

**Air University Board of Visitors  
Meeting Minutes  
Maxwell Air Force Base, Alabama**

**November 15-16, 2022**

This report and the recommendations contained herein are based upon the Air University Board of Visitors (AU BoV) independent assessment of the facts presented by the Department of the Air Force and Air University. The AU BoVs' recommendations are based upon the consensus opinion of the members and were reached without any influence from interested parties. Committee members are encouraged to submit Minority Statements if they disagree with the majority position.

Respectfully submitted by: DR. SHAWN P. O'MAILIA, Designated Federal Officer (DFO), Air University.

I hereby certify, to the best of my knowledge, the subsequent minutes are accurate and complete.



DR. JUDITH L. BONNER

Chair, Air University Board of Visitors

Date Approved: 28 December 2022

Section 1: AU BoV Meeting Attendance

Section 2: AU BoV Activities and Discussions

Section 3: AU BoV Actions, Recommendations, Requests, Observations, and/or Commendations

Section 4: 1-2 Nov 22 AFIT Subcommittee Minutes

## **Section 1: AU BoV Meeting Attendance**

### **A. AU BoV Members Present:**

- 1) Dr. Judith L. Bonner, Chair
- 2) Lt Gen Robert J. Elder, Jr., USAF, Ret; AFIT Subcommittee Chair
- 3) Dr. Ruben M. Flores, CCAF Subcommittee Chair (*Attended Virtually*)
- 4) Col (Dr) Richard J. Bailey, USAF, Ret
- 5) Dr. Wayne T. Davis
- 6) Maj Gen Sharon S.K. Dunbar, USAF, Ret (*Attended Virtually*)
- 7) Dr. Eduardo J. Padrón (*Attended Virtually*)
- 8) Dr. Elane K. Seebo

### **B. AU BoV Members Absent:** Dr. Mildred Garcia

### **C. Public Attendees:** No public attendees

### **D. Designated Federal Officer:** Dr. Shawn P. O'Mailia

### **E. Air University Attendees:**

- 1) Lt Gen Andrea D. Tullos
- 2) Maj Gen William G. Holt II, AU/CV and LeMay/CC
- 3) Dr. Mark J. Conversino, AU/CAO
- 4) CMSgt Stefan E. Blazier, AU/CCC
- 5) Brig Gen Houston Cantwell, Holm/CC
- 6) Col Matthew O. Berry, ACSC/CC
- 7) Col Anthony Babcock, Barnes/CC
- 8) Col Alex R. Ganster, IOS/CC
- 9) Col Terri A. Jones, Eaker/CC
- 10) Col Jason Trew, SAASS/CC
- 11) Col Lance Rosa-Miranda, SOS/CC
- 12) Dr. Walter F. Jones, AFIT/CL
- 13) Dr. Heidi R. Ries, AFIT/CAO
- 14) Col Stephanie Q. Wilson, AU/DS
- 15) Mr. Mike Gray, AU/CFO
- 16) Mr. Tony Douglas, AU/FM
- 17) Dr. Yolanda Williams, Chief, AU/OAA
- 18) Dr. Cynthia Ross, AU/OAAE
- 19) Dr. Jendia F. Grissett, AU/OAAF
- 20) Dr. Ella M. Temple, AU/OAAI

## **Section 2: AU BoV Activities and Discussions**

**Tuesday, 15 November 2022**

### **A. Convene Public Meeting and Federal Register Announcement – Dr. O’Mailia, DFO**

Dr. Shawn P. O’Mailia convened the meeting by noting the AU BoV was a federal advisory committee that acts in accordance with the Federal Advisory Committee Act. He noted two key parts of the Federal Advisory Committee Act are open and transparent. Dr. O’Mailia noted the meeting was published in the Federal Register on August 19, 2022. Dr. O’Mailia outlined the roles and responsibilities of the AU BoV, as well as his roles and responsibilities as the Designated Federal Officer.

### **B. Call to Order, Welcome, and Introductions – Dr. Judith L. Bonner, Chair**

Dr. Bonner welcomed the AU BoV Members and thanked Lt Gen Tullos and everyone else for their attendance. She mentioned the last meeting of the AU BoV was on November 16, 2020. Dr. Bonner noted the challenges resulting from the DoD Advisory Committee stand-down. Following these brief comments, She asked that all AU BoV Members introduce themselves. Dr. Bonner then asked everyone within the room, including AU Staff to introduce themselves.

### **C. Air University Opening Remarks – Lt Gen Andrea D. Tullos, Commander and President, Air University**

Lt Gen Tullos thanked Dr. Bonner and the AU BoV Members for their willingness to serve on the AU BoV. She then outlined Air University’s uniqueness and also noted the various challenges facing Air University. Some of these challenges include peer- and near-peer competition from the likes of Russia and China. Additional challenges center around officer accessions. She noted the obstacles accessing officers compared to business and industry. Lt Gen Tullos then focused on AFIT and how she gains a greater appreciation for their mission. She highlighted the unique role AFIT plays and the administrative burdens they currently face. Lt Gen Tullos charged the AU BoV to look at 1) AFIT Core Mission Areas and 2) Officer Accession | Reimagining ROTC and OTS.

### **D. Air University Mission Brief – Dr. Mark J. Conversino, Chief Academic Officer, Air University**

Dr. Conversino provided the AU BoV with Air University’s mission brief. He first discussed AU’s heritage to include AU’s beginnings as the Air Corps Tactical School and AU’s current vision and mission statements. Dr. Conversino then gave a detailed overview of AU’s organizational structure and its diverse mission areas of 1) Professional Military Education; 2) Professional Continuing Education; 3) Leader Development; 4) Degree Programs; 5) International Partners; 6) Doctrine, Lessons Learned, and Wargaming; 7) Accessions and Citizen Development; and 8) Scholarship, Research, and Outreach. He closed out his briefing by highlighting AU’s focus on China and Russia, which he noted he would cover in greater detail on 16 Nov 22.

