

# **Adding Brain to Brawn: The School of Advanced Air and Space Studies and its Impact on Air Power Thinking**

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Especially after the Second World War, understanding air power became a high priority for military practitioners, policy-makers and theorists, with the United States leading the quest for sound ideas and concepts for most of the following five decades. In the late-1980s the United States Air Force took this issue so seriously that it established a very senior graduate school to provide critical education to officers considered likely to gain promotion into strategic posts. This article traces and assesses the development and role of the School for Advanced Air and Space Studies in order to determine why it originated and what influence, if any, it has actually had on American and other air power thinkers. The article concludes that, with its faculty and students at the heart of air power scholarship, some of their books serving as standard texts, and with students going into influential senior posts, the SAASS has lived up to and possibly exceeded the expectations of its founders. Indeed, it is hard to identify a more influential centre of excellence in air power education than the SAASS, or even at this stage to find a peer.

## Introduction

Air power has neither ended war nor ended civilisation, as Winston Churchill once warned it might, yet it has undeniably become the dominant form of military force and it is generally considered indispensable across the entire spectrum of war. The first set of grand ideas about its potential use as a tool of strategy, flowing from the First World War, were speculative at best and later led to misapplications during the Second World War and later conflicts. Understanding air power — particularly the relative strategic contributions of independent and integrated air power — became a high priority for military practitioners, policy-makers and theorists, with the United States leading the quest for sound ideas and concepts for most of the last five decades. In the late-1980s the United States Air Force took this issue so seriously that it established a very senior school to provide critical education to officers considered likely to gain promotion into strategic posts. This article will trace and assess the development and role of the School for Advanced Airpower Studies (which later gained the edition of space as a focus) in order to determine why it originated and what influence, if any, it has actually had on American and other air power thinkers.

## Genesis

At the end of the seemingly conceptually stagnant 1980s, General Larry Welch, Chief of Staff of the United States Air Force, felt convinced that his service had lost its way in terms of strategic concepts and ideas and that American air power doctrine had become “largely a group

of unsupported declarations that seemed designed primarily to protect the equities of airpower.” In contrast, he argued, the USAF needed coherent and comprehensible strategy and doctrine that would provide “substance”.

Welch initially tried to increase the intellectual horsepower of his service by engaging officers at colonel rank in new initiatives and programmes. Yet after arriving at a conclusion that indirect interventions would prove inadequate, and that the colonel rank was probably too late, he rather boldly decided on a solution that would, rather ambitiously, create “agents of change”. As part of his intellectual enrichment strategy, he established a “school” within the Air University designed to teach critical air power thinking at the strategic level as a logical follow-on, for selected students, from the Air Command and Staff College (ACSC). This new specialist unit, the School of Advanced Airpower Studies, tucked away above the Fairchild Library (now gloriously re-titled the Fairchild Information Research Centre), would annually enrol only twenty-five majors (or even some lieutenant colonels) who possessed the “talent, vision, and interest to pursue strategic studies”.

The idea of educating a select cadre of the most talented graduates of the Air Command and Staff Course within a bespoke first-rate graduate-level, strategy-oriented air power studies programme closely matched the U.S. Army’s aspirations for its School of Advanced Military Studies (SAMS). The simultaneity of, and obvious similarities between, both activities should not be seen as

intellectual theft by one service or other. Similar things often develop simultaneously but in conceptual isolation, and neither the USAF nor the Army worried much about one-upmanship during this period when both services, and indeed the Marine Corps (but not yet the Navy), were searching for the best ways to develop innovative and adaptive, critically minded officers who could excel in the art of command in contexts of ambiguity. Indeed, Welch merely commented that he was aware of "the difference in the concentration on fighting doctrine and its relationship to strategy in the Army and the Air Force".

