The Future of Aviation Security Forces Assistance in West Africa

A Monograph

by

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2018

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE *(DD-MM-YYYY)*	**2. REPORT TYPE**	**3. DATES COVERED** *(From - To)*
28-03-2018	Master's Thesis	JUN 2017-MAY 2018

4. TITLE AND SUBTITLE

The Future of Aviation Security Forces Assistance in West Africa

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

MAJ Jason Phillips

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

U.S Army Command and General Staff College
ATTN: ATZL-SWD-GD
Fort Leavenworth, KS 66027-2301

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Advanced Military Studies Program.

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for Public Release; Distribution is Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

This monograph examines how the US military can better provide aviation-based security forces assistance (SFA) to developing Western African nations currently engaged in operations against rebel groups. To increase the effectiveness of SFA in Western Africa, the United States Air Force (USAF) will need to refocus its efforts from merely training pilots in operations to educating officers in airpower theory development. In order to support this effort, the USAF must work through the Defense Security Cooperation Agency to ensure partner nations can procure the equipment best able to support their national airpower theory and doctrine. Finally, the USAF should work with the US Army to create a joint security force assistance unit that integrates capabilities from both services. This monograph analyzes case studies of aviation development in Vietnam and Afghanistan, in order to assess past and current aviation-based SFA efforts to derive lessons learned and best practices for future implementation.

15. SUBJECT TERMS

Aviation; Security Forces Assistance; Foreign Internal Defense; West Africa; Security Assistance; Building Partner Capacity

16. SECURITY CLASSIFICATION OF:			**17. LIMITATION OF ABSTRACT**	**18. NUMBER OF PAGES**	**19a. NAME OF RESPONSIBLE PERSON**
a. REPORT	**b. ABSTRACT**	**c. THIS PAGE**			MAJ Jason Phillips
(U)	(U)	(U)	(U)	62	**19b. TELEPHONE NUMBER** *(Include area code)*

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Monograph Approval Page

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Abstract

The Future of Aviation-Security Forces Assistance in West Africa, by MAJ Jason D. Phillips, US Army, 62 pages.

This monograph examines how the US military can better provide aviation-based security forces assistance (SFA) to developing Western African nations currently engaged in operations against rebel groups. To increase the effectiveness of SFA in Western Africa, the US Air Force (USAF) will need to refocus its efforts from merely training pilots in operations to educating officers in airpower theory development. In order to support this effort, the USAF must work through the Defense Security Cooperation Agency to ensure partner nations can procure the equipment best able to support their national airpower theory and doctrine. Finally, the USAF should work with the US Army to create a joint security force assistance unit that integrates capabilities from both services. This monograph analyzes case studies of aviation development in Vietnam and Afghanistan, in order to assess past and current aviation-based SFA efforts to derive lessons learned and best practices for future implementation.

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Acknowledgments

I would like to thank first and foremost my wife Danielle for her continual support during the long nights and weekends spent in the library conducting research. Danielle, I cannot express my eternal gratefulness to you for managing the household, and children, while earning your Master's degree so that I could be away. I owe another debt of gratitude to Major Jake Hess (USAF) and Lieutenant Commander Thomas Griffin (USN) for assisting me in the early development of my ideas put forth in this monograph. I would like to thank Dr. Bill Dean for introducing me to the topic of Aviation-Security Forces Assistance in West Africa. Finally, to my monograph director Dr. Misha Blocksome, thank you for your patience in this journey of research, writing, self-discovery, editing, and rewriting. Your patience, good humor, and rapid feedback were extremely helpful in keeping me in good spirits throughout the process.

Acronyms

DSCA	Defense Security Cooperation Agency
FMS	Foreign Military Sales
IMET	International Military Education and Training
JSFAB	Joint Security Force(s) Assistance Brigade
RVN	Republic of Vietnam
SFA	Security Force Assistance
SFAB	Security Force Assistance Brigade
USAF	United States Air Force

Illustrations

Introduction

The United States is currently involved in operations in several western African countries designed to assist the national governments and defense forces in their ability to defend themselves from external and internal threats. Such operations can be described using a variety of terms, but in this paper, the term security force assistance (SFA) will be used to mean any assistance a partner nation receives or may receive from the US military which is intended to assist in the development, training, or education of its forces.[1] Within this paper, SFA is defined to include building partner capacity, foreign internal defense, and any other activity related to increasing the ability of a partner nations' defense force to subdue both internal and external threats. SFA is a significant yet often overlooked mission, especially in countries in which the United States is not overtly conducting combat operations. If four soldiers had not died on October 4, 2017, most Americans would have remained oblivious to US military operations in Niger.[2] During this joint patrol, the soldiers were ambushed and called in air support. However, due to the ineffectiveness of the Nigerian Air Force, the patrol had to wait thirty minutes for close air support to arrive, which came in the form of French-flown jets, and two hours to be rescued by French and contract-flown helicopters.

Western African nations have historically fought wars against rebel groups operating in the rural and remote areas of the country; there are few examples of state-versus-state conflict in western Africa. Instead, in the vernacular of Western culture, most of these conflicts would be termed 'small wars,' consisting of insurgencies, civil wars, and guerilla actions. The definition of small wars used in this monograph is any warfare not conducted between two states. Currently,

[1] These operations may also be termed building partner capacity, foreign internal defense, or security forces assistance. Each of these terms' definitions may vary or overlap depending on the source from which the definition is drawn. For simplicity, this monograph uses the term security forces assistance.

[2] "U.S. Soldiers Killed in Niger Were Caught by Surprise, Official Says," *CBS News*, last modified October 18, 2017, accessed October 19, 2017, https://www.cbsnews.com/news/green-berets-killed-in-niger-were-caught-by-surprise-u-s-official-says/.

several West African nations are engaged small wars, in conflicts against Islamist extremist groups such as Boko Haram in Nigeria, Al Qaeda in the Islamic Maghreb in Mauritania, and various Islamic State-affiliated groups in Mali.[3]

The US military has provided limited assistance to the air components of several of these countries' defense forces. This assistance, sent by the United States, tends to be in packages designed to train the nation's pilots how to fly and to train the mechanics on how to maintain the airframes the country already possesses.[4] It is important here to recognize the difference between training and education. The dictionary defines training as being taught the skills to do something, while education is focused on developing the mind and morals. [5] Simply put, training is teaching someone how to perform a task, while education is teaching how to think critically about a topic. While most aviation-based SFA packages are focused on training, in some instances officers from a few of these countries are invited to attend US military schools, which provide education in airpower theory. These schools include the US Army Aviation Basic Officer Leaders Course, the US Army Aviation Captains' Career Course, and the US Air Force (USAF) Air Command and Staff College.[6] In all of these schools, however, the African countries' officers are taught how America employs its airpower, using US aviation doctrine, rather than how smaller nations—with very different military needs—can employ airpower.

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[3] "Country Reports: Africa," *U.S. Department of State*, accessed March 21, 2018, http://www.state.gov/j/ct/rls/crt/2016/272229.htm.

[4] Jack Murphey, "Aviation Foreign Internal Defense (FID): Giving Our Allies An Assist," *SOFREP*, last modified April 22, 2014, accessed March 21, 2018, https://sofrep.com/34809/aviation-foreign-internal-defense-fid-giving-allies-assist/.

