

# Air University Research Bulletin

FAIRCHILD LIBRARY



Air University Research Bulletin  
Spring 2002

## Air University Commander's Welcome

By Lt Gen Don Lamontagne

### Inside this Issue: Selected Research Accomplishments from AU Schools

- 3 AU Research Bulletin Overview
- 4 School of Advanced Airpower Studies
- 7 Air War College
- 9 USAF Counter-proliferation Center
- 10 Center for Strategy and Technology
- 12 Air Command & Staff College
- 14 CADRE's Airpower Research Institute
- 16 AF Fellows Colloquium 2001
- 17 Research and Publication Opportunities
- 19 New Research Papers from Maxwell

OPR: Lt Col Harry Newton, PhD  
CADRE Airpower Research Institute  
401 Chennault Circle  
Maxwell AFB, AL 36112  
Research.Support@maxwell.af.mil

John Henry Cardinal Newman, the great English churchman and educator, once described a university as "a place where inquiry is pushed forward." In a university setting, the process of intellectual inquiry is largely dependent on research. Research is how we create new knowledge; it provides the means we use to seek new understandings.

Here at Air University (AU) our students and faculty constitute a unique capability for thoughtful and systematic analysis of matters of concern to the US Air Force (USAF) and joint forces. Research at AU thus becomes a key aspect of our service to the operational Air Force and the larger national security community. That is why I am proud of the research accomplishments recorded by our faculty and students during 2001.

In this edition of the *Air University Research Bulletin*, you will find summaries of more than 150 papers produced over the past year by students attending our three Maxwell-based graduate schools—the Air Command and Staff College (ACSC), the Air War College (AWC), and the School of Advanced Airpower Studies (SAAS). This collection of high-quality student papers also includes research studies completed in 2001 by officers participating in our various Air Force Fellows programs at leading universities and think tanks across the nation.

The *Research Bulletin* also catalogs the important research contributions of our military and civilian faculty at ACSC, AWC, SAAS, and the College of Aerospace Doctrine, Research and Education (CADRE).

Of particular note are the specialized studies produced at our three Maxwell research centers: the AU Center for Strategy and Technology (CSAT), the USAF Counterproliferation Center (CPC), and the Airpower Research Institute (ARI).

Thanks to the hard work of our CADRE-based research support team, all of the student studies noted in the following pages—as well as papers produced at AU's Air Force Institute of Technology (AFIT)—are available in full-text on the Internet and SIPRNET versions of the AU Research Web. I encourage you to visit this rich and growing site and to bookmark it for return visits. This unique electronic archive currently contains almost 2,000 research studies—papers, monographs, and books—produced at AU since 1995.

*Washington Post Online praises AU Research Web*

*"[Air University's] ResearchNet makes available student research papers and other studies in full text, a particularly welcomed service, and a practice that needs to be emulated by war colleges of other services."*

*Bill Arkin, Washington Post columnist and Assoc Professor at SAAS*

**See a comprehensive list of research on page 19 of this issue.**

# Air University Research Bulletin

## AIR UNIVERSITY RESEARCH CONTACTS

## AU COMMAND RESEARCH ADVISORY BOARD



Dr. James Titus  
 AU Dean of Research  
 College of Aerospace Doctrine, Research and Education (CADRE)  
[James.Titus@Maxwell.af.mil](mailto:James.Titus@Maxwell.af.mil)



Lt Col Harry Newton, PhD  
 Chief, AU Research Support  
 College of Aerospace Doctrine, Research and Education (CADRE)  
[research.support@maxwell.af.mil](mailto:research.support@maxwell.af.mil)



Dr. Harold R. Winton  
 Director, Student Research  
 School of Advanced Airpower Studies (SAAS)  
[Harold.Winton@maxwell.af.mil](mailto:Harold.Winton@maxwell.af.mil)



Dr. David Sorenson  
 Associate Dean, Research & Electives  
 Air War College (AWC)  
[David.Sorenson@maxwell.af.mil](mailto:David.Sorenson@maxwell.af.mil)



Lt Col Phil Chansler  
 Director, Student Research Program  
 Air Command & Staff College (ACSC)  
[Phil.Chansler@maxwell.af.mil](mailto:Phil.Chansler@maxwell.af.mil)



Lt Col David Farringer  
 Director, Air Force Fellows Program  
 Air University Plans & Programs  
[David.Farringer@maxwell.af.mil](mailto:David.Farringer@maxwell.af.mil)



Dr. Grant Hammond  
 Director, AU Center for Strategy and Technology (CSAT)  
[Grant.Hammond@maxwell.af.mil](mailto:Grant.Hammond@maxwell.af.mil)



Dr. Barry Schneider  
 Director, USAF Counterproliferation Center (CPC)  
[Barry.Schneider@maxwell.af.mil](mailto:Barry.Schneider@maxwell.af.mil)



Col Allan Howey  
 Director, Airpower Research Institute  
 College of Aerospace Doctrine, Research and Education (CADRE)  
[Allan.Howey@maxwell.af.mil](mailto:Allan.Howey@maxwell.af.mil)



Col George Earnhart  
 Acting CJCS Chair to AU  
[George.Earnhart@maxwell.af.mil](mailto:George.Earnhart@maxwell.af.mil)



Col Chuck Rogers  
 Vice Commander  
 Air Force Doctrine Center  
[Chuck.Roger@doctrine.af.mil](mailto:Chuck.Roger@doctrine.af.mil)



Col Kenneth Knapp  
 Air Force Materiel Command Chair to AU  
[Kenneth.Knapp@maxwell.af.mil](mailto:Kenneth.Knapp@maxwell.af.mil)



Col Ben Young  
 Air Mobility Command Chair to AU  
[Ben.Young@maxwell.af.mil](mailto:Ben.Young@maxwell.af.mil)



Col Ed Strack  
 Air Force Space Command Chair to AU  
[Edward.Strack@maxwell.af.mil](mailto:Edward.Strack@maxwell.af.mil)



Col John Jogerst  
 Special Operations Command Chair to AU  
[John.Jogerst@maxwell.af.mil](mailto:John.Jogerst@maxwell.af.mil)



Col Richard Hersack  
 Air Force Surgeon General Chair to AU  
[Richard.Hersack@maxwell.af.mil](mailto:Richard.Hersack@maxwell.af.mil)



Col Frank Bott  
 Air Force Reserve Advisor to AU  
[Frank.Bott@maxwell.af.mil](mailto:Frank.Bott@maxwell.af.mil)



Col Brad Copeland  
 Air National Guard Advisor to AU  
[Brad.Copeland@maxwell.af.mil](mailto:Brad.Copeland@maxwell.af.mil)

---

### Editorial staff:

- Lt Col Harry Newton, PhD, Co-editor
- Dr James Titus, Co-editor
- Ms. Catherine Parker, Associate Editor
- Ms. Rita Mathis, Contributing Editor
- SrA Amy Mathews, Graphic Artist

**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.**

The *AU Research Bulletin* is distributed throughout the national security community in print form and is also available electronically at <http://research.au.af.mil>. This *Bulletin* is produced by the College of Aerospace Doctrine, Research and Education and by Air University Press, Air University, Maxwell Air Force Base, Alabama.

# AU Research Bulletin Overview

## AU Research Targets AF Needs

By Dr. Jim Titus, AU Dean of Research

AU sponsors a variety of research programs. Our primary objective in publishing the annual *AU Research Bulletin* is to recognize the research accomplishments of AU faculty and students. Accordingly, we highlight faculty and student research, the latest AU Press publications, and the activities of AU's specialized research centers.

The *AU Research Bulletin* records faculty and student participation in conferences and other professional activities that extend our knowledge in the core areas of the AU curriculum. We want the *Bulletin* to foster communication about a broad range of matters related to research at AU. It is our larger hope that by publicizing our research activities and achievements, the *Bulletin* will help promote increased recognition of an important dimension of AU's service to the Air Force and the wider defense community.

The services and tools offered by the AU Library, the Air Force Doctrine Center (AFDC), the Air Force Historical Research Agency (AFHRA), and CADRE's Research Support Division contribute in myriad ways to the process of scholarly investigation at Maxwell. Accordingly, the *Bulletin* will also report on noteworthy developments in the vital area of research support.

We welcome your thoughts on ways to improve the *AU Research Bulletin*. Please send any comments to james.titus@maxwell.af.mil.

## Special Collections on the AU Research Web

The Special Collections page on the AU Research Web offers handy electronic access to student and faculty research studies selected for publication by AU colleges and schools. This electronic archive currently hosts more than 150 studies drawn from eight different scholarly series: *Maxwell Papers* (AWC); *Wright Flyer Papers* (ACSC); *CADRE Papers* and *ARI Papers* (CADRE); *Fairchild Papers* (AU Press); *CPC Occasional Papers* (CPC); *CSAT Occasional Papers* (CSAT); and master's theses selected for publication by SAAS.

The papers in our Special Collections combine solid research, first-rate thinking, and readable prose. Some of these studies offer new answers to old problems. Others propose creative solutions to emerging challenges. Collectively, they form a significant body of literature that addresses a wide range of doctrinal, technological, organizational, and operational issues. Because the content of these studies is for the most part unduplicated in civilian academe, they also constitute a unique source of critical thinking within the Air Force and contribute to the cross flow of ideas between the military and civilian communities.

Representing some of the very best research produced at AU, printed versions of papers appearing in the Special Collections archive are distributed to senior military leaders, educational institutions, policy institutes, think tanks, and leading scholars. We encourage you to visit the Special Collections page at <http://research.au.af.mil>.

## Research Programs at AU

By Lt Col Harry Newton, Chief, CADRE's AU Research Support Division

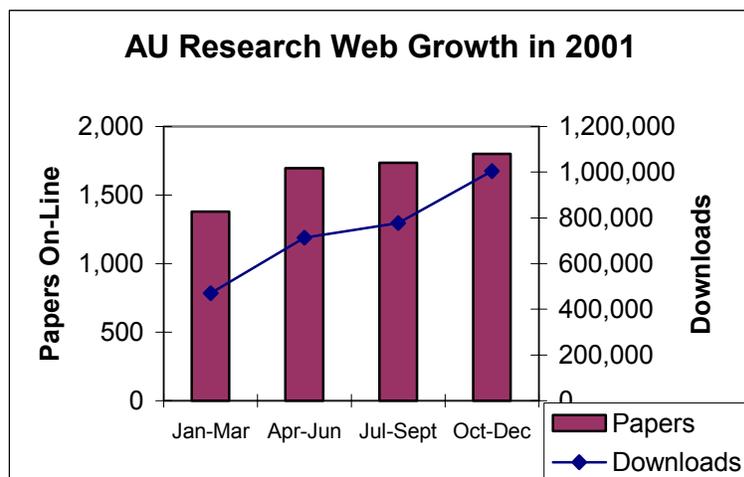
Research at AU includes both technological research undertaken primarily at AFIT at Wright-Patterson Air Force Base (AFB) in Dayton, Ohio, and research on doctrine, strategy, and the art of war conducted at the schools at Maxwell AFB, Alabama: AWC, ACSC, CADRE, and SAAS.

This *Bulletin* highlights research accomplishments of faculty and students at the Maxwell schools. In particular, it identifies student research papers produced during 2001. Full-text versions of these papers are available at the AU Research Web site (<http://research.au.af.mil>).

AFIT's research program is supervised by Dr. Heidi Ries, Associate Dean for Research, Graduate School of Engineering and Management (AFIT/EN), Heidi.Ries@afit.edu. Student theses from AFIT are not featured in this *Bulletin* but are available on-line at the Defense Technical Information Center (DTIC) STINET and the AU Research Web. AFIT recently began producing the AFIT ResearchNews publication—a flashy full-color newsletter that will be published three times a year. Browse to <http://www.afit.edu/enr> for an on-line copy.

### 3.1 Million Served!

In 2001 the AU Research Web delivered 3.16 million copies of AU research papers. Our collection of on-line papers grew to 1,850 as we added new papers produced by ACSC, AFIT, AWC, CADRE, SAAS, and the AF Fellows program.



## 2001 Research at SAAS

### 2001 SAAS Thesis Studies Now Available on-line

By Dr. Harold R. Winton, Professor of Military History and Theory

SAAS students produce some of the finest research studies at Maxwell. Each student produces a research thesis addressing an important military issue—either of historical or current importance. These studies are so professional that about half of them will eventually appear in print either in professional journals or in the SAAS Thesis series or the *CADRE Papers* series produced by AU Press. For both of these series, the student research is complimented by professional artwork and editing.

All of the SAAS Thesis studies from 1995 through 2001 are available on the AU Research Web in full text. Instructions for accessing this site are on the back cover of this *Bulletin*.

### Faculty Highlights

By Dr. Harold R. Winton, Professor of Military History and Theory

Members of the School of Advanced Airpower Studies have continued their strong tradition of making useful contributions to the emerging literature of aerospace power during the current year. As in the past, the faculty has set the example and the students have followed.

**Dr. Richard Andres** is the first SAAS visiting professor hired under the auspices of the Intergovernmental Personnel Act (IPA). His dissertation “The Balancing Preference: Why Powerful States Win or Lose Violent Disputes” was accepted by the University of California, Davis shortly before he joined the SAAS faculty. Drawing on a sample of over 1,000 violent disputes that have occurred over the past two centuries, it argues that when a major power grows more powerful than its peers, other states become much more likely to join its opponent than the powerful initiator, even when they were originally allied with the powerful state.

