STRATEGY RESEARCH PROJECT

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JOINT LEADERSHIP AND PAROCHIALISM: ENDURING REALITY?

BY

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Joint Leadership and Parochialism: Enduring Reality?

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ABSTRACT

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Since the passage of the Goldwater-Nichols Act, the U.S. military has made great strides towards achieving a greater synergy known as "Jointness". Nevertheless, the question remains whether service-based parochialism still endures to the detriment of Joint force application. This article evaluates the existence of organizational impediments to optimal military crisis response and makes recommendations to mute those impediments. Based on historical examples and a "Joint Attitudes Survey", this article concludes significant service-based bias still exists in today's military. Recommendations include: earlier joint education; service rotations in Joint command positions; creation of a forum for roles and missions dialog; and presentation of dissenting military opinions to the National Command Authorities during crisis.

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JOINT LEADERSHIP AND PAROCHIALISM: ENDURING REALITY?

Since the passage of the Goldwater-Nichols Act in 1986, the U.S. military has made great strides towards achieving a greater Army, Navy, Air Force, and Marine Corps synergy known as "Jointness". Even so, the current national security environment demands even greater strides towards achieving multi-service synergy in war fighting.

The nexus of changing international security dynamics, the U.S. National Security Strategy (NSS), the reduction of U.S. military forces, and the ongoing revolution in military affairs impels today's military to question traditional organizational viewpoints towards the application of military power. Organizational viewpoints, if outdated or biased, may result in poor military employment decisions during crisis and dilute the full Joint potential of today's military forces.

Today's U.S. military is smaller and less flexible, but increasingly relied upon by policy makers and the American public to get the job done quickly and without losing American lives. Moreover, the recent unprecedented use and impact of precision weapons, power projection, and data processing capabilities necessitates updated military doctrine to best employ new capabilities. Given these wide-ranging influences on military operations, the potential for out-dated force employment assumptions among career military officers is ever present. The

imperative is to evaluate Joint attitudes and adjust the Joint decision-making process to insure the best possible military options are provided to the President and the Secretary of Defense (National Command Authorities [NCA]) without negative organizational bias.

The central purpose of this article is to highlight the existence of organizational impediments to achieve an optimal military response during crisis and to make recommendations to mute those impediments. From a practical standpoint, the highly debated role of airpower in conflict will be used to highlight the potential for organizational influences or bias among the military services. A combination of historical examples and a Joint attitudes survey administered by the author will provide insights into the potential for organizational bias.

ORGANIZATIONAL BIAS IN THEORY

Theoretically, the military culture of rigid planning and structured regulations dictate a rational approach to crisis response decision-making. However, academic studies and reflections by senior military leaders suggest organizational influences can and will enter the decision-making process.

One academic theory, posited by Graham Allison, argues organizational standard operating procedures as well as the basic survival and prestige of organizations will influence and bias decisions.[1] As such, the large bureaucratic structure of

military organizations encourages agenda setting and condenses the information available to decision-makers.[2] Furthermore, the organizational staffing processes will, by necessity, filter and organize the voluminous information received during crisis. This filtering and organizing process naturally shapes and biases the upward flow of information through a choice of options, recommendations and assumptions. Thus, despite their best efforts, senior Joint decision-makers must fight an uphill battle to make rational, unbiased decisions.

In addition, the Army, Navy and Air Force each has their own individual set of organizational attitudes and beliefs according to the RAND Corporation study published in The Masks of War.[3] The RAND research effort argues that the most powerful institutions in the national security arena are the military services and their distinct organizational personalities dictate much of their behavior.[4]

> "Despite the logical wrappings of defense planning, there is considerable evidence that the qualities of the U.S. military forces are determined more by cultural and institutional preferences for certain kinds of military forces than by the "threat". There are many ways to interpret a threat; there are many ways to deal with any particular interpretation of a threat."[5]

Moreover, the attitudes of individual service members are, by extension, a subset of organizational attitudes within the service.[6] Although individual attitudes may vary widely, there

is a strong tendency through socialization, service education and self-regulation to migrate individual beliefs towards central organizational attitudes. The prevalence of this tendency was verified by a survey administered to current U.S. military Senior Service School (SSS) students.[7] The "Joint Attitudes Survey" (Appendix 1) indicated a significant divergence of viewpoints among future military leaders based on service orientation.

Furthermore, cognitive factors research suggests that the complexities of decision-making force the human mind to break down information when making a decision.[8] Inference mechanisms such as simplicity and consistency help the decision-maker simplify complex problems and thus influence the final decision. Cognitive forces tend to be more pronounced during crisis and uncertainty when the decision-maker does not have time to fully assimilate available information.[9] In sum, the consequence of cognitive simplification, especially in an era of exploding information availability, is a tendency for the decision-maker to have an even greater dependence on organizationally provided information with inherent biases.[10]

Acknowledging the existence and influence of organizational bias, a primary objective of the Goldwater-Nichols Act of 1986 was to decrease service bias in recommendations provided to the NCA. Specifically, the Goldwater-Nichols Act initiated mandatory Joint education, Joint assignments, and directed the development of Joint doctrine. Former Secretary of Defense James R.

Schlesinger testifying before the Senate Armed Services Committee stated: "The existing structure [of the JCS], if it does not preclude the best military advice, provides a substantial, though not insurmountable, barrier to such advice . . .[T]he recommendations . . . must pass through a screen designed to protect the institutional interests of each . . . service."[11] To avert this parochialism, the Goldwater-Nichols Act also assigned greater power to the Chairman of the Joint Chiefs of Staff (CJCS) by making him the principal military adviser to the NCA.[12]

Unfortunately, an unintended consequence of the Goldwater-Nichols Act is that the elevated power of the Chairman may have *increased* the Chairman's vulnerability to organizational influences. Several credible critics contend the CJCS increasingly limits the advice presented to the NCA by presenting a single viewpoint. Whereas prior to the implementation of the Goldwater-Nichols Act the service chiefs, as members of the JCS, provided a range of options to the NCA.[13]

John Lehman, former Secretary of the Navy, contends the Goldwater-Nichols Act "created autocracy in the Joint Staff and arbitrary power in the person of the Chairman."[14] Lehman contends that even though the Goldwater-Nichols Act allows JCS members to present a dissenting viewpoint directly to the NCA, this option will not likely be used.[15] Chairmen can effectively mute significant disagreement by controlling the JCS agenda and using their power in making force structure choices.[16]

General Carl Mundy, former Commandant of the Marine Corps, asserted the Goldwater-Nichols Act *decreased* coordination between the CJCS and the service chiefs. Upon his retirement, Mundy sent a letter to the CJCS to voice his distress about the reduced influence of individual services over Joint matters.[17]

Structurally, Joint publications attempt to make the JCS crisis decision making process as rational as possible. Specifically, Joint Publication 5-03.1 "Joint Operation Planning and Execution System" delineates military guidance to plan and execute Joint operations in crisis situations. This publication directs the supported commander (typically the geographic Commander-in-Chief [CINC]) to develop Courses of Action (COAs).[18] These COAs are reviewed by the CJCS who can either "concur in whole or in part, direct the supported commander's development of an additional COA, or develop and recommend a different COA."[19] The structured decision-making process culminates with one or more alternatives provided to the CJCS. In turn, the Chairman makes his recommendation to the NCA for military action. Former CJCS Colin Powell reflected on the significance of his position as principal military advisor to the President: "I consult widely with the [service] chiefs and I always know what the Chiefs are thinking. In the final analysis, I provide advice in my own right. So we don't vote on anything."[20]

In sum, despite the rational military decision making structure and the Goldwater-Nichols Act initiatives, evidence

suggests senior military decision-makers are still vulnerable to organizational influences. An examination of the current airpower debate combined with anecdotal evidence regarding the employment of airpower will provide insight into organizational influences within today's military services.