[5] Merriam-Webster Dictionary, s.v. "trains," accessed January 25, 2018, https://www.merriam-webster.com/dictionary/trains; Merriam-Webster Dictionary, s.v. "educate," accessed January 25, 2018, https://www.merriam-webster.com/dictionary/educate

[6] As a career Army officer and graduate of the Air Command and Staff College the author has personal experience with international officers who attended these courses, or experience with other US officers who attended these courses with international students.

In addition to aviation training packages, the United States also operates a robust system of foreign military equipment sales through the Defense Security Cooperation Agency (DSCA). However, few of these sales have consisted of airframes to western African nations.[7] When airframe sales are made, by either the United States or other countries, many of the West African states have purchased expensive, highly technical jets that require relatively well-maintained airfields.[8] Due to the high cost, countries cannot purchase these jets in sufficient numbers; they also lack the loiter time required to provide effective close air support and air interdiction. Despite these serious limitations of jet airframes, which affect their ability to support their most likely missions, developing countries with little need for a strategic air force continue to buy them for the prestige associated with a jet-based air force.[9]

The US military has not assigned the task of aviation-based SFA to a specific organization, instead allowing the separate services to execute the task as they see fit. Currently, both the US Army and the USAF execute aviation-based SFA, with each service following its own vision for what that SFA should look like. The lack of unity of effort in this mission creates redundancies and fails to address significant questions a country must answer before successfully employing its airpower: Why do we need an air force, what is the primary mission of the air force, and, finally, how will the air force conduct its mission? This paper argues that the US

[7] "Major Arms Sales | The Official Home of the Defense Security Cooperation Agency," accessed October 20, 2017, https://www.dsca.mil/major-arms-sales.

[8] "Mali - Africa - Overview - Nations/Alliances/Geographic Regions - Military Periscope," accessed March 21, 2018, http://www.militaryperiscope.com.lumen.cgsccarl.com/nations/africa/mali/organzn/ index.html#equip; "Nigeria - Africa - Air Force - Nations/Alliances/Geographic Regions - Military Periscope," accessed March 21, 2018, http://www.militaryperiscope.com.lumen. cgsccarl.com/nations/ africa/nigeria/airforce/index.html#equip; "Niger - Africa - Overview - Nations/Alliances/Geographic Regions - Military Periscope," accessed March 21, 2018, http://www.militaryperiscope.com.lumen. cgsccarl.com/nations/africa/niger/organzn/index.html#equip.

[9] Recently, Nigeria was allowed to purchase twelve A-29 Super Tucano aircraft and associated weapons, ancillary and support equipment, however, while this plane is more suited for small wars missions, this purchase has not been the norm for the region.

military can better provide aviation-based SFA by unifying its efforts across the US Army and the USAF in the areas of education, organization, and equipment.

This paper researches the best methods for conducting SFA in small West African wars, with a focus on how the US military can alter its current methods of SFA to support its partner nations better. The author discusses and analyzes case studies of SFA in Vietnam and Afghanistan, with a focus on organization, material, and education, to determine lessons that the US can apply to current cases. The case studies are reviewed to determine if airpower SFA was applied properly or improperly, and to determine the value for a nation in developing an airpower theory specific to the conflicts the nation is likely to fight. The examination of airpower advising will focus on the importance of matching theory, education, and equipment in the application of airpower during small wars. Finally, the case studies are used to determine if, and if so, how, the US military should alter its organization to conduct better aviation-based SFA.

Literature Review

In order to be most effective, SFA should be tailored to the needs of the nation requesting it.10 Such needs must be carefully determined. A country requesting SFA must understand its current situation and the threats it is likely to face, as well as looking to the future to determine what its potential conflicts may look like in years to come. A country providing SFA should not assume that SFA is a one-size-fits-all equation where of force applied plus tactics taught equals a successful mission; SFA should be an individualized effort tailored to the specific country's needs. Beyond this, SFA needs to be more than technical education coupled with tactical training for the equipment a nation currently has on hand. The following section briefly reviews West African history in order to better understand the current and future conflicts likely in the area, and what types of SFA would be most useful to help those countries succeed in these conflicts. Once

[10] US Department of Defense, Joint Staff, *Joint Doctrine Note (JDN) 1-13, Security Forces Assistance* (Washington, DC: Government Printing Office, 2013), I–7, accessed August 30, 2017, http://www.dtic.mil/doctrine/notes/jdn1_13.pdf.

the needs of the requesting countries are understood, this paper then analyzes the ways in which the US military currently carries out SFA, in order to understand how the United States could more effectively carry out this mission in West Africa.

African Wars

Western African history is wrought with wars fought between relatively small armies and rebel groups. One can see this tradition of small wars in three distinct historical periods: The pre-colonial period, prior to the mid-nineteenth century; the colonial period, lasting until after World War II; and the contemporaneous post-colonial/modern period. Common to all three historical periods is the lack of substantial standing armies waging national level set-piece battles. Instead, wars in Africa have consisted of conflicts current theorists would consider small wars, fought between small armies and rebel groups conducting insurgencies. Given this history, this paper argues that these small wars will likely remain the primary form of warfare in western Africa for the foreseeable future, and Western African nations will likely continue to fight rebel groups in civil war and counterinsurgency scenarios well into the twenty-first century.

Before colonization by multiple European countries, Western Africa contained many tribes and clans who paid tribute to one of many kingdoms.[11] These kings did not own the land but did control its management through taxes and tributes paid annually. Where a farmer planted was not a concern as much as the amount the farmer paid each year. This culture made riches, women, and slaves a priority over land ownership. Land was plentiful, but riches and population could determine a kingdom's future.[12]

[11] Jeffrey Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, New edition. (Princeton, NJ: Princeton University Press, 2014), 43.

[12] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 39

There were many wars and clashes to be sure, but these were not wars of territorial conquest. Instead, these were wars fought for "women, cattle, and slaves."[13] The Kingdom of Dahomey, which would later become the Peoples' Republic of Benin, provides an excellent example of a western African kingdom before colonization. Dahomey remained territorially small throughout its existence while using its military might to reach into the interior and capture prisoners to use in rituals and sell to slave traders arriving from Portugal.[14] The great pre-colonial African kingdoms of Ghana, Mali, and Songhai waged numerous wars and conquered many people. However, the victorious kings rarely forced the defeated tribes off their land.[15] Unlike the feudal system in Europe where people living on conquered lands became serfs for a new lord, the inhabitants of a conquered land in Africa were allowed to integrate into the new kingdom as full members and negotiate contracts for land use.[16] They would pay tribute to a new king but were allowed to use the land how they saw fit. In fact, despite the king ruling a vast kingdom and owning many slaves, African kings never felt they owned the land, leading the African peasant to experience more freedom than his European counterpart. This lack of land ownership also limited the ways African nobility could rise. Taxes became the pedestal that the non-land-owning nobility used to rise above the rest.[17] The quest for more taxpayers drove wars conquest for people, specifically wage-earners, in Africa.[18] The type of warfare that evolved from this environment was one of small armies conducting raids to capture items of value, who would then retire back to

[13] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 39.

[14] Ibid., 20; Samuel Decalo, *Historical Dictionary of Dahomey (People's Republic of Benin)*, African Historical Dictionaries no. 7 (Metuchen, NJ: Scarecrow Press, 1976), 111–112.

[15] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 39–45.

[16] Ibid., 42–52.

