinal Method for Irregular Force Recruitment, Utilization, and Subsequent Reintegration into Target Populations for Conflict Environments

By Maj Ben Zweibelson
ACSC

The Battle for Ideas in Afghanistan Counter- Insurgency Operations: Applying a Corporate Change Message Framework for Success

By Lt Col Dean Vitale
AWC, USAFA/DF

Black Air

By Maj Damone Garner
SAASS

Central American Gangs: A Threat to U.S. and Hemispheric Security

By Isabel Neunsinger
ACSC, USSOUTHCOM

Changing Empires: Shifting Balance in Civil-Military Relations in Turkey and Iran

By Lt Col Shahnaz Pujani
AFF

Defeating Hezbollah: A Matter of Economics

By Maj Steven Lehr
ACSC, USNORTHCOM

Depictions of Airmen in Popular Culture

By Maj Robert Griffith, USAFR
ACSC

Dropping the Montagnard Ball

By LCDR Jason Spark, USN
ACSC, USSOC

Enabling Tolerance – the Legacy of “Don’t Ask, Don’t Tell”

By LCDR Paul Shields
ACSC

Energy Independence: Caught Behind the Power Curve

By Maj John Hess
ACSC, USNORTHCOM

Contributions by AU Graduates

Faith and Fanaticism behind Bars: Factors Driving the Spread of Radical Islam in American's Prison System

By Maj Chris LaPietra
ACSC

Guantanamo Bay and the Evolution of Detainee Policy

By Maj Joseph Banks
ACSC

Initial Response Hub: Bridging the Gap between State and Federal Resources

By Lt Col Barry Gorter, ANG
AWC, KTAG/CC

Insurgencies: Parallels between the Causes and Means of the American War for Independence and Afghanistan

By Maj Matt Baugh
ACSC

Leveraging U.S. Intelligence to Defeat Mexican Drug Trafficking Organizations: a Framework for Strengthening Democracy, Sovereignty, and the Rule of Law in Mexico

By Lt Col Kirk Karver
AFF

North Atlantic Treaty Organization Enlargement: Time for Pause?

By Lt Col James Casey
AWC, USARWC/SSI

The Oath of Office: Can the Military Defend the Constitution against Domestic Enemies?

By Col Thomas Sadio
AWC, USNORTHCOM

On the Job Education: an Alternative for Special Operations Forces Officers

By MAJ Michael Meumann, USA
ASCS, USSOC

Operational Design Cognitive Methodology: An Analysis of COMISAF 30 August 2009 Initial Assessment

By Maj Abe Jackson
ACSC

Rules of Engagement in Hybrid Warfare Integrated into Operational Design

By Maj Brian Thompson
ACSC

Seeds of Destruction, Seeds of Success: The Survival or Failure of Violent Extremist Organizations

By Maj Brian Montgomery
SAASS, USSOC

Shrinking the Sahara: How Ancient Trade Routes Can Focus Modern Counterterrorism Efforts

By Maj Keith Gurnick
ACSC, AFRICOM

Sustaining the Air Commons

By Lt Col Kelly Martin
AFF

Terrorist Motivations and How They Can Be Used Against Them

By Maj Matt Worling
ACSC

United States Preparedness to Respond to a "Mumbai-Style" Attack within the Homeland

By Lt Col Brad Felling, USAFR
AWC, USNORTHCOM

US National Security and Environmental Change in the Arctic

By Lt Col Lars Helmrich, Swedish Air Force
AWC, USAFA/DF

The USAF Fighter Force Structure in the 2020-2040 Timeframe

By Col Todd Bakita
AWC, USAFA/DF

War Fighting and Operational Issues

*Produced by
Sponsored by*

A Comprehensive Nuclear Weapons Stockpile Management Program for a Responsible and Effective U.S. Nuclear Deterrent

By Maj Thomas Vance
AFF

A Different Approach to SOF Education for Majors

By MAJ Michael Meumann, USA
ACSC

A Giant in the Shadows: Major General Benjamin Foulois and the Rise of the Army Air Service in World War I

By Maj Karl Schrader
SAASS

Above the Influence: The Strategic Effects of Airpower in Irregular Warfare

By Maj Rob Masaitis
SAASS

Contributions by AU Graduates — AY 2010

Acknowledging Origins of Somali Piracy: A Long-Term Strategy to Turn the Tide

By Maj John Newton
ACSC, USEUCOM

Acquiring Needed Satellite Communications: The Need to Better Balance Military and Commercial

By Lt Col Jeffrey Granger
AWC, AFSPC

Adding C17s to AFSOC Inventory

By Maj James Harris
ACSC, AFSOC

Air Operations Center of the Future

By Maj Colin Connor
SAASS, HQ ACC

Aircrew Negotiations with Allied Partners

By Maj F. Selwyn Gay
ACSC

Air Force Special Operations Training Center: Does 3-Level Maintenance Training Belong?

By Col Robert Miglionico
AWC, AFSOC/A3

Airghanistan: Aviation and Nation Building in Central Asia

By Maj Jeff Nelson
SAASS, Canadian Forces

An Analysis of the NATO Special Operations Transformation Initiative and the NATO Special Operations Coordination Centre

By Lt Col Peter Goldfein
AWC

Are Terrorist Attacks Fulfilling Strategic Objectives or Merely Targets of Opportunity? An In-depth Analysis of the History of Al Qaida

By Maj Andrew Reardon
ACSC

Army Air Forces Logistics in the Southwest Pacific during World War II

By Maj Brent Borchers
SAASS

Articulation beyond the Bumper Sticker: Revamping an Incomplete and Confusing Master Tenet

By Col Rolanda Burnett
AWC

Assessing the Emerging US Military Basing Posture in the Mideast

By Col Robert Webb
AWC, USAFA/DF

Assimilating Thor: How Airmen Integrate Weather Prediction

By Maj Mark Coggins
SAASS, HQ ACC

The Battle for Ideas in Afghanistan Counter-Insurgency Operations: Applying a Corporate Change Message Framework for Success

By Lt Col Dean Vitale
AWC, USAFA/DF

Black Air

By Maj Damone Garner
SAASS

Bullets, Bombs, and Bystanders: The Strategic Implications of Collateral Damage in Afghanistan

By Maj Aaron Clark
SAASS, Republic of Singapore Air Force

C-17 Globemasters in AFSOC

By Maj Jim Harris
ACSC

The Case for Increasing Production in the Air Battle Management Career Field

By Maj William Roach
ACSC

Case Study: Operation Mincemeat

By Maj Bena Sellers
ACSC

Changing of the Guard: Nation Building and the United States Military

By Maj Randy Oakland
SAASS, CSAF-SECAF

The Colombian Awakening: President Alvaro Uribe's Integrated Action Approach to Counterinsurgency

By Maj Manuel Ramirez
SAASS, USMC

The Commander's Emergency Response Program: A Versatile Strategic Weapon System Requiring an Azimuth Adjustment

By COL Ricky Tillotson, USA
AWC, SPOCOM

Comprehensive Action: a Whole of Government Solution to Fighting Transnational Terrorism

By Maj John Baquet
SAASS, JWAC

Considerations for U.S. Nuclear Force Structure below a 1,000 Warhead Limit

By Lt Col David Baylor
AWC, A10

Contributions by AU Graduates

Cost Estimation Lessons Learned for Future Submarine Acquisition Programs

By CDR James O’Harrah, Jr., USN
AWC, OAS/Navy

CSAF-eXit: The Future of Air Force Combat Search and Rescue

By Maj Ernesto DiVittorio
ACSC, AFSOC

Cultural Awareness in Afghan Helicopter Dispute—A Case Study

By Maj John Hopkins
ACSC

Culture Wars: Air Force Culture and Civil-Military Relations

By Maj Jeffrey Donnithorne
SAASS

Cyberspace and the Electromagnetic Spectrum: Friend or Foe?