THE AIRPOWER DEBATE

> "Land-warfare specialists continue to insist that it takes 'boots on the ground' to consummate a win and that air operations can, at best, produce only transitory effects on an able opponent. Air-power proponents, in contrast, have grown more and more inclined to argue that the ability of modern air power to affect land warfare has crossed a threshold in which its effects are fundamentally greater than ever before. This development, in their view, has given rise to a paradigm shift in the relationship between air and surface forces which is being resisted by sister services with now-threatened interests to protect." [21]

While many force employment disagreements exist between the military services, the on-going airpower debate, as represented in the above quote, provides a mechanism to highlight examples of organizational bias in military decision making. Air Force and Army service doctrines diverge concerning the optimum application of airpower in conflict. Since Joint doctrine is generally silent on this issue, decision-makers must rely on their own service experiences and organizationally provided information and recommendations when making judgments concerning the employment of airpower.

Air Force proponents argue that airpower is undervalued in Joint doctrine and war plans vis-à-vis ground forces. Major General Charles D. Link, the Air Force's lead airman for the 1997 Quadrennial Defense Review, noted: "Air Force not in support of land forces is considered unJoint" and "the ground forces definition of a Joint operation is one in which they are supported by airpower."[22]

Conversely, the view that "boots on the ground" are more important than strategic airpower attack in accomplishing victory during a major conflict is widespread among Army leadership.[23] This viewpoint is codified in the U.S. Army's fundamental doctrine for operations, FM 100-5 Operations. "It is recognized that a Joint force commander has a variety of ground, sea, air, special operations, and space options available to accomplish strategic objectives. Nonetheless, *actions by ground-force units* in coordination with members of the Joint team, will be *the* decisive means to the strategic ends."[24] The "Joint Attitudes Survey" confirmed the existence of differences between Army and Air Force officers concerning airpower employment. In fact the degree of polarity was quite significant as 66% of Army students agreed "boots on the ground" are necessary to achieve victory while only 17% of Air Force students agreed.

Setting aside the veracity of this philosophical and possibly imponderable airpower argument, the following anecdotes concerning airpower employment provide confirmation that

organizational influences can and do bias the application of military forces.

ORGANIZATIONAL BIAS IN PRACTICE

Certainly, the Goldwater-Nichols Act and the subsequent creation of numerous Joint publications and programs are watershed events towards integrating the military services into a cohesive Joint fighting force. However, the two significant military operations since Goldwater-Nichols indicate that the process of choosing and employing military forces is still vulnerable to organizational and individual bias. Operation JUST CAUSE during 1989 and the Persian Gulf War in 1990/1991 provide evidence that these influences adversely affected the employment of military forces.

During Operation JUST CAUSE, the U.S. invasion of Panama, the CJCS became the first Chairman to wield the Goldwater-Nichols powers as principal military advisor to the President.[25] Early in the crisis, Chairman Powell gathered the members of the JCS at his home to forge agreement on a course of action.[26] During the meeting, he stated his preferred course of action (Operation BLUE SPOON which later became known as Operation JUST CAUSE) and then asked for different viewpoints.

General Gray, Commandant of Marines, expressed his opinion that the selected course of action was primarily Army and did not include Marine Corps forces best suited for a forced entry

scenario.[27] General Gray's argument was stifled by Chairman Powell's assertion that there would not be time to move the Marine amphibious units into position. Powell stated: "I can't change the timelines or the plan now."[28] General Gray was not aware the President or Secretary of Defense had not yet set a timeline. The critical timeline was apparently the one found in Chairman Powell's preferred course of action.[29] In effect, the Marine Corps disagreement was overcome by the implication that Chairman Powell's direct access to the NCA had provided important timeline information.[30]

Additionally, Admiral Trost, the Chief of Naval Operations (CNO) expressed his concern that a dangerous parachute airdrop (as called for by BLUE SPOON) was risky and not necessary.[31] He believed U.S. troops could be brought in and landed on airfields without enemy opposition. Privately, the CNO felt the primary reason for the airdrop was to allow thousands of Army soldiers to earn combat jump badges.[32] Admiral Trost's objection did not hold much weight as the two Army experts present (Chairman Powell and the Army Chief of Staff General Carl Vuono) argued that an airdrop was indeed prudent. In addition, General Maxwell Thurmon, the SOUTHCOM Commander-In-Chief and chief architect for this operation was a veteran parachutist.[33]

At the end of this meeting, even though there were reservations, no other operational alternative was seriously considered. Indeed, Chairman Powell specifically ensured there

would be no dissension behind his back by stating "I want to make sure that we're all agreeing."[34] The service chiefs all agreed. Later the same day, Powell met with President Bush and Secretary of Defense Cheney and presented the BLUE SPOON plan.[35] Powell informed the President that all of the service Chiefs agreed completely with him.

Operation JUST CAUSE provides an example of potential bias resident in the person of the CJCS as he makes recommendations to the NCA. This scenario tends to follow the Allison organizational model since Powell relied on a standard operating procedure, which in this case was the pre-existing BLUE SPOON plan. In the end, Operation JUST CAUSE was a success and Chairman Powell's judgment to recommend an existing and practiced operational plan was borne out. Nevertheless, Chairman Powell appeared to favor the Army oriented plan by stifling disagreements and failing to foster serious consideration of alternatives to reduce the risks of BLUE SPOON, which ultimately resulted in 347 American casualties including 23 deaths.[36] Ironically, Secretary Cheney chastised Powell only a few weeks earlier because Powell tended to filter military information while Cheney wanted information from multiple sources.[37]

The next significant post Goldwater-Nichols military operation was Operation DESERT SHIELD/STORM, the Gulf War with Iraq. While the Gulf War achieved stated U.S. strategic objectives, service based organizational forces influenced both

strategy and operations. Chairman Powell was still at the helm of the JCS and was a key decision-maker

In the first few days after the Iraqi invasion of Kuwait, Chairman Powell was asked to provide the President with military options to defend Saudi Arabia from Iraq. On the second of August 1990, Chairman Powell and General Schwarzkopf outlined Operations Plan 90-1002 to President Bush.[38] Plan 90-1002 provided for the defense of Saudi Arabia primarily using land forces and assigned airpower to a minor supporting role. Career Army officer Lieutenant General Tom Kelly, filling the critical Joint staff position of Director of Operations (J3), commented that he did not believe airpower could accomplish a significant strategic impact.[39] He lamented about a potential conflict with Iraq: "There's nothing we can do" without heavy ground tank forces.[40] General Kelly's intransigence against airpower became even more evident as he railed against the embryonic Operation INSTANT THUNDER strategic air campaign: "Air power has never worked in the past by itself. This isn't going to work"[41]

A RAND Gulf War analysis concluded the U.S. Commander-in-Chief Central Command (USCINCENT) prewar plan, 90-1002, narrowly defined the role and application of airpower.[42] Specifically, USCINCENT prewar plans relegated the use of airpower to support ground operations. Consequently, the initial land-centric alternative to an Iraqi offensive appears to have again followed the standard operating procedure model in the form of pre-

existing war plans. Additionally, the combination of an Army CJCS (General Powell), an Army USCINCENT (General Schwarzkopf) and an Army Joint Staff Director of Operations (Lieutenant General Kelly) no doubt diminished the possibility of deviation from the preconceived land emphasis in the prewar plan. Eventually INSTANT THUNDER became the basis for the ultimate air war. In the end, this example points out the possible impact of organizational influences during times of crisis when decisions must be made quickly. An important question remains about whether the proffered land option was the best option if Iraq had invaded Saudi Arabia shortly after the invasion of Kuwait.