One scholar who has researched the establishment of the SAAS — Professor of Military Theory and History Dr Harold Winton, a former army officer and Deputy Director of the Army's SAMS before he joined the SAAS — feels certain that Welch acted out of a deep and genuine conviction that the higher educational system of his air force had not proven capable of developing the cadre of strategists that it would need to confront the challenges of the future.<sup>1</sup> It would be wrong to suggest, of course, that Welch was a lone visionary; a Christopher Columbus of air power thinkers. His views were widely shared by other educationally minded senior officers, and key personnel within Air University (AU) had already begun to weigh the possibility of establishing a syllabus that would constitute a "second year" to follow on from the ASCS. Their aspiration was primarily to educate future AU faculty members in military history and additional relevant disciplines, yet after General Welch made his

desires public in June 1988 at a hearing of the House Armed Services Committee Military Education Panel in response to questions from the Honourable Ike Skelton, the AU staff slightly refocused and significantly accelerated its work.<sup>2</sup> These efforts led to the founding of the SAAS in 1988 with the inaugural course commencing in the summer of 1991 with 25 students. They graduated in June 1992.<sup>3</sup>

### Creating strategic thinkers

The ten initial faculty members did not want their new school to focus on producing leaders or warriors, but more ambitiously (and vaguely) on developing strategists. Their objective differed from the convention in professional military education institutions, which focused mainly on the teaching of leadership, management and planning. The faculty staff seemed less concerned by conforming to official definitions of strategy and the orthodox methods of conveying strategic concepts. Wanting students to feel free to experiment with ideas, yet within a discursive context that demanded logic and evidential underpinning, they introduced a comprehensive and rigorous liberal educational program that initially rested — perhaps not surprisingly given that six of the ten faculty members were historians — on a firm foundation of historical inquiry.<sup>4</sup> As a consequence of this unusual approach, the curriculum did not concentrate on the strategy of airpower *per se* but on the art of utilising military power effectively as a component of political discourse. This approach has led to some supporters of air power over the years to view the SAAS as a joint

professional military institution.<sup>5</sup>

Not everything taught rested so firmly upon history, with the main exceptions being courses on "Decision Making" and "Coercion and Denial Theory" taught between 1991 and 1994 by Robert Pape,<sup>6</sup> later famous as the author of a groundbreaking and highly influential analysis of air power, *Bombing to Win: Air Power and Coercion in War*.<sup>7</sup> Pape argues that air power has proven far more coercive, and thus strategically effective, when used against fielded forces and military objects than when used against civilians, civilian objects or industrial targets. Not all air power advocates accept Pape's ideas and his book even prompted a counterpoint in the form of explicit debate in the periodical *Security Studies* as well as a collected volume of adversarial papers edited by Cold War historian and nuclear strategist Jonathan Frankel.<sup>8</sup> Few air power thinkers have ever attracted such attention and aroused such passion. Despite Pape not being mentioned even once by Stephen Chiabotti in his own article on the SAAS,<sup>9</sup> the influence of this innovative thinker on the early years (and early students) of the SAAS should not be underestimated. As former SAAS professor James S. Corum recalls, Pape "got a lot of people excited".<sup>10</sup>

When former command pilot Colonel (Dr) Phillip S. Meilinger became Dean of the institution in June 1992,<sup>11</sup> after having worked in the Doctrine Division at the Air Staff among other postings, he presented his new teaching team with his reflections on the strengths and weakness of the curriculum and the teaching and learning philosophies. They relied

excessively on historical case studies and methodologies, he argued, and needed to be broadened. He later recalled that the curriculum was "virtually a history masters program" and admitted that his efforts to create greater breadth caused irritation to some of the historians.<sup>12</sup>

Eschewing many of Pape's ideas (which he later described as "interesting, but not very cogent or reasoned"<sup>13</sup>), and believing in the merits of industrial web theory (but not of morale targeting), Meilinger recommended the inclusion of two new courses: economics and technology. Air power, he believed, possessed an unequalled ability to achieve direct strategic effects by striking critically vulnerable elements within an enemy nation's industrial system. This was a vastly better way to use air power than to invest in close battle, which would inevitably place airmen unnecessarily in harm's way as they sought to fight Clausewitzian battle according to traditional, but now largely redundant, ideas on war, combat and chivalry.