By Maj Kenneth Jones
SAASS

Cyberspace and Posse Comitatus: Implications of a Borderless Domain

By Maj Andrew Hosler
ACSC, AF Space Command

Democratization of Afghanistan

By Maj Carolyn Coleman
ACSC

Deterrence Requirements and Arms Control Responsibilities: The United States’ Obligation to Ratify the Comprehensive Nuclear Test Ban Treaty

By Lt Col Jeffrey Neischel
AWC, A10

Developing a Situation Awareness Environment for the Distribution Process Owner: Recommendations for United States Transportation Command

By James Doolin
AWC, USTRANSCOM

Developing a USEUCOM Intelligence, Surveillance and Reconnaissance Strategy for Fiscal Years 2010 thru 2015

By Lt Col Kevin Coyne
AWC, USEUCOM

Development of JSDF Cyber Warfare Defense Critical Capability

By Maj Yoshihiro Yamaguchi, Japanese AF
ACSC, AF Space Command

Dissecting the Dragon: Confrontation, Coercion, and Asymmetric Leverage in China’s New Pacific

By Maj Nicholas Guttman
SAASS

Distinctive Functions of the United States Air Force Cyberspace Domain

By Maj Andrew Hosler
ACSC

DOD, NGO Relations and Stability, Security, Transition and Reconstruction Operations in Sub-Saharan Africa

By Maj Neal Newell
ACSC, AFRICOM

End Games: Support to Resistance Movements and the Lack of Western Postwar Policy in WWII

By Maj Patrick Long
ACSC, USSOC

Enlisted or Officer Drone Pilots?

By Maj Gary Rafnson
ACSC

Examining the Content and Implementation of the New U.S. Air Force Policy of Recording Suspect Interviews

By Maj Lynn Schmidt
ACSC

Fall 2010 – PASEX after Action Report

By Maj Ray Besson
ACSC, USEUCOM

Fighting a small Nuclear Weapon State

By Maj Brian Gamble
ACSC, AF/A9

From Whack-A-Mole to Three-Dimensional Chess: Leveraging Airpower to Defeat the Improvised Explosive Device

By Maj Jeffrey O’Grady
ACSC, 9AF/AF Central

Fixing the DOTMLPF Handicap: Effectively Integrating the Conventional Combat Air Force into Special Operations Forces Missions

By Maj David Epperson
ACSC

Fortitude South

By Maj Robert Butkovich
ACSC

Future Operating Concept – Joint Computer Network Operations

By Lt Col Robert Burris, ANG
AWC, AR-CIOSC

Contributions by AU Graduates — AY 2010

Future Operating Concept For Employing Electronic Warfare in the Cyberspace Domain

By CDR David Van Brunt, USN
AWC, AR-CIOSC

GCC Planner Considerations for SOF Employment

By Maj Philip Cooper
ACSC

German Failure to Resist in Post World War Two

By Maj Timothy Moore
ACSC

Global Positioning System (GPS) Requirements Update Dilemma

By Lt Col Kurt Kuntzelman
AFF

Historical Lessons of Air Force Communications

By Jay Custine
ACSC, AFMC

Insurgencies: Parallels between the Causes and Means of the American War for Independence and Afghanistan

By Maj Matt Baugh
ACSC

Interpreting Airpower: American Observation of the Battle of Britain

By Maj Joseph Sheffield
SAASS

Intra-Theater Air Mobility and Theater Distribution for the Joint Force Commander

By Maj Francisco Rivera
SAASS, USTRANSCOM

Is Space Big Enough for a US-Sino Partnership?

By Maj Jeremiah Klomp
ACSC

JSO and Joint Fires

By Maj Martin Kriz, Czech Republic
ACSC

Influence Operations and the Internet: A 21st Century Issue – Legal, Doctrinal and Policy Challenges in the Cyber World

By Col Rebecca Keller
AWC, USNORTHCOM

Joint Lethal Fires in Irregular Warfare

By Maj Christopher Valeriano
ACSC, HQ ACC

Joint Personnel Recovery: A Contrarian View

By Lt Col Michael Outlaw
AWC, AFSOC/A3

Joint-Basing Funding

By Jeffrey McNeely
AWC, OSD

Legal Ramifications of Cyberspace

By Maj Javier Antuna
ACSC, AF Space Command

Leveraging U.S. Intelligence to Defeat Mexican Drug Trafficking Organizations: a Framework for Strengthening Democracy, Sovereignty, and the Rule of Law in Mexico

By Lt Col Kirk Karver
AFF

The Logistics Readiness Squadrons and Logistics Readiness Officer Development and Composition: Stop the Continuous Change – We've Got it Right

By Lt Col Ted Lewis
AWC

The Making of an Unconventional Warrior

By MAJ Andy Jordan, USA
ACSC

Military Deception in Counterinsurgency Operations

By Maj Christine Mau
ACSC

National Ideology in the Land of Caudillos: Understanding Colombian-Venezuelan Relations

By Maj Miguel A. Cruz
SAASS

The Need for a Global Space-Traffic-Control Service: An Opportunity for US Leadership

By Lt Col Matthew Smitham
AWC, GAF

North Atlantic Treaty Organization Enlargement: Time for Pause?

By Lt Col James Casey
AWC, USARWC/SSI

One Size Fits All? Assessment of the National Space-Based Intelligence, Surveillance, and Reconnaissance Strategy

By Maj James Smith
SAASS, AF Space Command

Operation BOLO

By Maj Javier Antuna
ACSC

Contributions by AU Graduates

Operational Design and ISR and Zombies –or– How Operational Design Can Help to Re-Aggregate Joint ISR at the Theater and Component Levels

By Maj Valarie Long
ACSC, HQ ACC

Operationalizing Cyberspace for Today’s Combat Air Force

By Maj Travolis Simmons
ACSC, AFMC

The Operations Support Facility: At the Intersection of Future Threats and Centralized Control & Decentralized Executions

By Col Brett Sharp
AWC, ACC

Organizational and Cultural Erosion of the ICBM Nuclear Enterprise

By Col Angela Stout
AWC, A10

P-51 Mustang: The Plane That Saved the Combined Bomber Offensive

By Maj Edwin Markie
ACSC, Republic of Singapore Air Force

Picking the Bone: The B-1 Bomber as a Platform for Innovation

By Maj Jonathan Creer
SAASS

Policy and Doctrine Impacts of Semi and Full Autonomous ISR and Weaponized Unmanned Aircraft Systems (UAS)

By Maj Douglas Gaeta
ACSC, Raytheon

The Principles of Military Deception and Operation Quicksilver

By MAJ Allen Moore, USA
ACSC

Psychological Operations within the Cyberspace Domain

By COL Prentiss Baker, Sr., USN
AWC, AFSPC/A3-MA

Quicksilver IV: The Real Operation Fortitude

By Maj Eric Hresko
SAASS

Regionally Integrated Air and Missile Defense: the Future of Defense and Deterrence in the Middle East