In addition to strategic organizational impediments during Gulf War, there was also operational bias related to the use of airpower. The relationships between the Air Force, Navy, Marine Corps and Army in relation to the 38-day air war reveal organizational forces decreased the synergy of air operations.

One of the most controversial issues during the Gulf War, and still enduring today, is the role of the Joint Force Air Component Commander (JFACC). During the Gulf War, the JFACC concept was a recent addition to Joint doctrine and General Schwarzkopf appointed Air Force Lieutenant General Chuck Horner as the JFACC. Overall, the Army, Navy and Marine Corps viewed the Air Force JFACC as a threat to misuse their organic aircraft.

The Navy entered the JFACC process reluctantly and opposed the JFACC concept for several months during DESERT SHIELD.[43]

Significantly, a Navy Captain wrote a trip report critical of Navy senior officers during the Gulf War. He stated "several senior [Navy] officers expressed reservations about the Navy's involvement in an air campaign centrally directed [by an Air Force JFACC]."[44] In addition, an Air Force liaison officer to the Navy stated that the Navy "expressed an attitude of resentment towards the Air Force and distrust of the CENTAF [Central Air Forces] staff." Accordingly, these Navy officers incessantly scrutinized CENTAF guidance in search of hidden Air Force agendas concerning the air campaign.[45]

The Marine Corps also held a divergent view from the Air Force in allocation of air assets during the Gulf War. The basis of the divergent views evolved from the 1986 JCS Omnibus Agreement and Joint Publication 3-01.1. While the Omnibus agreement assigned the Marine Corps Commander operational control of his organic Marine air assets, it also authorized the Joint Force Commander to assign missions to Marine air "to ensure unity of effort in accomplishment of his overall mission."[46] Since a JFACC was appointed during the Gulf War to "exercise operational control of air assets," the control of Marine air was unclear.

The lack of clear authority over Marine Corps air assets and doctrinal disagreements led to numerous instances of service parochialism. For example, Air Force General "Buster" Glosson, the Director of Planning for CENTAF, exhibited an Air Force airpower bias in his characterization of Lieutenant General Royal

Moore, the Commander of the 1st Marine Air Wing. Glosson contended General Moore was unable to think at the strategic level and was "obsessed" with supporting Marine Expeditionary Force doctrine to the detriment of strategic goals. Glosson commented, "they [Marines] kept two-thirds of their air assets to support ground action that was not about to happen and wasn't even in the realm of possible. They only used one-third of their assets to fly sorties that should have been fragged [sic]."[47]

In addition to the husbanding of two-thirds of Marine Corps air assets during the 38-day air campaign, Marine Corps doctrine further diluted the effectiveness of airpower actually provided to the JFACC for use in the air war. Due to the doctrinal requirement to directly support Marine Corps land forces, the Marines insisted that only their aircraft prepare the battlefield directly in front of the Marine ground forces positioned south of Kuwait City. Glosson stated,

> "He [Lt Gen Walt Boomer, Commander Marine Central Command] paid a price in those [Iraqi] divisions that were down in front of the Marines. They were not attrited [sic] as much as the other divisions because he insisted on flying the Marines, who didn't have the precision weapons capability, against those divisions. He came whimpering in to the CINC about a week before the ground war started. So we moved F-18s on up around the north of Kuwait City, and we put PGM [precision guided munitions] guys in over the divisions to attrit [sic] them down."[48]

This position is further supported by an Operation DESERT SHIELD/DESERT STORM After Action Report submitted by the CENTAF Marine Corps liaison,

> "It was apparent that the Marine Aircraft Wing was reluctant to become part of the overall air campaign in concert with the other theater assets. Much of this was due to the inherent fear of the Air Force control fostered by Southeast Asia, and the need to demonstrate MAGTF [Marine Air/Ground Task Force] control over its own air assets. Another related reason is the inherent distrust of Air Force intentions to control the destiny of Marine air vice the coordination of the air campaign. . . .we [Marines] demonstrate that in a Joint environment the MAGTF cannot be counted upon to increase the synergism of the Joint command, thereby making us inefficient part of the whole and therefore, expendable." [49]

Another related effect of Marine Corps reluctance to the JFACC air operation was freelancing in the Air Tasking Order (ATO). Lieutenant Colonel Dave Deptula, USAF planning officer on the JFACC staff noted,

> "The Marines were bypassing the [air] planning cells where we constructed the Master Attack Plan . . . they would go to the ATO cell late at night and give the "changes" to the process and give them to the guys processing the ATO. So they would accept this information from the Marines as if it were a change, and input it to the system. In fact, it wasn't really a change. It was their initial input. They had to get it into the ATO because they needed the deconfliction, they needed the call signs, the air space management, and so on and so forth. They would bypass the planning cell and go hit whatever they wanted to hit." [50]

A second method used by the Marine Corps to manipulate the air targeting process during the execution phase was to ask permission to strike a secondary target rather than the primary. Since the secondary targets did not receive as much planning scrutiny as the primary, the Marine pilots were able to get their preferred targets listed as secondary. In reality these targets became primary as the Marine pilots asked for and received permission (generally from Navy air controllers) to attack the secondary targets during execution.[51]

Lieutenant General Royal Moore, Commanding General, 1st Marine Aircraft Wing in command of all Marine Corps aircraft assigned to the Marine Expeditionary Force, admitted he "kind of gamed the ATO process . . What I did . . . was write an ATO that would give me enough flexibility . . . So I might write an enormous amount of sorties, and every seven minutes I'd have airplanes up doing various things--and I might cancel an awful lot of those. This way I didn't have to play around with the process while I waiting to hit a target."[52]

Similarly, the Army questioned the air effort to help shape the battlefield for the eventual land offensive. On 18 February 1991, Army Central Command released a situation report that was highly critical of the effectiveness of the air effort.

> "Air support related issues continue to plague final preparation for offensive operations and raise doubts concerning our ability to effectively shape the battlefield prior to initiation of the ground campaign. Too few sorties were made available to the VII and XVIII Corps and, while air support missions are being flown against first-echelon enemy divisions, Army nominated targets are not being serviced."[53]

General Schwarzkopf also contributed to Army organizational bias in his role as head of land forces. Marine Lieutenant General Moore explains the land battle emphasis of General Schwarzkopf who maintained the dual hat of Joint Force Commander and Land Component Commander. "General Schwarzkopf, as a ground officer, wanted to prepare the battlefield; this was very important in the evolution [of the air campaign]. He was not willing to let any of us go off and shoot down airplanes, or conduct deep strikes at the cost of preparing that battlefield in front of the Army, Marines, and Coalition forces."[54] According to General Horner, General Schwarzkopf would, on a daily basis, reapportion air assets to attack enemy positions directly in front of coalition ground forces.[55]

Yet, as suggested earlier by the comments of Lieutenant General Glosson, the Air Force also exhibited organizational bias in the opinion of a Navy liaison officer working on the CENTAF staff.