[17] Cheikh Anta Diop, *Precolonial Black Africa: A Comparative Study of the Political and Social Systems of Europe and Black Africa, From Antiquity to the Formation of Modern States.*, trans. Harold J Salemson (New York: Lawrence Hill Books, 1987), 89–104.

[18] Ibid.; ibid., 103.

the confines of the kingdom and use the booty to bargain for a tribute from a clan or to sell the captured goods and slaves.

During the precolonial era, wars were fought to capture, or prevent the capture, of resources, and little but pretext would change after the great nations of Europe placed their lines on the map of the 'dark continent.' During the colonization of Africa, many of the nations recognizable today began to take shape. While these lines made sense for the European powers who laid claim to the land, often the indigenous tribes were not consulted, resulting in borders that were ignored by much of the population.[19] During the West Berlin Conference of 1884-1885, the thirteen major European powers and the United States agreed to a standardized practice of colonizing African nations.[20] Legal colonization would entail effective occupation, the act of negotiating terms, flying one's flag, and the creation of a policing force in the colony; these actions would establish 'legitimate' control over a specific territory. No longer could Europeans establish treaties and siphon the resources from a region while leaving it in the hands of its local leaders; the Conference ended the permissibility of having what was essentially a colony in name only.[21] Europeans now had to effect a government over a region that had been thus far ungoverned, and this required precise borders.

However, these borders were established by simply placing lines on a map without regard to tribal homes.[22] Rebel groups arose as fast as the European powers could establish borders, with several revolts against imperialism occurring in rapid succession.[23] European colonization did little more than refocus the small African armies on a new target, as rebel group warfare evolved

[19] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 89–96.

[20] Ibid., 72–74.

[21] Ibid., 59–60.

[22] Roland Oliver and Anthony Atmore, *Africa Since 1800*, New ed. (Cambridge [England] ; New York: Cambridge University Press, 1994), 100.

[23] Ibid., 111–116; Philip A. Igbafe, "Western Ibo Society and Its Resistance to British Rule: The Ekumeku Movement 1898-1911," *The Journal of African History* 12, no. 3 (1971): 441–459.

from tribal inter-fighting to a focus on discarding the yoke of European governments. The goals of these groups were to return the land and its bounty to the rightful owners, the indigenous population, and to stop the removal of African wealth to far-off kingdoms. In eastern Nigeria, Igbo youth organized into the Ekumeku and conducted a series of guerrilla wars against colonizers. In German colonies, uprisings led to the Maji Maji War, and in Eastern Nigeria, Igbo women led a revolt that resulted in the burning of several courts and fifty dead women. Western African nations found little long-term success with these rebellions, but this type of guerrilla warfare would set the tone throughout the colonial period.[24]

However, following World War II, Europe's divestiture of its colonies failed to solve the problem of African self-rule. When these powers left the continent, their legacy remained in the borders imposed and the states created with no input from the tribes and kingdoms they had split. New national governments arose in place of European governments, but these were controlled by single parties or dictators who established governments ripe with corruption.[25] Simply put, these new governments provided nothing more than a new target for rebel groups full of disenfranchised citizens and aliens.

In the years following the end of the post-colonial period in much of Africa, governments have found it difficult to ignite a sense of nationalism. These governments were, and still are, routinely "confronted with the immense difficulty of maintaining national unity within tribal diversity. The disunifying pressures of tribal groups destroy the authority of the new governments."[26] Many national governments have yet to evolve past high levels of corruption,

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[24] Igbafe, "Western Ibo Society and Its Resistance to British Rule."

[25] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 184-197.

[26] George W. Shepherd, Jr., *The Politics of African Nationalism* (New York, NY: Frederick A. Praeger, 1962), 7.

including nepotism and rule by oligarchs.[27] Tribal chiefs and states co-exist in a stalemate over the control of land and influence. In several areas, states claim to govern the land allocation in the hinterlands away from the capital, but this is challenged by the day-to-day land distribution enforced by local chiefs unhindered by the national government.[28] Due in part to the power of customary practices of land usage and local control, national governments are, and will likely remain, unable to project power in a manner sufficient enough to pacify vast rural areas.

Unable to render local chiefs submissive to the national government, leaders tend to turn to 'decapitation' as a means of control. [29] Decapitation, the removal of the rebel group leader, solves the immediate problem by removing the leadership of the rebel group, weakening its ability to act. However, it fails to address the continuing issue of population control.[30] Factional strife continues to be the predominant reason for conflict in the nations of western Africa, both now and in the foreseeable future. Such strife includes that between clans which feel left out of national politics, and that between rebel groups seeking to establish Islamist rule over all groups and nations inside western Africa. In sum, this paper asserts that wars waged in western Africa will continue to be factional small wars because Africa is a continent of factions that have found little need to unite under national banners.[31]

On the European continent, during the formation of modern European states, the various states found themselves under threat from the outside. This external threat incentivized becoming a large state, as largeness provided several benefits: a population for a standing military, swaths of land able to support the country's agricultural needs, and territorial buffers against other

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[27] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 184–200

[28] Ibid.

[29] Ibid., 196–97; ibid., 194–95.

[30] Ibid., 195.

[31] John Stremlau, "Ending Africa's Wars," *Foreign Affairs* 79, no. 4 (2000): 117–132.

outside threats.[32] In contrast, African states rarely face external aggressors and therefore gain no advantage from having more territory. Due to the already diverse nature of western Africa, many nations already have multiple ethnicities and expanding to a larger size by absorbing neighbors would likely increase both the difficulty of governance and the likelihood of internal threats in countries already beset with them.[33]

In sum, wars occurring in western African nations tend to look much different from those fought by the United States and European nations. They have in the past, currently are, and will likely continue to be small wars waged by small units. African nations have experienced relatively few state-on-state conflicts because the vastness of the African landscape has allowed Africans to view territory differently. The production value of the land has supported the population and allowed tribes to move to new land without habitually interfering with neighbors.[34] Africa provided enough space for a hinterland to exist between kingdoms, which, coupled with the African notion that land was to be stewarded but not owned, meant that kingdoms could survive without large standing armies. Kingdoms and tribes tended to fight wars for riches and power, not territory. Before the colonization of Africa by Europeans, national borders and nation-states as a whole were not universal in Africa. Since European colonization, the map has changed to depict nations, but the mentality of many Africans has not changed to fit this worldview. Tribal and clan territory and animosity still exist. Most West African wars occurring in the late twentieth century and the twenty-first century remain sub-state disputes between rival groups.[35] These disputes may occur across national boundaries, but are not large-

[32] Charles Tilly, *Coercion, Capital, and European States, AD 990-1992*, Rev. pbk. ed., Studies in social discontinuity (Cambridge, MA: Blackwell, 1992), 125–126.

[33] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 170; ibid., 171.

[34] Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control*, 39.

[35] Jeffrey Gettleman, "Africa's Forever Wars," *Foreign Policy*, February 11, 2010, accessed March 21, 2018, https://foreignpolicy.com/2010/02/11/africas-forever-wars/.

scale conflicts; they involve small rebel forces conducting raids into neighboring villages. Currently, the most substantial wars are those being fought by rebel groups with ties to Islamist extremist groups such as Boko Haram and Al Qaeda in the Islamic Maghreb.[36] Based on this current environment, and the historical trends, this paper argues that wars in western Africa will likely remain small, with relatively small government forces clashing with rebel groups of various interests for control of the political will of the people of a given clan or tribe, regardless of national borders.