By MAJ Kevin Mullen, USA
ACSC, 9AF

Reinvigorating the BUFF

By Maj Romulo Rodas
ACSC, HQ USAF A10

Remotely Piloted Aerial System of Systems Survivability: A Defense-In-Depth Approach

By Maj Ernest Bonner
ACSC, CSAF-SECAF

Remotely Piloted Vehicles — Tracking High Value Individuals with Conventional Forces

By MAJ Bryan Hooper, USA
ACSC, USSOC

Resistance Is Not Futile: The Case against a Cyber Arms Treaty

By Kristine Rogers
AWC, AR-CIOSC

Rescue Operations Center: The Future Command and Control Node for Personnel Recovery Operations

By Lt Col Denis Doty
AWC, USNORTHCOM

Resolving NATO’s Airlift Dilemma with a Balanced Fleet

By Maj James Wandmacher
ACSC, OSD

Resourcing War

By Lt Col Sam Grable
AFF, OSD

Restructuring ISR, a Roadmap for the Future

By Maj Ryan Dahl
ACSC

Rethinking Counterdrug Operations

By Maj John Harris
ACSC

Satellite Communications in Support of Canadian Fighter Operations

By Lt Col Christopher Hamilton,
Canadian Armed Forces
ACSC, AFMC

Seeing the Forest from the Sky: Joint Airpower through the Lens of Complex Systems Theory

By Maj David Lyle
SAASS

Sino-Soviet Nuclear Cooperation

By Maj Matthew Getty
ACSC, HQ USAF A10

Space Power in Small Wars: the End of Asymmetry?

By Maj Kelly Burt
SAASS, AF/A3-5

Contributions by AU Graduates — AY 2010

Sustaining the Air Commons

By Lt Col Kelly Martin
AFF

Taking it to the Streets: Assessing the FBI's Approach to Combating Illicit Networks

By Maj Vince Koopmann
SAASS, USSOC

Thickening the Fog: The Truncation of Air Intelligence since World War II

By Maj William Fry
SAASS

Transfusing the Lifeblood of an Army: Combat Replacements and Effectiveness in the European Theater of Operations

By Maj Jeffery Lucas
ACSC, USTRANSCOM

US and ROKAF Negotiations in Preparation for the Change in Wartime Operational Control

By Maj John Holovich
ACSC, ROKAF

US Military, Commercial, and International Cooperation for Improved Space Situational Awareness

By Lt Col Edward Ackerman
AWC, GAF

The USAF Fighter Force Structure in the 2020–2040 Timeframe

By Col Todd Bakita
AWC, USAFA/DF

The Value of an Independent Royal Air Force: Breaking the Oscar Wilde Paradigm in British Defence

By Wg Cmdr Shaun Harris, RAF
SAASS, 8th AF

The Wave of the Present

By Maj James Sweeney
SAASS, CSAF-SECAF

Who Should Command and Control Stability Operations and What Role Does Operational Planning Play?

By Maj Charles Sammons
ACSC

Force Development

*Produced by
Sponsored by*

2035 Biodeterrence: Problems and Promises for Biodefense

By Lt Col Patrick Burke
AWC, AF/A8

A Giant in the Shadows: Major General Benjamin Foulois and the Rise of the Army Air Service in World War I

By Maj Karl Schrader
SAASS

A New Vector for Air Force Development of Joint Leaders

By Maj Wiley Barnes
SAASS, CSAF-SECAF

Advanced Maintenance Officer Training – A Focus on AMMOS: Return on Investment...Staying the Course

By Col Scott Fike
AWC, AF/A4L

The Air Force Officer and the Constitution

By Col Walter Isenhour
AWC

“All the Missiles Work” Technological Dislocations and Military Innovation: A Case Study in US Air Force Air-to-Air Armament, Post-World War II through Operation ROLLING THUNDER

By Maj Steven Fino
SAASS

An Analysis of the NATO Special Operations Transformation Initiative and the NATO Special Operations Coordination Centre

By Lt Col Peter Goldfein
AWC, JSOU

Are Terrorist Attacks Fulfilling Strategic Objectives or Merely Targets of Opportunity? An In-depth Analysis of the History of Al Qaida

By Maj Andrew Reardon
ACSC

Assessing the Emerging US Military Basing Posture in the Mideast

By Col Robert Webb
AWC, USAFA/DF

Assessment of the Clash of Civilizations Debate

By Maj Amy Rammel
ACSC

Contributions by AU Graduates

At the Fulcrum of Air Force Identity: Balancing the Internal and External Pressures of Image and Culture

By Maj Jonathan Riley
SAASS, AETC

Attacking the United States with Unmanned Aerial Vehicle-Borne Radiological Weapons in 2035:

Feasibility and Deterrence

By Mark Krause
AWC, AF/A8

The Battle for Ideas in Afghanistan Counter-Insurgency Operations: Applying a Corporate Change Message Framework for Success

By Lt Col Dean Vitale
AWC, USAFA/DF

Biotechnology: Genetically Engineered Pathogens

By Lt Col Joel Almosara
AWC, AF/A8

Black Air

By Maj Damone Garner
SAASS

The Case for Service Leadership Diversity in the Geographic Combatant Commands

By Lt Col Laura Lenderman
AFF, CSAF-SECAF

Challenging Chaplains Public Prayers

By Maj Kleet Barclay
ACSC

Changing of the Guard: Nation Building and the United States Military

By Maj Randy Oakland
SAASS, CSAF-SECAF

Cognitive Desegregation: Unmasking Human Sexuality in the US Military

By Maj Melinda Moreau
SAASS, CSAF-SECAF

Counterinsurgency and Strategic Public Health: Shifting Paradigms

By Maj Neal Newell
ACSC

Creating Desired Effects: Revisioning Air Force Capabilities for the Joint Warfare Team in Irregular Warfare, Space, and Cyberspace

By Maj David Stevens
ACSC, AFSOC

Custer Revisited

By Maj Eric Eibe
ACSC

Cyberdeterrence in 2035: Redefining the Framework for Success

By Lt Col John Gloystein
AWC, AF/A8

Cyberspace and the Electromagnetic Spectrum: Friend or Foe?

By Maj Kenneth Jones
SAASS

Deterrence 2035: The Role of Transparency and Diversity in a World of Nanosats

By Lt Col Miguel Colon
AWC, AF/A8

Developing a More Flexible Operational Test and Evaluation Process for Information Technology

By Col Robert Campbell, Jr.
AWC, AF/A8

Discipline of Reservists for Duty-Related Misconduct Occurring Pre and Post Inactive Duty Training: Revisiting a Jurisdictional Dilemma

By Maj Taralynn Olayvar
ACSC

Diversity within the U.S. Air Force Senior Leadership

By Lt Col Gary Leong
AWC, CSAF-SECAF

Do Not Shoot, a Personal Negotiation

By MAJ Edward Samuelian, USA
ACSC

DOD Civil Support Integration

By MAJ Kevin Neumann
ACSC, USNORTHCOM

The Domestic Politics of War: The Iraq War Debate as Viewed through Three Different Perspectives – Diversionary Theory of War, Coercive Diplomacy, and the “Invitation to Struggle” Theory

By Maj Jose Sumangil
SAASS

“Don’t Ask, Don’t Tell”: Disconnects and Scenarios

By Maj Caleb Malcolm
ACSC, CSAF-SECAF

The Eagle and the Possum: A Difference in Leadership Styles

By Maj John Schluter
ACSC

Enlisted or Officer Drone Pilots?

