On January 11, 2001, the long-awaited report of the Commission to Assess United States National Security Space Management and Organization (more commonly known as the Space Commission) was released. It crisply defined an American “whither military space” issue that had been percolating with mounting intensity for several years. Mandated by the fiscal year (FY) 2000 National Defense Authorization Act, largely at the behest of Senator Bob Smith (R-New Hampshire), then-chairman of the Senate Armed Services Committee’s Subcommittee on Strategic Forces, the commission was directed to consider possible near-term, medium-term, and longer-term changes in the organization and conduct of U.S. national military space policy. In particular, it was asked to assess the adequacy of existing military space arrangements and the desirability of establishing a separate and independent U.S. space service.

The very creation of the Space Commission in the first place was an implied criticism of the Air Force’s recent handling of the nation’s military space effort, since that commission’s inspiration largely emanated from a sense of growing concern in some congressional and other quarters—justified or not—that the Air Force was not fully living up to its responsibilities of military space stewardship. Naturally in light of that, the Air Force became the prime focus of the commission’s inquiry. Although the Air Force’s widely touted Global Engagement vision statement, promulgated in the wake of its Corona

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leadership conference in 1996, had flatly declared that the service saw itself transitioning from an “air force” to an “air and space force” on an evolutionary path toward becoming a “space and air force,” both friends and critics nonetheless expressed concern over the extent to which that service’s leaders were genuinely committed to moving the Air Force into space and, indeed, whether the Air Force was even the appropriate service to inherit the mantle of military space exploitation to begin with.²

Echoing the concerns of many military space advocates both in and out of uniform, a former commander in chief of U.S. Space Command, retired Air Force General Charles A. Horner, lent an unusually credible voice to these doubts when he observed in 1997 that, with respect to space, “the Air Force is kind of where the Army was in 1920” regarding the nation’s embryonic air power—namely, “in a state of denial.” Along with others who have since wondered whether the Air Force’s claim to being on an evolutionary path toward becoming a full-fledged space force was meant to be taken seriously or merely reflected a clever stratagem to buy off any would-be space separatists who might otherwise seek a divorce from the Air Force to form a separate space service, Horner added that “it almost becomes, at its most cynical, a roles and missions grab on the part of the Air Force to do this air and space to space thing.”³

Seemingly energized by such expert questioning of the Air Force’s depth of commitment to space, Senator Smith fired a clear shot across the Air Force’s bow at a conference on air and space power in 1998, in effect challenging the Air Force leadership to prove its commitment by sinking more of its resource share into space or else give up its claim to space and clear the way for the establishment of a separate space service. While freely acknowledging everything the Air Force had done, especially since Operation Desert Storm, to develop a space infrastructure and to bring that infrastructure’s contributions to commanders and combatants at all levels, he nonetheless complained that even the most leading-edge space activities had been fo-


cused “primarily on figuring out how to use space systems to put information into the cockpit in order to more accurately drop bombs from aircraft.” Senator Smith added that “this is not space warfare; it is using space to support air warfare.” Charging that the Air Force seemed to regard space as little more than an information medium to be integrated into existing air, land, and sea forces rather than as a new arena for being developed as a mission area in its own right, the senator went on to observe that he did not see the Air Force “building the material, cultural, and organizational foundations of a service dedicated to space power.” As evidence, he cited its “paltry” investments in such areas as space-based missile defense and a space-plane, its failure to advance more space officers into the most senior general-officer ranks, and its alleged slowness to nurture a cadre of younger officers dedicated exclusively to space warfare.4

Warming further to his theme, Smith then pointed out that “the notion that the Air Force should have primary responsibility for space is not sacred,” offering as a case in point a challenge issued the previous year by Marine Corps commandant General Charles Krulak, who had declared that “between 2015 and 2025, we have an opportunity to put a fleet on another sea. And that sea is space. Now the Air Force [is] saying, ‘Hey, that’s mine!’ And I’m saying, ‘You’re not taking it.’” While conceding that any interservice competition that might develop along these lines could easily result in an undesirable Balkanization of space power, the senator nonetheless put the Air Force on notice that if it “cannot or will not embrace space power,” Congress would have no choice but to step into the breach and establish a new service.5

To be sure, the Air Force has taken numerous salutary steps in recent years to demonstrate that it deems these issues important, that its most senior leaders respect them as such, and that the institution is more than prepared to invest the needed time and energy toward en-

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4Senator Bob Smith, “The Challenge of Space Power,” speech to an annual conference on air and space power held by the Fletcher School of Law and Diplomacy and the Institute for Foreign Policy Analysis, Cambridge, Massachusetts, November 18, 1998, emphasis in the original.