Dr. Andres also collaborated with Michael Koch in “Defensive Democratic Coalitions and Democratic Victory: Why Democracies Win More,” a paper presented at the American Political Science Association Conference in San Francisco, California. As the title implies, this paper argues that democracies are a good deal more likely to win violent disputes than other types of states.

**Professor James Corum** continued to represent SAAS on the international scene with two book chapters in German publications. The first was “Deutschland’s erste entscheidende Niederlage im Zweiten Weltkrieg: Die Luftschlacht um England 10. Juli. Bis 31. Oktober 1940” (Germany’s First Decisive Defeat in World War II: The Air Battle in England from July 10–October 31, 1940) in *Schlachten der*

*Weltgeschichte: Von Salamis bis Sianai (Battles of World History: From Salamis to Sinai)*, edited by Stig Foerster and Markus Poehlmann and released by C. H. Beck Verlag. The second was “Die Luftwaffe, ihre Fuehrung und Doktrin und die Frage der Kriegsverbrechen” (The Luftwaffe, Its Leadership and Doctrine and the Questions of War Crimes) in *Kriegsverbrechen im 20. Jahrhundert (War Crimes in the 20th Century)*, edited by Wolfram Wette and Gerd Ueberschaer and published by Primus Verlag.

He was also active on many fronts in academic conferences. His presentations included “Argentine Airpower in the Falklands War” and “Developing the Luftstreitkraefte’s Strategic Bombing Doctrine 1914–1918” at the Society for Military History convention, Calgary, Alberta, Canada; “Getting it Right: The Reichswehr’s Program of Military Reform” for the Canadian Land Forces Doctrine Symposium in Ontario; “The Luftwaffe’s Lessons Learned and Not Learned in the Spanish Civil War” at the Royal Air Force History conference, Hendon, England; “Starting from Scratch: Establishing the Bundesluftwaffe as a Modern Air Force 1955–1960,” Society for the History of Technology conference, San Jose, California; and “The Role of Latin American Airpower in the Current Crisis,” at the 10th Annual Western Hemisphere Institute for Security Cooperation (WHINSEC) conference on Latin American Security, Fort Benning, Georgia.

Professor Corum also addressed the use of airpower in minor expeditions in “Airpower and Small Wars” at the Massachusetts Institute of Technology Security Studies speakers program and in his article, “Air Control: Reassessing the History,” in the Summer 2001 issue of *RAF Air Power Review*.

**Professor Everett Dolman** is the newest member of the SAAS faculty. His book, *Astropolitik: Classical Geopolitics in the Space Age*, published this year by Frank Cass, Ltd., is the first work to explore the potential for space exploitation and strategy from a decidedly realist perspective. Walter McDougall, Pulitzer Prize winning historian of the space age, has called this book the “most sophisticated work of strategy” on the subject. Colin Gray says *Astropolitik* “opens a new phase in the strategic understanding of space . . . and is a true milestone in our understanding of space politics and history.”

Professor Dolman also collaborated with Dr. John Hickman of Berry College on “Renouncing the Outer Space Regime: The Demise of Space Exploration in an Era of Common Heritage,” accepted for publication in *Comparative Strategy*. This article is a companion piece to be released in conjunction with Dr. Dolman’s book. The authors argue that the standard political and economic depictions of outer space as unpossessable by individuals or states has stifled the potential of space exploration and that a form of liberal capitalism must be instituted to ignite a new space age.

## 2001 Research at SAAS

**Professor Dennis Drew's** article, "The Essence of Aerospace Power," appeared in the Summer 2001 issue of *Aerospace Power Journal*. This article argues that with the perspective of nearly 100 years of airpower experience, it is now possible to view airpower and the need for an independent air force in a very different and even more compelling light than did the early airpower theorists and most airpower practitioners during the twentieth century. Further, it argues that although *aerospace* is a politically correct term, *space power* remains a conundrum for airmen because of the lack of generally accepted theory and a paucity of wartime experience.

Professor Drew also presented "Notes on Airpower Doctrinal Issues in the Korean War" to the Korean War Air Power Symposium in Honolulu, Hawaii. This presentation focused on the doctrinal struggles caused by the sort of "limited war" not foreseen by airmen as they developed their ideas about how airpower could best be used. It also focused on the struggles between the "joint" but Army dominated United Nations Command and the Far East Air Force (FEAF) headed first by Gen George E. Stratemeyer and later—and more importantly—by Gen O. P. Weyland. The paper notes that many in the Army did not accept the newly independent Air Force as a coequal entity and that there was a drive by some senior Army officers (most notably Gen Edward M. Almond, commander of X Corps) to carve up the operational control of FEAF air assets among the ground commanders in Korea.

---

**Lt Col Peter Hays's** edited work, *Spacepower for a New Millennium*, was awarded a Citation of Honor by the US Air Force Association in September 2001.

Lt Col Hays also collaborated with former SAAS faculty member Dr. Karl Mueller in "Going Boldly—Where? Aerospace Integration, the Space Commission, and the Air Force's Vision for Space" in the Spring 2001 issue of *Aerospace Power Journal*. This article won second place in the Ira C. Eaker essay competition and was selected as a required reading for students attending AWC. The Hays–Mueller piece argues that USAF should acknowledge the considerable limitations of the aerospace concept, use greater rigor and consistency in developing vision statements, develop human capital for space leadership at both senior and junior levels, and decide what it wants to do in space before reorganizing for an unclear mission.

Lt Col Hays's article, "Military Space Policy Issues for the New Administration," appeared in the September–October issue of *Space Times*. This article discusses military use of commercial space systems, space and missile defense, and organizational issues as the three most important space issues for the new administration.

Lt Col Hays also presented two papers at the American Institute of Aeronautics and Astronautics Space 2000 Conference & Exhibition, 19–21 September 2000, Long Beach, California. The first paper, "Commercial Spysats and Shutter Control: The Military Implications of US Policy,"

examines the roots and implications of the Land Remote Sensing Policy Act of 1992 and Presidential Decision Directive 23 of 1994 in creating an American high-resolution commercial remote sensing industry. The second, "Spacepower for a New Millennium: Examining Current U.S. Capabilities and Policies," recapitulates the arguments found in chapter one of *Spacepower for a New Millennium*.

Lt Col Hays also cochaired a panel and presented a paper, "Transparency, Stability, and Deception: Military Implications of Commercial High Resolution Imaging Satellites in Theory and Practice," at the International Studies Association annual convention in Chicago, Illinois. This paper uses International Relations theory to examine how high-resolution commercial remote sensing will aid transparency, may affect global politics, and creates great potential for digital deception. Continuing on the academic circuit, he also gave a paper titled "What is Spacepower and Does It Constitute a Revolution in Military Affairs (RMA)?" at the Society for Military History annual convention in Calgary, Alberta, Canada. Here Hays argued that spacepower should be viewed comprehensively rather than overemphasizing space as an economic center of gravity and that spacepower will not constitute an RMA until weapons are placed in space.

---

**Dr. David Mets's** work, *The Long Search for a Surgical Strike*, was published in October 2001 by AU Press. This broad, thought-provoking book examines the relationship between the advancement in conventional munitions guidance technology and the Revolution in Military Affairs. By going back to the roots of airpower theory and systematically documenting developments in air weapons technology since those early days, Mets is able to offer a mature and carefully considered study of the relationship between military thought and military hardware. Findings from the research for this work were also presented at the Society for Military History's annual convention in Calgary, Alberta, Canada. Mets offered similar thoughts to another Canadian audience in his lecture, "History and Doctrinal Development of the USAF," presented to the Canadian Forces College, in Toronto.

Dr. Mets also offered an important article on aerial leadership in "In Search of a 21st Century Leadership Model," which appeared in the Summer 2001 issue of *Aerospace Power Journal*. Here Mets cogently argues that the habit of biographical study can increase the odds of a future leader's making good decisions because that leader will have added significantly to his personal database of the realities of war.

Another Mets offering was "Technology, Thought, Troops: General Carl A. Spatz and the Dawn of the Nuclear Age," which appeared as a chapter in Rebecca A. Cameron and Barbara Wing, eds., *Golden Legacy, Boundless Future*, published by the Air Force History and Museums Program, 2000. Here Mets argues that Carl Spatz's technological vision and human relations skills made him a most effective chief of staff of the newly created US Air Force.

## 2001 Research at SAAS

**Lt Col Forrest Morgan** recently signed a contract with Greenwood Press to publish a revised version of his University of Maryland doctoral thesis under the title of *Compellence and the Strategic Culture of Imperial Japan: Implications for Coercive Diplomacy in the 21<sup>st</sup> Century*. The study examines the ways in which culture affected how decision makers responded to coercive threats in three cases in which various states attempted to compel Japanese leaders to change national policies. Building on those findings, the book will offer policy makers a method for employing strategic culture analysis to develop more effective security strategies.

Lt Col Morgan also has a book forthcoming in AU Press's *Fairchild Papers* monograph series entitled *Big Eagle, Little Dragon: Propaganda and the Coercive Use of Airpower Against North Vietnam*. This study analyzes North Vietnamese propaganda during Operations Rolling Thunder, Linebacker, and Linebacker II and demonstrates that propaganda analysis can be used to help evaluate the effectiveness of coercive air campaigns.

Lt Col Morgan has completed "The Air Force" for the *Encyclopedia of US Military History*, forthcoming from Facts on File. He also has the articles, "The Asan Incident" and "The Battle of the Yalu," forthcoming in ABC-CLIO's *Encyclopedia of Naval History*.

Lt Col Morgan presented a paper entitled "Trends in the Proliferation of Air and Missile Systems in Asia: Implications for Stability" at the Conference on Conventional Arms Proliferation in the Asia-Pacific Region, held in Honolulu.

**Maj John Terino's** dissertation, "In the Shadow of Spreading Ivy: Science, Culture, and the Cold War at the University of Pennsylvania, 1950–1970," has been accepted by the University of Pennsylvania. This study in the history of science details how the relationship between the military and

the academic scientific community in the United States dramatically changed in America after World War II. This work presents a case study illustrating how the establishment of the military-industrial-academic complex altered other relationships at the local and institutional level in America.

---

At the Society for Military History's annual convention in Calgary, Alberta, Canada, **Dr. Harold Winton** received the Society's Moncado Prize for his article, "Toward an American Philosophy of Command," which assessed instruction in the art of command in the US Army military education establishment between the world wars. He also published a provocative review of Colin Gray's *Modern Strategy* in the Winter 2000–2001 issue of *Joint Forces Quarterly*.

---

Student academic efforts were highlighted by the publication of **Lt Col John Zentner's** work, *The Art of Wing Leadership and Aircrew Morale in Combat*, by AU Press in its prestigious series of *CADRE Papers*. Zentner's study argues that aircrew morale in combat is significantly influenced by the ability of the wing commander to foster and develop effective combat innovations in response to the changing realities of a dynamic air warfare environment. Another highlight of SAAS student research was **Maj Bradford J. Shwedo's** presentation, "XIX Tactical Air Command and ULTRA: Patton's Force Enhancers in the 1944 Campaign in France," to the Society for Military History's annual convention in Calgary, Alberta, Canada. Additionally, **Maj Mustafa Korprucu** published an extended and thought-provoking review of Benjamin Lambeth's *The Transformation of American Airpower* in the Summer 2001 issue of *Aerospace Power Journal*.

26 new SAAS theses produced by the class of 2001 are included in the summary at the end of this *Bulletin*.

## 2001 Research at AWC

### AWC Faculty Spotlight

By Dr. David Sorenson, Associate Dean for Research and Electives

**Dr. Stephen Burgess's** research on the South African chemical and biological warfare program appeared in two monographs by the AF Counterproliferation Center (CPC) and by the Institute for National Security Studies (INSS). He and coauthor, Helen Purkitt of the Naval Academy, are writing a book on this research, which will be published by Indiana University Press. Dr. Burgess's book, *The United Nations Under Boutros Boutros-Ghali, 1992–97*, appeared at the end of 2001. His forthcoming research on India's emerging security doctrine and defense capabilities is being funded by INSS and CPC. Dr. Burgess presented his research in papers at conventions of the International Studies Association, American Political Science Association, and African Studies Association.

**Dr. Mary Hampton** completed three new articles. The first is a book chapter entitled "Eagle in the Field of Black Birds: Lessons Learned and Applied by the U.S. Military in the Balkan Interventions." This chapter was part of a project managed by Dr. Lily Gardner-Feldman at the American Institute for Contemporary German Studies at Johns Hopkins University. The project has now appeared in book form. The second article, "Kosovo: Boon or Bust for the Trans-Atlantic Relationship?" was coauthored with Heiko Borchert and will appear in the Spring 2002 issue of *Orbis*. The article examines the divergent lessons learned by the United States and Europe in Kosovo and explores the issues of unilateralism versus multilateralism. Finally, Dr. Hampton's review article, "The Past, the Present, and the Perhaps: Is Germany a 'Normal' Power?" is appearing in the journal, *Security Studies*.