> "Early on, the USAF committed fully to the forward deployment and utilization of every possible facet of their force structure. This positioning was only thinly veiled . . . as positioning and preparation for the upcoming 'Battles with Congress'. The JFACC planning cell had a member of the Secretary of the Air Force's personal staff--he was the second senior member in the planning cell."[56]

Furthermore, General Horner felt the Army leadership did not understand the best use of airpower (in his opinion at the strategic level) and felt the Army tended to "fight in isolation" at the operational level. Consequently when a ground commander demanded increased sorties to support land forces, General Horner responded with a simple "no."[57] General Horner recalled General Schwarzkopf's response. "Schwarzkopf laughed when I fell on my sword. He didn't give [me] any support at all. But he summarized it by saying, 'guys it's all mine, and I will put it [airpower] where it needs to be put'."[58]

The upshot of General Schwarzkopf's re-allocation of airpower and the Marine Corps insistence to support their ground troops was an overall emphasis of air sorties to shape the battlefield containing the first and second echelon Iraqi forces. Post-war CIA analysis revealed that coalition air forces were responsible for destroying twice as much equipment in the second echelon near the front lines as opposed to the Republican Guard located in the 3d echelon, yet the Republican Guard was one of the primary strategic goals of the campaign.[59] Overall, 70% of air sorties were flown to support the eventual ground campaign.[60]

Only 15% of air sorties were used to conduct the strategic attacks on Baghdad and the Republican Guard units.[61]

All told, the impact of airpower service disagreements during Desert Storm was strategically insignificant due to the fact that there were virtually unlimited coalition air assets and an ineffective Iraqi Air Force. For his part, General Horner consciously choose to not openly air the airpower disagreement and risk further problems between the services during conflict.

In sum, organizational and individual biases during Operation JUST CAUSE and the Gulf War affected both strategic and operational decision-making. Nevertheless, at the time of these conflicts the Goldwater-Nichols Act joint requirements were only initiated a couple years prior. The military decision-makers and their staffs involved in these conflicts only served a small portion of their career under the Goldwater-Nichols joint era. However, today's U.S. military is more than a decade removed from the implementation of the Goldwater-Nichols Act and a clearer conception of Goldwater-Nichols effectiveness should be emerging among the future leaders of the military.

JOINT ATTITUDES SURVEY

> "During a crisis you rely on thinking that has already been done." Henry Kissinger

There is general agreement that military "Jointness", from a structural and a doctrinal perspective, has increased since the

passage of the Goldwater-Nichols Act. Nevertheless, academic pundits as well as evidence from Operation JUST CAUSE and the Gulf War suggest organizational and individual influences may adversely influence military crisis decision-making. Therefore, the question remains whether legislated "Jointness" is actually changing the *attitudes* of younger career military officers who will ascend to be key Joint decision-makers during the next decade. Has the Goldwater-Nichols mandated Joint education, doctrine, training, and assignments modified the parochial attitudes of military officers?

To evaluate the current attitudes of future leaders in the Army, Navy and Air Force, a survey was administered to the 1998 student classes of the Army, Air, and Naval War Colleges. The war college students were selected since the lieutenant colonels/colonels and commander/captains attending these schools are chosen from among the most promising officers in their respective services. In fact, senior service school completion is a virtual prerequisite for promotion to General/Flag Officer with 36% of war college graduates achieving general/flag rank status.[62] Furthermore, several war college graduates will achieve the highest rank of four-star general or full admirals and potentially serve as a member of the JCS, as a warfighting Commander-in-Chief, or as the Chairman of the JCS.[63]

To reduce the risk of sample error, a complete census survey was taken among the war college students with the response rate

achieving a 95%/+-5% confidence/precision level.[64] The respondents were categorized as Joint officers to determine whether Joint experience impacted their individual viewpoints.[65]

As mentioned, the survey indicated a strong attitude variance among officers from different services towards employment of military force. The survey results for the following Likert statements are representative.

Question 4: "Airpower was the decisive force in the Gulf War victory."

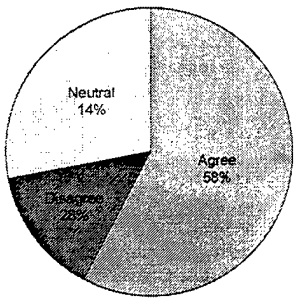

Figure 1

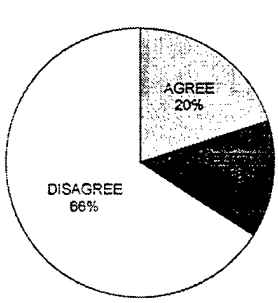

Figure 2

Question 5: "Land power was the decisive force in the Gulf War victory."

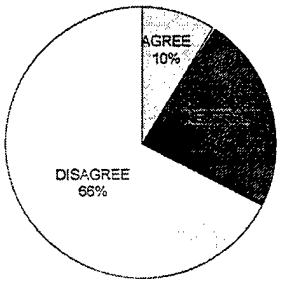

Figure 3

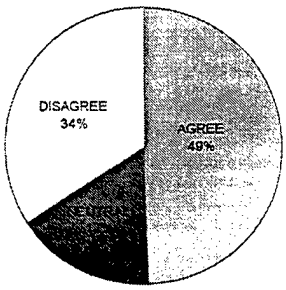

Figure 4

Question 19: "A Joint operation is one in which airpower and sea power provide support to the ultimate ground effort."

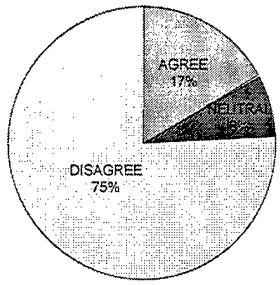

Figure 5

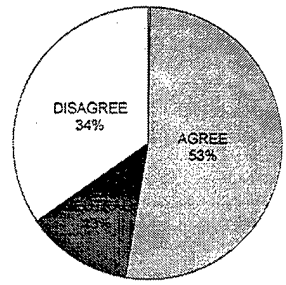

Figure 6

Most significantly, Joint experience, as defined by at least two years of Joint service, **did not** mitigate the tendency to support own-service views. Interestingly, responses of Joint Army officers indicated greater service parochialism than their non-Joint counterparts in two instances.[66] Question 3 is an example: "The Army will be the decisive service in any near term major conflict." While Air Force responses disagreed at a rate of 77%, the Army response was mixed due to disagreement between Joint and non-Joint officers.

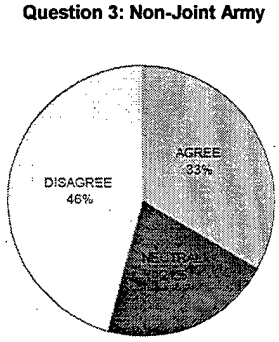

Figure 7

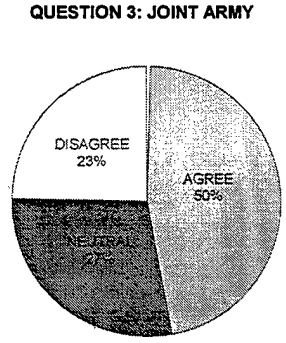

Figure 8

Similarly, on Question 14 the same phenomenon occurred. "The optimum use of airpower is supporting operational ground forces."