Security Forces Assistance

Currently, the United States Military conducts SFA in dozens of countries throughout the world, to include multiple countries in western Africa.[37] The assistance provided to these countries is vitally important to both the partner country and the United States. For the United States, SFA ensures the continuation of a stable partner nation government, or at least an existing network of contacts within the military, should a government become destabilized. Such assistance also ensures a certain level of interoperability should the United States find itself conducting operations in alliance with the partner nation. Finally, it allows the United States to maintain a friendly influence in the region.[38] If the United States did not assist the nations in this growing and resource-rich sector of Africa, then, in all likelihood, some other, potentially adversarial, nation would, in order to gain influence while diminishing American influence.

However, there are several issues regarding the way in which the United States executes SFA that limit the effectiveness of its efforts regarding aviation-advising. First, there is little actual theory focusing on why aviation is essential, with most advising doctrine instead focusing

[36] Peter Dörrie, "The Wars Ravaging Africa in 2016," Text, *The National Interest*, accessed March 21, 2018, http://nationalinterest.org/blog/the-buzz/the-wars-ravaging-africa-2016-14993.

[37] "Security Aid," *Security Assistance Monitor*, accessed February 13, 2018, https://securityassistance.org/content/military-aid-download.

[38] US Department of Defense, Joint Staff, *Joint Doctrine Note (JDN) 1-13, Security Forces Assistance*, I–2.

on technical aspects involved in flying and maintenance. Next, the limited education provided by SFA through the use of International Military and Education (IMET) is restricted by the small number of officers from a given country that are able to attend training, and the narrow focus of the courses on American airpower, based around US doctrine and values. In addition, US military advising units are themselves not well-staffed to provide aviation assistance in terms of education vice training. Third, the United States has limited its use of foreign military sales (FMS) to programs involving more expensive aircraft, along with the associated contracted support and training, driving the price and wait time for delivery up substantially. These packages at times have turned countries away from the United States. Instead, they turn to buying from other countries that offer more expensive jet aircraft with faster delivery times, and an offset whereby a foreign firm will build a factory or provide the host nation the ability maintain the equipment locally.[39]

In general, the United States military currently has a doctrine that relies heavily on teaching partner nations how to employ its weaponry but fails to teach it why it should employ its weaponry. The US military seeks to train and assist its foreign counterparts in several areas, including airpower. However, US doctrine is bereft of educational—as opposed to training—goals for its foreign partners. The only manual to discuss foreign military education is *Army Doctrinal Reference Manual 3-0,* which calls upon the institutional Army to use US professional military education as a means to educate foreign officers. Also, US Army doctrine fails to provide any specifics on the execution or expected outcomes of SFA in any domain, other than a trained force. Joint doctrine and multi-service doctrine provide both broad guidance and highly specific technical procedures but do not cover the middle ground of how to develop airpower operations

[39] Loren Thompson, "Why Foreign Military Sales Are Always Worth Less Than The Published Number," *Forbes*, accessed March 23, 2018, https://www.forbes.com/sites/lorenthompson /2017/09/19/why-foreign-military-sales-are-always-worth-less-than-the-published-number/; "International Military Sales--Offsetting the Competition" (Neptune Advisory, May 6, 2015), accessed March 23, 2018, http://www.blackarchpartners.com/media/1723/neptune-international-military-sales-may-2015.pdf.

for specific countries. US doctrine, then, does little to assist in the development of host nation air forces for countries that do not need an air force that mirrors that of the United States.

The USAF has accepted the lead role in training partner nations' national defense forces air components. Unsurprisingly, given the guidance laid out in current doctrine, the USAF has focused primarily on the tactical and technical training of these forces while devoting fewer resources to the educational development of air component leaders.[40] There is no expectation that the USAF should educate the host nation forces on anything other than 'how' to fight. This gap in training versus education leaves countries able to fly jets they cannot maintain with technical capabilities that are ill-suited for wartime roles.

The USAF does carry out the doctrinal mission to provide some level of education on airpower. However, it is limited to advising at only the highest levels of the host nation central command.[41] Doctrinally, the USAF can provide instruction in theory development under the auspices of advising, not training. This level of support can only be conducted with Secretary of Defense approval and is limited to advising host nation central command authorities on the correct use of airpower in a given conflict.[42] This restriction limits the ability of the air advisors to work with mid-level officers to develop a coherent theory on which to base future airpower. Educational assistance to teach mid-level officers how to develop an airpower theory based on the

[40] Mike Hammond, "New ISAF Commander Visits Afghan Airmen and Air Advisors," *U.S. Air Forces Central Command*, last modified August 29, 2014, accessed February 13, 2018, http://www.afcent.af.mil/Units/438th-Air-Expeditionary-Wing/News/Display/Article/502419/new-isaf-commander-visits-afghan-airmen-and-air-advisors/. In this article Campbell discusses several ways in which the US military will help the Afghan Army Air Forces. None of the methods listed involve education instead focusing on tactical and administrative requirements to maintain an Air Force and conduct independent air operations.

[41] US Department of the Air Force, *Air Force Instruction (AFI) 10-4201, Air Advising Operations* (Washington, DC: Government Printing Office, 2015), 32, accessed August 30, 2017, http://static.e-publishing.af.mil/production/1/af_a3/publication/afi10-4201v3/afi10-4201v3.pdf.

[42] Ibid.

reoccurring needs of the host country is completely lacking from doctrine; this type of task is simply not discussed.

In addition to the issues surrounding aviation-SFA doctrine, the US military units tasked with SFA missions are also poorly staffed to build foreign capacity regarding aviation education and sustainment. The US Army relies heavily on the Special Forces branch to not only conduct SFA but also to lead conventional forces in the conduct of SFA. Currently, the US Army is also establishing security force assistance brigades (SFAB) staffed by conventional forces, consisting of five to six hundred soldiers and officers with the mission to advise and assist local security forces.[43] The soldiers assigned to Special Forces units and to SFABs are well trained and capable of executing the mission assigned to them. However, both of these units currently lack organic air advisors and assets, and the educational framework needed to educate partner nation forces beyond the tactical level of warfare. The units cannot be faulted for this shortcoming, as they are responsible for training units within the partner nation military, and not the entire military in the way that US professional military education is designed to function.[44]

In addition to the US Army, the USAF also offers aviation-SFA. Currently, the USAF assigns the role of aviation-related FMS and building partner capacity training verification to Air Education and Training Command. The purpose of this assignment is to ensure that theater level commanders' goals for air advising are met before equipment and trainers arriving in theater.[45] The USAF advocates a wide range of functions associated with SFA, most of which are highly

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[43] "Security Force Assistance Brigades to Free Brigade Combat Teams From Advise, Assist Mission," *www.army.mil*, accessed December 4, 2017, https://www.army.mil/article/188004/security_force_assistance_brigades_to_free_brigade_combat_teams_from_advise_assist_mission.

[44] "SFAB | TRADOC News," accessed March 21, 2018, http://tradocnews.org/tag/sfab/; "Soldiers, With Empathy: U.S. Army Creates Dedicated Adviser Brigades," *NPR.Org*, accessed March 21, 2018, https://www.npr.org/2018/02/26/588927205/army-creating-units-whose-training-and-mission-is-to-serve-as-advisers.