**Dr. Judith Gentleman's** *The Regional Security Crisis in the Andes: Pattern of State Response* appeared in the *Implementing Plan Colombia Special Series*, published by the North-South Center of the University of Miami and the Strategic Studies Institute of the US Army War College, Carlisle, Pennsylvania, in 2001. In September 2001, she presented a paper at the Latin American Studies Association meeting in Washington, D.C., entitled "Regional Security and the Colombia Crisis." She recently served as a panelist at a conference convened by the US Department of State on civil-military relations in Latin America. Currently, she is completing a manuscript on Mexico's changing foreign policy.

**Dr. Lawrence Grinter** continues research on China, Taiwan, and US policy toward East Asia. He presented a paper at the International Studies Association/South October 2001 conference at Wake Forest University entitled "Handling the Taiwan Issue: Bush Administration Policy toward China and Taiwan." It will be published by *Asian Affairs* in Spring 2002. Dr. Grinter is presented a paper on China-Taiwan conflict scenarios at the Association of Asian Studies at the University

of Tennessee, Chattanooga, in January 2002. He made his eighth visit to the People's Republic of China in March 2002.

**Dr. Grant Hammond** presented several papers on various aspects of globalization, technological advances, and the changing character of twenty-first century warfare to the International Studies Association, the Society for Military History, and the American Political Science Association annual conferences. These form the basis for his current research on a book on the changing nature of security in the twenty-first century. He also made a presentation on "Twenty Questions for Defense Planners" to the Military Operations Research Society. His article "Myths of the Air War Over Serbia: Some 'Lessons' Not to Learn," published in the Winter 2000–2001 issue of *Aerospace Power Journal*, was reprinted in the Royal Air Force's *Air Power Review* (June 2001) and the *Joint Warfighting Center Newsletter* (June 2001). His book, *The Mind of War: John Boyd and American Security*, was published by the Smithsonian Institution Press in May 2001. Cover endorsements include Newt Gingrich, Gary Hart, Colin Gray, and Gen Anthony Zinni, USMC, Retired.

**Dr. Christopher Hemmer's** most recent article, "Why Is There No NATO in Asia? Collective Identity, Regionalism, and the Origins of Multilateralism" (cowritten with Dr. Peter Katzenstein of Cornell University), contrasts US policy during the early Cold War in Europe and Asia toward building regional security organizations. It attempts to explore the origins of multilateral security arrangements and the implications this has for regional security today. The article is forthcoming in *International Organization*. Dr. Hemmer has also worked on completing a manuscript, "Exploring the Impact of the Missouri Crisis on America's Westward Expansion prior to the Civil War."

**Dr. Dan Henk** of the Department of Leadership and Ethics had a recent study, "Funding Defense: Challenges of Buying Military Capabilities in Sub-Saharan Africa" (coauthored with Martin Rupiya), published by the US Army Strategic Studies Institute. A monograph, "Kolwezi: Continuity and Social Change in a Central African Industrial Community," will be published in the near future by the Center for Defence Studies, University of Zimbabwe. The latter is based on anthropological field research in a mining community in the Democratic Republic of Congo. Dr. Henk currently is conducting research for a monograph that assesses the traits and competencies of strategic leadership in cross-cultural perspective.

**Dr. Thomas Hughes** recently completed a year as the Ramsey Chair at the Smithsonian Institute's National Air and Space Museum (NASM). Established in 1978, the Ramsey Chair is an internationally competitive, rotating research fellowship for scholars working on historic or policy-related topics in military aviation. The chair aims to free academicians from ongoing teaching and service commitments and to provide sustained access to the many archival and policy centers in Washington, D.C., necessary for serious scholarship. Dr. Hughes was the first Department of Defense (DOD) employee to receive this fellowship. While at NASM, Dr. Hughes conducted research into the life of Adm William

## 2001 Research at AWC

“Bull” Halsey. His biography of Halsey will rely on primary research at 17 domestic and foreign archives, as well as interviews with Halsey’s family and a few remaining intimates from World War II. Encompassing his whole life, the biography will concentrate on Halsey’s World War II service as commander, South Pacific Forces, from 1942 to 1944. In this capacity, Halsey directed the fight for Guadalcanal and the Upper Solomons. Among the drama of naval battles and the gallantry of Marines, the Solomons Campaign also represents history’s best antecedent for combined and joint air campaigning. In modern nomenclature, Halsey served as the task force commander while a rotating number of juniors served as the Air Forces Component Commander. As a historian of military aviation, Dr. Hughes hopes to flesh out this complicated and nuanced story of air war in the South Pacific. This study will lead to a 160,000 word book titled *Halsey*. In addition, Dr. Hughes also wrote “The Cold War’s International Dimensions” in *The Oxford Companion to the Cold War*, Oxford University Press, 2002, and “The Cult of the Quick,” *Aerospace Power Journal*, Winter 2001.

**Dr. David Lai** presented a talk on US–China relations at the PLA and Chinese Society in Transition conference on 30 October 2001. The conference was hosted by the Center for the Study of Chinese Military Affairs, the Institute for National Strategic Studies, and the National Defense University. The paper Dr. Lai presented to the conference is now available on-line at the China Center’s Web site, [http://www.ndu.edu/inss/China\\_Center/Chinaframe.htm](http://www.ndu.edu/inss/China_Center/Chinaframe.htm).

Dr. Lai has written two articles with two former AWC students as coauthors. One is “East Meets West: An Ancient Game Sheds New Light on US–Asia Strategic Relations.” The other is “Mirror, Mirror on the Wall, What is the Fairest Approach toward China After All?” Currently, Dr. Lai is writing on a multilateral approach to security for Asia and the Taiwan–China question. Moreover, Dr. Lai had four other publications appear in print recently: “The Great Power Dilemma: The Trade-off between Defense and Growth in Great Britain, 1830–1980,” in *Defense and Peace Economics*, vol. 12, (2001); “Chinese Warfare and Politics in the Ancient East Asian International System, ca 2700 BC to 722 BC,” in *International Interactions*, vol. 26, (2001); “Alignment, Structural Balance, and International Conflict in the Middle East, 1949–1978,” in *Conflict Management and Peace Science*, vol. 18, (2001); and “The Specter of War and the Hope for Peace: The Dilemma Facing Mainland China, Taiwan, and the United States,” in *Strategic Review*, Summer 2000.

**Dr. Glenn Lamar** is currently preparing two papers, “The Imperial War Council of 5 August 1914: Sir Henry Wilson Saves France,” for presentation at the society for Military History conference in April 2002, Madison, Wisconsin, and a paper on coalition warfare in World War I to be submitted to a journal in the spring.

**Dr. Jeffrey Record** completed research and writing on his seventh book, *Making War, Thinking History: Munich, Vietnam, and Presidential Uses of Force from Korea to Kosovo*, which will be published by Naval Institute Press in

February–March 2002. The book examines the influence of two historical analogies on presidential reasoning in foreign policy crises. He also published two articles, “Exit Strategy Delusions,” in the Winter 2001–2002 issue of *Parameters*, and “Thinking about China and War,” in the Winter 2001–2002 issue of *Aerospace Power Journal*. He is currently examining the influence of failed states, elite casualty phobia, and the RMA on US use of force in the twenty-first century. Dr. Record also developed a new core elective, offered in the third term, on the Korean War—based in part on unfolding revelations from Russian and Chinese archives.

**Dr. Matthew Rhodes** published “Slovakia After Meciar: A Midterm Report,” in *Problems of Post-Communism* (July–August 2001), 3–13; and a featured book review of J. F. Brown’s, *The Grooves of Change: Eastern Europe at the Turn of the Millenium* (Duke, 2001). He also presented a paper, “Visegrad Turns Ten,” at the conference of the American Association for the Advancement of Slavic Studies, November 2001, currently under review for publication as a Carl Beck Paper in Russian and East European Studies.

**Dr. David S. Sorenson** has had his book-length manuscript, *The Politics of the Modern Middle East*, accepted for publication by Longman’s Publishers. His coedited book (with Pia Wood at Wake Forest University) titled *The Politics of Peacekeeping* will be published by Frank Cass Publishers in 2002. Dr. Sorenson presented a paper, “The ABM Fallacy,” at the annual conference of the International Security Studies Section of the International Studies Association, Whittier College, in October 2001. He has also published a book review in the August 2001 edition of *Contemporary Security Policy* and is preparing an accepted paper on “United States Policy towards Syria” for the annual conference of the International Studies Association.

**Dr. James Toner** is one of about 20 scholars chosen nationwide to participate throughout the past academic year in an intensive study called “The Future of the Army Profession.” The independently funded study group met on three separate occasions at West Point to discuss a wide range of strategic, professional, and ethical topics of critical interest to the US Army. The collected study was presented to the Army chief of staff. Toner’s essay on military ethics was among those submitted and selected for publication in a Spring 2002 book to be published by McGraw-Hill. Dr. Toner was also selected by the US Air Force Academy to serve from July 2002 to June 2004 as Coors Chair of Character Development. Toner will teach an ethics course to cadets and serve as consultant to the Academy’s Character Development Center. He was also selected by the USAF Carns Committee as one of two ethicists (the other was Father John Langan of Georgetown University) to be interviewed about the concept of honor codes, the subject of the committee’s investigations and deliberations. Finally, Dr. Toner was selected by the Air Force Academy as a keynote speaker at the 2001 National Character and Leadership Conference, an invitation reissued for 2002.

**Lt Col Robert B. Kane’s** book, *Disobedience and Conspiracy in the German Army 1918–1945*, was published

## 2001 Research at AWC

by McFarland & Company. The book traces the development within the German army from 1918 to 1945 of the philosophies of loyalty and disloyalty—and obedience and disobedience—as challenged by the oath of loyalty to Hitler taken by the German armed forces on 2 August 1934. He has published five book reviews in the *Journal of Military History* and *Air Power History* since July 2001.

### The Maxwell Papers celebrate their Silver Edition

By Dr. Lawrence Grinter, Editor, Maxwell Papers

AWC is proud to announce the release of the twenty-fifth edition of the *Maxwell Papers*, AWC's occasional papers series which focuses on current and future issues of particular interest to the Air Force and DOD. The series began in 1996 with the AU commander signing the foreword to the first *Maxwell Paper*. Gen Ronald R. Fogleman, former Air Force chief of staff, signed the foreword to *Maxwell Paper* no. 6.

Every candidate paper goes through a rigorous review and selection process. Selected papers average 7,500 to 8,000 words and are documented in conformity with the *Air University Style Guide*. The AU Press handles technical editing and layout for each selected paper.

The *Maxwell Paper* distribution list contains 395 addresses and is growing. Senior USAF leaders, DOD agencies, professional military education (PME) institutions, Congress, other US government agencies, defense contractors, and 41 foreign air forces and institutions presently receive the papers via the distribution list. The *Maxwell Papers* are also available electronically in the "Special Collections" section of the AU Research Web site at <http://research.au.af.mil>.

Publication as a *Maxwell Paper* is an option primarily for AWC students and faculty, but it is open to all interested authors. To be considered for publication, an author should submit two copies of the manuscript to: Air War College, Attn: Lawrence E. Grinter, PhD, 325 Chennault Circle, Maxwell AFB, AL 36112-6427.

#### Recent Maxwell Papers available on-line:

- [A Separate Space Force: An 80-Year-Old Argument](#), Michael C. Whittington, no. 20.
- [US-Led Cooperative Theater Missile Defense in Northeast Asia: Challenges and Issues](#), Rex R. Kiziah, no. 21.
- [Star and Crescent: Turco-Israeli Partnership in a Tough Neighborhood](#), Joseph M. Codispoti, no. 22.
- [Growing the Space Industrial Base: Policy Pitfalls and Prospects](#), Robert L. Butterworth, no. 23.
- [China in Space Civilian and Military Developments](#), David J. Thompson and William R. Morris, no. 24.
- [Preventing Catastrophe: US Policy Options for Management of Nuclear Weapons in South Asia](#), Martin J. Wojtysiak, no. 25.

### USAF Counterproliferation Center

By Dr. Barry R. Schneider, Director

Now entering its fourth year of existence, the USAF CPC has engaged in significant research and publication efforts to make officers in the USAF aware of the diverse worldwide nuclear, biological, and chemical weapons threats to the United States and its allies and of the means for reducing and coping with those threats. As a result of the recent terrorist attacks within the United States, the center is giving special attention to the critical matter of homeland security as well.

Since its inception, the CPC has provided funding for research projects by faculty and student officers at AU. Most importantly, our growing list of books and studies have contributed new insights valuable to the USAF.

#### Counterproliferation-Sponsored Books and Publications

- Barry R. Schneider, *Future War and Counterproliferation: Military Responses to NBC Proliferation Threats* (Westport, Conn.: Praeger, 1999).
- Lawrence E. Grinter, editor, *The Dragon Awakes: China's Military Modernization, Trends and Implications* (CPC, 1999).
- Barry R. Schneider, editor, *Middle East Security Issues: In the Shadow of Weapons of Mass Destruction Proliferation* (AU Press, 1999).
- Jim A. Davis and Anna Johnson-Winegar, "The Anthrax Terror: DOD's Number-One Biological Threat," *Aerospace Power Journal*, Winter 2000, 15–29.
- Stephen F. Burgess and Dr. Helen E. Purkitt, *The Rollback of South Africa's Chemical and Biological Warfare Program* (CPC, 2001).
- Harry W. Conley, "Not with Impunity: Assessing U.S. Policy for Retaliating to a Chemical and Biological Attack," in *Essays 2001: Chairman of the Joint Chiefs of Staff Strategy Essay Competition* (Washington, D.C.: National Defense University Press, 2001), 23–29.