Wanting SAAS students to understand economics (and economies) so that they could better understand how to conceive strategic concepts geared towards victory through air power, Meilinger not only introduced a course on technology, doctrine and strategy, but actively recruited an economist onto the faculty.<sup>14</sup> His search for the right person led him to hire Lieutenant Colonel Maris "Buster" McCrab, a former F-16 pilot with a doctorate in economics, and to empower McCrab to design a new course on economic warfare. The resulting course, which Meilinger later lauded for its success and

influence, involved students choosing countries, analysing their economic systems and designing relevant air strategies to bring them to defeat. McCrab gained promotion to full colonel while at SAAS and was eventually posted out.<sup>15</sup> Meilinger also recruited Major Bruce DeBlois, who held a PhD in physics from the University of Oxford, in order to design and teach a course on the relationship between warfare (and especially aerial warfare) and technology. As part of DeBlois' course the students visited Air Force laboratories, initially including those at the Wright-Patterson airbase in Ohio and at the Kirtland airbase in New Mexico.<sup>16</sup> Meilinger also added and taught a course on the theory of air power which was in some ways comparable to the course on military theory taught by Harold Winton. Recalling these first years, Meilinger remembers that Ken Feldman's course — which highlighted the Allison models of organisational decision-making — “was also very popular, not only because of its intrinsic worth, but like Papel's courses], it offered a relief from the relentless history courses.”<sup>17</sup> Interestingly, Meilinger later commented that, after his eventual departure, the historians' dominance returned to the faculty staff, curriculum and scholarly methodology.<sup>18</sup>

Few educational deans seem to possess the autonomy enjoyed by the SAAS's first leaders. Trusted to lead by consensus, but largely accord to his own vision and judgment, Meilinger virtually had a free hand with course construction, the design of curricula and courseware, assessment strategies and quality control. He also enjoyed significant freedom in the

recruitment, development and career management of faculty members. He remembers also working hard to find suitable and attractive placements for the programme's graduates and writing the types of recommendations that would suitably strengthen their promotional prospects.<sup>19</sup> Meilinger's logic is eminently reasonable:

*If you could not guarantee top assignments to graduates, it would be difficult to recruit new students. I would go around to ACSC, as well as the equivalent schools at Leavenworth, Quantico and Newport, and give a briefing on SAAS in the fall of each year in order to drum up support and solicit applications. It was crucial during those talks that I emphasized the issue of follow-on assignments. As I say, how else could I induce the fast burners to apply for another year of school — and a gruelling one to boot — if the end result would only be a normal, mediocre assignment at its conclusion? I had to make the SAAS experience worthwhile — practically as well as intellectually.<sup>20</sup>*

The prolific Meilinger encouraged his team towards excellence not only in teaching, but also in the publication of scholarship, with articles and other small pieces flowing at an impressive rate into the pages of the USAF's *Airpower Journal*. As well as researching and writing on their own specialist areas, Meilinger's colleagues published, with his support and urging and sometimes under his direction, some truly seminal collaborative works on air power. Most important of these was the thorough and influential anthology, *The Paths of Heaven: The Evolution of Airpower Theory*, with its essays written by former or serving SAAS colleagues (and, impressively,

two essays by former SAAS students, Fadok and Felker) with commendable conceptual consistency.<sup>21</sup> The book — still a standard work — does seem to push a certain line of thinking; that independent air campaigns have tended to bear greater fruit than integrated campaigns, but there can be no suggestion of Meilinger demanding a consensus. During the first five or more years after Gulf War I, most air power thinkers felt tremendously positive about independent air power's contribution to coalition victory and optimistic about its likely future successes against other foes.

During his time as Dean, Meilinger also published (in 1995) *Ten Propositions on Airpower*, a small and widely distributed (and very widely cited) book espousing what he considered to be the air power equivalent of principles of war.<sup>22</sup> He preferred the term "propositions" to "principles," hoping it would engender debate and discourage conformity and rigidity of thinking. Also very much a product of its time, *Propositions* extolled independent strategic air operations and incorporated several of the views popularised by the equally influential fellow American, John Warden III, then hailed (with some exaggeration) as the architect of coalition air power successes against Iraq in 1991. Warden served as Commandant of the Air Command and Staff College for three years while Meilinger was Dean of the SAAS, and the latter is clear that Warden had a "significant impact" on thinking across the two institutes.<sup>23</sup> He adds that SAAS students seemed more open to Warden's ideas than some faculty members, who apparently disliked

his relative lack of formal education.<sup>24</sup> Warden's prominence within SAAS and wider debates on air power nonetheless remained unchallenged throughout the 1990s, although it has diminished markedly since the commencement of the so-called Global War on Terror in 2001.