By Maj Gary Rafnson
ACSC

Contributions by AU Graduates — AY 2010

The Erosion of US Nuclear Deterrence Credibility in the 21st Century

By Lt Col Thomas Coglitore
AWC, AF/A8

Essential to Future Force Development: ANG Participation in Officer In-Residence PME

By Maj Todd Walton, ANG
ACSC

Faith and Fanaticism behind Bars: Factors Driving the Spread of Radical Islam in American's Prison System

By Maj Chris LaPietra
ACSC

From Signals to Cyber: The Rise, Fall, and Resurrection of the Air Force Communications Officer

By Maj Joseph Golembiewski
SAASS, AFSPC

Gender and Negotiation: Implications of Gender Stereotypes in Negotiations

By Maj Anne-Marie Contreras
ACSC

General Curtis LeMay on Leadership and Command

By Maj Paul Carlton
SAASS, USAFA

Getting War Fighters What They Need When They Need It

By Lt Col Carl Schaefer
AWC, AFSOC

Harnessing Light: Laser/Satellite Relay Mirror Systems and Deterrence in 2035

By Lt Col Michael Stephens
AWC, AF/A8

High Power Microwaves on the Future Battlefield: Implications for U.S. Defense

By Lt Col Robert Capozzella
AWC, AF/A8

The Hurricane Hunter - Active Duty or Reserve: A Case Study

By Maj Jason Mercer
ACSC

Immersive Learning Simulations in Aircraft Maintenance Training

By Lt Col Joseph Rushlau
AWC, AFMC

The Impact of Nanotechnology Energetic on the Department of Defense by 2035

By Col Ancel Yarbrough II
AWC, AF/A8

Insurgencies: Parallels between the Causes and Means of the American War for Independence and Afghanistan

By Maj Matt Baugh
ACSC

Intuition: A Needed Component of Leadership for Decision-Making in Today's Technology Driven Air Force

By Lt Col Douglas Slater
AWC

Leveraging U.S. Intelligence to Defeat Mexican Drug Trafficking Organizations: a Framework for Strengthening Democracy, Sovereignty, and the Rule of Law in Mexico

By Lt Col Kirk Karver
AFF

Mitigating the Tyranny, a Moral Responsibility

By Maj Marianne Knutsen, RNAF
ACSC, AFSG

Nanotechnology: Threats and Deterrent Opportunities by 2035

By Col Christopher Hauth
AWC, AF/A8

National Ideology in the Land of Caudillos: Understanding Colombian-Venezuelan Relations

By Maj Miguel A. Cruz
SAASS

The Nature and Nurture of Military Genius: Developing Senior Strategic Leaders for the Postmodern Military

By Maj Jeffrey Geraghty
SAASS, CSAF-SECAF

North Atlantic Treaty Organization Enlargement: Time for Pause?

By Lt Col James Casey
AWC, USARWC/SSI

Out of Joint: Independent Air Forces in Democratic Cultures

By Wg Cmdr Stephen Edgeley, RAAF
SAASS, CSAF-SECAF

Picking the Bone: The B-1 Bomber as a Platform for Innovation

By Maj Jonathan Creer
SAASS

Contributions by AU Graduates

Preparing the Human Weapon System: Promoting Warrior Resiliency

By Lt Col Jill Scheckel
AWC, 59 MDW/CC

Pride, Prejudice, and Pejoratives at Peenemunde: Interservice Rivalry and Terror Weapons in the Third Reich

By Maj Alex Fuerst, USAFR
SAASS

Pursuit of the Torch: Influences on Acquisition of USAAF Fighter Aircraft Used in the North African Campaign

By Maj Maurice Azar
SAASS, 8AF

Ready or Not? Repeal of “Don’t Ask, Don’t Tell”

By Lt Col Julie Boit
AWC, CSAF-SECAF

Religious Expression or Religious Coercion: Commanders Caught in the Cross-Fire

By Lt Col Jimmy Browning
AWC, HQ USAF HC

Remotely Piloted Vehicles — Tracking High Value Individuals with Conventional Forces

By MAJ Bryan Hooper, USA
ACSC, USSOC

Rescue Operations Center: The Future Command and Control Node for Personnel Recovery Operations

By Lt Col Denis Doty
AWC, USNORTHCOM

Returning to an Apolitical Officer Corps

By Lt Col Daniel Talati
AWC

Rewiring Warfighters for Joint Mindedness: Solutions for Joint Education in the 21st Century

By Maj Donn Yates
SAASS, CSAF-SECAF

The Rhetoric and Reality of Command: a Leadership Analysis

By Lt Col Thomas Santoro Jr.
AWC

Sacred Values, Strategic Communication, and Military Operations in Afghanistan

By Col Gary Califf, USAFR
AWC, SAF/GCO

Science and Technology Intellectual Capital: a Critical US Asset

By Col Stella Smith
AWC, AF/A8

Serving the Cause: Duty Concepts and Combat Effectiveness in War

By Maj Bert Jean
SAASS, 8AF

The Silent Threat to Readiness? Prescription and Over-the-Counter Drug Abuse in the Air Force

By Lt Col Dawn Zoldi
AWC, AFMOA

Space 2035: Technology, Transparency, and Trusted Immunity

By Lt Col Darren Buck, USAFR
AWC, AF/A8

Stereotypes and Reality Working Relationship between Muslim Men and Western Women

By Maj Anne-Marie Contreras
ACSC

Strategy and the Use of Airpower on the Eastern Front: Lessons for the Airpower Strategist

By Maj David Williamson
SAASS, 8AF

Stunning Swarms: An Airpower Alternative to Collateral Damage

By Maj Alan Blanchard
ACSC, AF/A8

Sustaining the Air Commons

By Lt Col Kelly Martin
AFF

Tactical Aircraft Maintenance-Level Success with the Expeditionary Combat Support System

By Lt Col David Haar
AWC, SAF

Taking a Quantum Leap in Cyber-Deterrence

By Lt Col James Sturgeon
AWC, AF/A8

Taking Advantage of External Funding for Air Force Officer Ph.D. Candidates at Civilian Universities

By Maj Clark Allred
ACSC, CSAF-SECAF

Taking it to the Streets: Assessing the FBI’s Approach to Combating Illicit Networks

By Maj Vince Koopmann
SAASS, USSOC

Talking Back: Weapons, Warfare, and Feedback

By LCDR Victor Glover, USN
ACSC, AF/A8

Contributions by AU Graduates — AY 2010

Toward Cyber Omniscience: Deterring Cyber Attacks by Hostile Individuals in 2035

By Col William Jensen
AWC, AF/A8

Tracking Next-Generation Automatic Identification Technology (AIT) into 2035

By Maj Richard Holifield
AWC, AF/A8

U.S. Air Force Enlisted Accessions: Upgrading the Pipeline

By Col Darren Bishop
AWC, AFRS/CC

U.S. Interagency Regional Foreign Policy Implementation: A Survey of Current Practice and an Analysis of Options for Improvement

By Lt Col Robert Pope
AFF, JWAC

US-UAE Relations: A Partnership Threatened by Differences Regarding Human Rights

By Maj John Newton
ACSC, USEUCOM

The USAF Fighter Force Structure in the 2020-2040 Timeframe

By Col Todd Bakita
AWC, USAFA/DF

Why Fight the Enemy That You Can Reprogram?