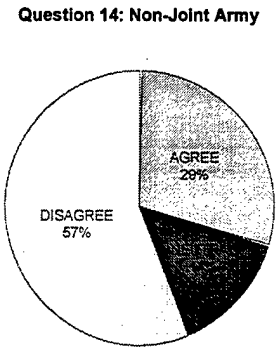

Figure 9

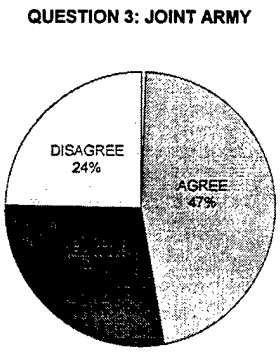

Figure 10

In summary, the Joint Attitudes Survey indicated service parochialism does exist among the future military leaders represented in the 1998 war college classes. Perhaps more surprising, the survey suggests Joint education and experience may not reduce service-based parochialism. The implications of this insight are twofold.

First, although Goldwater-Nichols has structurally increased military Jointness, the legislation has not yet achieved the goal of eliminating service parochialism among the officer corps. Secondly, further structural changes in the military decision-making process may be needed to further mute service based parochialism.

RECOMMENDATIONS

Today's U.S. military is smaller and is challenged by an unpredictable international security environment. Consequently,

military operations must be increasingly efficient and effective through the optimum application of Joint forces. As such, the following recommendations are offered to overcome potential service and individual parochialism that may inhibit the best application of Joint military forces.

First, the Chairman of the JCS should routinely provide the President with dissenting or minority opinions along with the recommended "best" military course of action. Currently, the CJCS as the principal military advisor to the President generally recommends a single "best" course of action. In reality, there are numerous feasible military options in every crisis scenario with attendant political advantages and disadvantages for the NCA to evaluate. As evidenced during Operation JUST CAUSE and the Gulf War, the proffering of a single alternative increases the likelihood that recommendations are prejudiced. Alternative military options presented to the President and the Secretary of Defense would facilitate improved political decisions based on a range of possible military outcomes rather than a single expected outcome.

Next, the NCA should more rigorously implement a policy of service rotations among the regional Commander-in-Chiefs and the CJCS position. Over time the continued influence of a single service filling the same key warfighting commands may inadvertently introduce a service-biased culture within that command's operating procedures and warfighting plans. For

example, Army officers have historically retained the preponderance of the war fighting CINC positions. Additionally, an Army officer has filled the critical Chairman of the Joint Chiefs of Staff position continuously since 1989. During this period, the CJCS supervised the complete restructuring of the Joint Staff and the creation of Joint doctrine in accordance with the Goldwater-Nichols Act. Consequently, the existence of unintentional service bias is a real possibility within the culture, structure, and procedures of the Joint Staff.

A third recommendation derives directly from the Persian Gulf War experience. Whereas, General Schwarzkopf occupied the positions of both Joint Force Commander in charge of all air, land and sea forces, he also retained the position of Land Forces Component Commander. Ostensibly, Schwarzkopf was dual hatted due to the political necessity of commanding coalition forces. However, this dual-hat situation made it difficult for him to make impartial force employment decisions and should be avoided in the future.

Fourth, the Secretary of Defense should sponsor a Joint forum for academic debate concerning roles and missions of the armed services. Unfortunately, current forums such as the recent Quadrennial Defense Review are too often played out in the form of budget implications and weapons procurement rather than meaningful doctrinal dialog and resolution. As technology, doctrine and the threat continue to evolve, the relative

contributions of each service will inevitably change and Joint Doctrine must adapt. Although the Joint Force Quarterly publication provides a vehicle for dialog there needs to be an annual conference to bring together senior military, political and academic experts to openly discuss and resolve critical roles and missions disagreements between the services.

Finally, the "Joint Attitudes Survey" suggests that current Joint experience requirements may not be sufficient to overcome parochial service attitudes developed during the formative years of an officer's career. Therefore, to foster a greater Joint culture, Joint education should be introduced earlier in an officer's career. Pre-commissioning education and early primary service schools provide opportunities to lay a foundation of Joint education and perspectives. In addition, the service academies provide a fertile ground to cultivate joint attitudes among future military officers. Specifically, the service academies should significantly increase the number of sister service faculty instructors and Joint Specialty Officers to afford the students multible service viewpoints. Finally, education must then be continually reinforced throughout an officer's career in addition to the mandatory Goldwater-Nichols Act professional military education and Joint assignments.

CONCLUSION

If the current revolution in military affairs is to be completely successful, the U.S. military must reduce organizational inhibitions by shedding organizational force employment paradigms. Not surprisingly, service parochialism appears to be alive and well despite the legislative intent of the Goldwater-Nichols Act. The results of the "Joint Attitudes Survey" provided a graphic glimpse into the divergent viewpoints of future senior military leaders. Despite the immense Joint contributions of each military service, the Gulf War victory was arguably more product of overwhelming technical advantage and sheer mass of resources than synergy of Joint operations. Specifically in the case of airpower, the enormous number of air assets allowed the JFACC to satisfy parochial service preferences without making the difficult choices that will likely be required in the future.[67]

The point remains that each military service possesses a unique organizational viewpoint about how best to employ military forces in the Joint arena. While service-specific expertise and lively academic dialog are necessary ingredients to the evolution of tomorrow's Joint warfighting force; the defense community must be careful to ensure zealousness to protect organizational turf does not blind decision-makers to the goal of providing the best possible defense for America. The goal of this article was to

increase the awareness of the existence and potential grave impact of unchecked service parochialism during crisis. And perhaps more importantly, to help ensure U.S. military forces will always be successful in achieving America's military objectives.

TOTAL DOCUMENT WORD COUNT: 5904

APPENDIX 1

JOINT ATTITUDES SURVEY
SUMMARY

A "Joint Attitudes Survey" was administered by Lt Col Brooks Bash to the 1998 Senior Service School (SSS) students of the Army, Air, and Naval War Colleges. The survey was designed to measure Joint attitudes and organizational biases among future leaders of the Army, Navy and Air Force. This summary will address the methodology of the survey and present three significant findings.

War college students were selected since the officers attending SSS are among the most promising officers in their respective services. In fact, SSS completion is a virtual prerequisite for promotion to General/Flag Officer with 36% of war college graduates achieving general/flag rank status.[68] Furthermore, several war college graduates will likely achieve the highest rank of four-star general or full admiral and potentially serve as a member of the JCS, as a warfighting Commander-in-Chief, or as the Chairman of the JCS.

To reduce the risk of sample error, a census survey was taken among all Army, Navy and Air Force war college students. Although civilians, Marine Corps and Coast Guard students were also surveyed, their responses were not tabulated due to the small representative sample of students. The response rate for the Army, Air Force and Navy population groups exceeded a 95%/+-

5% confidence/precision level. Of note, there were an additional 313 SSS students *not* surveyed attending the National War College, the Industrial College of the Armed Forces, and various non-military academic institutions throughout the U.S. during 1998. Notwithstanding, these additional students were added to the total survey population and the overall confidence/precision level still exceeded 95%/+-5% by nearly 100 responses.

The survey respondents were individually categorized by the War College they attended, service orientation, and Joint experience. In accordance with the Goldwater-Nichols Act, two years in a Joint assignment was used as the minimum requirement to designate a survey respondent as "Joint". The survey consisted of statements with a Likert-type answer scale to determine a variance in attitudes among Army, Navy and Air Force SSS students. The majority of the Likert statements were derived from actual comments found in literature.

The survey was developed under the direction of Dr. Glenda Y. Nagami, an expert for development and approval of surveys at the Army War College. As a civilian her review facilitated the construction of questions to avoid bias. The survey was next tested on several Army War College students and faculty to decrease question bias. Nonetheless, a small percentage of survey respondents noted that they thought the survey used leading statements to elicit a service-biased viewpoint. However, the percentage of students who suspected biased

questions was equally divided among each of the three services.