#### CPC Papers, Future Warfare Series (most available on-line):

- [The Military Role in Countering Terrorist Use of Weapons of Mass Destruction](#), Lansing E. Dickinson, no. 1.
- [The Third Temple's Holy of Holies: Israel's Nuclear Weapons](#), Warner D. Farr, no. 2.
- [A Chemical and Biological Warfare Threat: USAF Water Systems at Risk](#), Donald C. Hickman, no. 3.
- [Chemical-Biological Attack: Achilles Heel of the Expeditionary Force?](#) Byron C. Hepburn, no. 4.
- [The Security Implications of Micro-disarmament](#), Christopher D. Carr, no. 5. (does this need to be linked?)  
(list cont'd on page 10)
- [Assessment of the Emerging Biocruise Threat](#), Rex R. Kiziah, no. 6.

## 2001 Research at AWC

- [\*Biocruiise—A Contemporary Threat\*](#), Michael E. Dickey, no. 7.
- [\*Detering Libya—The Strategic Culture of Muammar Qaddafi\*](#), Craig R. Black, no. 8.
- [\*Smallpox: A Primer\*](#), Brenda J. McEleney, no. 9.
- [\*The Anthrax Vaccine Debate: A Medical Review for Commanders\*](#), Richard A. Hersack, no. 10.
- [\*Homeland Defense: Are We There Yet?\*](#) Judith Ward, no. 11.

### Classified CPC Studies

*Edited by Dr. Barry R. Schneider*

(Titles are unclassified.)

- (U) Kerry Taylor, "Israeli Homeland Defense: Lessons from the Passive Defense Program," AWC thesis, 1999.
- (U) B. David Campbell, "Tracking and Targeting Deeply Buried Hard Targets," AWC thesis, 1999.
- (U) Christopher Morris, "The Iranian Shahhab-3 IRBM Program: Analysis of a Threat," AWC thesis, 1999.

There are numerous other CPC studies and three forthcoming books on other counterproliferation topics.

The CPC staff also has created the CPC Internet Web page at ([www.au.af.mil/au/awc/awcgate/awc-cpc.htm](http://www.au.af.mil/au/awc/awcgate/awc-cpc.htm)). Judging by the number of hits recorded, this Web site is the best US government one-stop shopping spot on the Internet for counterproliferation information. The CPC has also provided AU researchers with a specialized database from the Monterey Institute of International Studies, Monterey, California. In the past three years, the CPC staff and associates at AU have directed over 120 AU student research studies on weapons of mass destruction (WMD) threats and counterproliferation responses.

In addition to a busy research and publication effort, the staff and associates of the CPC also teach courses at AWC, at ACSC, in the On-Scene Commander's Course, and in the Aerospace Basic Course. The CPC also sponsors numerous field studies for students at AWC, runs conferences and workshops, sponsors a series of speakers to AU, provides its books and readings to the 130+ universities and colleges that offer Air Force Reserve Officer Training Corps (AFROTC) classes to 13,500 students each year, and runs an unclassified closed circuit TV series (Channel 35) on counterproliferation topics for the 17,000 officers who attend AU each year. Also, to improve the access to timely information, the CPC *Outreach Journal* is e-mailed to hundreds of USAF and DOD officers and employees each week with copies of relevant new articles and information about upcoming conferences and classes related to NBC issues. The CPC also edits and comments on USAF and DOD draft documents relating to new CPC policy and doctrine. Finally, the CPC is leading a new effort, called the Adversaries Project, focused on developing expertise within the federal government to analyze rogue leaders and their strategic decision-making process.

The work of the CPC is sponsored primarily by Headquarters USAF/XONP and the Counterproliferation Division of the Defense Threat Reduction Agency (DTRA). A number of speakers to AWC classes and CPC conferences have also been supported by the Joint Service Integration Board (JSIG). The annual CPC conference has been supported financially by these three organizations and was also endorsed by the Office of the Secretary of Defense (OSD) and the Air University Foundation.

## The Center for Strategy and Technology

*By Dr. Grant Hammond, Director*

CSAT continued its leadership role in Air Force and DOD in researching the strategic implications of technological choices. In its sixth year of operation, the center supervised the completion of 18 student papers from AWC and SAAS, supported AU faculty research, and commissioned a monograph by CSAT Fellow Dr. Colin Gray of the University of Reading in the United Kingdom.

The center continues its efforts to publish significant works exploring the nexus between strategy and emerging technologies. Sixteen AWC students produced CSAT papers in the past year, seven of which won significant awards from AU and national military organizations. Six new monographs have been published in the past 12 months, which span topics ranging from space-based strike and orbital debris removal to computer technologies to the implications of increasing transparency in military operations. Peer review and editing are under way on nine more monographs to be printed in 2002.

Dr. Hammond, CSAT's director, published his latest book entitled *The Mind of War: John Boyd and American Security* (Smithsonian Institution Press). He also has presented papers to the Society for Military History, the International Studies Association, the American Political Science Association, the African Center for Security Studies, the George C. Marshall European Center for Security Studies, and the Catigny Conference on the Changing Character of War in the Twenty-first Century and the Future of Warfare. Dr. Hammond was awarded the AWC Faculty Leadership Award for 2001.

The center has expanded in the past year and is rapidly filling out its new facilities in building 1450. Two additional full-time positions were added, including a director of operations and an administrative noncommissioned officer.

Additional increases in personnel are already programmed for this coming year, resulting in a near tripling of the center's size in only two years.

CSAT has performed services for a variety of agencies within DOD as well as for our military allies around the world. Dr. Hammond continues to lecture at the senior service schools for the Royal Netherlands Air Force and the United Kingdom's Ministry of Defence. Dr. Hammond and Lt Col Geis are

## 2001 Research at AWC

working with Joint Forces Command in the development of new strategies and concepts of operations for future joint warfare. These concepts will form the basis for joint experimentation exercises such as Olympic Challenge 2004. Additionally, Lt Col Geis is an advisor to the US Special Operations Command commander in chief's Future Concepts Branch. In this capacity, he published *The Alternative Futures for USSOCOM for 2025*, and cofacilitated a conference on Interagency Cooperation in Terrorism Response. Dr. Hammond and CSAT's deputy director, Col (ret) Ted Hailes, were participants in the Air Force Research Laboratory (AFRL) Technology Seminar, which vetted new technologies and concepts of operations for the Air Force's Global Engagement Wargame series and the Air Force Futures Wargame. They also assisted the AFRL Directed Energy Directorate in developing the Defense Advanced Research Projects Agency (DARPA) program submission for the Phased Array of Phased Arrays radar program. The center has established working relationships with several organizations including AFRL's Munitions Directorate, the Air Force Strategic Planning Directorate (AF/XPX), Air Force Space Command, and Air Force Special Operations Command. The center continues to seek opportunities to assist DOD organizations with issues surrounding the strategic implications of technological choices.

In addition to its role in publishing and consulting, CSAT continues to teach courses at the colleges within AU. Each year, the staff teaches an elective on strategy and technology at AWC. This year, for the first time, the center will teach an elective at ACSC with a similar focus. In both these courses, the students are exposed to future technologies and have the opportunity to visit some of the Air Force's most advanced research facilities.

In this next academic year, a third elective course will be started which will give AWC students an opportunity to learn more about research currently under way at the AFRL facilities around the world. Ted Hailes is leading this effort. Further, in this next year the CSAT staff will collectively

serve as associate members of the Air Force Scientific Advisory Board during their upcoming summer studies.

CSAT's work is sponsored by a variety of organizations. AFRL is the primary sponsor. Joint Forces Command, AU, the US Special Operations Command, INSS, and the Royal Netherlands Air Force have provided additional resources.

### New CSAT Occasional Papers available on-line:

- [\*War as We Knew It: The Real Revolution in Military Affairs/Understanding Paralysis in Military Operations\*](#), Jan S. Breemer, no. 19.
- [\*Using Lasers in Space: Laser Orbital Debris Removal and Asteroid Deflection\*](#), Jonathon W. Campbell, no. 20.
- [\*Weapons for Strategic Effect: How Important Is Technology\*](#), Colin S. Gray, no. 21.
- [\*US Army Apache Helicopters and US Air Force Expeditionary Forces: Implications for Military Operations\*](#), Brad Mason, no. 22.
- [\*The End of Secrecy? Military Competitiveness in the Age of Transparency\*](#), Beth M. Kaspar, no. 23.
- [\*Space-Based Global Strike: Understanding Strategic and Military Implications\*](#), Larry G. Sills, no. 24.

In addition to the publications listed above, there are nine new AWC student research studies included in the summary at the end of this *Bulletin*.

## 2001 Research at ACSC

### ACSC Supports the “Write Stuff”

By Maj Bridget K. Carr, DVM, MPH

The ACSC 2001 graduating class included 579 students. All students produce research papers of varying length and scope via the Independent Research or Electives program. While both require demanding research pieces, students enrolled in the Electives program benefit from the unique expertise of our elective course instructors and thus are allowed a more guided study of national interest items. One hundred twenty students completed the Independent Research program; 459 completed an elective course.

Most Independent Research students select topics from a database managed by CADRE that includes high interest items submitted from “sponsors”—a variety of DOD agencies, military commands, and functional units. This creates a “win-win” situation where students address the research needs of DOD while completing PME curriculum requirements. When student papers are completed and released by Public Affairs, sponsors are notified of project completion and may access copies of the paper via the SIPRNET.

This year, 26 DOD organizations submitted over 500 topics. Because the supply of topics far exceeds the number of students completing research, many sponsors’ questions go unanswered. From ACSC’s perspective, however, the oversupply of potential research projects is good for two reasons. It represents the demand for quality research from ACSC, and students benefit from having so many topic options from which to choose.

For the fourth consecutive year, the Independent Research program began with ACSC Research Day (ARDY). The goal of ARDY is to strengthen relationships between DOD agencies and AU. DOD agency attendees included representatives from major commands (MAJCOM), unified commands, the USAF Force Protection Battle Lab, Unmanned Aerial Vehicle Battle Lab, the Air Force Surgeon General, all four military services, OSD, and the Joint Chiefs of Staff.

### ACSC Faculty Highlights

By William Dean, Assistant Professor of Comparative Military Studies, and Maj Bridget Carr

In addition to student research, the ACSC faculty was very active this year. Faculty members are encouraged to publish and otherwise participate in academic venues that help them keep their academic credentials current. Following is a listing of ACSC faculty academic accomplishments:

**Robert DiPrizio** completed his book, *US Humanitarian Interventions in the post-Cold War Era*, Johns Hopkins University Press, forthcoming.

**Dr. Douglas Peifer** authored the following articles:

- “Commemoration of Mutiny, Rebellion, and Resistance in the East and West German States and Militaries,” *Journal of Military History*, October 2001, 1013–52.

- Review of Thomas Hone et al., *American and British Aircraft Carrier Development for Air Power History*, Fall 2001, 49–51.
- Review of Timothy Vogt, “Denazification in Soviet-Occupied Germany,” *Journal of Military History*, July 2001, 851–2.

**Lt Col Nelson Mayhew** presented “Airdrop in World War II” at the ACSC Faculty Forum, 2 October 2001.

**Maj Will Bishop** presented “Space Theory and the Fall Classic” at the ACSC Faculty Forum, 21 August 2001.

**Dr. Kathleen Mahoney-Norris** authored “Huntington Revisited: Is Conservative Realism Still Essential for the Military Ethic?” forthcoming in *Essays 2001*, NDU Press. This essay was awarded third prize in the twentieth annual Chairman of the Joint Chiefs of Staff Strategy Essay Competition.

**Maj Winfield Scott** presented “War in Afghanistan? Who Would Have Thought It! The British Experience: 1839–42 and 1877–80,” ACSC Faculty Forum, 15 November 2001.

**Dr. William Dean** gave the following presentations:

- “Mobilization of a French Colony: The Case of Morocco, August–September 1914,” a paper delivered at the Southern Historical Association, New Orleans, Louisiana, 17 November 2001.
- “General Gregg’s Brigade at the Battle of the Wilderness May 1864,” a speech delivered for the Monroe County (Mississippi) Historical Society, 26 October 2001.
- “War in Afghanistan? Who Would Have Thought It! The British Experience: 1839–42 and 1877–80,” ACSC Faculty Forum, 15 November 2001.
- “Confederate Cavalry Tactics in the West,” a speech given to the Monroe County Historical Society, Aberdeen, Mississippi, April 2001.

Dr. Dean also authored reviews of the following books: Jose Alvarez’s *The Betrothed of Death, The Spanish Foreign Legion During the Rif Rebellion, 1920–27*; Peter Liddle, J. M. Bourne, and Ian R. Whitehead, *The Great World War*; Benjamin Lambeth, *The Transformation of American Air Power*; Nicola Cooper, “French Indo-China,” in *Choice Magazine* (a publication of the American Library Association).

**Dr. Matthew Schwonek** served as chair and commentator on the panel entitled “Military Adaptation in the Modern Era” at the 17th Annual Ohio Valley History Conference, Bowling Green, Kentucky, 18–20 October 2001, and presented “Bosnia on the Brain: East Central Europe and Russia in the Curriculum of the Air Command and Staff College” at the 33d National Convention of the American Association for the Advancement of Slavic Studies, Washington, D.C., 15–18 November 2001.