### **E. AFIT Subcommittee Report and Discussion – Lt Gen (Dr) Robert J. Elder, Jr.; USAF, Ret**

Lt Gen Elder provided the AU BoV with an overview of the 1-2 Nov 22 AFIT Subcommittee Meeting held at the Air Force Institute of Technology on Wright-Patterson AFB, OH. He then outlined the topics addressed by AFIT and the key findings of the AFIT Subcommittee. Lt Gen Elder asked the AU BoV Members if anyone had any questions or had anything they would like to discuss. Following the discussion, Lt Gen asked the AU BoV to approve the 1-2 Nov 22 AFIT Subcommittee Minutes as presented. The AU

BoV unanimously approved and accepted the AFIT Subcommittee Minutes to be included in this report (See Section 4: 1-2 Nov 22 AFIT Subcommittee Minutes).

**Vote:** Approved

**F. Luncheon** – AU Leadership; Center and School Commanders and Commandants; and DFO

**G. Holm – AFROTC Next** – Brig Gen Houston R. Cantwell, Holm Center Commander

Brig Gen Cantwell provided the AU BoV a briefing on AFROTC Next. He began by giving an overview of the accessions process for active duty / line officers which amounts to ~3,597 officer accessions per year (AF Academy – 975, OTS/Recruiting Service – 459, and AFROTC – 2,163). Brig Gen Cantwell then detailed each one of these accession sources. Next, he shifted his discussion to reimagining accessions by identifying seams in ROTC and OTS processes and the concept of ‘Super-Detachments’ that would leverage a hub-and-spoke operation.

**H. AU BoV Executive Time and Discussion** – Dr. Judith L. Bonner, Chair

Following the departure of AU Personnel Dr. Bonner and the AU BoV discussed their impressions of the various topics that were covered. Dr. Bonner outlined the process she and the AU BoV would follow the following day in crafting their recommendations, requests, observations, actions, and commendations.

**I. Social** – AU Leadership; Center and School Commanders and Commandants; and DFO

**J. Adjourn for the Day**

### **Wednesday, 16 November 2022**

**K. Call to Order** – Dr. Judith L. Bonner, Chair

Dr. Bonner called the meeting to order and welcomed everyone back for Day 2 of the meeting. She then thanked Dr. Conversino, who was sitting in for Lt Gen Tullos, for the social the evening before as well as the staff support for the meeting.

**L. Report of the Provost & Chief Academic Officer** – Dr. Mark J. Conversino, AU/CAO

Dr. Conversino first addressed the Department of Defense’s movement toward outcomes-based military education (OBME), which is outlined in and directed by DoDI 1322.35, Vol 1 – *Military Education: Program Management and Administration*.

Dr. Conversino transitioned the conversation to the Air University’s *Commander’s Mission Analysis and Review* (CMAR), which is a detailed program-review process. He noted AU was leveraging the data obtained from the CMAR to answer the OBME data requirements.

Dr. Conversino then shifted the discussion to Air University’s coverage of strategic competition within its relevant curricula. He provided a brief background of the effort and the primary sources of guidance. Dr. Conversino then detailed AU’s timeline from May 2020 to July 2021. He then discussed each AU Program

by addressing strategic competition and stressing the fact that AU resident professional military education reaches only a fraction of the force.

### M. Expanding Military Education Through Distance Learning – Col Craig M. Ramsey, GCPME/ CC

Col Ramsey gave the AU BoV an overview of the Global College of PME’s (GCPME) mission, vision and priorities. He then illustrated where GCPME falls within the AU organizational structure and the manpower GCPME has in order accomplish their mission. Col Ramsey covered the various programs and academics within GCPME and highlighted their faculty and staff. He then provided an overview of the students who enroll and matriculate through the various GCPME programs. Col Ramsey gave an overview of the AU/ASU relationship and the operational support provided.

### N. Enhancing Military Education Through Wargaming – Maj Gen William G. Holt II, LeMay/CC

Maj Gen Holt began his discussion with what wargaming is not and what wargaming is:

Wargame: a unique interactive research model using *purposefully selected game participants* to generate data that does not already exist in response to *purposefully developed scenarios* for analysts to use in developing insights or options in response to a sponsor’s problem.

– LeMay’s Air Force Wargaming Institute

He then covered the purposes of wargaming, to include technology application, strategy evaluation and/or COA (Courses of Action) Assessment. Maj Gen Holt then discussed the structure of wargame with an illustration, which included the foundation (writing and analytical effort and support), the supporting pillars (sponsor conversation, game design, game development, game execution, report writing, report to the sponsor), and the roof (a wargame). He then shifted the discussion to how wargaming enhances military education by leveraging a kinesthetic learning style that operationalizes education. Maj Gen Holt then provided a detailed discussion of the following illustration:



### O. Wrap-up and Closing Remarks – Dr. Judith L. Bonner, Chair

Dr. Bonner first thanked everyone from Air University for their support, which ensured a successful meeting.

**P. Working Lunch and Drafting of Minutes – Dr. Judith L. Bonner**

Dr. Bonner excused the AU Attendees and she and AU BoV Parent Committee began formulating the actions, recommendations, requests, observations and/or commendations based on the various information they received during the meeting, which are presented in **Section 3: AU BoV Actions, Recommendations, Requests, Observations, and/or Commendations** of this report.

**Q. Executive Session and Out-brief – Lt Gen Tullos, AU BoV [Dr. Bonner, Dr. Davis, and Col Bailey], AU Personnel**

**R. Meeting Adjournment – Dr. Judith L. Bonner**

Dr. Bonner reiterated she would work with Dr. O'Mailia (DFO) to finalize the minutes of the 15-16 November 2022 Air University Board of Visitors. She noted that prior to signing the minutes, AU BoV Members would be provided the opportunity to review and concur with the final draft.