FINDING #1:

The survey found a significant polarization of viewpoints among students based on service orientation. (Refer to Table 1 "Joint Attitudes Survey Summary" for the specific response percentages for each statement). Specifically, several Likert statements revealed a significant service-based divergence of opinion concerning the employment of military force. In general, each service felt their own medium of warfare (air, land, sea) brought a greater capability to the Joint fight than the other service mediums.

The Air Force and Army students disagreed on statements generally focused on the relative utility of airpower vis-à-vis land power. {Statements 3, 4, 5, 9, 12, 13, 15, 19, 24}. This response pattern indicated a genuine difference of opinion between Army and Air Force officers concerning the airpower debate. Next, Navy and Air Force students also disagreed on a number of Likert statements {Statements 4, 9, 10, 12, 13, 19, 24}. However, these disagreements were not focused on an individual medium of force application but split evenly between air, land and sea force utilization. This phenomenon may have occurred due to the airpower expertise resident in the Navy. Finally, Navy and Army students generally disagreed on naval and land force application statements {Statements 3, 5, 7, 10, 15}.

FINDING #2:

Joint experience had no significant impact on service oriented viewpoints. Analysis of Likert statements resulting in a significant disagreement between services found that Joint vs. non-Joint students within the same service had similar response percentages. In two instances a "reverse" bias situation appeared among Army respondents. Whereas, the majority of Joint Army students supported an Army oriented viewpoint while the majority of their non-Joint Army counterparts supported an opposite viewpoint aligned with the majority of Air Force students. Specifically, the majority of Joint Army students felt that in any near term conflict the Army would be the decisive service while the non-Joint Army students did not (Statement 3). Similarly, the majority of Joint Army students felt that the optimum use of airpower was to support ground operations while the non-Joint students did not (Statement 14).

FINDING #3

There were several statements (Statements 1, 2, 6, 8, 11, 14, 16, 17, 18, 20, 21, 23) which all services were in agreement. These areas of agreement between all services are indicated below:

(a) The Goldwater-Nichols Act has successfully encouraged jointness. (Statement 1)

(b) Technology has changed the prosecution of war. (Statement 8)

(c) The optimum use of airpower is at the strategic level of war. (Statements 14, 21)

(d) Aircraft carriers are worth their cost due to their strike and "show of force' capabilities. (Statements 17, 18)

(e) The CJCS should rotate among the services. (Statement 20)

In sum, the Joint Attitudes Survey indicated service parochialism does exist among future military leaders represented in the 1998 senior service school class. Perhaps more surprising, the survey suggests Joint education and experience may not reduce service-based parochialism. Unfortunately, since there is no pre Goldwater-Nichols baseline survey available for comparison, the relative degree of service parochialism can not be determined to evaluate the actual influence of the Goldwater-Nichols Act on parochialism.

TABLE 1: JOINT ATTITUDES SURVEY

	SERVICE:	AIR FORCE			ARMY			NAVY		
AGREE (A) NEUTRAL (N) DISAGREE (D)		A	N	D	A	N	D	A	N	D
1. The Goldwater-Nichols legislation has increased "Jointness".	Total %	92	2	7	81	3	16	95	5	0
	Joint %	90	0	10	89	4	7	94	6	0
	Non-Joint %	93	3	4	75	2	23	95	5	0
2. Regional Commander in Chiefs (CINCs) should predominately be Army.	Total %	7	12	81	34	24	42	2	5	93
	Joint %	4	10	86	24	31	44	0	0	99
	Non-Joint %	9	14	77	45	16	39	2	8	90
3. The Army will be the decisive service in any near term major conflict.	Total %	5	18	77	39	24	36	13	13	74
	Joint %	2	18	80	47	29	24	29	0	71
	Non-Joint %	7	18	75	33	21	46	7	18	76
4. Airpower was the decisive force in the Gulf War victory.	Total %	58	14	28	20	14	66	21	10	69
	Joint %	49	14	37	20	10	70	18	6	76
	Non-Joint %	65	14	22	20	20	60	23	11	66
5. Land power was the decisive force in the Gulf War victory.	Total %	10	24	66	49	16	34	30	18	52
	Joint %	12	22	66	51	17	32	41	18	41
	Non-Joint %	6	25	68	48	15	36	25	18	57
6. Sea power was the decisive force in the Gulf War victory.	Total %	3	19	79	3	19	78	3	20	77
	Joint %	4	22	75	3	19	78	0	24	76
	Non-Joint %	2	17	82	3	18	78	5	19	77
7. Marines epitomize Jointness by melding land, sea and air in a single fighting unit.	Total %	38	25	37	39	19	43	57	20	23
	Joint %	40	29	31	43	15	42	71	6	24
	Non-Joint %	37	22	42	34	23	43	51	26	23
8. The Gulf War proved technology has changed the prosecution of war.	Total %	75	8	17	70	11	19	71	6	22
	Joint %	76	8	16	71	13	16	71	12	18
	Non-Joint %	75	7	18	69	8	23	72	4	24
9. "America's next war, like those that have preceded it, almost certainly will be won—or lost—on land."	Total %	21	17	62	73	13	14	53	12	36
	Joint %	20	15	65	78	10	11	60	13	27
	Non-Joint %	22	18	60	68	16	16	50	11	39
10. Naval power is undervalued in Joint doctrine and war plans.	Total %	16	38	46	25	29	46	39	28	33
	Joint %	18	34	48	22	25	43	41	24	35
	Non-Joint %	14	41	44	29	22	49	39	30	32
11. Land power is undervalued in Joint doctrine and war plans.	Total %	5	23	72	11	27	62	8	38	54
	Joint %	0	22	78	13	30	57	12	24	65
	Non-Joint %	9	24	68	9	24	67	7	43	50
12. Airpower is undervalued in Joint doctrine and war plans.	Total %	48	20	32	10	22	69	8	30	62
	Joint %	38	20	42	12	29	59	12	24	65
	Non-Joint %	56	20	24	8	14	78	7	32	61
13. Technology is the key to future victories in major. conflicts	Total %	54	17	30	39	14	46	37	22	42
	Joint %	52	14	34	42	16	42	24	12	65
	Non-Joint %	55	18	26	37	13	50	42	26	33
14. The optimum use of airpower is supporting operational ground forces.	Total %	6	8	86	36	17	47	23	23	53
	Joint %	4	8	88	42	20	38	35	24	41
	Non-Joint %	8	6	85	30	15	56	19	23	58
15. "Boots on the ground" are needed to achieve victory while air and naval operations produce only transitory effects on an opponent.	Total %	17	16	67	66	12	22	43	7	51
	Joint %	20	8	73	73	7	19	35	0	65
	Non-Joint %	16	22	63	57	17	26	45	9	45
16. During the past decade, the Chairman of the JCS has been an Army officer. This trend should continue.	Total %	3	7	90	24	36	39	0	16	84
	Joint %	2	4	94	27	36	37	0	24	76
	Non-Joint %	5	9	86	22	37	41	0	13	87