By Lt Col Douglas Mellars
AWC, AF/A8

Intelligence, Technology, Cyberspace Issues, and Combat Support

*Produced by
Sponsored by*

2035 Biodeterrence: Problems and Promises for Biodefense

By Lt Col Patrick Burke
AWC, AF/A8

A Comprehensive Nuclear Weapons Stockpile Management Program for a Responsible and Effective U.S. Nuclear Deterrent

By Maj Thomas Vance
AFF

Adapt or Down—Will the United States Chart a Safe Course through Troubled Waters of Energy Security

By Maj Albert Smith
ACSC

“All the Missiles Work” Technological Dislocations and Military Innovation: A Case Study in US Air Force Air-to-Air Armament, Post-World War II through Operation ROLLING THUNDER

By Maj Steven Fino
SAASS

Are Terrorist Attacks Fulfilling Strategic Objectives or Merely Targets of Opportunity? An In-depth Analysis of the History of Al Qaida

By Maj Andrew Reardon
ACSC

Assessing the Emerging US Military Basing Posture in the Mideast

By Col Robert Webb
AWC, USAFA/DF

Assessing the Nation’s Need for a National Center of Excellence for Radiological Dispersal Devices & the Feasibility of Locating it at Argonne National Laboratory

By Maj Christopher Bishop
AFF

Attacking the United States with Unmanned Aerial Vehicle-Borne Radiological Weapons in 2035: Feasibility and Deterrence

By Mark Krause
AWC, AF/A8

The Battle for Ideas in Afghanistan Counter-Insurgency Operations: Applying a Corporate Change Message Framework for Success

By Lt Col Dean Vitale
AWC, USAFA/DF

Biotechnology: Genetically Engineered Pathogens

By Lt Col Joel Almosara
AWC, AF/A8

Black Air

By Maj Damone Garner
SAASS

Contract Requirements’ Affects on Battlefield Resources

By Maj Stephen Smith
ACSC

Cost Estimation Lessons Learned for Future Submarine Acquisition Programs

By CDR James O’Harrach, Jr., USN
AWC, OAS/Navy

Contributions by AU Graduates

Cyberdeterrence in 2035: Redefining the Framework for Success

By Lt Col John Gloystein
AWC, AF/A8

Cyberspace and the Electromagnetic Spectrum: Friend or Foe?

By Maj Kenneth Jones
SAASS

Cyberspace Intelligence Preparation of the Operational Environment

By MAJ Kaci Cole, USA
ACSC, CSAF-SECAF

The Dangerous Decline in the United States Military's Infectious Disease Vaccine Program

By Col Kenneth Hall
AWC, ASD(HA)2

Defeating Hezbollah: A Matter of Economics

By Maj Steven Lehr
ACSC, USNORTHCOM

Deterrence 2035: The Role of Transparency and Diversity in a World of Nanosats

By Lt Col Miguel Colon
AWC, AF/A8

Dissecting the Dragon: Confrontation, Coercion, and Asymmetric Leverage in China's New Pacific

By Maj Nicholas Guttman
SAASS

Distinctive Functions of the United States Air Force Cyberspace Domain

By Maj Andrew Hosler
ACSC

Distributed Intelligence, Surveillance, and Reconnaissance Operations: Disconnects between Doctrine and Reality

By Col Christopher Kubick
AWC, AF ISR/CC

Eco-Cities: Possible or Purely Utopian?

By Maj Stephanie Kelley
ACSC

Economic Gain through Galileo

By Maj Andreas Kaukel, GAF
ACSC, AFMC

The Erosion of US Nuclear Deterrence Credibility in the 21st Century

By Lt Col Thomas Coglitore
AWC, AF/A8

Ethanol: Are US Policies Consistent with National Security Strategy?

By Maj Matt Baugh
ACSC

Fighting a small Nuclear Weapon State

By Maj Brian Gamble
ACSC, AF/A9

The Future of American Power: Energy and National Security

By Jennifer Morgan
AWC

Future Operating Concept – Joint Computer Network Operations

By Lt Col Robert Burris, ANG
AWC, AR-CIOSC

Future Operating Concept For Employing Electronic Warfare in the Cyberspace Domain

By CDR David Van Brunt, USN
AWC, AR-CIOSC

Harnessing Light: Laser/Satellite Relay Mirror Systems and Deterrence in 2035

By Lt Col Michael Stephens
AWC, AF/A8

High Power Microwaves on the Future Battlefield: Implications for U.S. Defense

By Lt Col Robert Capozzella
AWC, AF/A8

Hydro-Politics and India: A United States Response to the 21st Century National Security Challenge

By Maj Matthew Zamiska
ACSC

Identifying Technology Barriers to the Realization of True Microrobots and Nanorobots for Military Application by 2035

By Maj Paul Sladitis
ACSC, AF/A8

The Impact of Nanotechnology Energetic on the Department of Defense by 2035

By Col Ancel Yarbrough II
AWC, AF/A8

Influencing and Exploiting Behavioral Norms in Cyberspace to Promote Ethical and Moral Conduct of Cyberwarfare

By Maj Glen Shilland
SAASS, CSAF-SECAF

Contributions by AU Graduates — AY 2010

Integrated Non-Kinetic Operations: The Frontier of Warfare in Search of Doctrine

By Maj Ericka Flanigan
SAASS, Raytheon

Joint-Basing Funding

By Jeffrey McNeely
AWC, OSD

Meeting the Air Force's 2016 JP-8 Purchasing Goal

By Maj David Dersch, USAFR
ACSC

Nanotechnology: Threats and Deterrent Opportunities by 2035

By Col Christopher Hauth
AWC, AF/A8

Near-Space Airships: the Solution to Persistent ISR

By Maj Ryan Gulden
ACSC, USNORTHCOM

North Atlantic Treaty Organization Enlargement: Time for Pause?

By Lt Col James Casey
AWC, USARWC/SSI

Picking the Bone: The B-1 Bomber as a Platform for Innovation

By Maj Jonathan Creer
SAASS

Powering Air Force Installations through Renewable Energy

By Maj Michael Morman
ACSC

Pride, Prejudice, and Pejoratives at Peenemunde: Interservice Rivalry and Terror Weapons in the Third Reich

By Maj Alex Fuerst, USAFR
SAASS

Psychological Operations within the Cyberspace Domain

By COL Prentiss Baker, Sr., USN
AWC, AFSPC/A3-MA

Resistance Is Not Futile: The Case against a Cyber Arms Treaty

By Kristine Rogers
AWC, AR-CIOSC

Restructuring ISR, a Roadmap for the Future

By Maj Ryan Dahl
ACSC

Science and Technology Intellectual Capital: A Critical US Asset

By Col Stella Smith
AWC, AF/A8

Space 2035: Technology, Transparency, and Trusted Immunity

By Lt Col Darren Buck, USAFR
AWC, AF/A8

Stunning Swarms: An Airpower Alternative to Collateral Damage

By Maj Alan Blanchard
ACSC, AF/A8

Sustaining the Air Commons

By Lt Col Kelly Martin
AFF

Taking a Quantum Leap in Cyber-Deterrence

By Lt Col James Sturgeon
AWC, AF/A8

Talking Back: Weapons, Warfare, and Feedback

By LCDR Victor Glover, USN
ACSC, AF/A8

Toward Cyber Omniscience: Detering Cyber Attacks by Hostile Individuals in 2035

By Col William Jensen
AWC, AF/A8

Tracking Next-Generation Automatic Identification Technology (AIT) into 2035

By Maj Richard Holifield
ACSC, AFSPC

The USAF Fighter Force Structure in the 2020-2040 Timeframe

By Col Todd Bakita
AWC, USAFA/DF

Why Fight the Enemy that You Can Reprogram?