During the tenure of Colonel (Dr) Robert C. Owen, Meilinger's replacement as SAAS Dean from June 1996 to late in 1998, the focus of the curriculum shifted more from strategic thought to operational planning. According to Owen, who was promoted to Dean from within the faculty, the school had not devoted quite enough attention to joint warfare at theatre (operational) level.<sup>25</sup> He intended his revised curriculum to expose students to a broader range of opinions, to furnish them with historical examples that would strengthen their understanding of waging warfare, and to cause them to reflect on how to apply their new knowledge.<sup>26</sup> Interestingly, Owen recalled that certain Air University Deans and members of faculty, especially in the Air Warfare College, expressed loathing for the SAAS and even tried to undermine it on occasions.<sup>27</sup> Support from the highest echelons of the Air Force, which both Meilinger and Owen recall with some gratitude, gave the SAAS a degree of top-cover and prevented excessive mischief. Meilinger remembers that he sometimes had more high-ranking visitors than he could easily manage.<sup>28</sup>

Wargames proved an important component in the curriculum. As early as Meilinger's tenure as Dean, annual SAAS wargames occurred in collaboration with the Army's and Marine Corps' sister institutes: the

SAMS and the School of Advanced Warfighting (SAW). During Meilinger's tenure wargames took place at Maxwell Air Force Base's modern wargames centre.<sup>29</sup> This tradition continued during Owens' tenure with a theatre-level wargame occurring each spring that included students from SAMS and SAW. Within the latter the students received the roles they were to play from participants from the other services, this being done with the intention of strengthening their joint ethos and increasing their understanding of the other services' limitations, strengths and aspirations.<sup>30</sup>

### A time of change

9/11 may not have "changed the world," as many pundits unconvincingly commented for the first few years following that grim day of dreadful attacks in 1991, but it *did* change the SAAS. Its graduates had always been in high demand for key staff and command positions. Yet "the day after Sept. 11, my phone was ringing off the hook," Lieutenant Gen Donald Lamontagne, Air University Commander, said in 2003.<sup>31</sup> "People responsible for planning for this new kind of war wanted to know where the SAASS grads were. General Jumper, (chief of staff of the Air Force), clearly understands the Air Force need for SAASS graduates". Actually, as Lamontagne added, the review leading to changes at the school occurred a year earlier, and it not only ushered in greater focus on counter-insurgency operations, but also *and perhaps especially* on space power. The most telling sign that the SAAS would be different after 2002 was that — reflecting "the growing importance of space capabilities to

the warfighter and the need for air and space strategists" — it would no longer be the SAAS, but the SAASS: the School of Advanced Air and Space Studies.<sup>32</sup>

The Air Force's desire for a reoriented curriculum with a strengthened emphasis on equipping and encouraging airmen and women to analyse ways of optimally integrating air and space power came with tangible benefits for the re-titled School: renovated library facilities (which provided greater space), an increase in students to forty per year, and four additional faculty members with doctoral degrees to join the ten already in the team.<sup>33</sup>

In recent years the SAASS curriculum has retained characteristics inherited from the SAAS: robust and weighty inter-disciplinary demands upon the students and a high academic standard. In 2008, for example, the curriculum included courses in organisational theory, quantum mechanics, religion, political science, history, psychology and information studies. The students were required to consume and debate a lot more written information than was usually demanded in professional military educational institutions. During the year they read close to 35,000 pages (including the 150 books they received from the institution).<sup>34</sup> These books stayed with the graduates after the latter had completed their studies and constituted a contribution to their personal military library.