**Dr. Richard Muller** published five articles in Charles Messenger, editor, *The Reader’s Guide to Military History* (London: Fitzroy Dearborn, 2001). They were: “Germany, Air Force”; “Strategic Bombing Campaign, European Theater,

## 2001 Research at ACSC

WWII”; “World War I: The German Air Arm”; “Germany: Luftwaffe”; and “World War I: Strategic Bombing.” He also presented the following papers at the Origins of International War Gaming Expo, Columbus, Ohio, July 2001: “Defending the Reich: Luftwaffe Fighter Tactics against the USAAF Heavy Bomber Formation” and “Evolution of Luftwaffe Direct Army Support.” Dr. Muller served on the panel entitled “Reassessing Effectiveness” at the Ohio Valley History Conference, Western Kentucky State University, 18–20 October 2001.

**Dr. DiPrizio** presented “US Humanitarian Interventions in the Post-Cold War Era” at the American Political Science Association’s national meeting, San Francisco, California, September 2001.

**Lt Col Charles Costanzo** wrote “Shades of Sentinel? National Missile Defense, Then and Now,” for *Aerospace Power Journal*, Fall 2001.

**Dr. Paul Kan** presented “What a Trip to Blockbuster Video Can Teach Us about Bin Laden—Organizational Challenges of Terrorism,” ACSC Faculty Forum, 23 October 2001.

**Lt Col Phillip Chansler** presented “Predictors of Work Group Cohesion at a Harley-Davidson Motor Company Plant” at the Production and Operations Management Society 2001 conference.

**Lt Col Mark Jordan** coauthored with Dr. Hubert Field and Dr. Achilles Armenakis “Team Process Variables: Their Relationship to Self-Managing Team Performance in a Field Setting,” Small Group Research, February 2002.

**Maj Richard London** authored with Ann Huffman, “The Impact of ‘Commuter War’ on Military Personnel,” to appear in *Military Medicine*.

### New Wright Flyer Papers

By Staff

The *Wright Flyer Papers* are an ACSC-produced series, recognizing the “best of the best” student research projects from each year. In 2001, five studies were published in this series. For more information, contact the series editor Capt Munglun Yuen (Munglun.Yuen@Maxwell.af.mil).

New *Wright Flyer Papers* available on-line:

- [Fatigue Management for Aerospace Expeditionary Forces Deployment and Sustained Operations](#), Michael A. LeClair, no 12.
- [They Too Served—496th Fighter Training Group, 1943–45](#), David H. Kelley, no. 13.
- [Identifying and Mitigating the Risks of Cockpit Automation](#), Wesley A. Olson, no. 14.
- [Electronic Combat Support for an Expeditionary Air Force the Lessons of History](#), James C. Rentfrow, no. 15.
- [Ethnic Conflict and US Central Command Policy for the Central Asian Republics](#), William M. Tart, no. 16.

### ACSC and CADRE Host Wargaming Conference

By Maj John Van Hove, CADRE Connections Co-Chair and Matt Caffrey, ACSC Connections Co-Chair

Since 1993 AU has held the annual Connections conference to push the envelope on state-of-the-art wargames—both military and commercial. For the past six years, ACSC and CADRE have jointly hosted the Connections conference. The size of the conference continues to grow—this year over 130 wargaming and military professionals attended. The theme of the Connections 2002 was educational wargaming.

Speakers included airpower experts, such as Maj Gen Dave Deptula, Combined Air Operations Center (CAOC) commander during the first 60 days of Enduring Freedom, and Col (ret) John Warden, initial architect of the Gulf War joint air campaign, who provided insights on the real-world impact of air and space power that wargame designers need to depict. Such wargame experts as Mr. James Dunnigan, the most prolific wargame designer ever (over 140 designs), and Mr. John Hill, designer of the best selling print wargame of all time (Squad Leader), provided insights into achieving “elegance” in wargame design. Other wargame designers included Dr. Ed Bever, speaking on quantifying the economic dimension of conflict; Mr. Joseph Miranda, speaking on modeling the psychological impacts of terrorist and military operations; and Mr. Roger Mason, speaking on using wargaming to train police to respond to terrorist attacks.

Attendees participated in three conference working groups. The “Opportunities” working group, chaired by Col Bobby J. Wilkes, CADRE/CC, explored what new wargames and wargaming support technologies may be available from allies, sister services, elsewhere in the Air Force, and commercial-off-the-shelf (COTS) sources. The “Needs” working group, chaired by Col Steve German, ACSC/CV, examined how wargaming could better support professional military education. The “Conference” working group, chaired by Col Dale Shoupe, ABC/CC, explored how future Connections conferences could be more effective.

During demo night, conferees “test drove” the newest wargames and related technologies from across the military and civilian companies. During game night, conferees executed AU-developed wargames: Origins of World War II (a strategic level wargame produced by ACSC), Advanced Combat Timeline (a joint operational level wargame developed by CADRE), and AIRGAP (a tactical air operations wargame developed by SOC).

The annual Connections conference is meeting its goal—stimulating wargaming innovation. For more information, visit [www.cadre.au.af.mil/wgweb/wgn/connections](http://www.cadre.au.af.mil/wgweb/wgn/connections).

## 2001 Research at USAF National Defense Fellows

### CADRE's Airpower Research Institute

By Col Allan Howey, Director

ARI is one of six directorates of CADRE. ARI fulfills an important role in AU by acting as a “cradle to grave” system for research—research made available both in print and electronically. The institute not only solicits and publishes research but also carries out its own research projects and supports other AU research programs.

The AU Dean of Research's office operates out of ARI with the mission of “creating research opportunities that promote professional development and produce innovative thinking on critical military issues.” To accomplish this mission, the dean works closely with research directors in AU schools, the AU Command Research Advisory Board (CRAB) and ARI's Research Support Division.

The Professional Journals Division seeks to promote discussion, debate, innovative thinking, and good writing on a wide range of issues relating to aerospace power. It produces three versions of the quarterly *Aerospace Power Journal* (APJ)—the English, Spanish, and Portuguese editions. The division also publishes an on-line journal titled the *Aerospace Power Chronicles*, featured on the inside back cover of this *Bulletin*. These journals not only solicit scholarly articles and original research but also provide venues for publishing those pieces.

The task of producing timely research falls to the Research Division of ARI. This division consists of a small group of military defense analysts who research future concepts of operations. The division publishes the *ARI Papers*.

CADRE's ARI reaches across the spectrum of research needs. It joins the Air Force's other research centers in providing both a stimulus for original research and a vehicle for presenting the results of that research.

### The CADRE Papers

By Dr. Jim Titus, Series Editor

*CADRE Papers* are occasional publications sponsored by CADRE's ARI. Dedicated to promoting understanding of air and space power theory, doctrine, and application, these studies are published by the AU Press and broadly distributed to 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.

The entire collection of 24 papers in the original *CADRE Papers* series (1985–90) is available in electronic format on the AU Research Web at <http://research.au.af.mil>. The same site also hosts electronic versions of *CADRE Papers* produced since the series was revived in 1998. Printed copies of *CADRE Papers* in the current series, and a limited number of titles from the original series, are available from AU Press.

All faculty and students assigned to AU are invited to submit unclassified manuscripts to CADRE/AR for publication consideration. Manuscripts should deal with air and/or space power history, theory, doctrine, strategy, or employment or with joint or combined service matters bearing on the application of air and/or space power.

Three new *CADRE Papers* have been published since May 2001:

- **Bradford J. “BJ” Shwedo**, [\*XIX Tactical Air Command and ULTRA: Patton's Force Enhancers in the 1944 Campaign in France\*](#), no. 10.

Drawing heavily on declassified ULTRA intelligence reports, the records of XIX Tactical Air Command, and postwar interrogations of German commanders, Shwedo argues that Gen George S. Patton Jr.'s spectacularly successful drive across France may have been less the product of Patton's storied “sixth sense” than of his confidence in ULTRA intelligence and tactical airpower. This study originally was written as a master's thesis for AU's SAAS and won the Air Force Historical Foundation Award as the best SAAS thesis for academic year 1999–2000.

- **John J. Zentner**, [\*The Art of Wing Leadership and Aircrew Morale in Combat\*](#), no. 11.

Another professionally edited SAAS thesis, Zentner's study seeks to identify and understand the unique characteristics associated with successfully leading airmen in the face of significant combat losses. Basing his analysis on three historical case studies, Zentner concludes that aircrew control over development of combat tactics proved the single most important element affecting morale.

- **David R. Mets**, [\*The Long Search for a Surgical Strike: Precision Munitions and the Revolution in Military Affairs\*](#), no. 12.

This study examines the relationship between the development of conventional weapons guidance technology and the RMA. More specifically, Mets considers whether the marked improvement in conventional air weapons accuracy since World War II is the foundation, a primary support, or is irrelevant to the RMA. He closes by evaluating whether today's air-delivered precision munitions fulfill the dreams of the founding fathers of airpower. Dr. Mets is Professor of Technology and Innovation at SAAS.

## 2001 Research at CADRE

### CADRE Supports AU's World-class Faculty and Students

*By Lt Col Harry Newton, Chief, CADRE's AU Research Support Division*

The faculty and students at Maxwell schools comprise a world-class accumulation of practical and theoretical expertise on air and space power. The job of the AU Research Support staff is to help market the research accomplishments of this august group. Producing this *Bulletin* is one way we accomplish our mission.

We also conduct the annual AU Call for Research Topics on behalf of the AU commander, where each summer AU invites the submission of prospective research topics from MAJCOMs, unified commands, and the Air Staff. These prospective topics are then fed into the student research programs at AU during the academic year. At the end of the year, we produce the Annual Report to Sponsors—summarizing the papers written on these suggested topics. Simultaneously, we make these papers available to the DOD community via the SIPRNET. Once these papers have been approved for public release, we electronically publish them to our Internet site—the AU Research Web.

This year, in concert with the research directors at each school, the AU research support team gathered 600 potential research topics, hosted kickoff events for the student research programs across AU, and “e-published” over 300 research publications.

We are striving to provide world-class research support that makes the most of our world-class university!

### The *ARI Papers*

*By Dr. Daniel Mortensen, Series Editor*

*ARI Papers* are occasional publications published by CADRE's ARI. Commissioned by the Air Staff and senior Air Force leaders, *ARI Papers* seek to provide independent analysis of a wide range of issues related to airpower theory, doctrine, and employment. Since this series was inaugurated in 2000, studies have been conducted for the chief of staff of the Air Force (CSAF); the director of the Air Force Quadrennial Review (HQ USAF/QR); the director of EAF Implementation (HQ USAF/XOP); the director of Intelligence, Surveillance and Reconnaissance (HQ USAF/XOI); CHECKMATE (HQ USAF/XOOC); the National Air Intelligence Center; Headquarters Air Mobility Command; and US Special Operations Command.

Copies of *ARI Papers* are provided to sponsors and broadly distributed across the Air Force, the Joint Staff, joint commands, DOD, and other governmental organizations. Additional recipients include sister-service PME schools, selected universities, military and civilian think tanks, and leading scholars. *ARI Papers* are available in electronic format on the AU Research Web at <http://research.au.af.mil>. A

limited number of printed copies are available at ARI. Four new *ARI Papers* have been published since April 2001:

- **Col Allan W. Howey**, [\*Global Dynamic Operations\*](#), *ARI Paper* 2001-01.

Given the possibility of Air Force participation in multitheater conflicts and the expense of maintaining specialized aerospace weapon systems, theater joint force air component commanders (JFACC) might well compete with each other over low-density, high-demand assets. Global Dynamic Operations proposes centralized command and control of these assets under a Global Forces Air Component Commander (GFACC).

- **William L. Dowdy**, [\*Expeditionary Diplomacy: POL-MIL Facilitation of AEF Deployments\*](#), *ARI Paper* 2001-02.

Drastic reduction of overseas bases and increased deployments to forward locations outside of the Cold War alliance structure serve to underscore the increasing importance of “diplomatic preparation” of the battlefield. Dowdy introduces the notion of “expeditionary diplomacy,” a process that prepares the way for overseas deployments. He then examines current Air Force, MAJCOM, regional component, and schoolhouse initiatives to meet the diplomatic challenges of operating into and from numerous far-flung locations.

- **Capt Gilles K. Van Nederveen**, [\*Wizardry for Air Campaigns: Signals Intelligence Support to the Cockpit\*](#), *ARI Paper* 2001-03.

Notwithstanding large expenditures for improving real-time intelligence support to air operations, existing structures and systems may not be responsive to future requirements. In particular, the impediments associated with excessive secrecy must be addressed in order to promote more effective operational planning and execution. The author examines applications of signals intelligence in World War II, Korea, and Vietnam and finds that unwarranted secrecy has repeatedly impeded full exploitation of this key asset.

- **Capt Gilles K. Van Nederveen**, [\*USAF Airlift into the Heart of Darkness, the Congo 1960–1978: Implications for Modern Air Mobility Planners\*](#), *ARI Paper* 2001-04.

