Space Power Integration

Perspectives from Space Weapons Officers

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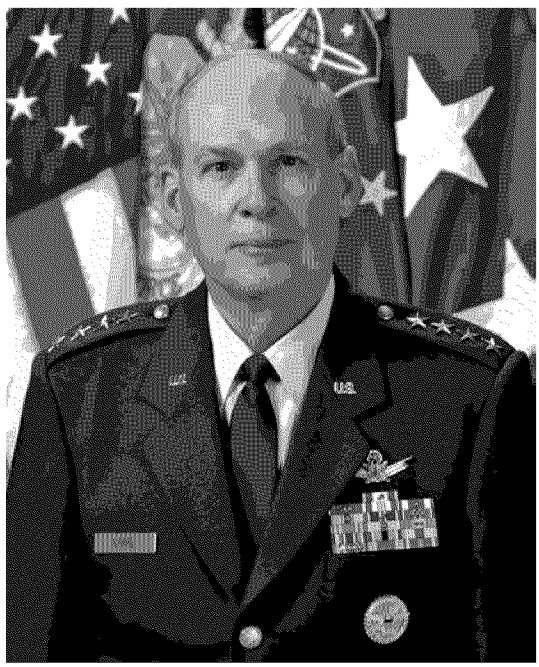
IN MARCH 2005 the first Space Weapons Officer Air and Space Integration Conference was held at Maxwell Air Force Base, Alabama, as a joint effort between Air Force Space Command (AFSPC) and Air Education and Training Command. As then-AFSPC commander Gen Lance Lord stated in the invitation to the cadre of space weapons officers (SWO), "We want to hear from the Space Weapons Officers on the best way to integrate space capabilities at the operational level of warfare. What do they think is the best way to do business? Differing views are okay. Articulate pros/cons and support with past experiences—what's worked, what hasn't."[1] General Lord envisioned a regular event where SWOs would gather in the spirit of the Air Corps Tactical School to discuss, argue, and generate new ideas that could then be tested in war games and exercises for incorporation into doctrine, organization, strategy, tactics, and procedures.

The papers presented at the conference have been published in a recent Air University Press book entitled *Space Power Integration—Perspectives from Space Weapons Officers*.[2] I had the honor of editing that book, compiling the conference papers into a handy reference for continued discussion. The following is a brief summary of the ideas presented in the book.

General Lord set the stage for the conference with his introductory remarks:

> We've got to get ready for what's going to happen next in the medium of space. When space starts in a big way, and it will, we have to have the conventional war fighters who have the capabilities, who know the rules of engagement, who are familiar with the laws of armed conflict, who know how to work in this medium and are able to shape and influence and make the right kind of decisions and direct the operational application of space capabilities.

The authors of each chapter presented their ideas directly to General Lord and over a dozen general officers from around the Air Force. The entire cadre of space-officer graduates of the Air Force Weapons School at Nellis AFB, Nevada, was invited, and more



Gen Lance Lord, USAF, Retired

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than 60 attended. The SWOs presented their ideas not only to senior leadership, but also to their colleagues and peers. In the Air University tradition of nonattribution, most of the ideas presented generated lively debate. In particular, a recurring theme of "normalizing" the presentation of space forces to the theater commander was greeted with approval from most SWOs, although some of the senior officers in attendance were not quite as enthusiastic.

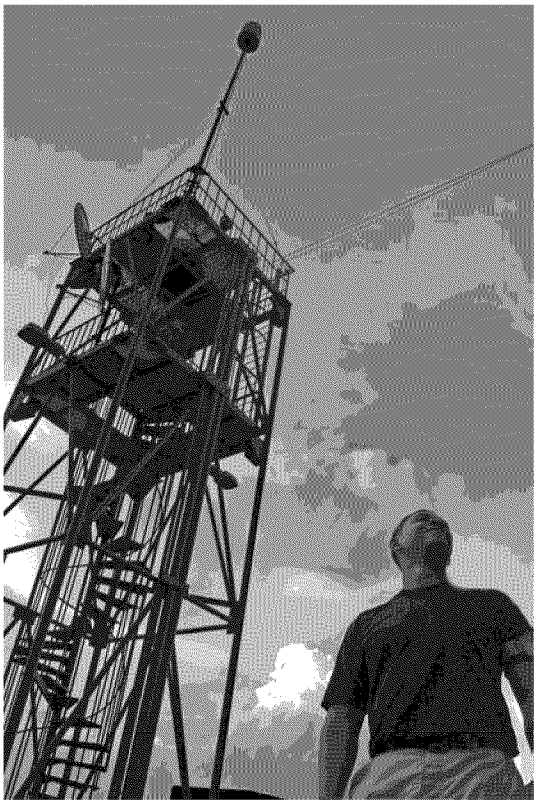
The papers in *Space Power Integration* address issues across a spectrum of air and space integration topics at the operational level of war. Several papers argue that current space doctrine regarding organization and

Ionospheric forecasts improve war-fighter communication efficiency. The Scintillation Network Decision Aid antenna, located on Kiritimati Island (Christmas Island), Republic of Kiribati, monitors geostationary satellite communication signals to determine the effects of ionospheric turbulence. (US Air Force photo)

command relationships needs to be revised, with recommendations ranging from subtle modifications to paradigm-changing constructs. It is important to note that a major revision to Air Force Doctrine Document (AFDD) 2-2, *Space Operations*, 27 November 2001, was in progress at the time of the conference and during the preparation of this book. As such, many of the fundamental arguments about organizing space forces to best support the theater joint force commander may have been addressed within doctrine. Doctrine does not and cannot provide extensive implementation guidance and direction; therefore, *Space Power Integration* provides some perspectives from space operators who have had direct responsibilities for integrating air and space power at the operational level of war.