Following the above discussion, Dr. Bonner noted the CCAF Subcommittee would be meeting in San Antonio on 7-8 February and the Parent Committee's next meeting was set for 4-5 April at Air University. Finally, Dr. Bonner declared the 15-16 November 2022 AU BoV meeting adjourned.

### **Section 3: AU BoV Actions, Recommendations, Requests, Observations, and/or Commendations**

**AC-01-P-20221116.** The AU BoV Parent Committee unanimously accepted and approved the 1-2 November 2022 AFIT Subcommittee Report for inclusion into the 15-16 November 2022 AU BoV Parent Committee Report. See *Section 4: 1-2 November 2022 – AU BoV AFIT Subcommittee Report*.

The AU BoV commends (**CO-01-P-20221116**) Lt Gen Tullos and Air University for their work in reorienting their curricula to focus on strategic competition, which is a major shift from COIN (counterinsurgency) operations to preparing for high intensity conflict as a means to deter adverse actions of key U.S. and partner competitors. The BoV recognizes this is the largest shift in curriculum focus since the end of the Cold War.

The AU BoV observes (**OB-01-P-20221116**) and recognizes the difficulty the AF and AU face when bringing officer accessions onto active duty following commissioning, and further notes the backlog to begin undergraduate pilot training can be an additional twelve months. The AU BoV recommends (**RE-01-P-20221116**) the AF work to solve these challenges and the AF and AU explore gap measures beyond those currently in place. Some possible gap measures include internships with industry, AFRL, or program offices to leverage new hybrid (in person and virtual) ROTC and OTS commissioning programs, or Graduate Research Assistantships (GRAs) with civilian higher education institutions.

The AU BoV observes (**OB-02-P-20221116**) smaller universities are unable to provide the level of support to AFROTC detachments compared to the support larger universities provide. The concern is this could disadvantage cadets at smaller universities. The AU BoV recommends (**RE-02-P-20221116**) AU examine opportunities to ensure cadets from smaller universities are not disadvantaged relative to cadets from larger universities.

The AU BoV commends (**CO-02-P-20221116**) AU for their use of the Charles McGee Leadership Award to reward cadets completing Field Training with scholarships for their remaining undergraduate program and recommends (**RE-03-P-20221116**) marketing this opportunity to attract potential cadets pursuing STEM programs to join AFROTC (see RE-10-P-20221116).

The AU BoV observes (**OB-03-P-20221116**) this year there are over 3,000 sophomore cadets vying for 1,500 field training slots, meaning AFROTC can be selective of those cadets who are put on contract for future commissioning.

The AU BoV observes (**OB-04-P-20221116**) there is typically a twelve-month delay from signing of an OTS contract to the start of OTS, which dissuades particularly attractive OTS candidates from committing to an Air Force career. The AU BoV recommends (**RE-04-P-20221116**) AU and AFRS work with HAF/A1 to reduce this delay and/or put programs in place to bring future cadets into the Air Force workforce as civilian interns until the start of their OTS class.

The AU BoV observes (**OB-05-P-20221116**) AFROTC detachments are not equitably distributed across the United States, resources are limited to open new detachments, and virtual platforms can enable widespread participation with less frequent physical meetings. The AU BoV recommends (**RE-05-P-20221116**) AU develop a hybrid AFROTC program allowing less frequent personal contact and examine partnerships with Guard and Reserve bases to provide hybrid ROTC cadets with monthly drill and ceremonies training as well as other program elements best accomplished in an in-person setting. The AU BoV requests (**RQ-01-P-20221116**), during the April 2023 AU BoV meeting, a detailed report be provided on the production of each AFROTC detachment, as well as measures of success. Prior to the April 2023 AU BoV Meeting, the AU BoV requests (**RQ-02-P-20221116**) trend data ( $\geq 5$  years) on AFROTC detachment production, by detachment, to

include but not limited to: trend data, # enrolled and not finished; # of cadets on scholarship; # of courses, # graduates; etc.

The AU BoV observes (**OB-06-P-20221116**) the challenges AU faces from a program planning perspective because their student makeup is externally controlled. The BoV recommends (**RE-06-P-20221116**) AU be given more influence in the Air Force Education Requirements Board (AFERB) processes to balance the need to address short term capability with the long-term Air Force workforce needs. The AU BoV requests (**RQ-03-P-20221116**) a detailed description of the AFERB process, to include COAs AU could leverage in order to establish a greater level of control.

The AU BoV commends (**CO-03-P-20221116**) AU for leveraging the capabilities of Arizona State University's IT platform, allowing the GCPME to focus on their faculty and curriculum. The AU BoV observes (**OB-07-P-20221116**) the on-going challenges to AU's Student Life-cycle Management System (SLcMS) effort and requests (**RQ-04-P-20221116**) Air University provide the AU BoV a complete overview of this effort during the April 2023 AU BoV meeting.

The AU BoV observes (**OB-08-P-20221116**) efforts to integrate international students into AU programs are plagued by classification issues that lead to the exclusion of International Officers (IOs) from some key senior leader presentations and significant participation in wargames. The AU BoV recommends (**RE-07-P-20221116**) AU work with key speakers and wargame sponsors to maximize IO participation and recommends (**RE-08-P-20221116**) the AF look for ways to reduce over-classification of material(s) wherever possible, especially in the core curriculum. The AU BoV requests (**RQ-05-P-20221116**) an update during the April 2023 AU BoV Meeting.

The AU BoV observes (**OB-09-P-20221116**) many STEM graduates are placed into technical program management positions that could potentially be filled by non-STEM specialties such as graduates of legal (JD) and management (MBA) programs if their coursework included technical management courses or they complete a technical management certificate program. The AU BoV recommends (**RE-09-P-20221116**) AFIT establish a certificate program modeled after its Operations Research Certificate program to prepare non-STEM accessees to operate effectively in technical management positions.