Airlift operations in Third World countries are always a challenge due to distances and lack of modern airfield facilities. USAF airlifters met that challenge three times in the strife-torn Congo during the 1960s and 1970s. An understanding of those operations can serve as an important historical baseline for future air mobility contingencies. Since coalition operations are a vital part of contemporary US strategy, the author also offers a comparative analysis of USAF and Belgian operations in the Congo.

## 2001 Research at USAF National Defense Fellows

### Air Force Fellows Colloquium 2001: Leadership and Emerging Military Issues in the New Century

*By Maj Malcolm Walker, Coordinator*

In June 2001, Air Force Fellows, civilian defense experts, and Air Force leaders gathered in Arlington, Virginia, to present research on homeland defense, terrorism, missile defense, peacekeeping, transformation issues, and information warfare.

Jointly sponsored by the director of strategic planning (AF/XPX) and AU, the conference was attended by several hundred guests from all services, civilian defense think-tanks, service war colleges, defense contractors, and congressional staffs. Keynote addresses were provided by Maj Gen John L. Barry, AF/XPX; Mr. Dan Goure, Lexington Institute; Gen Hal Hornburg, AETC/CC; Lt Gen Don Lamontagne, AU/CC; Lt Gen Joseph Werhle, AF/XP; Gen (ret) Larry Welch, former CSAF and president of Institute for Defense Analyses; Gen (ret) John Shaud, chairman of the Air Force Association; Ms. Michelle Flournoy, Center for Strategic and International Studies; and Mr. Randy Larson of ANSER.

AU's own Dr. Grant Hammond led off the two-day meeting with a panel that featured papers on terrorism. Panelists described terrorism on US soil as a question of not if, but when. Panelists went on to describe the lack of a national strategy on domestic terrorism, the need for an independent homeland defense agency, and the need to balance constitutional rights of individual citizens with the obligation to protect society. Michelle Flournoy followed this panel with a discussion on the Quadrennial Defense Review (QDR), saying that "de-confliction of homeland defense and theater war assets are a must in this QDR."

A panel chaired by Dr. Victor Utgoff of the Institute for Defense Analyses further elaborated on homeland defense issues. Panelists argued that new threats required more attention to US homeland defense, to include indifference by a citizenry that has never felt a need for a homeland defense. Panelists identified specific threats such as WMD and missiles and such countermeasures as the airborne laser, diplomatic policy options, and educational initiatives. Randy Larson later presented a talk on homeland defense to the group.

Dr. Lee Dowdy of CADRE cochaired a panel on security issues in the Middle East and Central Asia with the Washington Institute's Patrick Clawson. Discussions centered on the effectiveness of United Nations sanctions on Iraq; working with Russia in managing security issues in Central

Asia; and building strategic partnerships with nations in the South Caucasus in Central Asia, such as Uzbekistan, Kazakhstan, Kyrgyzstan, and Azerbaijan.

#### Other panels tackled transformation issues

Col (Sel) Tom Ehrhard from the Air Force QDR office chaired a panel that discussed unhabited combat aerial vehicles (UCAV); precision weapons; future fighter force structure; and concepts to thwart nuclear, biological, and chemical threats to US forces operating in the Middle East.

This panel was entitled "Aerospace Issues." Panelists included Lt Col Tim Sakulich, an AF Fellow with the Institute for Defense Analyses, Dr. Phillippe Loustaunau, and Lt Col (Sel) Steve Smith of AF/QDR office.

Col Rob Owen from HQ AMC chaired a very popular panel that was well attended by Army officers, Marines, and officials from AWC and National Defense University. Dr. Loustaunau, of the Institute for Defense Analyses, and other panelists discussed the need for a mix of strategic precision engagement and small, rapidly deployable Army teams.

Dr. Harvey Sapolsky of the Massachusetts Institute of Technology presided over a panel on the defense industry. Discussion highlighted the ongoing defense industry consolidation and America's defense trade policy.

Maj Gen Dale W. Meyerrose of USSPACECOM chaired an information warfare panel. This panel discussed future challenges in computer network defense and attack.

Generals Welch and Shaud also focused their talks on transformation. General Welch expressed the view that we should design capabilities rather than designing forces and weapons for a given threat. The general said that transformation is not a destination. "The transformational path is always a failure because by the time you reach your objective force, the threat has changed." General Shaud discussed how the president and secretary of defense want to skip next-generation systems and argued that the F-22 is a leap-ahead system.

General Hornburg and Maj Gen (ret) Chuck Link, AF/DP-DAL, concluded the colloquium with a major address on leadership followed by a panel discussion on leadership.

AU is grateful to all panelists, panel chairs, guest speakers, AF/XPX, and ANSER for their contributions to this successful conference. Papers from this event have been published at <http://research.au.af.mil>.

A comprehensive list of on-line papers for the Air Force Fellows Program is shown in back of this issue.

## Research & Publication Opportunities

### AU Press Publications

By John E. Jordan, Chief Editor

AU Press, a division of AU Library, publishes school-selected student papers, faculty research efforts, textbooks, curriculum-related materials, as well as the *AU Catalog* and other administrative documents in direct support of AU PME. Among the series of school-sponsored papers we support are the *AWC Maxwell Papers*, *ACSC Wright Flyers*, *SAAS Thesis* series, and *CADRE Papers*. In addition, AU Press sponsors the *Fairchild Papers*, selected essays of research value to the Air Force that otherwise would not be published. Recent monographs in the series include *The Vital Link: The Tanker's Role in Winning America's Wars*, David M. Cohen; *Air Mobility: The Key to the United States National Strategy*, Richard J. Hazdra; and *Expeditionary Air Operations in Africa: Challenges and Solutions*, Karen U. Kwiatkowski.

AU Press also publishes monographs, books, and other research and educational materials under the guidance of the AU Publications Review Board (PRB), at the instruction of higher level headquarters and in cooperation with Air Force agencies. Recent publications include *Introduction to the United States Air Force*, editors B. Chance Saltzman and Thomas R. Searle, a CADRE-developed book for use in the AFROTC program; *Aerospace Power in the Twenty-First Century: A Basic Primer*, K. S. Chun, a cooperative publication with the US Air Force Academy; *Sharing Success—Owning Failure: Preparing to Command in the Twenty-First Century Air Force*, David L. Goldfein, a work in support of the Developing Aerospace Leaders (DAL) program; and *Airmen and Air Theory: A Review of the Sources*, Phillip S. Meilinger, a primary bibliographic resource.

AU Library welcomed more than 7,600 visitors to its AU Press Bookstore and distributed approximately 90,000 books throughout the Air Force and worldwide during calendar year 2001. The Press will soon publish two major works of interest to the air and space community. These are *The Praetorian STARship: The Untold Story of the Combat Talon*, a cooperative venture with the Air Force Special Operations Command, written by Col Jerry L. Thigpen, USAF, retired; and *American Airpower Comes of Age: General Henry H. "Hap" Arnold's World War II Diaries*, a two-volume book edited by Gen John W. Huston, USAF, retired.

Printed copies of our products are available at the AU Press Bookstore, 131 West Shumacher Avenue, Maxwell AFB, AL 36112-6615. Electronic copies are available via our Web site at <http://aupress.au.af.mil>. For a printed or electronic copy of the AU Press publications brochure, please contact the bookstore at 334-953-2773, DSN 493-2773, or fax us at 334-953-6862. If you have a completed manuscript you would like our review board to consider for publication, please contact Mr. John Jordan, Chief, Editorial Branch B, at the address above or at extension 334-953-5575.

### Aerospace Power Journal

By Lt Col Scott Wierschke, APJ Senior Editor

*Aerospace Power Journal (APJ)* is the professional journal of the USAF and the primary forum for worldwide aerospace power debate. *APJ* promotes professional dialogue for all aerospace professionals and is published quarterly in English, Spanish, and Portuguese. The journal focuses on the operational and strategic levels of war and contains feature length (2,500–5,000 words) and opinion (1,500 words) articles on these and other topics of interest to Air Force members.

For the computer savvy reader, *APJ* is available on-line at our *Aerospace Power Chronicles* Web site, [www.airpower.au.af.mil](http://www.airpower.au.af.mil). Here you will also find all back issues of *APJ (Aerospace Power/Airpower Journal)*, back issues of the *Air University Review* back to 1980, the *Contributor's Corner* and *CGO Voices* on-line journals with more aerospace power articles that could not be fit into *APJ*, and more. The site is fully indexed and searchable, providing a great research resource.

*APJ's* editors are charged by the CSAF with shaping the aerospace professional dialogue. You can help shape that dialogue by contributing. For guidelines and advice on writing and submitting an article or subscribing to *APJ*, see <http://www.airpower.au.af.mil/airchronicles/howto.html>.

### Joint Forces Quarterly

By Capt Jerry Faber, US Navy, Senior Military Fellow, Institute for National Strategic Studies, National Defense University (email: [faberg@ndu.edu](mailto:faberg@ndu.edu))

*Joint Forces Quarterly (JFQ)* is published for the chairman of the Joint Chiefs of Staff by the Institute for National Strategic Studies, National Defense University, to promote understanding of the integrated employment of land, sea, air, space, and special operations forces. The journal focuses on joint doctrine, coalition warfare, contingency planning, combat operations conducted by the unified commands, and joint force development.

The editors invite articles and other contributions on joint warfighting, interservice issues that support jointness, and topics of common interest to the armed forces. *JFQ* welcomes submissions from members of the armed forces, as well as by both defense analysts and academic specialists from this country and abroad—including foreign military officers and civilians. There is no required length for contributions, but manuscripts of 3,000 to 5,000 words are appropriate. Other submissions, however, to include letters, commentary, and brief essays, are invited. Each edition includes a complete guide to contributors. Read *JFQ* on-line at [www.dtic.mil/doctrine/jel/jfq\\_pubs/index.htm](http://www.dtic.mil/doctrine/jel/jfq_pubs/index.htm)

## Research & Publication Opportunities

### Joint Center for Lessons Learned Bulletin

By: Mr. Al Preisser, Editor

The *Joint Center for Lessons Learned Bulletin* is focused on articles that are applicable to the joint and service communities. Papers submitted should be three to five pages in length and contain information relative to lessons learned or issues that would be of benefit to the target audience. Papers are reviewed but are not refereed, providing an open forum for discussion and original thought. Papers of longer length may be submitted along with an executive summary of three to five pages for print; and the complete paper, if selected, would then be published on the JCLL Web site. Plans call for future issues of the *Bulletin* to be focused on the issues of homeland security and homeland defense. Additional topics for future issues will include rules of engagement, force protection, counterproliferation, antiterrorism, and peace operations. Articles on other topics are welcome and will also be considered as confidential for publication.

Previous papers published from AU include the following:

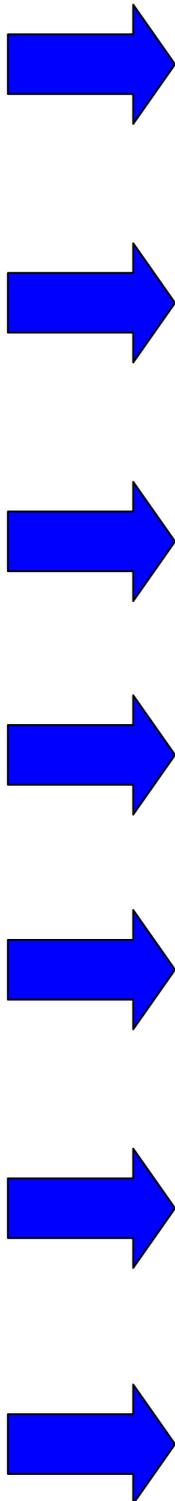
- *Global Engagement 98: Executive Summary*
- *Global Engagement IV: Executive Summary*
- “*Air Operations Must Be Joint*,” by Maj Scott A. Fedorchak
- “*Airpower in Peace Enforcement*,” by James Corum
- “*Striking the Balance: Airpower Rules of Engagement*,” by Maj Richard M. Perry
- “*Integrating Joint Operations Beyond the FSCL*,” by Lt Col Dwayne Hall (printed as series in four parts)
- “*Myths of the Air War over Serbia: Some ‘Lessons’ Not to Learn*,” by Dr. Grant Hammond

Bulletins are published quarterly in March, June, September, and December. The submission deadline is the first of the quarter (for example, January for the March distribution). E-mail to [jcll@jwfc.jfcom.mail](mailto:jcll@jwfc.jfcom.mail) or by US mail to: Commander, USJFCOM JW4000, 116 Lake View Parkway, Suffolk, VA 23435-2697. For further information contact Mr. Al Preisser, Editor, at DSN 668-7497 or Comm 757-686-7497.

The following student research studies were completed during 2001 and are now available on-line. Many of these studies were undertaken to address prospective research questions raised by MAJCOMs, unified commands, and others during the annual AU Call for Research Topics.

The easiest way to read these studies is to browse to <http://research.au.af.mil> and click on the title in the on-line copy of this Bulletin. Or, from our Web site, use the search tool to find all of our papers based on keywords in their title or abstract.

The AU Research Web site has over 1,850 papers written at the graduate schools of Air University since 1995.



## 2001 Research at Maxwell

Sponsor Group	Page
Department of Defense and Joint Chiefs of Staff	19
Unified Commands	20
Sister Services	20
Headquarters – Air Force	21
MAJCOMs	22
Field Operating Agencies (FOA) and Direct Reporting Units (DRU)	24
Battlelabs and Research Centers	25
Other Papers of Note	27

Sponsor and Requested Topic	Title of Paper	Student	School
-----------------------------	----------------	---------	--------

### DOD and JCS

Research studies undertaken on topics for the Depart of Defense & the Joint Chiefs of Staff.