By Lt Col Douglas Mellars
AWC, AF/A8

Strategy, Strategic Planning, Security Studies, and Regional Studies

*Produced by
Sponsored by*

A Comprehensive Nuclear Weapons Stockpile Management Program for a Responsible and Effective U.S. Nuclear Deterrent

By Maj Thomas Vance
AFF

Contributions by AU Graduates

Ability versus Will: The Reason Insurgents Surrender

By Maj Jason Rueschhoff
SAASS, USSOUTHCOM

Above the Influence: The Strategic Effects of Airpower in Irregular Warfare

By Maj Rob Masaitis
SAASS

Acquisition Reform through Service Reform

By Maj Layne Trosper
ACSC, CSAF-SECAF

Afghanistan in the Balance: Air Politik

By Maj Robert Lyons
SAASS

Airghanistan: Aviation and Nation Building in Central Asia

By Maj Jeff Nelson
SAASS, Canadian Forces

“All the Missiles Work” Technological Dislocations and Military Innovation: A Case Study in US Air Force Air-to-Air Armament, Post-World War II through Operation ROLLING THUNDER

By Maj Steven Fino
SAASS

The Arctic Nations: An Opportunity to Lead By Example - Military Forces Used in Peaceful Collaboration towards Arctic Human and Environmental Security

By Maj Marianne Knutsen, RCAF
ACSC, Canadian Forces

Are Terrorist Attacks Fulfilling Strategic Objectives or Merely Targets of Opportunity? An In-depth Analysis of the History of Al Qaida

By Maj Andrew Reardon
ACSC

Assessing the Emerging US Military Basing Posture in the Mideast

By Col Robert Webb
AWC, USAFA/DF

The Battle for Ideas in Afghanistan Counter-Insurgency Operations: Applying a Corporate Change Message Framework for Success

By Lt Col Dean Vitale
AWC, USAFA/DF

Bending the Eagle’s Wing: How Advanced Air Defense Systems Put the Enemy’s Vital Centers beyond the Reach of American Airpower

By Maj John Bartoli
SAASS, CSAF-SECAF

Beyond Afghanistan: Effective Combined Intelligence, Surveillance and Reconnaissance Operations

By Maj Royce Frengle
ACSC, USAFE

Black Air

By Maj Damone Garner
SAASS

Bombs and Umbrellas: Defending US Middle East Allies from a Nuclear-Armed Iran

By Maj Parker Wright
SAASS, CSAF-SECAF

Changing Empires: Shifting Balance in Civil-Military Relations in Turkey and Iran

By Lt Col Shahnaz Pujani
AFF

The Chinese Diaspora: China’s Instrument of Power?

By Lt Col Olivier Brault, AFA
SAASS

Cocaine Trafficking through West Africa: The Hybridized Illicit Network as an Emerging Transnational Threat

By Lt Col Michael Reiner
AWC, SOCOM

The Colombian Awakening: President Alvaro Uribe’s Integrated Action Approach to Counterinsurgency

By Maj Manuel Ramirez
SAASS, USMC

The Commander’s Emergency Response Program: A Versatile Strategic Weapon System Requiring an Azimuth Adjustment

By COL Ricky Tillotson, USA
AWC, SPOCOM

Confronting Resurgent Russia: U.S. Air Force Global Strike Contributions to National Deterrent Strategy

By Maj Matthew Genelin
ACSC, USEUCOM

Counterinsurgency Approach to Iran

By Maj Christopher Menuey
ACSC, CSAF-SECAF

Cyber OODA: A Candidate Model for Cyberspace Engagement

By Maj Christian Basballe
SAASS, AFSPC

Cyberspace Intelligence Preparation of the Operational Environment

By MAJ Kaci Cole, USA
ACSC, CSAF-SECAF

Contributions by AU Graduates — AY 2010

Dancing with the Dragon: China, North Korea and Regime Change

By Lt Col Steven Shinkel
AWC, USARWC/SSI

Designed to Win: An Agile Approach to Air Force Command and Control of Cyberspace

By Maj John Smail
SAASS, AFSPC

Developing USAF General Purpose Forces for Building Partner Nation Aviation Capacity

By Col Joseph Turk, Jr.
AWC, AFRICOM

Dissecting the Dragon: Confrontation, Coercion, and Asymmetric Leverage in China's New Pacific

By Maj Nicholas Guttman
SAASS

End Games: Support to Resistance Movements and the Lack of Western Postwar Policy in WWII

By Maj Patrick Long
ACSC, USSOC

Fall 2010 – PASEX after Action Report

By Maj Ray Besson
ACSC, USEUCOM

Fighting a small Nuclear Weapon State

By Maj Brian Gamble
ACSC, AF/A9

Global Positioning System (GPS) Requirements Update Dilemma

By Lt Col Kurt Kuntzelman
AFF

Humanitarian and Disaster Relief Operations: Winning the Hearts and Minds of the Africans

By Maj Jerry Hickey
ACSC

Influencing and Exploiting Behavioral Norms in Cyberspace to Promote Ethical and Moral Conduct of Cyberwarfare

By Maj Glen Shilland
SAASS, CSAF-SECAF

Insurgencies: Parallels between the Causes and Means of the American War for Independence and Afghanistan

By Maj Matt Baugh
ACSC

The Intercontinental Ballistic Missile and Post Cold War Deterrence

By Lt Col Kevin O'Rourke
AWC, AFSPC

Israel Policy is Key to Defeating Islamic Extremists: a Coercive Solution to the Israeli-Palestinian Conflict

By Maj Aaron Cowley
ACSC

Joint-Basing Funding

By Jeffrey McNeely
AWC, OSD

Leveraging U.S. Intelligence to Defeat Mexican Drug Trafficking Organizations: a Framework for Strengthening Democracy, Sovereignty, and the Rule of Law in Mexico

By Lt Col Kirk Karver
AFF

Methodology for Selecting the Center of Gravity at the Operational Level of War

By Maj Richard McCurdy
ACSC, USSOUTHCOM

National Ideology in the Land of Caudillos: Understanding Colombian-Venezuelan Relations

By Maj Miguel A. Cruz
SAASS

NATO's 2010 Strategic Concept Challenge: Specificity Versus Flexibility

By Maj Craig Mockler
ACSC

North Atlantic Treaty Organization Enlargement: Time for Pause?