In many ways the SAAS / SAASS course resembles most other Anglo-American staff colleges, with students sitting through presentations by faculty members and guest experts, attending staff rides (ten days in

Europe or Asia) and visiting key units and participating in or observing their activities (such as the Air Operations Center exercise at Hurlburt Field). Most of the interactive teaching and learning takes the form of syndicate room discussions, which involves groups of up to ten students debating key issues in robust intellectual exchanges.<sup>35</sup> Although these are not assessed in a traditional sense, students nonetheless have to prepare written papers and, at the end of the course, offer verbal presentations under exam conditions that resemble (and at two hours long are more rigorous than most) university viva voces.<sup>36</sup>

Each student researches and writes a substantial (50 to 80-page)<sup>37</sup> thesis which is based on original sources and a humanities methodology and which answers a central question approved by the faculty after hearing it presented in the form of a research proposal. The evidential foundation of the thesis must be broad and strong, its argument must be coherent and consistent and its expression must be lucid and compelling. Students choose their topics in consultation with mentors and, although pressure exists within the air force for them to research and write on “sponsored topics” — that is, topics chosen by air force institutions and agencies in order to answer outstanding questions relating to immediate service needs — the faculty professors (each student gets a direct supervisor) are most keen for students to embrace topics because of personal interest. Students find their theses time-consuming, frustratingly difficult and exhausting, and initially express a degree of negativity about the activity that gradually dissipates over time. Indeed, student surveys

show that five or so years after their courses most students had revised their initial assessments and come to see their theses as the most effective and rewarding part of their time at the SAASS.<sup>38</sup>

These theses have become a wonderful resource for scholars, who have not only utilised sources and ideas from the best of them while researching at the Fairchild Research Information Center and the USAF Historical Research Agency, but also while undertaking internet exploration via the Military Research Library Network portal (MERLN, accessible at <http://merln.ndu.edu>) and even via major internet search engines. For example, one of the authors of this article (Joel Hayward) has been utilising the SAASS theses for many years and even incorporated them into his PhD research during the mid-1990s. Released on the internet for public utility according to the “fair use” clauses of American copyright law, they turn up in the bibliographies of many scholarly works on air power and have become increasingly influential. A cursory trawl of the internet will turn up many books and monographs that either grew out of these theses or used them in significant ways. Noteworthy among them is Ellwood P. Hinman IV’s *The Politics of Coercion: Toward a Theory of Coercive Airpower for Post-Cold War Conflict*, which grew out of his SAASS thesis and first appeared as a CADRE Paper published by the Centre for Aerospace Doctrine, Research and Education.<sup>39</sup> Robert P. Givens’s *Turning the Vertical Flank: Airpower as a Maneuver Force in the Theater Campaign* is another example of a SAASS-thesis-turned-CADRE-Paper.<sup>40</sup> Interestingly, students on graduate courses within



the sister services have also utilised the SAASS theses. For example, one MA thesis undertaken by a major attending the US Army Command and General Staff College in 2004 explicitly acknowledged that he had modelled the methodology within his own MA thesis on that found within a SAASS thesis.<sup>41</sup>

For the SAASS the issue of credibility based on quality is vital. In pursuit of appropriate academic accreditation it held a continuous, detailed self-study for the Department of Education, which sent evaluation teams to the School a number of times. After it had successfully completed the evaluation process and Congress had authorised it to award a Master of Arts degree the SAASS applied in 1993 to the regional body of authorisation: the Southern Association of Colleges and Schools. Its successful application made the SAASS the first among the institutions of Air University to receive permission to award a master ate.<sup>42</sup>

The United States Air Force does not designate specific roles for the sought-after graduates of SAASS or give them any promotional assurances. Yet most of them find their way into central command and control roles throughout the Defense Department. In order to receive a SAASS graduate, agencies need to submit clearly explanatory requests since the demand is three times greater than the number of available graduates. Requests go to the Air Force Deputy Chief of Staff for Operations and Plans who classifies and determines priorities and the School Commandant, following on from the tradition that Meilinger established, makes his own

recommendations as to where the graduates should be placed. They consider the students' professional background, performance and personal preferences. With these recommendations providing guidance, the Air Force Personnel Center remains the body that actually finalises the placements.<sup>43</sup>