TABLE 1 (Continued)
JOINT ATTITUDES SURVEY

	SERVICE:	AIR FORCE			ARMY			NAVY		
AGREE (A) NEUTRAL (N)	DISAGREE (D)	A	N	D	A	N	D	A	N	D
17. Aircraft carriers are worth the cost due to their capacity for "show of force" missions.	Total %	53	22	24	71	11	18	90	8	2
	Joint %	57	16	27	70	11	19	94	6	0
	Non-Joint %	51	28	22	73	10	17	89	6	2
18. Aircraft carriers are worth the cost due to their capacity for strike missions.	Total %	51	17	32	78	9	14	95	2	3
	Joint %	57	13	30	82	7	11	99	0	0
	Non-Joint %	46	19	34	74	10	16	93	2	5
19. A Joint operation is one in which airpower and sea power provide support to the ultimate ground force effort.	Total %	17	8	75	53	13	34	50	15	35
	Joint %	15	8	77	59	13	29	53	6	41
	Non-Joint %	18	8	74	47	13	40	49	19	33
20. The service affiliation of the Chairman of the JCS should rotate among the services.	Total %	73	7	20	48	24	29	67	10	23
	Joint %	80	4	16	48	18	34	82	12	6
	Non-Joint %	68	9	23	47	29	24	60	9	30
21. The optimum use of airpower is at the strategic level of war attacking enemy centers of gravity.	Total %	73	16	11	51	18	32	48	18	34
	Joint %	66	22	12	55	15	30	65	6	29
	Non-Joint %	78	12	10	47	20	33	41	23	36
22. Successful war fighting leadership at the regional CINCs level is more dependent on individual leadership than service affiliation.	Total %	85	8	7	79	11	11	92	7	2
	Joint %	90	4	6	76	12	12	88	6	6
	Non-Joint %	82	11	8	82	9	9	93	7	0
23. The Air Force's Air Expeditionary Force provides the same strike capability as a Naval carrier.	Total %	25	32	43	17	54	29	8	15	76
	Joint %	25	25	50	18	61	21	18	18	65
	Non-Joint %	25	37	38	16	48	37	5	14	81
24. Marine doctrine under utilizes airpower by regulating the majority of air assets to support tactical ground objectives.	Total %	46	29	25	23	35	43	22	29	49
	Joint %	52	26	22	13	42	45	35	18	47
	Non-Joint %	41	31	28	33	27	40	17	33	50

ENDNOTES

[1] Graham T. Allison, Essence of Decision: Explaining the Cuban Missile Crisis, (Boston, MA: Little, Brown, and Company, 1971), 67.

[2] Deborah D. Avant, Political Institutions and Military Change, (Ithaca, NY: Cornell University Press), 6.

[3] Carl H. Builder, The Masks of War, (Baltimore: The John Hopkins University Press, 1989), 3. This book enjoys significant Department of Defense credibility by its presence on the JCS professional reading list.

[4] Ibid.

[5] Ibid., 6.

[6] Ibid., 8; 9.

[7] The author administered the "Joint Attitudes Survey" to the 1998 classes of the Air, Army and Naval War Colleges. The summary is located at Appendix 1.

[8] Farrell, William R. and Chaloupka, Mel., "Four Perspectives on Decision Making and Execution in National Security Organizations," Naval War College. Reprinted in U.S. Army War College Readings Volume III, Course 2: War, National Policy & Strategy, (Carlisle Barracks, PA: U.S. Army War College, 27 August-17 October 1997), 264.

[9] Ibid., 266.

[10] Despite weight of these research efforts, the intellectual debate concerning the veracity of organizational influences has yet to be fully settled. On the opposite side of the debate, pundits argue military organizational influences are muted due to civil oversight and conditioning through long-term interactions. However, these analyses focus on routine decision-making and not within the time compressed dynamics of crisis response situations. See: Deborah D. Avant, Political Institutions and Military Change (Ithaca, NY: Cornell University Press), 13.

[11] Douglas C. Lovelace, Jr., Unification of the United States Armed Forces: Implementing the 1986 Department of Defense

Reorganization Act, (U.S. Army War College, Carlisle Barracks PA: Strategic Studies Institute), 33.

[12] National Defense University, The Joint Officers Staff Guide 1997, Armed Forces Staff College Publication 1 (Washington DC: US Government Printing Office), 2-11.

[13] Lovelace, 35.

[14] Ibid., 36.

[15] Ibid., 2-11.

[16] Ibid., 35.

[17] Ibid., 39.

[18] U.S Joint Staff, Joint Operation Planning and Execution System, Joint Publication 5-03.1 Volume 1, (U.S. Government Printing Office, 4 August 1993), V-11.

[19]Ibid., V-12.

[20] Roth, David, Sacred Honor: A Biography of Colin Powell, (Michigan: Kondervan Publishing House, 1993), 195.

[21] Benjamin S. Lambeth, "The Technology Revolution in Air Warfare," Survival(Spring 1997):65-66.

[22] Ibid., 3.

[23] John T. Correll, "The Headwinds of Tradition" Air Force Magazine (October 1997), 3.

[24] Headquarters Department of the Army. FM100-5 Operations, (Washington, D.C.: U.S. Government Printing Office, June 1993), 2-0. Italics added to quote for emphasis.

[25] Colin L. Powell, My American Journey (New York: Random House, 1995), 422.

[26] Bob Woodward, The Commanders (New York: Simon and Schuster, 1991), 160; Powell, 422.

[27] Ibid., 423.

[28] Woodward, 164.

[29] Woodward, 134.

[30] Ibid.,164; Powell, 425. General Powell quotes himself as the one who suggested the JUST CAUSE time line in response to President Bush's question, "When will be ready to go?" Powell responded: "In two and a half days."

[31] Woodward, 165.

[32] Ibid.

[33] Woodward, 131.

[34] Ibid., 167.

[35] Ibid., 168; Powell, 425.

[36] Woodward, 195.

[37] Ibid., 425.

[38] Woodward, 228; Richard H. Kohn, "Out of Control: The Crisis in Civil-Military Relations," The National Interest (Spring 1994), 163.

[39] Woodward, 232.

[40] Ibid.

[41] Richard T. Reynolds, Heart of the Storm: The Genesis of the Air Campaign against Iraq (Maxwell AFB, AL: Air University Press, 1995), 11.

[42] James A. Winnefeld, et al., A League of Airman: U.S. Power in the Gulf War (Santa Monica, CA: RAND, 1994), 55; Woodward, 228.

[43] Jefferey E. Stambaugh, "JFACC: Key to Organizing Your Air Assets for Victory" Parameters, Volume XXIV, (Summer 94), 100.

[44] Thomas A Keaney and Eliot A Cohen, Gulf War Air Power Survey Volume I Command and Control (U.S. Government Printing Office, 1993), 53.

[45] Ibid., 53.

[46] John E. Valliere, "Stop Quibbling: Win the War", Proceedings, (December 1990): 38.

[47] Mason P. Carpenter, Joint Operations in Gulf War: An Allison Analysis (Air University: Maxwell AFB, Alabama, February 1995), 27-28.

[48] Ibid., 27-28.

[49] Ibid., 28. Carpenter is quoting J.W. Robben, Marine liaison, CENTAF, in the USMC after action report entitled Operation Desert Shield/Desert Storm, 18 March 1991.

[50] Ibid., 25. Interview with Lt Col Deptula on 21 December 1993.

[51] Ibid., 25.

[52] Thomas A Keaney and Eliot A Cohen, 51.

[53] Carpenter, 44.

[54] Charles Melson and Evellyn Englander, et al., U.S. Marines in the Persian Gulf, 1990-1991: Anthology and Annotated Bibliography, "Marine Air: There When Needed," interview with Lieutenant General Royal N. Moore., USMC, History and Museums Division (Headquarters U.S. Marine Corps, Washington D.C. 1992), 112.

[55] Thomas A Keaney and Eliot A Cohen, Vol. I, 60.

[56] Ibid., 54.

[57] Ibid. 60.

[58] Ibid.

[59] Carpenter, 45.