By Lt Col James Casey
AWC, USARWC/SSI

Norway's Impact on the New Strategic Concept

By Gregory Pound
ACSC

Neutralization and the United States Withdrawal of Forces is the Only Hope for the Reunification of the Korean Peninsula

By Maj John Holovich
ACSC

Operational Design: The Art of Framing the Solution

By Maj Richard Dickens
ACSC, USSOUTHCOM

Contributions by AU Graduates

Policy Recommendation for the United States Regarding the Weaponization of Space

By Maj Michael Briggs
ACSC, CSAF-SECAF

Pursuit of the Torch: Influences on Acquisition of USAAF Fighter Aircraft Used in the North African Campaign

By Maj Maurice Azar
SAASS, 8AF

The Pashtun of Southern Afghanistan: Contextualizing a “Hearts and Minds Message”

By Maj Neal Newell
ACSC

Red Wings Ascendant: China’s Air Force Contribution to Access Denial

By Lt Col Michael Flaherty
AWC, OUSD-INE

The Role of Airpower in American Public Diplomacy in Africa

By Maj Katherine Bailey
ACSC

The Role of Missile Defense in Nuclear Deterrence

By Maj Jeremy Olson
ACSC, AF Space Command

Russia: An Unreliable Partner in a “Reset” Relationship

By Lt Col Kurt Kuntzelman
AFF

Seeing the Forest from the Sky: Joint Airpower through the Lens of Complex Systems Theory

By Maj David Lyle
SAASS

Serving the Cause: Duty Concepts and Combat Effectiveness in War

By Maj Bert Jean
SAASS, 8AF

Smart Intelligence for Smart Power: Improving Early Warning for Civil-Military Operations in Africa

By Lt Col Thomas Hensley
AFF, USAFRICOM

Stabilization, Security, Transition, and Reconstruction (SSTR): Is the Marshall Plan Relevant Today?

By Maj Ray Besson
ACSC, USEUCOM

Strategy and the Use of Airpower on the Eastern Front: Lessons for the Airpower Strategist

By Maj David Williamson
SAASS, 8AF

Sustaining the Air Commons

By Lt Col Kelly Martin
AFF

Thickening the Fog: The Truncation of Air Intelligence since World War II

By Maj William Fry
SAASS

Tragedy at My Lai

By LCDR Jason Sparks, USN
ACSC

U.S. Export Controls and the Space Industrial Base: Impacts and Options for the Future

By Maj Anthony Cole
ASCC, AFSPC

US-UAE Relations: A Partnership Threatened by Differences Regarding Human Rights

By Maj John Newton
ACSC, USEUCOM

The USAF Fighter Force Structure in the 2020-2040 Timeframe

By Col Todd Bakita
AWC, USAFA/DF

The Value of Hitler’s Brilliant Generals

By Maj Patrick Long
ACSC

Waters without Borders: Scarcity and the Future of State Interactions over Shared Water Resources

By Maj Douglas Hellinger
ACSC, USSOUTHCOM

We’ve Rattled Our Sabers...Now What? The Future of US/China Space Relations

By Maj Michael Gargasz
ACSC, AFSPC

When Is Russia Joining NATO? Russian Security Orientation in the Twenty-First Century

By Lt Col Arvid Halvorsen, RNAF
SAASS

Whose Rule? Whose Law? Filtering America Out of the Rule of Law Mission in Iraq

By Maj Jeffrey Palomino
ACSC, AF/A8

Contributions by AU Graduates — AY 2010

Doctrine; Air, Space, and Cyberspace Power; History and Lessons Learned

*Produced by
Sponsored by*

A Critical Analysis of Personal Culture Intelligence and Qatari culture

By Maj Nathan Chine
ACSC, USMC

A Giant in the Shadows: Major General Benjamin Foulois and the Rise of the Army Air Service in World War I

By Maj Karl Schrader
SAASS

Above the Influence: The Strategic Effects of Airpower in Irregular Warfare

By Maj Rob Masaitis
SAASS

Advanced Maintenance Officer Training – A Focus on AMMOS: Return on Investment...Staying the Course

By Col Scott Fike
AWC, AF/A4L

Air Vice-Marshal William Bostock: Conflicts of Command in the South-West Pacific Area

By Sq Ldr Christopher Ellison, AuAF
ACSC, USMC

An Analysis of the NATO Special Operations Transformation Initiative and the NATO Special Operations Coordination Centre

By Lt Col Peter Goldfein
AWC

An Analysis of the World War I German U-boat Campaign Used to Construct Principles for Contemporary Policy Development

By Maj Zachary Lister
ACSC, CSAF-SECAF

The Arctic Nations: An Opportunity to Lead By Example - Military Forces Used in Peaceful Collaboration towards Arctic Human and Environmental Security

By Maj Marianne Knutsen, RCAF
ACSC, Canadian Forces

Are Terrorist Attacks Fulfilling Strategic Objectives or Merely Targets of Opportunity? An In-depth Analysis of the History of Al Qaida

By Maj Andrew Reardon
ACSC

Articulation beyond the Bumper Sticker: Revamping an Incomplete and Confusing Master Tenet

By Col Rolanda Burnett
AWC

Assessing the Emerging US Military Basing Posture in the Mideast

By Col Robert Webb
AWC, USAFA/DF

The Battle for Ideas in Afghanistan Counter- Insurgency Operations: Applying a Corporate Change Message Framework for Success

By Lt Col Dean Vitale
AWC, USAFA/DF

Black Air

By Maj Damone Garner
SAASS

Beyond Afghanistan: Effective Combined Intelligence, Surveillance and Reconnaissance Operations

By Maj Royce Frengle
ACSC, USAFE

Building Partner Capacity with Operationally Responsive Space

By Lt Col Damon Feltman, USAFR
AWC, AFSPC

Catastrophe on the Horizon: A Scenario-based Future Effect of Orbital Space Debris

By Jack Donahue
ACSC, AFSPC

The Challenges of Cyber Law

By Maj Chris Hobbs, USAFR
ACSC, Raytheon

The Cognitive Map: Coordinated Planning for the Department of Defense and the Department of State

By Maj Travis Edwards
ACSC, AFMC

Creating a Comprehensive Decision Analysis Playbook for the JFACC

By Maj Ryan Gorecki
ACSC, AFMC

Cyber OODA: A Candidate Model for Cyberspace Engagement

By Maj Christian Basballe
ACSC, AFSPC

Cybersecurity Roadmap for the United States

By Maj Anthony Cole
ACSC, Raytheon

Contributions by AU Graduates

Cyberspace and the Electromagnetic Spectrum: Friend or Foe?