During the SAASS' first years the placement of its graduates apparently occurred in a slightly different way. Owen reports that he received requests for placements of graduates directly from three-star and four-star commanders.<sup>44</sup> The former were able to request placements for graduates only if they were in combat roles or at Air Force Headquarters. Based on his thoughts on students, Owen compiled a list of priorities and a list of candidates with the aim of filling as many positions as possible with suitable candidates. Generally he allotted two graduates to three-star Joint Force Air Component Commanders (JFACC) who had been involved in real combat operations, and not more than one graduate in response to any other requests (which he found himself unable completely to satisfy). After he had compiled what he considered ideal placement lists, he passed them to the Commander of Air University, a lieutenant general, and to the Deputy Head of the Air Force General Staff, a full general.

Owen believes he was the only one of the School's Commanders to have the mandate to place its graduates in this fashion and he gained this authority from the Chief of Air Staff despite strong opposition from the Air Force Personnel Center.<sup>45</sup> In the opinion of Stephen Chiabotti, the Deputy

Commandant of SAASS in 2008, too much attention was probably devoted to the first placements of graduates at the expense of the development of more holistic career paths, especially as the Air Force regards the education given at the School to be an important contribution to the entire career of the officer and not to be a post-specific training and educational activity.<sup>46</sup>

In any event, no-one can doubt that this world-class graduate school is at the forefront of professional military education and that its graduates, considered to be among the Air Force's brightest officers, ordinarily go on to posts or roles of significant influence. Compiled data attests that, out of the graduates of the first sixteen classes, every one of the graduates gained promotion to OF5 (colonel) and 95% to OF6 (one-star), and, among those with enough seniority to reach the general-officer board, almost 25% reached OF7 (two-star) and higher. No fewer than eighteen graduates have reached flag rank by 2008.<sup>47</sup>

### Conclusions

With its faculty and students at the heart of air power scholarship, some of their books serving as standard texts, and with students going into influential senior posts, the SAASS has lived up to and possibly exceeded the expectations of General Welch and its other founders. Indeed, it is hard to identify a more influential centre of excellence in air power education than the SAAS / SAASS, or even to find a peer. The Australian Air Power Development Centre probably comes closest, but it is a think-tank and research centre rather than a school, and it is not reasonable to compare its impressive

output — short courses, workshops, conferences, papers and books — to the transformational nature of the SAAS / SAASS curriculum. That would be like comparing apples and oranges. The Royal Air Force's own Centre for Air Power Studies resembles the Australian institute far more than it does the American school, and no-one else on earth is providing a graduate-level education in air power studies with the completeness, robustness and inherent criticality of the USAF's school. King's College London's new modular MA, Air Power in the Modern World, aspires to reach the qualitative bar set by the SAASS, but it may be some years yet before it can match the annual enrolment level and strategic student placement success of the American school.

### Notes

<sup>1</sup> For a review of professional military educational programs in the USAF between 1945 and 1988, please see Richard L. Davis and Frank P. Donnini, *Professional Military Education for Air Force Officers: Comments and Criticisms* (Montgomery, Alabama: Air University Press, 1991).

<sup>2</sup> Harold R. Winton, "The Creation and Sustainment of Advanced Warfighting Institutions," in Russell Parkin, ed., *Warfighting and Ethics: Selected Papers from the 2003 and 2004 Rowell Seminars* (Canberra: Land Warfare Studies Centre, 2005), pp. 7-51. Stephen D. Chiabotti, "A Deeper Shade of Blue: The School of Advanced Air and Space Studies," *Joint Force Quarterly*, Issue 49 (2008), pp. 73-74. Also see the SAASS website: <http://www.au.af.mil/au/saass/history.asp>

<sup>3</sup> Winton, p. 14.

<sup>4</sup> Chiabotti, "A Deeper Shade of

Blue," p. 74. *Air Force Catalog: Academic Year 1999-2000* (Maxwell Air Force Base: Air University Press, June 2000), pp. 87-88.