The AU BoV observes (**OB-10-P-20221116**) many prospective accession candidates do not determine their calling to military service until after their junior year as undergraduate college students and OTS becomes their only avenue to enter the Air Force as an officer. The AU BoV recommends (**RE-10-P-20221116**) AU evaluate development of an ROTC program for graduate students enrolled in STEM and other high-demand specialty fields.

The AU BoV observes (**OB-11-P-20221116**) the Air Force is the only service that centralizes military education in one institution, Air University. AU is uniquely positioned to set the framework for outcomes-based military education (OBME) implementation. The AU BoV recommends (**RE-11-P-20221116**) AU document its approach to OBME and socialize with Sister Services.

The AU BoV commends (**CO-04-P-20221116**) AU for its continual work in identifying program, course and lesson outcomes and collecting evidence to demonstrate these outcomes are being met. Their design and implementation of the Commander's Mission Analysis and Review (CMAR) to effectively respond to its various stakeholders and requirements (i.e., DoDI 1322.35, Vol 1; SACSCOC/HLC; HHQ; etc.) is also commendable. The AU BoV recommends (**RE-12-P-20221116**) AU continue to refine and streamline the CMAR process so it is not overly burdensome to the AU Programs. The AU BoV requests (**RQ-06-P-20221116**) an update during the April 2023 AU BoV Meeting.



The AU BoV commends **(CO-05-P-20221116)** AU for implementing ‘best-in-breed’ approach for its Global College of PME to bring world-class DL to the entire Air Force across the full spectrum of AF Military Education with a highly experienced instructor cadre. The AU BoV looks forward to future updates.

The AU BoV commends **(CO-06-P-20221116)** AU for their use of wargames and wargaming to enhance military education. The AU BoV requests **(RQ-07-P-20221116)** an opportunity to observe a wargame during its April 2023 AU BoV Meeting.

**Section 4: 1-2 November 2022 – AU BoV AFIT Subcommittee Report**

**Air University Board of Visitors AFIT Subcommittee  
Meeting Minutes  
Wright-Patterson Air Force Base, Ohio**

**November 1-2, 2022**

This report and the recommendations contained herein are based upon the Air Force Institute of Technology (AFIT) Subcommittees' independent assessment of the facts presented by the Department of the Air Force and Air University. The Subcommittees' recommendations are based upon the consensus opinion of the members and were reached without any influence from interested parties. Subcommittee members are encouraged to submit Minority Statements if they disagree with the majority position. When submitted, these are attached to the final AFIT Subcommittee report for consideration by the Department of the Air Force and The Air University Board of Visitors (BOV).

Respectfully submitted by: DR. SHAWN P. O'MAILIA, Designated Federal Officer (DFO), Air University.

I hereby certify, to the best of my knowledge, the subsequent minutes are accurate and complete.

ELDER.ROBERT J.JR.1093037487  
Digitally signed by ELDER.ROBERT.J.JR.1093037487  
Date: 2022.11.08 23:11:47 -0500  
DR. ROBERT J. ELDER, JR.  
Lt Gen, USAF (Ret); D. Engr  
Chair, AFIT Subcommittee  
Date Approved: 7 November 2022

- Section 1: AFIT Subcommittee Meeting Attendance
- Section 2: AFIT Subcommittee Activities and Discussions
- Section 3: AFIT Subcommittee Recommendations, Requests, Observations, and/or Commendations

## **Section 1: AFIT Subcommittee Meeting Attendance**

### **A. AFIT Subcommittee Members Present:**

- 1) Lt Gen Robert J. Elder, Jr., USAF (Ret); D. Engr
- 2) Dr. Steven J. Berberich
- 3) Dr. Patricia L. Gruber
- 4) Mr. Billy L.B. Starkey, J.D.
- 5) Dr. Michele G. Wheatly

### **B. AFIT Subcommittee Members Absent:** No Members Absent

### **C. Public Attendees:** Ms. Amber Begly, Director of Military Affairs, Dayton Development Coalition

### **D. Air University Attendees:**

- 1) Dr. Shawn P. O'Mailia, Designated Federal Officer, AU Advisor Boards and Strategic Operations
- 2) Dr. Ella M. Temple, Institutional Analytics

### **E. AFIT Attendees:**

- 1) Dr. Walter Jones, Director and Chancellor
- 2) Dr. Heidi Ries, Provost and Chief Academic Officer
- 3) Col Sarah Isbill, AU DET 1 Commander and Director of Staff
- 4) Dr. Adedeji Badiru, Dean, Graduate School of Engineering and Management
- 5) Colonel Laurie Richter, Dean, Civil Engineer School
- 6) Colonel William Julian, Director, Civilian Institute Program
- 7) Colonel Craig Panches, Dean, School of Systems and Logistics
- 8) Colonel Christopher Landwehr, School of Strategic Force Studies
- 9) Dr. Darryl Ahner, Dean for Research

## Section 2: AFIT Subcommittee Activities and Discussions

**Tuesday, 1 November 2022**

### **A. Convene Public Meeting and Federal Register Announcement – Dr. O’Mailia, DFO**

Dr. Shawn P. O’Mailia convened the meeting by noting the meeting was open to the public and the minutes of the meeting would be presented to the AU BoV Parent Committee for inclusion in their 15 – 16 November 2022 meeting minutes by Lt Gen (Dr) Elder, USAF, ret. Dr. O’Mailia outlined the roles and responsibilities of the AFIT Subcommittee Members, as well as his as the Designated Federal Officer.

### **B. Call to Order, Welcome, and Introductions – Lt Gen (Dr) Robert J. Elder, Jr., USAF (Ret); Chair**

Lt Gen (ret) Elder welcomed the AFIT Subcommittee Members and thanked Dr. Jones and everyone else for their attendance. He mentioned the last meeting of the AFIT Subcommittee was in March of 2020. Lt Gen Elder noted the challenges resulting from the DoD Advisory Committee stand-down. Following these brief comments, He asked that all AFIT Subcommittee Members introduce themselves. Lt Gen (ret) Elder then asked everyone within the room, including AFIT Staff to introduce themselves.