[45] US Department of the Air Force, *Air Force Instruction (AFI) 10-4201, Air Advising Operations*, 12.

tactical and technical.[46] These missions consist of personnel recovery, airlift, and other military associated activities. The USAF doctrine states "activities should be tailored to the needs and capabilities of the partner nation."[47] However, such tailoring assumes the partner country has a solid foundation and knowledge of the type of training it requires.

The two branches of the United States Military considered in this paper, the US Army and the USAF, conduct SFA in varying ways with limited continuity. In general, the assistance tends to be focused on tactical and technical tasks. Regarding aviation, the US Army relies on rotational tasked combat aviation brigades, and the USAF relies on the Sixth Special Operations Squadron. Each of these branches relies on internal and branch-specific abilities, and the overall approach lacks unity of effort.

One potential path forward for airpower advising is the SFAB concept. The US Army is developing SFABs which would expand the current model of SFA by providing a readily available force that can grow and contract as needed.[48] This concept could be expanded to a joint SFA unit with an expanded role for the USAF to include a squadron or wing with the institutional capacity to establish a national or regional school for airpower, and to provide tactical and operational training. However, as of the time of this writing, no effort has been made to include a dedicated aviation-advising unit within the new SFABs.[49]

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[46] US Department of the Air Force, *Air Force Instruction (AFI) 10-4201, Air Advising Operations*, 12.

[47] Ibid., 17.

[48] "The United States Army | Fort Benning | MCoE | CDID | TCM-SFAB," accessed March 21, 2018, http://www.benning.army.mil/mcoe/cdid/TCM-SFAB/index.html. While the US Army currently only employs the SFAB, the aforementioned website already lists TCM SFAB as the planning agency for SFA structures including divisions and corps.

[49] At the time of this writing the author could find no table of organization and equipment for the SFAB, and was unable to find any articles assigning an aviation battalion to the current structure.

Finally, the sale of airframes to foreign militaries is itself problematic due to the nature of the process. US FMS are subject to extremely rigid export laws which limit the ability of defense contractors to compete with foreign defense companies.[50] Prior to these sales multiple reviews must be conducted by both the US Department of State and the US Congress which increase the time required for sale, despite the US State Department rejecting only a microscopic number of applications during these reviews.[51] The extended time and effort it takes for foreign governments to receive approval for the purchase of US airframes essentially incentivizes potential partner nations to seek equipment and services from other countries' FMS programs and defense contractors.

FMS serves multiple roles but must be mutually beneficial to both the United States and the host nation. Currently, the United States provides packages to the host nation, meaning the US defense contractor remains responsible for support and supplying spare parts.[52] However, this is not the policy for other countries' FMS. State-supported foreign defense contractors can provide offsets which enable the contractor to build the capability to locally produce the support products for the equipment that was sold.[53] Offsets provide increased benefits for both sides in a sale. They allow local governments to not only import equipment but to also import jobs and opportunities, while also allowing the defense contractors to reap the benefit of additional contracts and the supplying government to reap the benefit of increased partnership.

In sum, the current US model for aviation-based SFA is limited in its effectiveness by several issues. First, current methodologies are based almost entirely in the technical and tactical realm; they fail to address what the purpose of airpower is in relation to the character of wars

[50] "International Military Sales--Offsetting the Competition."

[51] "International Military Sales--Offsetting the Competition."

[52] Thompson, "Why Foreign Military Sales Are Always Worth Less Than The Published Number."

[53] "International Military Sales--Offsetting the Competition."

nations are likely to face. Partner nation military officers do receive airpower education through IMET, however this education is flawed in two ways: junior officers are taught tactics but not operational strategy; and senior officers in the US staff and war colleges are taught an airpower theory specific to the United States, which has limited application to the non-strategic air forces found throughout West African states. The only country-specific air advising conducted is done at extremely high levels in specific conflicts. Second, US forces assigned to the advisor role are small in number and receive only limited funds for a severely restricted mission. While the US Army has increased its role in SFA, this development of SFABs has not increased its ablility to provide aviation-focused SFA. The USAF has some limited ability to support aviation-SFA, but is not currently expanding that capability. Finally, the use of FMS to increase the ability of West African nations has been limited due to US polices that make non-US sources for FMS attractie for partner nations.

Theory

As discussed above, West African nations will likely continue to engage in small wars, and the United States is likely to continue to execute SFA in these nations. Therefore, this paper argues that the priority for US aviation-SFA efforts should be focused on generating airpower capabilities that will be effective in this type of combat. To provide more effective aviation-SFA, the United States should address the three issues identified above: theory, education, and equipment.

When looking at providing the appropriate airpower capabilities to allied nations, context is key. Jets, like thoroughbred horses, provide prestige and capabilities to national air forces. However, also like thoroughbreds, they provide a plethora of costly problems, from training to maintenance. Unless one is training to win horse races, thoroughbreds provide little benefit. Mules, on the other hand, are able to perform most tasks, often better than thoroughbreds, with fewer issues and fewer costs. There are several options for small and affordable mule-type aircraft that meet all of the requirements needed by a small-wars focused air force. Such small,

maneuverable aircraft that can provide close air support and quick response times are paramount to a country combatting insurgencies. These less prestigious but more useful aircraft are also cost-effective; they have a per hour flight cost of $14,000 to $20,000 less than high-performance jets such as the A-10 and F-16 but are capable of the same, or even more, mission sets.[54] Many of these aircraft are already in service in countries around the world like Brazil, Colombia, and Mauritania, each of which is engaged in small wars with various rebel groups and criminal cartels.

It is also essential that these capable airframes not require complete overhauls of current infrastructure or the building of sophisticated new airfields in remote regions where they will be needed the most. The air force will likely need to be able to exist on poorly maintained hard surface or dirt airstrips of varying lengths. The infrastructure will also likely provide only limited facilities for maintenance. Most jets require well-maintained airfields or special designs that allow them to prevent foreign objects and debris from being drawn into the engine; these airfields are akin to the well-manicured paddocks of the thoroughbred. Several smaller prop-driven attack and transport aircraft can survive and even thrive on poorly maintained and short concrete and dirt airstrips, with minimal shelter for storage. For example, the A-29 Super Tucano developed by Embraer has already proven its value in operating in austere environments in South America.[55] Identifying and supplying airframes such as the Super Tucano for partner nations will provide a cost-effective airframe that the host nation can maintain with limited resources, while still providing fast and effective fire on target, or quickly airlifting required troops and supplies for time-sensitive targeting and en route resupply.

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[54] Kyle Mizokami, "One of These Three Light Attack Planes Could Help Replace the A-10," *Popular Mechanics*, last modified May 15, 2015, accessed November 3, 2017, http://www.popularmechanics.com/military/aviation/a26515/three-planes-oax-help-replace-the-a-10/.

[55] Dan Goure, "5 Reasons Why Selling the Embraer A-29 Super Tucano Attack Aircraft to Nigeria Is a Good Idea," Text, *The National Interest*, accessed November 5, 2017, http://nationalinterest.org/blog/the-buzz/5-reasons-why-selling-the-embraer-29-super-tucano-attack-18467.