#### Joint Chiefs of Staff (JCS)

Col George Earnhart, DSN 493-7649, is the temporary JCS Command Chair to AU.

Obstacles to UAV Development and Deployment	<a href="#">Past UAV Program Failures and Implications For Current UAV Programs</a>	Barak Carlson	ACSC
An Examination of US Policy Towards Iraq: Success or Failure?	<a href="#">An Aerospace Power Engagement Strategy for Iraq and the Persian Gulf after Sanctions</a>	Robert Blanke	ACSC
AU-initiated Project	<a href="#">Air Force Information Operations (IO) Doctrine: Consistent with Joint IO Doctrine?</a>	Robert Blackington	ACSC
Exit Strategies from Peacekeeping Operations	<a href="#">Peacekeeping Exit Strategy: A Renaissance for the Deadline?</a>	Jeffrey Stambaugh	AF Fellows
NAPSTER as a Model for Distributed Joint Battlespace Intelligence Dissemination and Operational Tasking	<a href="#">Peering Into The Future: Peer-To-Peer Technology as a Model for Distributed Joint Battlespace Intelligence Dissemination and Operational Tasking</a>	Mark Bontrager	SAAS
The Role of Political Authorities in Theater Target Approval	<a href="#">Who Should Call the Shots? Resolving Friction in the Targeting Process</a>	Richard Hand	SAAS
AU-initiated Project	<a href="#">Linking Target Selection to Political Objectives</a>	Scott Tew	ACSC
The Emerging European Defense Identity: Implications for NATO	<a href="#">The European Union's Emerging Military Capability</a>	Johan Tornqvist	ACSC
Obstacles to UAV Development and Deployment	<a href="#">The Implications of Executing the SEAD Mission in a UCAV</a>	David Hathaway	SAAS*
Impact of JV2020 on Future Coalition Operations	<a href="#">Do We Make Interoperability a High Enough Priority?</a>	Michelle Schmith	ACSC
Transitioning to a Post-Sanctions Environment in the Gulf States	<a href="#">Desert "Overkill": The High Cost of the Iraqi No-Fly Zone Military Strategy</a>	Stephen Miller	ACSC*

\*Pending review for public release.

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
-----------------------------	----------------	---------	--------

### Unified Commands

Research studies undertaken on topics for unified commands.

#### US Central Command

AU-initiated Project	<a href="#">No Fly Zones: Costs, Benefits, and Conditions</a>	William Tart	SAAS*
AU-initiated Project	<a href="#">Preventing Catastrophe: US Policy Options for the Management of Nuclear Weapons in South Asia</a>	Martin Wojtysiak	AWC

#### US European Command

AU-initiated Project	<a href="#">Expanding Security Eastward: NATO Military Engagement in the South Caucasus and Central Asia</a>	James DeTemple	AF Fellows
----------------------	--	----------------	------------

#### US Space Command

Col Edward Strack, DSN 493-2431, is the Space Command Chair to AU. See also the AFSPC section.

AU-initiated Project	<a href="#">The Command of Space: A National Vision for American Prosperity and Security</a>	John Amrine	AWC
AU-initiated Project	<a href="#">Vision to Victory—Space, Mahan, and Mitchell: The Role of the Visionary in Cross-organizational Innovation</a>	Fred Gaudlip	SAAS

#### US Special Operations Command

Col John Jogerst, DSN 493-5407, is the Special Operations Chair to AU. See also the AFSOC section.

Unmanned Air Platforms in Future Warfare: A Cost Benefit Analysis of UAVs in Various SOF Roles.	<a href="#">UAVs and ISR Sensor Technology</a>	Jeffrey Butler	ACSC
---	--	----------------	------

#### US Transportation Command

Col Ben Young is the Mobility Command Chair to AU. See the AMC section for related studies.

AU-initiated Project	<a href="#">De-Ranged: Global Power and Air Mobility for the New Millennium</a>	Robert Colella	SAAS*
AU-initiated Project	<a href="#">National Response to WMD Incidents: Implications for Airlift</a>	Gary Renfrow	SAAS*

### Sister Services

Research studies undertaken on topics for Sister Services.

#### US Marine Corps

KC-130J Aircrew Composition	<a href="#">USMC KC-130J Crew Composition</a>	Kenneth Zieleck	ACSC
KC-130J Aircrew Composition	<a href="#">The Future of Small Air Forces and Combat Aircraft</a>	Robert V. Jackson	ACSC

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
How Can "Aviation" Counter Asymmetric Threats?	<a href="#">Can "Airpower" Counter The Asymmetric Threat?</a>	Robert Barr	ACSC
<b>US NAVY</b>			
AU-initiated Project	<a href="#">An Assessment of US Navy Junior Officer Retention (1998–2000)</a>	Kerwin LeFrere	ACSC
<b>US Army</b>			
AU-initiated Project	<a href="#">Army Space Operations Organization: Stellar Support for the Warfighter</a>	Thomas James	SAAS*
<b>HQ AF</b>			
Research studies undertaken on topics for the Secretary of the Air Force and Air Staff.			
<b>Air National Guard</b>			
Col Brad Copeland (DSN 493-7039) is the Air National Guard Advisor to AU.			
Role of National Guard in WMD Response	<a href="#">The Role of the National Guard in Responding to Weapons of Mass Destruction (WMD) Attacks in the U.S.: Where Do We Stand?</a>	Miguel Besosa	ACSC
WMD and State Emergency MGMT Staff/MSN Mix	<a href="#">Weapons of Mass Destruction Civil Support Teams (WMD-CST): A Necessary Failure</a>	Larry Walker	ACSC
Extending F-16 Availability Through the Fielding of JSF	<a href="#">Extending USAF F-16 Force Structure</a>	Bryan Manes	ACSC
<b>AF Surgeon General</b>			
Col Ron Hersack, DSN 493-4849, is the Surgeon General command chair to AU.			
Assess Impact of Off-Duty Injuries among Military Members	<a href="#">Fatal and Severe Injury Motor Vehicle Crashes Involving Air Force Personnel: 1988–1999</a>	Bridget Carr	ACSC
Questions on Lasers, Radiation, and WMD from AFSG	<a href="#">Homeland Biological Warfare Consequence Management: Capabilities and Needs Assessment</a>	Dawn Rowe	ACSC
Air Force Fitness – How Fit Are We?	<a href="#">Airman First—Can Fitness Play a Part?</a>	Denise Hollywood	ACSC
<b>Judge Advocate General (AF/JAG)</b>			
AU-initiated Project	<a href="#">Debarment: A Guide for Installation Commanders</a>	Louis Cherry	ACSC
<b>Secretary of the Air Force</b>			
Airman Morale and Readiness	<a href="#">Improving Communications Between Senior AF Leadership and Troops in the Field</a>	Manson Morris	ACSC
<b>Personnel (AF/DP)</b>			
AU-initiated Project for Developing Aerospace Leaders (DAL) project	<a href="#">Squadron Command: The First 90 Days</a>	Eric Hummer	ACSC

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
-----------------------------	----------------	---------	--------

### MAJCOMs

Research studies undertaken on topics for the major air commands (MAJCOMs).

#### AF Reserve Command

Col Frank Bott, DSN 493-7039, is the AF Reserve advisor to AU.

Impact on Organizational Core Identity on the Air Force and Air Force Reserves	<a href="#">Air Force Core Identity and Its Impact on Retention</a>	Nancy Kirk	ACSC
AFR Transformation Issues	<a href="#">An Investigation of B-2 Pilot Force Reserve Component Augmentation</a>	Russell Mathers	ACSC
Smart Card Technology to Enhance AFR Operations	<a href="#">Implementing Smart Cards into the Air Force Reserve</a>	Keith McClannan	ACSC

#### AF Space Command

Col Edward Strack, DSN 493-2431, is the Space Command Chair to AU. See also USSPACE studies.

ABD Doctrine: Are We Postured for Expectations of Expeditionary Aerospace Environment?	<a href="#">HOMA: Israel's National Missile Defense Strategy (Abridged Version)</a>	Guermantes Lailari	ACSC
Sovereignty and Free Passage in Outer Space: What is the Impact on AF Warfighters?	<a href="#">Operational Implications of Sovereignty and Freedom of Navigation in Space</a>	Philip Wold	ACSC
AU-initiated Project	<a href="#">Do We Need Separate Space Theory? The Lessons of History</a>	Fred Marheine	SAAS
AU-initiated Project	<a href="#">Ten Propositions Regarding Spacepower</a>	Michael Smith	SAAS
ABD Doctrine: Are We Postured for Expectations of Expeditionary Aerospace Environment?	<a href="#">Current Air Base Ground Defense Doctrine: Are We Postured to Meet the Expectations of an Expeditionary Aerospace Environment?</a>	Herbert T. Brown	ACSC
Sovereignty and Free Passage in Outer Space: What is the Impact on AF Warfighters?	<a href="#">Sovereignty and Protective Zones in Space and the Appropriate Command and Control of Assets</a>	Richard J. Butler	ACSC
Alternative Options for Military Access to Space	<a href="#">Lessons from Sea Launch</a>	Lina Cashin	ACSC
AU-initiated Project	<a href="#">X37 Space Vehicle: Starting a New Age in Space Control</a>	Austin Jameson	ACSC*
DOD use of Commercial SATCOM Systems	<a href="#">DOD Use of Commercial Wideband Satellite Communication Systems: How Much is Needed and How Do We Get It?</a>	Robert Hutchens	ACSC
AU-initiated Project	<a href="#">Space-Derived Transparency: Players, Policies, Implications, and Synergies</a>	Christopher Kinnan	SAAS*

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
<b>AF Special Operations Command</b>			
Col John Jogerst, DSN 493-5407, is the Special Operations Chair to AU. See also USSOCOM section.			
AF Special Operations Leadership	<a href="#">Peering Into the Future: Phil Cochran and John Alison: Images of Apollo's Warriors</a>	Richard Boltz	SAAS
AU-initiated Project	<a href="#">For Valor or Value: An Examination of Personnel Recovery Operations</a>	Billy Thompson	SAAS
<b>Air Combat Command</b>			
The Combat Air Forces Chair to AU is vacant. This chair normally represents ACC, USAFE, PACAF.			
AU-initiated Project	<a href="#">The Air War Over Serbia: Denial, Punishment, or Balance of Interest?</a>	Troy Stone	SAAS
500lb JDAM Concept of Operations on the B-2A	<a href="#">The B-2A and the 500lb JDAM: A New Concept of Mass</a>	Steven L. Basham	ACSC
<b>Air Mobility Command</b>			
Col Ben Young, DSN 493-2305, is the Air Mobility Command Chair to AU.			
AU-initiated Project	<a href="#">Civilian Contract Air Refueling: Innovative or Insane?</a>	Mark Camerer	ACSC
Disruptive Technologies	<a href="#">Paranoia, Disruption, and Dominance: Corporate Lessons for the DOD</a>	Robert Wright	AF Fellows
Strategic Brigade Airdrop: What Needs to be Done by AF/Army to Make it a Credible Threat?	<a href="#">18 Hours on Green Ramp: Air Mobility Command's Support to the 82nd Airborne Division Ready Brigade</a>	Scott Haines	ACSC
Next Generation Tanker Fleet Next Generation Tanker	<a href="#">Next Generation Tanker Fleet and Next Generation Tanker</a>	Elisa D'Antonio	ACSC*
Determining Characteristics of the Next Generation	<a href="#">Looking Ahead at the Future of Airlift: A Capabilities-Based Approach to Designing the Next Generation Strategic Airlifter</a>	Chad Manske	ACSC*
AU-initiated Project	<a href="#">Manning the C-17: Requirements and Challenges</a>	Frank Van Horn	ACSC*
Improving Organizational Effectiveness	<a href="#">Squadron Command: The First 90 Days</a>	Eric Hummer	ACSC
<b>US Air Forces in Europe</b>			
Combat Assessment: Driving the Targeting Process through Nodal and Target System Analysis	<a href="#">Assess for Success: The Role of Doctrine in Effective Combat Assessment</a>	Tom Bailey	ACSC
<b>AF Materiel Command</b>			
Col Kenneth Knapp, DSN 493-9587, is the AFMC Command Chair to AU.			
Cost/Benefit Analysis of Total System Performance Responsibility (TSPR)	<a href="#">A Quest for Efficiencies—Total System Performance Responsibility</a>	Henry Pandes	ACSC

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
-----------------------------	----------------	---------	--------

### Field Operating Agencies and Direct Reporting Units

Research studies undertaken for FOAs and DRUs to the Air Staff.