### **C. Air University Opening Remarks – Maj Gen William G. Holt II, Commander, LeMay Center for Doctrine Development and Education and Vice Commander, Air University.**

Maj Gen Holt thanked the AFIT Subcommittee Members for their willingness to serve on the Air University Board of Visitors. He then talked about the various challenges facing Air University and AFIT.

**Discussion:** Lt Gen Elder asked Maj Gen Holt, in wearing his doctrine hat, if he saw opportunities to leverage evolving technologies to influence doctrine development and vice versa. Gen Holt discussed Blue Horizons and other AU programs that could serve as the catalyst for such mutual exchanges.

### **D. AFIT Overview and Updates – Dr. Walter Jones; Chancellor and Director, Air Force Institute of Technology**

Dr. Walter Jones began his presentation by discussing the AFIT Mission and Vision.

**Mission:** Educate our Total Force military and civilian defense professionals to innovatively accomplish the deterrence and warfighting missions of the U.S. Air and Space Forces. . .today and tomorrow.

**Vision:** AFIT is widely-known and greatly-respected as:

- A premier institution for defense-focused education, research, and consulting assistance.
- The student’s first choice for advanced academic education and career-long professional continuing education
- A great place to serve.

Dr. Jones then provided a brief overview of AFIT by the numbers: 102 years old; 30,000 DAF, sister service, and international officers; 3 operating locations (WPAFB, Kirtland AFB, Barksdale AFB); \$221M in funding. He then went into greater detail about AFITs funding and how AFIT’s mission and reach has evolved since 1919, by providing an illustrated AFIT timeline. Dr. Jones then focused his talk on the various directives which drives AFIT, including National Defense Strategy, USAF Science and Technology, Research Sponsors, and the SECAF’s Seven operational imperatives. He then provided an overview of AFIT’s PCE and Graduate Education, and consulting mission areas.

Dr. Jones then shifted his talk to updates and provided a recap of key recommendations provided by the AFIT Subcommittee during their March 2020 meeting and the actions taken by AFIT. The major focus of the March 2020 meeting was the *AU/CC Commander's Campaign Plan* by Lt Gen Anthony Cotton. Resulting from the March 2020 AFIT Subcommittee Recommendations, AFIT conducted a program review of master and doctoral programs to ensure alignment with AF S&T needs, other demand signals, and efficiency. The Assessment looked at 3 factors: 1) Connection to DoD/USAF/USSF warfighting missions; 2) Program Health; and 3) Alignment with USAF S&T 2030 Strategy. The results guided AFIT to implement three program cuts based on those criteria: 1) Environmental Engineering & Science; 2) Industrial Hygiene; and 3) Logistics PhD. AFIT further re-aligned resources to programs with increasing demand, which includes Applied Systems Engineering and Data Science programs.

Dr. Jones noted AFIT's 2020 Reaffirmation Review through the Higher Learning Commission. Their next comprehensive review is in 2030-31 with no requirement for reporting beyond the standard four-year assurance review. He then yielded the floor briefly to Col Sarah Isbill to discuss AFIT's Diversity, Inclusion, Equity, and Accessibility (DIEA) efforts, including AFIT's DEIA Council and four subcommittees, the DEIA Affinity Group, and a planned hire of a DEIA Director. Dr. Jones provided an update on the impacts of COVID-19. He closed his talk by discussing AFIT's outreach efforts, including: HBCU Digital Literacy Summit; DoD Hypersonics Summit; AFIT/CL outreach visits; and Summits with local USAF/USSF organizations (AFRL, NASIC, and AFLCMC).

**Discussion:** Impact of a potential supreme court on DEIA. Effect of COVID on faculty, specific to research and meeting their requirements.

**E. Recruitment, Assignment, and Enrollment of AFIT Graduate and PCE Students – Lt Col Chris Rondeau; Associated Dean of Students, Graduate School of Engineering and Management**

Lt Col Rondeau provided an overview of the Air Force Education Requirements Board (AFERB) Process and Non-AFERB Processes, as they related to the recruitment, assignment, and enrollment of AFIT Graduate and PCE Students. For the graduate school, enrollment was 62% resident and 37.8% distance learning students with the following breakdown: 2.2% - Non-degree, 35.4% - Graduate Certificate; 55.5% - Master's Degree; and 11.2% - Doctoral Degrees. He then addressed recent changes and related challenges impacting AFIT Students, including the standup of the Space Force.

**Discussion:** Dr. Gruber asked if there was a cap on the number of contractors whom can attend AFIT Programs. Dr. Heidi Ries noted there is a cap of 125 for contractors, which includes graduate and PCE students. However, this contractor slots are currently filled to only about 60 students.

Lt Gen Elder noted that the MAJCOMS and Operational Commands have a growing need for staff educated to perform Ops Research, as well individuals training in Data Analytics. The committee asked if AFIT was able to increase their capacity to graduate more personnel with Ops Research and Data Analytics degrees.

Col Panches introduced a You-Tube-like program called AVOLVE, which provides a mechanism for AF members to present information through digital means to improve performance across all Air Force career fields. Dr. Jones noted there would be a presentation AVOLVE presentation on 2 Nov 22.

Dr. Berberich asked how AFIT prepares its faculty to most effectively teach face-to-face, blended, and at a distance. Dr. Astin, the Dean of Civil Engineering School highlighted the various labs AFIT has to prepare the faculty, which includes instructional design support and videographers to assist the faculty. Dr. Ries noted AFIT had already started moving some programs online prior to COVID-19, and as a result, the conversion required by COVID-19 restrictions was relatively easy to adopt.