Following the procurement of more useful airframes, the United States should refocus its assistance to providing operational and theoretical education on their use. In order to do this, the US military will need to create an organization that can provide not only tactical and technical training but also theoretical training. Teaching an air force how to fly and maintain their equipment ensures they are capable as long as they have the equipment. Teaching them how to think about flying ensures they will match their equipment to their skills and needs. The right equipment, the right infrastructure, the right teachers, and the right lessons are paramount in establishing effective SFA in the West Africa region.

To achieve the type of education discussed above, the USAF should be tasked with developing a baseline doctrine that is highly tailorable to many countries needs without being specific to any one region. In order to then develop country-specific doctrine, the USAF can assign Air Education and Training Command instructors to integrate into deploying joint education units. These units go to host nations and develop a curriculum for that country; the the airpower-focused instructors could to be used in national or regional air staff schools. This would serve as a teach-the-teacher operation, where the students at these air staff schools could begin to develop the airpower doctrine that is specific to their country's needs, and then teach that doctrine to fellow officers. The end result of such a training program would be country-specific and appropriate airpower doctrine, taught within that country's own staff schools.

Any airpower doctrine taught to West African countries should be tailorable, especially in terms of the type of conflict. As previously stated, this paper assumes wars in West Africa will remain small, counter-insurgency-style conflicts vice state-on-state affairs. Therefore, the airpower theory that is incorporated into doctrine for these countries should be focused on effective operations in small wars. The theory the United States must guide its African partners toward is one based upon air and ground forces integration, rather than air-to-air combat. Instructors can refer to authors such as David Galula and David Kilcullen to shape counter-insurgency doctrine in general and build a base of knowledge to focus on how airpower can be

used most effectively in small wars.[56] The instructors must also focus on how airpower can affect the population to provide legitimacy to the local government in a manner that provides sustained legitimacy.

SFA will remain vital to the United States' interest in Western Africa, and airpower will remain paramount to sustaining the security of the region. This paper argues that, in order to be more effective, aviation-SFA to West African nations should be changed to focus on theory, education, and equipment. The United States will have to work closely with its partner nations to ensure that US military air components can provide useful and sustainable air support through the purchase of airframes that support probable missions. The USAF can develop an aviation-SFA baseline doctrine emphasizing airpower theories relevant to small wars, which provides host nations a starting point to develop their own country-specific doctrine. The USAF can provide this support via aviation instructors that are integrated within extant joint educational teams that are already tasked with assisting theory and doctrine development in host nations' educational institutions. Focusing on theory, education, and equipment will enable more effective aviation-SFA, benefitting both the United States and its partner nations.

Case Studies

In order to support this monograph's argument that effective aviation-SFA should encompass appropriate theory, education, and equipment, this monograph examines two case studies of historical assistance. These case studies are analyzed by looking at how airpower theory for the host nation developed, and then; what type of education was provided to the host nation air forces by the United States. Finally, each case study will review the type of equipment provided to the host nation, and the effectiveness of those airframes in several missions. The

[56] David Galula, *Counterinsurgency Warfare: Theory and Practice*, PSI classics of the counterinsurgency era (Westport, CT: Praeger Security International, 2006); David Kilcullen, *Out of the Mountains: The Coming Age of the Urban Guerrilla* (Oxford ; New York: Oxford University Press, 2013).

author chose these case studies due to the small war character of conflict, and the high level of US military aviation-SFA involvement with host nation forces.

Vietnam

In Vietnam, the United States engaged in aviation-based SFA by covertly assisting the government of South Vietnam in establishing a functional air force from 1961 to 1965, and then overtly assisted from 1965 until the end of the war. The SFA mission to South Vietnam produced abysmal results due to the failure of critical senior US officials to realize the type of war in which the South Vietnamese were engaged.[57] Due to this failure, the USAF sought to create a mirror image of itself in a small East Asian country. This goal, of a similarly styled, conventionally-focused air force, would lead to several missteps in the realms of theory, education, and equipment that would manifest in several ways. The USAF would initially subsume the role of active combat operations in its mission to advise and assist the beleaguered South Vietnamese (RVN) Air Force.[58] The USAF selected trainer pilots based upon their tenacity to bomb targets instead of their ability to teach and train new Vietnamese pilots how to fight a counterinsurgency from the air. The USAF failed to account for the population's support in winning the war, and instead focusing on flying covert operations behind enemy lines. Finally, the US government allowed the South Vietnamese government—as well as its own preconceived bias that jets were always superior to prop-driven aircraft—to drive the type of equipment it provided.

In 1961, the USAF Chief of Staff General Curtis LeMay created a the USAF detachment, code-named Farm Gate, with the mission to advise and assist the South Vietnamese (RVN) Air

[57] Mara Karlin, "Why Military Assistance Programs Disappoint: Minor Tools Can't Solve Major Problems," *Foreign Affairs* 96, no. 6 (December 2017): 111–120.

[58] Nathan A. White, *Aviation Foreign Internal Defense (AFID) in Vietnam* (Maxwell AFB, Montgomery Al: Air Command and Staff College, 2009), accessed August 28, 2017, http://www.dtic.mil/docs/citations/ADA510778.

Force; however, their stated mission would prove to be very different from their actual mission.[59] During a conversation with Colonel Benjamin H. King, the first commander of the parent squadron of the Farm Gate detachment, LeMay admitted that the advise mission was a cover, disguising the unit's primary role of covert and overt combat operations. LeMay would further admit during that the Joint Chiefs of Staff knew and accepted that the Farm Gate detachment would be conducting combat operations.[60] On several training missions, the pilots' only requirement for conducting 'training' during combat operations was to have a "warm Vietnamese body on board." [61]

The mission of the Farm Gate detachment was ostensibly to help the South Vietnamese create an air force that would allow them the ability to conduct missions on their own, designing Vietnamese solutions for Vietnamese problems. This did not happen, and the RVN Air Force never became operational, remaining a junior partner in the war against the Viet Cong and wholly unable to compete with North Vietnamese and Soviet Air Forces.[62] In actuality, the USAF detachment simply did the RVN Air Forces' job for them. This effectively ensured that, when the United States left, the RVN Air Force would be unable to make effective use of its air force, regardless of whether it was fighting Viet Cong guerillas or North Vietnamese regular army and air forces. The mission given to the unit proved very different from the mission given to the

[59] Curtis LeMay, "United States Air Force Oral History Interview #592 General Curtis LeMay," June 8, 1972, United States Air Force Historical Research Agency.

[60] Curtis LeMay, "United States Air Force Oral History Interview #592 General Curtis LeMay."

[61] Edward B. Westermann, "Relegated to the Backseat: Farm Gate and the Failure of the US Air Advisory Effort in South Vietnam, 1961-1963.," in *Military Advising and Assistance: From Mercenaries to Privatization, 1815-2007*, ed. Donald J. Stoker, Cass military studies (London ; New York: Routledge/Taylor & Francis Group, 2008), 128–129; Rollen Anthis, "United States Air Force Oral History Interview #415 Major General Rollen Anthis," August 30, 1963, 50, United States Air Force Historical Research Agency; ibid., 42.

[62] White, *Aviation Foreign Internal Defense (AFID) in Vietnam*.

airmen assigned to execute it, and this difference resonated in the type of airmen selected for the role in the advising detachment.