[60] Thomas A Keaney and Eliot A Cohen, 65.

[61] Fifty-six percent of the air sorties were used to prepare the battlefield for ground attack, while 14 percent of air sorties were flown to gain air superiority against the Iraqi Integrated Air Defense System as an enabler for ground operations.

[62] Dick Cheney and Bill Taylor, Professional Military Education: An Asset for Peace and Progress. A report of the Center for Strategic & International Studies (CSIS) Study Group on Professional Military Education (CSIS: Washington D.C., 1997), 42. Although Goldwater-Nichols requires completion of Joint PME for promotion to Flag officer, the Navy does not have a specific policy requiring officers to attend professional military education to be promoted to Flag officer rank. Rear Admiral James R. Stark, President of the Naval War College commented that naval officers are not sent to PME based on ability but on availability and PME is seen as "nice to have" rather than essential to higher rank.

[63] On average, nearly two graduates per class from the Army War College obtain the highest rank of four star general. From its inception in 1903 through the class of 1988 (most recent class able to achieve this rank) the Army War College has had 138 graduates achieve the rank of four star general.

[64] Air University. Sampling and Surveying Handbook. Maxwell AFB AL, 1985. The 95% +- 5% standard is a common rigorous threshold used in statistical analysis. The formula used to determine if The Joint Attitude Survey met this threshold can be found in the above reference. The three classes of the Army, Navy and Air War colleges do not represent the complete census of all military war college students for 1998. There were also 313 students attending the National War College, the Industrial College of the Armed Forces (ICAF)and various civilian colleges around the nation. The number of respondents from the survey as compared to the total student population encompassing all students also exceeded a 95%/+-5% confidence/precision level by nearly 100 responses.

[65] The Goldwater-Nichols minimum requirement for Joint credit is set at 24 months.

[66] The following Joint Attitude Survey Statements revealed this "reverse" Joint tendency.

Question 3: "The Army will be the decisive service in any near term major conflict."

Question 14: "The optimum use of airpower is supporting operational ground forces."

[67] Winnefeld, 264.

[68] Dick Cheney and Bill Taylor, 42.

BIBLIOGRAPHY

Air University. Sampling and Surveying Handbook. Maxwell AFB AL, 1985.

Allison, Graham T. Essence of Decision: Explaining the Cuban Missile Crisis. Boston, MA: Little, Brown, and Company, 1971.

Avant, Deborah D. Political Institutions and Military Change. Ithaca, NY: Cornell University Press, 1994.

Builder, Carl H. The Masks of War. Baltimore: The John Hopkins University Press, 1989.

Carpenter, Mason P. Joint Operations in Gulf War: An Allison Analysis. Air University: Maxwell AFB, Alabama, February 1995.

Cheney, Dick and Taylor, Bill. Professional Military Education: An Asset for Peace and Progress. A report of the Center for Strategic & International Studies (CSIS) Study Group on Professional Military Education. CSIS: Washington D.C., 1997.

Clinton, William J. A National Security Strategy for a New Century. Washington, D.C.: U.S. Government Printing Office, May 1997.

Clinton, William J. Presidential Decision Directive 2. Organization of the National Security Council. Washington, D.C.: U.S. Government Printing Office, 20 January 1993.

Cohen, Eliot A. "The Mystique of U.S. Air Power," Foreign Affairs (January/February 1994): 109-124.

Cohen, William S. Report of the Quadrennial Defense Review. Washington, D.C.: US Government Printing Office, May 1997.

Cohen, William S. Annual Report to the President and the Congress. Washington, D.C.: U.S. Government Printing Office, April 1997.

Correll, John T. "The Headwinds of Tradition," Air Force Magazine (October 1997): 3.

Farrell, William R. and Chaloupka, Mel. "Four Perspectives on Decision Making and Execution in National Security Organizations," Naval War College. Reprinted in U.S. Army War College Readings Volume III, Course 2: War, National Policy & Strategy 27 August-17 October 1997.

Gann, Timothy D. Decision from the Sky: Airpower as a Decisive Instrument of National Power. A U.S. Army War College Strategy Research Project. Carlisle Barracks, PA: US Army War College, 1997.

Keaney, Thomas A. and Cohen, Eliot A. Gulf War Air Power Survey Volume I: Command and Control: U.S. Government Printing Office, 1993.

Kohn, Richard H. "Out of Control: The Crisis in Civil-Military Relations," The National Interest (Spring 1994): 3-17.

Lambeth, Benjamin S. "The Technology Revolution in Air Warfare," Survival (Spring 1997): 65-83.

Lovelace, Douglas C. Jr. Unification of the United States Armed Forces: Implementing the 1986 Department of Defense Reorganization Act. U.S. Army War College, Carlisle Barracks PA: Strategic Studies Institute, August 1996.

Melson, Charles, and Englander, Evellyn, et al. U.S. Marines in the Persian Gulf, 1990-1991: Anthology and Annotated Bibliography, "Marine Air: There When Needed" interview with Lieutenant General Royal N. Moore, USMC, History and Museums Division Headquarters U.S. Marine Corps, Washington D.C. 1992: 111-130.

National Defense University. The Joint Officers Staff Guide 1997. Armed Forces Staff College Publication 1. Washington DC: U.S. Government printing Office, 1997.

Powell, Colin L. My American Journey. New York: Random House, 1995.

Powell, Colin L. Interview with Colin Powell, Chairman of the Joint Chiefs of Staff, WGBH Educational Foundation, "Frontline: The Gulf War, An Oral History: Examining the Gulf War Through the Eyes and in the Words of those Who Played Major Roles," Broadcast January 9 and 10, 1996, <http://www.bbc.co.uk/thevault/gulf/oral/powell/3.html> 24 October 1997.

Reynolds, Richard T. Heart of the Storm: The Genesis of the Air Campaign against Iraq. Maxwell AFB, AL: Air University Press, 1995.

Riper, Paul Van K. and Scales, Robert H. "Preparing for War in the 21st Century," Strategic Review. (Summer 1997): 14-20.

Roth, David. Sacred Honor: A Biography of Colin Powell. Michigan: Kondervan Publishing House, 1993.

Shalikashvili, John M. Joint Vision 2010. Washington, D.C.: U.S. Government Printing Office, 1997.

Stambaugh, Jeffrey E. "JFACC: Key to Organizing Your Air Assets for Victory," Parameters Volume XXIV, (Summer 94): 98-110.

U.S. Department of the Army. FM100-5 Operations. Washington, D.C.: U.S. Government Printing Office, June 1993.

U.S. Joint Staff. Doctrine for Interagency Coordination During Joint Operations, Vol. 1. Joint Publication 3-08. Washington, D.C.: U.S. Government Printing Office, 9 October 1996.

U.S. Joint Staff. Doctrine for Planning Joint Operations. Joint Publication 5-0. Washington, D.C.: U.S. Government Printing Office, 13 April 1995.

U.S. Joint Staff. Joint Operation Planning and Execution System. Joint Publication 5-03.1 Volume 1, U.S. Government Printing Office, 4 August 1993.

"White Paper: The Clinton Administration's Policy on Managing Complex Contingency Operations," Presidential Decision Directive-56, May 1997.

Valliere, John E. "Stop Quibbling: Win the War," Proceedings (December 1990): 38-45.

Winnefeld, James A. Preston Niblack, and Dana J. Johnson. A League of Airman: U.S. Air Power in the Gulf War. Santa Monica, CA: RAND, 1994.

Woodward, Bob. The Commanders. New York: Simon and Schuster, 1991.