Lt Gen Elder asked that with the certificates and micro-certificates awarded to the wide range of PCE courses, is there a way to seek out specific people with desired skill sets. Col Panches, the Dean of Systems and Logistics noted MyLearning and MILPDS offer some search capabilities, but that efficient queries are not possible today.

#### **F. AFIT Research – Mr. Jeffrey Murry, Director of Sponsored programs**

Mr. Murry provided the AFIT Subcommittee with an illustration of where AFIT's Graduate School of Engineering and Management (ENR/CZ) sits at the intersection of three cultures/enterprises: 1) Defense; 2) Research; and 3) Education. He then showed how AFIT's Research has been increasingly valued, from 2013 to present and then provided an overview of the various research conducted within AFIT. He then detailed how that research is integrated into the respective curriculum. Mr. Murry then outlined the outreach accomplished by AFIT Research and highlighted key partnerships which have been cultivated as a result of AFIT's Research.

Specifically in response to the 2020 AFIT Subcommittee Recommendations, Mr. Murry provided the following responses:

RE-06-A-20201116 - Create an AETC-AFMC MOU that promotes faculty research

AFIT Response: AFIT has existing MOAs with multiple centers under AFMC for research and force development (AFRL, AFIMSC, AFNWC, AFLCMC) and AFIT/CL has MOA signature authority.

RE-07-A-20201116 - Establish a 3600 funding line from AFMC to AFIT

AFIT Response: AFIT is nearing completion of an agreement to provide other transaction authorities through AFRL and AFIT possess the ability to enter into various agreements as a designated Office of Research Transition and Application (ORTA).

**Discussion:** Lt Gen Elder noted USAFA benefits from full-time staff for their research centers; and asked if AFIT might benefit from such a model. AFIT replied that they do have research faculty, but because they are a graduate school with faculty involved in research, the need for full-time research staff is different from USAFA.

#### **G. Lunch – Subcommittee Members, DFO, AFIT Students and Faculty Advisory Teams**

#### **H. AFIT Tour**

- a. **Civil Engineering (CE) Distance Learning (DL) Studio** – Col Richter and Dr. Astin
- b. **D'Azzo Library and Center for Innovation in Education** – Dr. Beteck and Dr. Grimes
- c. **Kenney Auditorium and AFIT Conference Support Capabilities** – Mr. Robert Stecker
- d. **Research Facility Tour**
  - i. Autonomy and Navigation Technologies Center
  - ii. Additive Manufacturing
  - iii. Wind Tunnel
  - iv. Space Testing Lab
  - v. Clean Room
  - vi. Center for Directed Energy

#### **I. Planning for AFIT's Future – Maj Brigham Moore, Department of Systems Engineering and Management**

Maj Moore provided an extensive discussion on the efforts AFIT is taking in planning for their future based on need, direction, vision, scan of the environment, and goals. He first noted accelerated change and specifically addressed SECAF Kendall's *Seven Operational Imperatives* focusing on resources, systems, and equipment.

“My highest personal goal as Secretary has been to instill a sense of urgency about our efforts to modernize and to ensure that we improve our operational posture relative to our pacing challenge; China, China, China. ...The most important thing we owe our Airmen and Guardians are the resources they need, and the systems and equipment they need, to perform their missions.” -- SECAF Kendall

Maj Moore also discussed CSAF Brown, noting declining resources aggressive global competitors, and rapid technology development and diffusion.

“In an environment that includes, but is not limited to, declining resources, aggressive global competitors, and rapid technology development and diffusion, the U.S. Air Force must accelerate change to control and exploit the air [and space] domain.”

Maj Moore outlined a variety of strategic efforts at AFIT, including *Advancing Strategy: A Strategic Planning Workshop*, strategic intent by AFIT/CL, and the determination of key players, key deliverables, and timeline. He then posed that AFIT must consider other planning efforts, which includes: AFIT Campus Master Plan, IT Transformation, Distance Education Strategic Plan, DEI Strategic Roadmap, and Overarching AFIT Strategy. Maj Moore closed by discussing the way forward for AFIT: SWOT Analysis, SMARTR (responsible) Goals, Strategic Council Approval, and SMART Action Plans.

**Discussion:** Discussion shifted to issues related to HQ AU's migration of data into the new data systems. This includes the inability to register students for courses and programs and process transcripts. AFIT is hesitant to continue to transition their data until HQ AU has a better handle on the issues are currently facing. A specific area of concern was the affect these issues might pose on AFIT's accreditation with the HLC and HQ AU's accreditation through SACSCOC.

#### **J. AFIT Subcommittee Executive Time – Lt Gen Elder**

Lt Gen (ret) Elder covered some brief administrative matters and then discussed the need to capture the AFIT Subcommittee Members recommendations, requests, observations, and/or commendations.

#### **K. Dinner – AFIT Subcommittee members, AFIT Leadership, and AU Attendees**

#### **L. Adjourn for the Day**

### **Wednesday, 2 November 2022**

#### **M. Call to Order and Remarks – Lt Gen (Ret) Elder**

Lt Gen (ret) Elder called the meeting to order and welcomed everyone back for day 2 of the meeting. He then thanked Dr. Jones and his staff for the opportunity to share dinner the evening before.



**N. AFIT Support of Digital Transformation** – Mr. Rick Sugarman, AFIT/LS; Lt Col Amy Cox, AFIT/EN; Col Jason Anderson, AFIT/EN

Mr. Sugarman addressed digital acquisition continuing education, where they provided two critical workshops: Workshop 696 – Applied MBSE Using SysML and Workshop 732 – Current Topics in Dig Life Cycle Management.

Lt Col Cox then focused on system engineering for graduate education, by first illustrating demographics on global reach in the areas of officer, enlisted, civilian, and contractor students. The talk addressed applied research, including model integration, reference architectures, transition (legacy to digital) and mission (e.g., mission engineering, wargaming, and reverse engineering).