By Maj Kenneth Jones
SAASS

Decision Making Analysis: Critical Factory-Based Methodology

By Maj Christopher Peters
ACSC, AFMC

Designed to Win: An Agile Approach to Air Force Command and Control of Cyberspace

By Maj John Smail
SAASS, AFSPC

Developing USAF General Purpose Forces for Building Partner Nation Aviation Capacity

By Col Joseph Turk, Jr.
AWC, AFRICOM

Dissecting the Dragon: Confrontation, Coercion, and Asymmetric Leverage in China's New Pacific

By Maj Nicholas Guttman
SAASS

Fighting a Small Nuclear Weapon State

By Maj Brian Gamble
ACSC, AF/A9

The First Arrow of Islam: The Confluence of Politics, Religion, and Culture in the Battle of Badr

By Maj John Martin
ACSC, USMC

The First Test: Madison's Strategy, the Constitution, and the War of 1812

By Maj Margaret Martin
SAASS

Forty Years and Escalating: Drugs between the United States and Mexico

By Maj Kleet Barclay
ACSC

Global Positioning System (GPS) Requirements Update Dilemma

By Lt Col Kurt Kuntzelman
AFF

Hamid Kazai –Problem or Solution

By Maj Scott Silvia, USMC
ACSC

Harmony

By Maj Suanne Crowley
ACSC, USMC

Immigrants Changing US Culture

By Maj Andreas Kaukel, GAF
ACSC, USMC

Insurgencies: Parallels between the Causes and Means of the American War for Independence and Afghanistan

By Maj Matt Baugh
ACSC

Interagency Coordination at Net Speed: Recommendations to Maximize Interagency Coordination and Capabilities at US CYBERCOM

By Lt Col Kevin Campbell
AFF, AFSPC

Interpreting Airpower: American Observation of the Battle of Britain

By Maj Joseph Sheffield
SAASS

Joint Lethal Fires in Irregular Warfare

By Maj Christopher Valeriano
ACSC, HQ ACC

Legal and Ethical Aspects of the Decision for War: A Case Study

By Lt Col Michael Rafter, RCAF
AWC, OSD

Leveraging U.S. Intelligence to Defeat Mexican Drug Trafficking Organizations: a Framework for Strengthening Democracy, Sovereignty, and the Rule of Law in Mexico

By Lt Col Kirk Karver
AFF

The Morotai Mutiny: Leadership and Morale in Australia's Pacific Air War

By Sqd Ldr Christopher Ellison, RAAF
ACSC

North Atlantic Treaty Organization Enlargement: Time for Pause?

By Lt Col James Casey
AWC, USARWC/SSI

Operational Design: Development and Implementation for Enduring Freedom

By MAJ Robert Robinson II, USA
ACSC

Picking the Bone: The B-1 Bomber as a Platform for Innovation

By Maj Jonathan Creer
SAASS

Contributions by AU Graduates — AY 2010

Pursuit of the Torch: Influences on Acquisition of USAAF Fighter Aircraft Used in the North African Campaign

By Maj Maurice Azar
SAASS, 8AF

Red Wings Ascendant: China's Air Force Contribution to Access Denial

By Lt Col Michael Flaherty
AWC, OUSD-INE

Seeing the Forest from the Sky: Joint Airpower through the Lens of Complex Systems Theory

By Maj David Lyle
SAASS

Serving the Cause: Duty Concepts and Combat Effectiveness in War

By Maj Bert Jean
SAASS, 8AF

Strategy and the Use of Airpower on the Eastern Front: Lessons for the Airpower Strategist

By Maj David Williamson
SAASS, 8AF

Subconscious Influence across Cultures

By Maj Danny DeKinder
ACSC, USMC

Sustaining the Air Commons

By Lt Col Kelly Martin
AFF

Thickening the Fog: The Truncation of Air Intelligence since World War II

By Maj William Fry
SAASS

US and ROKAF Negotiations in Preparation for the Change in Wartime Operational Control

By Maj John Holovich
ACSC, ROKAF

US-UAE Relations: A Partnership Threatened by Differences Regarding Human Rights

By Maj John Newton
ACSC, USEUCOM

The USAF Fighter Force Structure in the 2020-2040 Timeframe

By Col Todd Bakita
AWC, USAFA/DF

The Value of an Independent Royal Air Force: Breaking the Oscar Wilde Paradigm in British Defence

By Wg Cmdr Shaun Harris, RAF
SAASS, 8th AF



ACRONYMS

ABNCP	Airborne Command Post
ACDIS	Arms Control Disarmament & International Security (University of Illinois at Urbana-Champaign)
ACSC	Air Command and Staff College (Air University)
AFF	Air Force Fellows
AFDDEC	Air Force Doctrine Development and Education Center (Air University)
AFIT	Air Force Institute of Technology (Wright-Patterson AFB)
AFRC	Air Force Reserve Command
AFRI	Air Force Research Institute (Air University)
ANG	Air National Guard
ARC	Air Reserve Component
ASPJ	<i>Air and Space Power Journal</i> (Air University)
AURIMS	Air University Research Information Management System
AWC	Air War College (Air University)
COIN	Counterinsurgency
CPC	Counterproliferation Center (within Air University's Air War College)
CSAT	Center for Strategy and Technology (within Air University's Air War College)
DARPA	Defense Advanced Research Projects Agency
FDT	Foreign Affairs, Defense Trade Division (Library of Congress, Washington DC)
FIU	Florida International University
GWOT	Global War on Terror
IDA	Institute of Defense Analyses (Alexandria, VA)
INSS	Institute of National Security Studies (USAF Academy)
ISCIIP	Institute for the Study of Conflict, Ideology, and Policy (Boston University)
ISD	Institute for the Study of Diplomacy
J5	Joint Staff, Plans Division
JFCOM	Joint Forces Command (Norfolk, VA)
MIT	Massachusetts Institute of Technology
NCO	Network Centric Operations
PIRP	Program on Information Resources Policy (Harvard)
PLA	Palestine Liberation Army
QCIR	Center for International Relations (Queens University)
SAASS	School of Advanced Air and Space Studies (Air University)
SF&RD	Strategy, Forces and Resources Division (IDA, Alexandria, VA)
SOCOM	Special Operations Command
SSP	Security Studies Program (MIT)
SSQ	<i>Strategic Studies Quarterly</i> (Air University)
STRIACC	Strategic Interagency Coordination Center
SAIS	School of Advanced International Studies (Johns Hopkins)
TRADOC	Training and Doctrine Command (US Army)
TWS	<i>The Wright Stuff</i> (Air University)
USEUCOM	United States European Command
USAFE	United States Air Forces, Europe
USNC	United States Navy War College (Newport, RI)
USAFA	United States Air Force Academy (Colorado Springs, CO)
WCFIA	Weatherhead Center for International Affairs (Harvard)

AU Research at Maxwell

Each year the AU commander invites senior DOD, Air Force, sister-service, and interagency leaders to propose research topics for the incoming classes at AU. This report seeks to inform AU research sponsors of the research that was accomplished in response to their topics, direct them to where they can review that research, and solicit their feedback. Those papers can be found online at the sites listed below.

AU research papers published online at the Air University Research Information Management System (AURIMS) are cleared for public release. They are organized to facilitate finding products related to a given topic or provided by a particular contributor. Some papers may relate to more than one topic and may appear in more than one search.

Air Force Research Institute

<http://afri.au.af.mil/>

Air University Research Information Management System (AURIMS)

<https://www.afresearch.org/>

Air University Press

<http://aupress.maxwell.af.mil/>

Air and Space Power Journals (ASPJ)

<http://www.airpower.au.af.mil/>

Strategic Studies Quarterly (SSQ)

<http://www.au.af.mil/au/ssq/>

Muir S. Fairchild Research Information Center (MSFRIC)

<http://www.au.af.mil/au/aul/lane.htm>

Technical help for using these sites is available by calling

DSN 493-1337, COM (334) 953-1337, or via e-mail to:

research.support@maxwell.af.mil

AU Research at Wright-Patterson

In addition, a detailed AFIT Research Report is available at:

<http://www.afit.edu/en/enr/index.cfm>