5Ibid.
suring a seemly development of effective space-related capabilities. Yet at the same time, some of the planning and vision-oriented activities that have galvanized such strong emotional reactions on various sides within the Air Force have largely failed to resonate within the broader American defense community. A case in point has been the intensely parochial and, to many observers, obscure and inward-looking back-and-forthing that has gone on inside the Air Force since 1996 over whether air and space should be understood as two separate and distinct operating mediums or as a single and seamless “aerospace” continuum. Indeed, some aspects of recent internal Air Force debate over space have had a downright negative effect outside the Air Force—perhaps best shown by Congress’s establishment of the Space Commission, chaired by Donald H. Rumsfeld, who subsequently was selected by President George W. Bush to be Secretary of Defense. That commission’s ensuing report not only crystallized the issues but also laid down a clear challenge, both for the defense community in general and for the Air Force in particular, either to grapple with them more effectively or else face a need for change—perhaps significant change—in the nation’s existing management arrangements for military space.

The Space Commission’s recommendations brought much-needed closure, at least for the interim, to a number of the issues mentioned above. To begin with, the commissioners concluded unanimously that the Air Force was doing well enough at managing the nation’s military space effort that there was no immediate need to establish an independent U.S. space service. Not only that, they recommended that the Air Force be formally designated the Defense Department’s executive agent for military space, thereby satisfying an Air Force desire that had gone unrequited since the service’s earliest involvement in space during the 1950s. They also recommended that a separate and distinct Major Force Program (MFP) budget category for

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space be created to render transparent all space spending activity by all services, thus allowing the executive agent for space a clearer picture of both underfunded needs and unintended duplicative activity. Both recommendations were accepted by Secretary Rumsfeld and are now being implemented by the Department of Defense (DoD) and the Air Force.

Yet at the same time, the commissioners rejected the long-standing insistence of some in the Air Force that air and space represented a single “aerospace” continuum and concluded that space was a separate and distinct mission area warranting separate and dedicated organizational and funding support. (Shortly after assuming office, the current Air Force chief of staff, General John P. Jumper, co-opted that view out of his own conviction as the Air Force’s corporate position.) They further highlighted the growing vulnerability of the nation’s on-orbit assets to a potential “space Pearl Harbor” and implored DoD and the Air Force to pursue more serious efforts to develop a credible space control capability to ensure that the nation’s increasingly indispensable space equities are properly protected against hostile threats. Finally, the commissioners found that the nation’s military space effort was substantially underfunded for its growing importance to the nation’s security. They concluded that if the Air Force fails over the next five to ten years to make the most of what they had recommended by way of increased executive authority to address identified needs, the Department of Defense would have little choice but to move with dispatch toward establishing a separate Space Corps or space service to take over the responsibility for the nation’s military space effort on a full-time basis.

Thanks in large part to these developments, the Air Force entered the 21st century with much of the long-simmering debate over military space essentially resolved by leadership decree. As a result, it found itself presented with a clear set of institutional and mission-development challenges in need of attention. Those challenges include organizing more effectively for the proper nurturing of a duly competent and supported military space establishment, making the most of the executive-agent and MFP dispensations which the Space Commission so generously recommended for it, and registering significant headway toward developing and fielding a credible space control capability. To be sure, meeting these and related challenges successfully will require considerable and continuing DoD and
Congressional support. Yet the initiative clearly lies with the Air Force itself to set the direction and pace for the nation’s military exploitation of space.

Without pretending in any way to have all the answers to the Air Force’s and the nation’s military space challenges, this study aims to illuminate those challenges by first exploring the roots of the developments outlined above and then thinking systematically about the organizational, contextual, and mission-need considerations that will require effective action as the Air Force embarks on its newly mandated space mission. The study begins by reviewing the major benchmarks of the Air Force’s uphill struggle since the end of World War II to become accepted as the nation’s military space custodian—often in the face of intense resistance both from the other services and from the civilian leadership. It then explores the differences in outlook which, until recently, had the Air Force speaking with more than one voice on the pivotally important matter of whether air and space should be treated as a single and seamless continuum or as two separate and distinct operating mediums and mission areas. Following that, it outlines the highlights of the Space Commission’s recommendations, describes how senior civilian defense officials and the Air Force leadership have elected to act on them, and considers various implications for the near-term organization and management of space by the Air Force and the broader defense community. It also looks at the growing need for more serious investment in space control and argues for carefully decoupling this mission need from the more contentious and premature push for

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7 One late-breaking development not addressed in this study is the recent merger of U.S. Space Command with U.S. Strategic Command (USSTRATCOM), first announced by Secretary Rumsfeld on June 28, 2002 and formally consummated at Offutt AFB, Nebraska the following October 1. That reorganization move, which surfaced as one of a number of responses to the terrorist attacks of September 11, 2001, followed close on the heels of the establishment of a new U.S. Northern Command to bolster the U.S. military contribution to homeland security. It was justified as one of several Bush administration initiatives to “transform” the U.S. military to better meet the challenges of the 21st century. The merger, which brought an end to U.S. Space Command’s 17-year existence as the DoD’s unified military space entity, took place as this study was nearing completion and must accordingly remain a topic for others to explore in the detail it deserves. For a brief overview of the merger and the expanded mission portfolio of the reconstituted USSTRATCOM, see William B. Scott, “‘New’ Strategic Command Could Assume Broadened Duties,” *Aviation Week and Space Technology*, October 14, 2002, p. 63.
“space weaponization” aimed at attacking terrestrial targets from space. The study concludes with a synopsis of the most pressing military space policy demands on which the Air Force and the nation should now act.