Col Anderson addressed AFIT System Engineering consulting and best practices, which included the hiring of a group of digital professionals to work with program managers supporting the digital transformation of systems engineering. AFIT is also bringing their consulting and educational efforts to provide best practices.

**Discussion:** The discussion exchange first centered on the definition of ‘Digital learning’ and the use of meta-tagging and data analysis of the various work products. The discussion then shifted to graduate placement, for which there is great demand throughout the DAF, including combatant commands. Discussion then addressed the demand signal for systems engineers and whether or not 14 Systems engineering faculty was sufficient to meet that demand.

**O. AFIT Support of Cyber Education** – Dr. Mark Reith, AFIT/EN

Dr. Reith provided examples of AFIT’s support of cyber education through AFIT’s School of Systems and Logistics; Graduate School of Engineering & Management; School of Strategic Forces Studies; and The Civil Engineer School. Dr. Reith then outlined the strong demand for cyber education and highlighted various partnerships AFIT has groomed in the arena of cyber and cyber education. He then provided details on the steps AFIT has taken regarding curriculum additions. Dr. Reith then provided an overview of AVOLVE education platform, which is a ‘You-Tube-like’ solution, which helps promotes thought leadership and academic debate; highlights the graduate’s expertise and interests to the rest of DoD; shares AFIT’s cutting-edge technology discussions; and enables research into cloud services security.

**Discussion:** Discussion revolved around the support AFIT receives through its cyber advisory board and whether including other MAJCOMs such as Global Strike, AF Special Ops Command, and Air Mobility Command might benefit from participation. Related to AVOLVE, talk focused on access to the CAC enabled platform with links from AF MyLearning.

**P. AFIT Support of Nuclear Modernization** – Col Chris Landwehr, AFIT/EX

Col Landwehr, like previous briefers, stressed the demand for nuclear modernization and noted key partnerships AFIT has cultivated. He discussed the curriculum additions AFIT has accomplished to date. Col Landwehr noted AFIT’s Civilian Workforce’s support provided to the Air Force Nuclear Weapons Center (AFNWC), which is located at Kirtland AFB, NM. AFNWC is Air Force Materiel Command’s

(AFMC) center of expertise for nuclear weapon systems. The AFNWC is the single AFMC voice for integrating nuclear weapon systems requirements and nuclear weapon system resource management.

**Discussion:** The committee discussed the importance of rebuilding expertise to meet the certification needs of the many nuclear modernization programs in progress today, notably the B-21 bomber, Sentinel ballistic missile, and the Long-Range Stand Off (LRSO) missile.

**Q. Public Comments – Dr. Shawn O’Mailia, DFO**

Dr. O’Mailia, recognized Ms. Amber Begly who is the Dayton Development Coalition’s Director of Military Affairs. Ms. Begly was attending the 1-2 Nov 22 AFIT Subcommittee Meeting as a member of the public. Dr. O’Mailia asked Ms. Begly if she would like to make any comments.

Ms. Begly thanked Lt Gen (ret) Elder, the AFIT Subcommittee and AFIT for allowing her to attend the meeting. She stressed the importance of the relationship Dayton and AFIT shares,

**R. Working Lunch and Drafting of Minutes – Lt Gen (ret) Elder**

Lt Gen (ret) Elder excused the AFIT Team and he and AFIT Subcommittee began formulating the recommendations, requests, observations and/or commendations for the various information they received during the meeting, which are presented in **Section 3: AFIT Subcommittee Recommendations, Requests, Observations, and/or Commendations** of this report.

**S. Executive Session and Out-brief – Lt Gen (ret) Elder**

Lt Gen (ret) Elder and the AFIT Subcommittee reviewed and discussed their recommendations, requests, observations, and commendations with Dr. Jones, Dr. Ries, and Dr. O’Mailia (DFO).

**T. Meeting Adjournment – Lt Gen (ret) Elder**

Lt Gen (ret) Elder reiterated he would work with Dr. O’Mailia (DFO) to finalize the minutes of the 1-2 Nov 22 AFIT Subcommittee of the Air University Board of Visitors. He noted that prior to signing the minutes, AFIT Subcommittee Members would be provided the opportunity to concur with the final draft. Lt Gen (ret) Elder stated that once the minutes were finalized, he would present an overview of the 1-2 Nov 22 AFIT Subcommittee Meeting at the 15-16 Nov 22 Air University Board of Visitors Parent Committee Meeting. Following the overview and any discussion, Lt Gen (ret) Elder noted he would request a vote that the AFIT Subcommittee Minutes be approved and accepted into the AU BoV’s Meeting Minutes.

Following the above discussion, Lt Gen (ret) Elder declared the 1-2 Nov 22 AFIT Subcommittee of the AU BoV adjourned.

### **Section 3: AFIT Subcommittee Recommendations, Requests, Observations, and/or Commendations**

The AFIT Subcommittee commends (**CO-01-A-20221102**) Dr. Jones, Dr. Ries, and the AFIT Faculty and Staff for their preparedness and responsiveness for the AFIT Subcommittee meeting. AFIT Subcommittee would also like to commend Ms. McDowell and Mr. Stecker for their excellent support.

The AFIT Subcommittee commends (**CO-02-A-20221102**) AFIT for their Diversity, Inclusion, Equity, and Accessibility work and appreciates the enthusiasm demonstrated for this effort. The AFIT Subcommittee recommends (**RE-01-A-20221102**) AFIT look for ways to increase the diversity of their faculty, as well as their students. The AFIT Subcommittee requests (**RQ-01-A-20221102**) AFIT benchmark their student and faculty data, in relation to DE&I, a present these data at the 2023 AFIT Subcommittee Meeting.

The AFIT Subcommittee recommends (**RE-02-A-20221102**) AFIT look for ways to maximize contractor participation in its graduate and PCE programs to get closer to the 125 cap. Doing so would increase this funding stream and could facilitate diversity of thought and future collaboration with industry.