Space Power Integration begins with a paper providing a space-power framework and a recommendation for how the space-coordinating authority should enable unity of effort for diverse information services from space. The second paper builds upon that background by discussing the importance of counterspace operations and how they are needed to support counterterrorism. The background information in the early chapters helps the nonspace operator put the remaining chapters in better context. The following six papers discuss various perspectives on problems due to the current command and control (C2) of deployed space forces' organizational models. Some overlap of ideas is present, and no attempt was made to remove this overlap during the development of *Space Power Integration*; rather, this overlap serves to identify areas of consensus. Conversely, the areas of conflicting observations and recommendations highlight the difficulty of reaching a common

Combined air operations center at an air base on the Arabian Peninsula



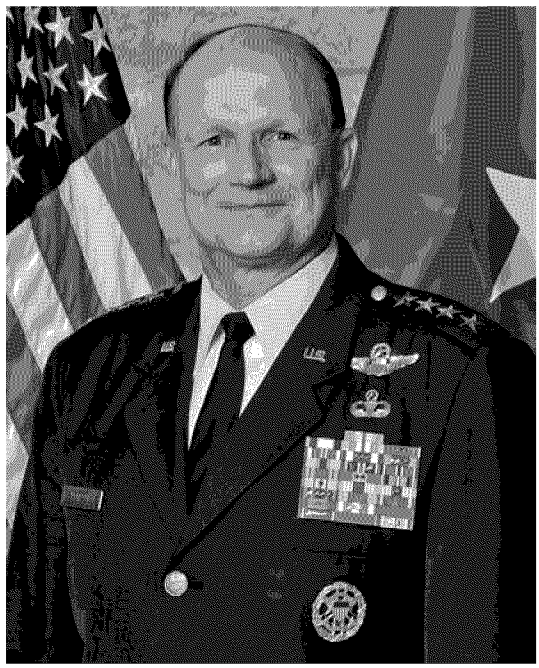
SSgt Robert Cook watches a storm move south at Manas Air Base, Kyrgyzstan. The weather flight transmits updates every 15 minutes during weather events such as a thunderstorm, based on satellite images and physical observation of the skies overhead. (US Air Force photo by SSgt Lara Gale)

understanding on such a complicated subject. The next two papers highlight how the C2 structure of deployed space forces was not symmetric with other functions in the theater air operations centers for Operations Enduring Freedom and Iraqi Freedom, and recommend that space forces be organized within an expeditionary mind-set. The next four papers offer organizational-model alternatives envisioning an even greater role for deployed forces to support space-control missions, including offensive and defensive counterspace. The alternatives presented include an organizational model within the structure of the warfighting headquarters, a model based upon the structure of the Department of Defense's personnel-recovery organization, and two variations for models based upon air-mobility constructs. The final paper offers a very personal perspective on problems the author has experienced, what he believes are the fundamental causes, and his specific recommendations to address those issues.

The discussions that occurred during the conference could not have taken place in the past because space officers did not have the operational experience of integrating air and space at the operational level of war. Space officers have learned many lessons and are proposing that we use those lessons to improve future operations. These discussions also point out how the Air Force is moving more and more towards a seamless integration of air and space capabilities, versus the technically based centralization of space capabilities in the not-so-distant past.

As Gen Gregory Martin, then-commander of Air Force Materiel Command, commented during the conference,

> We do space, the United States Air Force does space, the others use it. We have the preponder-



Gen Gregory Martin, USAF

ance of space warriors and space equipment. It is these advances in technology and personnel that have provided the Air Force the communication, navigation, and imaging capabilities that provide the United States a critical asymmetric advantage. Operation Iraqi Freedom was the first major engagement where these capabilities were so thoroughly integrated in support of the theater commander, through the combined force air and space commander and the air and space operations center. As future adversaries increase their space capabilities, the United States must meet the challenge by improving the efficiency of integrating our space capabilities across the entire spectrum of operations.

That is the challenge for the future, providing effective and efficient integration of air and space capabilities in support of the commanders' objectives. For this level of integration in the theater to be a reality, deployed space forces will be called upon to more actively participate in the commanders' planning and operations. Hopefully, the discussions in *Space Power Integration* will help spur the discussion and debate to arrive upon the doctrine and organizational models needed to provide that support. Planning for the second Space Weapons Officer Air and Space Integration Conference has begun, to be held in spring 2007; it will provide the forum for these discussions to continue. ❑

Notes

1. Space weapons officer (SWO) is an unofficial title for career space officers who have graduated from the US Air Force Weapons School. By having a common knowledge basis with their airpower brethren, SWOs have worked in theater operations centers during multiple recent operations to more fully integrate space capabilities into operational planning.

2. Kendall K. Brown, ed., *Space Power Integration—Perspectives from Space Weapons Officers* (Maxwell AFB, AL: Air University Press, 2006).