The role of trainer, much like grade school instructor, requires a patient individual willing to spend time and energy educating host nation servicemembers; the Farm Gate detachment instead sought pilots seeking adventure in clandestine wars. The detachment consisted of all-volunteer pilots who believed they would be conducting combat operations in a cloak and dagger manner.[63] The challenges, of training partner nation airmen in the grueling mechanics of combat aircraft flight, were exacerbated by the USAF's selection advisors "based on willingness to execute covert operations, not on ability to advise foreign forces to execute their operations."[64] The trainers selected by the USAF lacked the requisite skills to teach RVN Air Force pilots how to operate effectively. The USAF created the Farm Gate detachment with the stated mission of advising and assisting the RVN Air Force in the execution of its mission. However, before the pilots flew the first sortie, the pseudo-mission of direct combat and the recruitment of airmen with the bravado for a clandestine operation derailed Farm Gate. General LeMay believed, counter to the US administration, that only advising would not be an effective approach and that direct action would be required.[65] To further complicate the matter, both the senior US military advisors to South Vietnam and the Ngo Dinh Diem Government of South Vietnam seemed to be less interested in the immediate threat of insurgency and more concerned with confronting the North Vietnamese in the future.

[63] Anthis, "United States Air Force Oral History Interview #415 Major General Rollen Anthis"; Westermann, "Relegated to the Backseat: Farm Gate and the Failure of the US Air Advisory Effort in South Vietnam, 1961-1963.," 128.

[64] White, *Aviation Foreign Internal Defense (AFID) in Vietnam*.

[65] Ibid.

One can hardly lay the blame for the failure of the RVN Air Force's ability to wage a counterinsurgency war on the United States pilots or the Vietnamese pilots; both were following orders. Instead, this failure is attributable to the senior US military advisor and the Diem government of South Vietnam. Early in the intervention, the military placed US Army Lieutenant General Samuel Williams in charge of assessing the RVN military. During his tenure, he "remained committed to building a conventional South Vietnamese military contrary to the wishes of the White House."[66] Williams was not alone in this desire; senior USAF officials felt the RVN Air Force should mirror the USAF, which was itself quickly becoming an all-jet air force under the guidance of senior officers such as General William Momyer.[67] Not only were jet aircraft ill-suited for many of the tasks associated with counterinsurgency, but they were also very technical aircraft requiring extensive training in both flying and maintaining.

The South Vietnam government accepted the USAF's goal of a jet air force. Diem was committed to orienting his military toward the threat of North Vietnam instead of focusing on the imminent threat of a rising insurgency within his own country.[68] Thus, two of the most influential figures in determining the way the RVN air force would develop refused to focus on the imminent threat of revolution, instead focusing on the more straightforward task of developing a military to confront the North Vietnamese threat. Neither military was genuinely interested in fighting a counterinsurgency war, leading to a disconnect between the airpower theory of the US/RVN Air Forces and what was needed to win the conflict by garnering the support of the civilian population.

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[66] Karlin, "Why Military Assistance Programs Disappoint: Minor Tools Can't Solve Major Problems," 116.

[67] Warren A. Trest, *Air Commando One: Heinie Aderholt and America's Secret Air Wars* (Washington: Smithsonian Institution Press, 2000).

[68] Karlin, "Why Military Assistance Programs Disappoint: Minor Tools Can't Solve Major Problems," 116; ibid., 112.

The population is an essential part of any counterinsurgency campaign.[69] However, the RVN Air Force chose to leave this task to the army while it focused on combat operations only. During the war "neither the USAF nor the RVN Air Force placed enough emphasis on civic action: the USAF…did not see the relevance," while the RVN Air Force which the government raised from a conscript military "had no concept of public support."[70]

Despite the preference for military units to execute combat operations only, in developing countries the military is often the only large organization controlled by the government that can execute humanitarian missions. It was not until 1966 that the air forces began to conduct humanitarian aid, led by the RVN Air Force, allowing the civilian population to see their government providing support.[71] The USAF did not seek to educate the RVN Air Force on the importance of winning the "hearts and minds" of the population when conducting counterinsurgency warfare, failing to incorporate lessons from wars such as those fought on the Malay Peninsula. The air forces' lack of interest in supporting humanitarian aid meant that such operations instead depended on moving large amounts of supplies, and people, overland. This type of overland movement could not be efficiently done due to highly restrictive terrain associated with jungles and mountains, both of which are prevalent in the Vietnamese countryside. While the Army could assist in building and securing local villages, it lacked the capacity for large-scale humanitarian aid missions, a job for which the air forces were well suited. Lack of knowledge is not an excuse; the USAF had already demonstrated the use of airpower to

[69] US Department of the Army, *Field Manual (FM) 3-07, Stability* (Washington, DC: Government Printing Office, 2014), 1–7-- 1–10.

[70] White, *Aviation Foreign Internal Defense (AFID) in Vietnam*, 36.

[71] White, *Aviation Foreign Internal Defense (AFID) in Vietnam*; Betty B. Christiansen, *The United States Air Force in Southeast Asia: Civic Action* (Bolling AFB, Washington DC: Air Force Historical Studies Office, 1998), 36; White, *Aviation Foreign Internal Defense (AFID) in Vietnam.*

execute large-scale sustainment operations had already in both the Berlin Airlift and missions flown over the hump from Burma to China in World War II.[72]

Thus, during the Vietnam War, the USAF provided no education for the South Vietnamese on airpower theory or operational uses, instead focusing on limited training and overtaking the role of force provider. One can see this in the type of airmen sent to fulfill the role of trainer and the equipment the United States provided to the RVN Air Force.

Regarding equipment, prior to the United States increased role in combat operations, the United States provided prop-driven, less technologically advanced aircraft to the RVN Air Force. However, as the United States began to get more involved, the USAF sought to create a mirror image of itself in the RVN Air Force. The United States was in the process of converting to an all-jet force during the Vietnam War. This concept was also being pushed onto the RVN Air Force. The leadership of South Vietnam sought jets for its air force to compete with the Soviet-supported forces of North Vietnam. This view was supported by senior US military advisors in Saigon, despite the advantages garnered from the use of less advanced aircraft. Due to the reliance on jet aircraft, the South Vietnamese had to create and maintain a significant airfield and maintenance infrastructure, providing valuable targets to the Viet Cong. The RVN Air Force lacked the ability to base jet aircraft in other countries like the USAF, which meant that its aircraft and fields were vulnerable to attack. Using less advanced aircraft would have allowed them to remain austere with smaller footprints throughout the country, where each less-technical airfield could have been more easily defended and hastily repaired when damaged.

[72] John Correll, "Over the Hump to China," *Air Force Magazine*, October 2009, accessed March 21, 2018, http://www.airforcemag.com/MagazineArchive/Pages/2009/October%202009/1009hump.aspx; "Berlin Airlift - Cold War - HISTORY.Com," accessed March 21, 2018, https://www.history.com /topics/cold-war/berlin-airlift.

Before the official United States entry into the war, the RVN Air Force received several F8 Bearcat fighters and T-28 trainer aircraft from the Americans via French advisors.[73] When the United States became more involved, the type of aircraft provided became increasingly advanced. By the mid-1960s, the RVN Air Force was requesting and receiving F-5 and A-37 jet aircraft. By 1970 the RVN Air Force had four jet squadrons compared to a single A-1 squadron conducting operations.[74] Despite the amount of time required to train jet pilots, the USAF believed that providing jets to the RVN would allow them to accomplish both direct action warfare and counterinsurgency warfare. The aircraft provided were excellent aircraft but were ill-suited for the type of flying required in the mountainous terrain of Vietnam. Flying into valleys, delivering ordnance, and exiting the valley before crashing into the far valley wall required flying at slower speeds than the RVN Air Force jets were designed to fly, with more skill than the pilots could provide.[75] This lack of capability was not the only issue; as the role of jets became more prominent in the South Vietnamese Air Force so too did the complications created by the increased need for sophisticated infrastructure.