<sup>5</sup> Chiabotti, "A Deeper Shade of Blue," p. 76.

<sup>6</sup> Email from Phillip S. Meilinger to Tamir Libel, 14 July 2008.

<sup>7</sup> Cornell University Press, 1996.

<sup>8</sup> Frank Cass, 2004.

<sup>9</sup> Chiabotti, "A Deeper Shade of Blue".

<sup>10</sup> Email from James S. Corum to Joel Hayward, 20 May 2010.

<sup>11</sup> The title of the head of school later changed from Dean to Commandant.

<sup>12</sup> Email from Phillip S. Meilinger to Joel Hayward, 18 May 2010.

<sup>13</sup> Email from Phillip S. Meilinger to Tamir Libel, 14 July 2008.

<sup>14</sup> Ibid.

<sup>15</sup> Email from Phillip S. Meilinger to Joel Hayward, 24 May 2010.

<sup>16</sup> Ibid.

<sup>17</sup> Email from Phillip S. Meilinger to Joel Hayward, 18 May 2010.

<sup>18</sup> Ibid.

<sup>19</sup> Email from Phillip S. Meilinger to Tamir Libel, 14 July 2008.

<sup>20</sup> Email from Phillip S. Meilinger to Joel Hayward, 19 May 2010.

<sup>21</sup> Air University Press, 1997. Meilinger deliberately had a non-SAAS faculty member, Irving B "Bill" Holley, write the conclusion precisely because he had no official connection to SAAS and could thus look objectively at the set of ideas. Email from Phillip S. Meilinger to Joel Hayward, 19 May 2010.

<sup>22</sup> Washington, DC: Air Force History and Museums Program, 1995.

<sup>23</sup> Email from Phillip S. Meilinger to Joel Hayward, 18 May 2010.

<sup>24</sup> Email from Phillip S. Meilinger to Joel Hayward, 19 May 2010.

<sup>25</sup> Email from Robert C. Owen to Tamir Libel, 28 August 2008.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> Email from Phillip S. Meilinger to Tamir Libel, 28 August 2008.

<sup>29</sup> Email from Phillip S. Meilinger to Tamir Libel, 14 July 2008.

<sup>30</sup> Email from Robert C. Owen to Tamir Libel, 28 August 2008.

<sup>31</sup> "Strategy School changes Name, Expands", *US Air Force Press Release*, 20 February 2003, available at: [http://findarticles.com/p/articles/mi\\_prfr/is\\_200302/ai\\_2639567258/pg\\_2/](http://findarticles.com/p/articles/mi_prfr/is_200302/ai_2639567258/pg_2/)

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

<sup>34</sup> Chiabotti, "A Deeper Shade of Blue," p. 75.

<sup>35</sup> Ibid., p. 75.

<sup>36</sup> *Air University Catalogue Academic Year 2007-2008* (Maxwell Air Force Base: Air University Press, October 2007), p. 43

<sup>37</sup> Ibid.

<sup>38</sup> Chiabotti, "A Deeper Shade of Blue," p. 75. *Air University Catalogue Academic Year 1999-2000*, p. 91.

<sup>39</sup> University Press of the Pacific, 2005.

<sup>40</sup> Air University Press, 2002.

<sup>41</sup> Patrick N. Ahmann, Maj USAF, "Bombing for Effect: The Best Use of Airpower in War," A thesis presented to the Faculty of the US Army Command and General Staff College in partial fulfilment of the requirements for the degree of Master of Military Art and Science (General Studies), Fort Leavenworth, Kansas, 2004, p. 36. Found at: <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=A428549&Location=U2&doc=GetTRDoc.pdf>

<sup>42</sup> Email from Phillip S. Meilinger to Tamir Libel, 14 July 2008.

<sup>43</sup> Chiabotti, "A Deeper Shade of Blue," p. 76.

<sup>44</sup> Email from Robert C. Owen to Tamir Libel, 28 August 2008.

<sup>45</sup> Ibid.

<sup>46</sup> Chiabotti, "A Deeper Shade of Blue," p. 76.

<sup>47</sup> Ibid.

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