#### AF Logistics Management Agency

How Contracting Out Base Operations Support (BOS) Impacts Combat Readiness	<a href="#">Base Operations Support (BOS) Competitive Sourcing and Privatization: How Are We Doing?</a>	Kurt Kittl	ACSC
Should we use of Award Fee and Award Term Incentives more?	<a href="#">Analysis of Air Force Award Fee and Award Team Contract Implementation</a>	Tom Snyder	ACSC

#### Air Force Doctrine Center

AU-initiated Project	<a href="#">Turning the Vertical Flank: Airpower as a Maneuver Force in the Theater Campaign</a>	Robert Givens	SAAS
AU-initiated Project	<a href="#">The United States Strategic Bombing Survey and Air Force Doctrine</a>	John McMullen	SAAS

#### AF Studies and Analyses Agency

Air Power Legitimacy Enhancement through Increased Mobility Capability	<a href="#">Air Mobility: Simultaneous Enhancement of Air Power Legitimacy and Security Dilemma Amelioration</a>	Timothy Reed	ACSC*
Air Power Legitimacy Enhancement through Increased Mobility Capability	<a href="#">Aerospace Power's Contribution to Humanitarian Assistance Missions: Redefining Effects-Based Operations</a>	Michael Holl	ACSC

#### AF Communications Agency

Coalition and Allied Information Sharing	<a href="#">The "Capabilities Gap" in Desert Storm: A Coalition Air Campaign Case Study</a>	Frank Rossi	SAAS*
--	---	-------------	-------

### Battlelabs and Research Centers

Research studies undertaken on topics proposed by AF Battlelabs and research centers.

#### AF Research Laboratory

AF Missions for Micro-air Vehicles	<a href="#">Death by a Thousand Cuts: Micro-air Vehicles (MAV) in the Service of Air Force Missions</a>	Arthur Huber	AWC
Impact of Parameter Accuracy on Aircraft Structural Integrity Estimates	<a href="#">Impact of Parameter Accuracy on Aircraft Structural Integrity Estimates</a>	Scott Fawaz	ACSC

#### USAF Force Protection Battlelab

Pre-Deployment Force Protection Spin Up for AEF	<a href="#">Reducing the Force Protection Experience Gap Created by the AEF</a>	Paul Harris	ACSC*
---	---	-------------	-------

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
<b>Unmanned Aerial Vehicle Battlelab</b>			
Integration of Manned and Unmanned Flight Operations	<a href="#">UAVs: An Airborne Tactical Air Control Party</a>	Patrick McKenzie	ACSC*
<b>AU Center for Strategy and Technology</b> (For more information, see their article on p. 9.)			
Innovation and Transformation in the 21st Century AF	<a href="#">Through a Glass, Darkly: Innovation and Transformation in the Twenty-first Century Air Force</a>	Chris Daehnick	AF Fellows
AU-initiated Project	<a href="#">Between Iraq and a Hard Place Fighting Guerrilla Warfare in the Air</a>	Gary Webb	AWC
<b>Institute for National Security Studies</b> (More information is available at <a href="http://www.usafa.af.mil/inss">www.usafa.af.mil/inss</a> .)			
Information Operations (IO) 5.28	<a href="#">The Spectrum of Cyber Conflict from Hacking to Information Warfare: What Is Law Enforcement's Role?</a>	Bonnie Adkins	ACSC
Information Operations (IO) 5.37	<a href="#">Meeting the Joint Vision 2020 Challenge: Organizing for Information Operations</a>	John Bansemer	ACSC
Information Operations (IO) 5.31	<a href="#">Active Computer Network Defense: An Assessment</a>	Eric Holdaway	ACSC
Information Operations (IO) 5.16	<a href="#">Information War Crimes: Mitnick Meets Milosevic</a>	Darwyn Banks	ACSC
Global Security 3.14	<a href="#">The European Union's Emerging Military Capability</a>	Johan Tornqvist	ACSC
Information Operations (IO) 5.5	<a href="#">Air Force Information Operations (IO) Doctrine: Consistent with Joint IO Doctrine?</a>	Robert Blackington	ACSC
Air Force Planning 6.17	<a href="#">Slowing the Genie's Spread: Reversing the Proliferation of Weapons of Mass Destruction</a>	William Eliason	AF Fellows
Global Security 3.7	<a href="#">Interoperability: Is It Achievable?</a>	Anthony Faughn	AF Fellows
Air Force Planning 6.14	<a href="#">Fighters of the Total Force in the 21st Century Should the Force Structure Change?</a>	Robert Harvey	AF Fellows
Latin America - Global Security 3.23	<a href="#">The Military War on Drugs: Too Many Assets, Too Few Results</a>	Stephen Howard	AF Fellows
Middle East - Global Security 3.16	<a href="#">Is the United Nation's Current Policy in Iraq Effective? Evaluation of Economic Sanctions and the 'Oil-for-Food' Program</a>	Gordon Jacobs	AF Fellows
Counterproliferation (CP) 2.26	<a href="#">Lessons Learned from History: Implications for Homeland Defense</a>	Martha Jordan	AF Fellows
Air Force Planning 6.7	<a href="#">New Conventional Weapons, Reducing Reliance on a Nuclear Response Toward Aggressors</a>	Gary Lane	AF Fellows

\*Pending review for public release.

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
Middle East - Global Security 3.17	<a href="#">Wielding the Sword while Forging the Shield: Nuclear, Biological, Chemical and Missile Counterforce Operations</a>	Timothy Lindemann	AF Fellows
Global Security 3.2	<a href="#">The Politics of Vulnerability: China, Russia and US Missile Defense</a>	Allan Netzer	AF Fellows
Space Policy 7.23	<a href="#">The Rise of Surveillance</a>	Jim Norman	AF Fellows
Global Security 3.4	<a href="#">Globalized Security Reshaping America's Defense Trade Policy</a>	Shannon Sullivan	AF Fellows
Global Security 3.5	<a href="#">The Role of the United Nations in the 21st Century: A Case for an International Police Force</a>	Jeffrey Kersten	ACSC
Global Security 3.14	<a href="#">European Security and Defense Identity Explained: Why the US Should Support It</a>	Patrick Sullivan	ACSC
Counterproliferation (CP) 2.8	<a href="#">Viability of a Smallpox Attack on the US Homeland</a>	Kenneth Russell	ACSC
<b>USAF Counterproliferation Center</b> (For more information about CPC, see their article on p. 9.)			
AU-initiated Project	<a href="#">Not with Impunity: Assessing US Policy for Retaliating to a Chemical or Biological Attack</a>	Harry Conley	AWC
AU-initiated Project	<a href="#">Guiding the United States Government Response to an Overseas Chemical, Biological, Radiological, or Nuclear Disaster</a>	Roman Hrycaj	AWC
AU-initiated Project	<a href="#">Managing Proliferation in South Asia: A Case for Assistance to Unsafe Nuclear Arsenals</a>	Robert Rehbein	AWC
<b>Other Papers of Note</b>			
<b>Air Command and Staff College</b>			
Squadron Officer College Continuum of Education	<a href="#">The Study of Curriculum Development: Wing Squadron Officers Course</a>	Kerk Brown	ACSC
Explore Aspects of Morality, Ethics and Justice in War	<a href="#">On Some of the Moral Limits Regarding Attack</a>	Michael Carlino	ACSC
Statistical Analysis of Multiple Choice Testing	<a href="#">Statistical Analysis of Multiple Choice Testing</a>	Mark Colbert	ACSC
History	<a href="#">Oil Logistics in the Pacific War: In and After Pearl Harbor</a>	Patrick Donovan	ACSC
ACSC Research Topics	<a href="#">Air Power Versus a Fielded Army: A Construct for Air Operations in the 21st Century</a>	Phil Haun	ACSC
ACSC Research Topics	<a href="#">An Examination of Gender Diversity in the 21st Century Danish Armed Forces</a>	Henrik Kanstrup	ACSC

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
ACSC Research Topics	<a href="#">The End of the Beginning: On the Application of Aerospace Power in an Age of Fractured Sovereignty</a>	Douglas Kiely	ACSC*
Operation ALLIED FORCE: Quality of Life Issues	<a href="#">The Benefits Aviation Psychologists Offer Operational Commanders: An Analysis and Discussion</a>	Richard London	ACSC
Civil-Military Authority Rift: Danger to the Republic or Elitist Myth?	<a href="#">The Civilian Pustch of 2018: Debunking the Myth of a Civil-Military Leadership Rift</a>	Douglas Mastriano	ACSC
Relationship of factors to Academic Performance at ACSC	<a href="#">The Relationship between Student Critical Thinking Disposition at the United States Air Command and Staff College and Academic Performance</a>	Mary-Claire McCarthy	ACSC
Explore Aspects of Morality, Ethics and Justice in War	<a href="#">The Teaching of Morality in Warfighting in Today's Officer Corps</a>	Gerald Swift	ACSC
Global Dynamic Operations	<a href="#">Global Strategic Task Force: A Strategic Renaissance</a>	Thomas Szvetecz	ACSC
History	<a href="#">Operation Fortitude: The Closed Loop D-Day Deception Plan</a>	Ernest Tavares	ACSC
Reducing PERSTEMPO	<a href="#">Reducing AWACS Perstempo: A Conceptual Approach</a>	Bill Tully	ACSC
Terrorism Threats Against the U.S. Homeland: What Part Should the Military Play?	<a href="#">Intelligence Oversight Revisited: Does CONUS Base Security Require a Change?</a>	Victor Valdez	ACSC
Innovative Problem-Solving Skills for Military Leaders	<a href="#">Innovative Problem Solving In USAF Officer PME Curriculum</a>	Debra Willey	ACSC
Poland, Armed Forces, Politics and Reform, 1989–Present	<a href="#">On The Wings of the White Eagle: Poland's Air Force Reform and Modernization, 1989–Present</a>	Pamela Wolosz	ACSC
<b>Air Force Fellows</b>			
Maintaining a Robust Competitive Defense Industry for Affordable, Quality, Innovative Products	<a href="#">Defense Industrial Base at a Crossroads</a>	Gail Allen	AF Fellows
Terrorism Threats Against the U.S. Homeland: What Part Should the Military Play?	<a href="#">Terrorism and the Military's Role in Domestic Crisis Management: Background and Issues for Congress</a>	Jeffrey Brake	AF Fellows
Analysis of the Proper Use of US Military Force in New World Era	<a href="#">Views on Military Intervention: The Role of Moral Hazard</a>	Lansen Conley	AF Fellows
The Future of Protecting USAF Resources	<a href="#">Risk Management Security Improving the United States Air Force Protection Level Asset Security System</a>	Clifford Day	AF Fellows
System Accidents & Commander Uncertainty: Doctrinal Implications for Achieving Decision Superiority	<a href="#">Precision Engagement at the Strategic Level of War: Guiding Promise or Wishful Thinking?</a>	Tim Sakulich	AF Fellows

 2001 Student Research Papers are available at <http://research.maxwell.af.mil>

## 2001 Research at Maxwell

Sponsor and Requested Topic	Title of Paper	Student	School
Innovative Problem-Solving skills for Military Leaders	<a href="#">Developing Aerospace Leaders for the Twenty-first Century</a>	Nancy Weaver	AF Fellows
<b>Air War College</b>			
AWC Research Papers 2001	<a href="#">Market Garden: Was Intelligence Responsible for the Failure?</a>	Phillip Bradley	AWC
AWC Research Papers 2001	<a href="#">MAGTF Air Assets and the JFACC</a>	Ben Hancock	AWC
<b>School of Advanced Aerospace Studies</b>			
SAAS Research Topics	<a href="#">Prejudicial Counsel: A Multidimensional Study of Tactical Airpower</a>	Ronald Banks	SAAS
SAAS Research Topics	<a href="#">An Enduring Framework for Assessing the Contributions of Force Structure to a Coercive Strategy</a>	Eric Beene	SAAS
SAAS Research Topics	<a href="#">General Merrill A. McPeak Leadership and Organizational Change</a>	Thomas Bussiere	SAAS
SAAS Research Topics	<a href="#">The Art of Strategic Balance: Reconciling Global, Domestic, and Theater Imperatives</a>	Scott Long	SAAS
SAAS Research Topics	<a href="#">Marine Close Air Support in Korea 1950–1953</a>	Lynn Stover	SAAS

### AU Research Web Site Links Air University to the National Security Community

*By Lt Col Harry N. Newton, PhD, Chief, Research Support*

The AU Research Web site was established in 1995 to encourage research at AU and to provide the resulting papers in a format accessible through the Internet. Today, seven years later, this site continues to serve as a link between AU researchers and the larger national security community. In 2001 the site grew to over 1,850 papers written primarily by AU students and faculty. The site was accessed 5.5 million times, including over three million requests for full-text downloads of papers.

Now almost 2,000 research papers from AWC, ACSC, AFIT, CADRE, SAAS, the AF Fellows Program, and AU Press are available at this Web site. Because the “e-copies” of these papers have been generated directly from the disk files of the authors, they are much better than a scanned version—they are smaller, higher quality, and allow cut-and-paste to other Windows programs. For the most part, these papers are available in Adobe Portable Document Format (PDF).

This site also features a topics database that is updated each summer through the AU Call for Topics coordinated by CADRE. Currently, this database has more than 600 research issues raised last summer by the senior staffs at unified commands and Air Force MAJCOMs, as well as the issues identified by INSS and other agencies. The student research programs at AWC, ACSC, and SAAS make use of these topics. Additional tools at this site are available to faculty and students who access the site from Maxwell.

[Want a copy of one of the publications in listed in the AU Research Bulletin? If it's formatted as a hyperlink, just open an electronic copy of the \*Bulletin\* from our web site and click on the hyperlink to the study. Or, use the search tools to find it and related studies.](#)

For more information, browse to...

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