The AFIT Subcommittee commends (**CO-03-A-20221102**) AFIT for their work with the AU/CC Campaign Plan, where three programs were eliminated (1) Environmental Engineering & Science; (2) Industrial Hygiene; and (3) Logistics PhD) and resources to two programs with increasing demand (1) Applied Systems Engineering and (2) Data Science programs. The AFIT Subcommittee observes (**OB-01-A-20221102**) the demand signal for these programs are greater than the current throughput. The AFIT Subcommittee recommends (**RE-02-A-20221102**) AFIT, AU, and the DAF all do their part to increase the throughput capacity in the two areas noted above.

The AFIT Subcommittee is concerned with data migration issues facing AU and its components, to include AFIT. The AFIT Subcommittee observes (**OB-02-A-20221102**) continued issues could jeopardize both HLC and SACSCOC accreditation. The AFIT Subcommittee recommends (**RE-03-A-20221102**) AFIT's further data migration be placed on pause while AU irons out the current issues and recommends (**RE-04-A-20221102**) AU seek assistance from an external organization such as AACRAO to assist with the data migration.

The AFIT Subcommittee observes (**OB-03-A-20221102**) AFIT has taken deliberate first steps in their strategic planning process, but that plans for implementation and key stakeholder engagement were not clear. The AFIT Subcommittee recommends (**RE-05-A-20221102**) AFIT continue these efforts to refine their strategic plan and requests (**RQ-02-A-20221102**), when ready, AFIT provide the AFIT Subcommittee an update prior to implementation, which can be accomplished virtually, prior to the 2023 AFIT Subcommittee meeting.

The AFIT Subcommittee recognizes the efficiencies derived from the AFIT-NPS Rationalization Study initiated by the SECAF-SECNAV, which resulted in the non-duplication of programs and an exchange between AFIT-NPS in administrators, faculty, and students. The AFIT Subcommittee recommends (**RE-06-A-20221102**) AFIT pursue a MOA/MOU (whichever is appropriate) to formalize this relationship, to include reciprocal attendance at the respective board meetings.

The AFIT Subcommittee commends (**CO-04-A-20221102**) AFIT for their development and implementation of AVOLVE education platform. The AFIT Subcommittee recognizes the value this education platform can provide to the DAF and DoD. The AFIT Subcommittee recommends (**RE-07-A-20221102**) AETC fund AVOLVE through the existing myLearning program.

The AFIT Subcommittee recommends **(RE-08-A-20221102)** that AFIT establish an institutional relationship with SAF/AQ in which SAF/AQ serves as the AFIT mission proponent for the Department of the Air Force. This will ensure that AFIT is postured to meet the scientific, technical, and acquisition needs of both the Space Force and the Air Force. The AFIT Subcommittee further commends Air University for its stewardship of AFIT and recommends that no change be made to AFIT's administrative relationship with Air University.

The AFIT Subcommittee commends **(CO-05-A-20221102)** AFIT for their producing students who are comfortable with digital engineering. The AFIT Subcommittee further commends **(CO-06-A-20221102)** AFIT's Systems Engineering program for its applicability to a wide range of Air Force use cases. The AFIT Subcommittee was also impressed how AFIT was able to significantly ramp up production to meet the increased Air Force needs.

The AFIT Subcommittee commends **(CO-07-A-20221102)** AFIT's AFCyTCoE for tailoring their various courses to their various customers, based on their needs, this includes information systems, embedded systems, and industrial control systems. The AFIT Subcommittee also commends **(CO-08-A-20221102)** AFIT for educating cyber ops in the context of joint operations. The AFIT Subcommittee further commends **(CO-09-A-20221102)** AFIT for their innovative approach to develop interactive educational games to establish a better understanding of how cyber operations are conducted. The AFIT Subcommittee was impressed that AFIT was postured to support just-in-time cyber education needs across the Air Force with maintenance of best practices and even consulting services, where appropriate.

The AFIT Subcommittee commends **(CO-10-A-20221102)** AFIT for their work within the nuclear education spectrum. The AFIT Subcommittee observes **(OB-04-A-20221102)** the NC3 education manning is under-resourced for the demand and recommends **(RE-09-A-20221102)** AFIT seek additional manning for NC3 mission. The AFIT Subcommittee also observed **(OB-05-A-20221102)** that the AFIT nuclear engineering program is significantly different from civilian institution programs, because it focuses on nuclear weapons effects rather than nuclear powerplant operations.

The AFIT Subcommittee commends **(CO-11-A-20221102)** AFIT for developing a certificate program to help the Air Force understand how to best utilize its operations research specialist.

The AFIT Subcommittee observed **(OB-06-A-20221102)** AFIT's CI program has established very good processes and procedures to accommodate a broad range of civilian institution needs. The AFIT Subcommittee commends **(CO-12-A-20221102)** the Space Force for providing manpower to the AFIT CI program to ensure their unique needs are met and observed **(OB-07-A-20221102)** that this could serve as a model for other elements of the AFIT CI program.

The AFIT Subcommittee commends **(CO-13-A-20221102)** AFIT for consolidating its Sponsored Programs management, which has enabled AFIT to increase the diversity of its research sponsors and significantly increase its sponsored research funding.

The AFIT subcommittee commends **(CO-14-A-20221102)** AFIT for expanding the capabilities of its Distance Learning programs which enable Air Force members to pursue graduate education and professional continuing education even while deployed.

The AFIT subcommittee observed **(OB-08-A-20221102)** that AFIT has significantly expanded its research programs that support the Air Force Operational Imperatives to include programs in the area of hypersonics, directed energy, and alternate methods for positioning, navigation and timing (Alt-PNT).

The AFIT subcommittee commends **(CO-15-A-20221102)** the Air Force for placing USAFA grads awaiting Undergraduate Pilot Training (UPT) into AFIT graduate programs and recommends **(RE-10-A-20221102)** that the Air Force establish a similar program for AFROTC graduates awaiting UPT.