Jets required a much more sophisticated infrastructure and maintenance regime than their prop-driven counterparts, which further taxed the strained fiscal resources of the South Vietnamese state. The jet aircraft used by the RVN Air Force required longer and smoother runways than the prop-driven aircraft in use during this time, which may have been beneficial if the jet aircraft provided a significant combat advantage such as increased payload; they did not.[76] Recruiting personnel capable of providing maintenance for such advanced jet aircraft was also a

[73] White, *Aviation Foreign Internal Defense (AFID) in Vietnam*.

[74] Ibid.

[75] Trest, *Air Commando One*, 11–15.

[76] White, *Aviation Foreign Internal Defense (AFID) in Vietnam*.

problem for the RVN due to the agrarian culture of the majority of Vietnam.[77] There were simply not enough technically educated Vietnamese available who were able to maintain the jets. Jet aircraft not only proved to be too advanced for an air force being built from the ground up, but they also proved to be less effective and more expensive than their prop-driven counterparts, leading to a reliance on US airpower to complete missions the RVN Air Force was incapable of handling. While the Diem government was concerned with increasing its strategic position by obtaining a jet-dominant air force, it failed to take into account the airframe that would prove to be the most effective during its war with the Viet Cong.

The prop aircraft such as the A-1 and A-26 proved themselves time and again flying various missions in the mountainous terrain of the highlands. Able to fly under and through weather, unlike jets, they would be lauded by several USAF officials during the war. According to reports, "The low-tech prop driven aircraft were responsible for nearly sixty-four percent of the kills recorded on the Ho-Chi-Minh trail in December 1966."[78] From January to August 1967, "propeller-driven aircraft destroyed twelve point eight transport targets for every one hundred sorties flown, during the same period jet aircraft destroyed only one and a half transports for every 100 combat missions flown."[79]These figures suggest that propeller-driven aircraft were equally, if not more, efficient in both the air interdiction role on the Ho-Chi-Minh trail and the close air support role in small engagements in less than ideal conditions such as mountainous terrain and bad weather.[80] While officials at the strategic level of the USAF failed to realize what

[77] James S. Corum and Wray R. Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists*, Modern war studies (Lawrence, KS: University Press of Kansas, 2003), 250.

[78] Robert K. Abernathy, *Weapons of Choice: The" Propeller Versus Jet" Controversy and the" Appropriate Technology" Dilemma* (Maxwell AFB, Montgomery AL: Air University, 2000), 25.

[79] Ibid.

[80] Trest, *Air Commando One*, 11–12.

it would take to fight a counterinsurgency from the sky in Vietnam, since the end of the conflict, several lessons have become apparent.

One lesson that should be most apparent in this case study is the desire of leaders to have a strategic air force for the credibility it brings to the international community vice a useful air force. Such a desire may be counterproductive to developing an airpower theory and air force that is effective against the state's most likely adversaries. Once Diem realized that the United States was selling jets to Thailand and the Philippines, he would no longer accept having anything less than a strategic air force to maintain parity with regional neighbors.[81] This suggests that it is not necessarily wrong to limit offers of aviation equipment to specific airframes, to help coerce local partners to alter their behavior in a way that is beneficial to both parties.[82]

A second lesson is that SFA does not work when militaries fail to identify or execute appropriate aviation education. The USAF failed to educate and train the RVN Air Force to confront the Viet Cong in the current conflict, instead choosing to focus on the airpower threat from North Vietnam that would not materialize for several years. One can see this in the inability of the South Vietnamese to effectively use airpower to counter the Viet Cong during the early years of the US intervention.

During the Vietnam War, the USAF conducted aviation-based SFA in name only. The USAF also sought superior combat pilots to conduct the training, while paying little attention to their ability or desire to teach host nation pilots in the employment of their airframes. Despite the prohibition against US pilots engaging in direct combat operations many of these pilots did just that, terming the operation 'pilot training'. These training missions led to the USAF taking over all air operations and an RVN Air Force acting as a junior partner along for the ride and little else. Following Vietnam, the USAF realized it needed to guide the host nation air force in its

[81] White, *Aviation Foreign Internal Defense (AFID) in Vietnam*.

[82] Karlin, "Why Military Assistance Programs Disappoint: Minor Tools Can't Solve Major Problems."

development, not merely use the role of training as a strategic pretext to enter the country and begin combat operation.

Third, the United States may need to assume some combat roles such as direct action against externally-sponsored, highly conventional jet-enabled forces, to allow the host nation air force to focus on a mission that they are able to achieve. However, the United States should not absorb all missions and place the host nation forces in the unfortunate role of junior partner, merely accompanying US pilots on missions to watch how they conducted operations. If the United States can offer protection against technologically-advanced adversaries, this may provide space for the host nation to develop airpower more in line with its most-likely missions.

Finally, no air force can deny its role in humanitarian assistance and the importance of engaging with the population. In many cases, due to the increased ability of partner nation air forces to move supplies rapidly via cargo aircraft, the population's only contact with the national governmental authority may be the air force planes that bring in aid. Seeing the flag on the side of the aircraft serves multiple purposes: to show insurgents that the government can reach the location, and to show the population that the government cares.

In sum, the current lessons that can be drawn from SFA in the Vietnam War revolve around several concepts. The concepts focused on in this case study are the need to educate host nations on the reason they need an air force that moves beyond the prestige of having a strategic air force towards a practical force that can compete with actual threats the country is currently facing. This requires the use of appropriate airpower theory and educational practices. In addition, aviation-SFA units need to take a significant role in designing the ideas behind the development of an air force to also ensure the host nation purchases the proper equipment to match the operating environment. Finally, the United States must assure its partners that it will provide the air security required, should they be attacked by a nation with a jet-enabled strategic air force, in order to enable partner nations to make better airpower and airframe choices.

Afghanistan

After the fall of the Soviet Union and the collapse of the communist Afghan government, the Taliban regime allowed the Afghan Air Force to wither away. Subsequent to the United States invasion in 2001, the USAF was given the job of leading a coalition effort to rebuild the Afghan air forces. The USAF used lessons learned from Vietnam to attempt to create an effective Afghan Air Force. The USAF began by creating an Afghan Air Corps in 2006, which transitioned into the Afghan Army Air Force in 2010. However, throughout their aviation-SFA programs, the USAF focus has remained highly tactical and technical. This case study will focus on theory and education by analyzing the intellectual aspects of the USAF assistance and the personnel the USAF selects to be advisors, with an additional focus on the equipment being procured and used by the Afghan Army Air Force.

Starting in 2006, the USAF engaged in SFA with Afghanistan, focusing on training Afghan pilots to fly and maintain aircraft. Unlike other instances of SFA, this time the USAF made an effort to not only train pilots but also to educate officers in airpower theory.[83] In early 2007, the USAF Academy sent two instructors to the Afghanistan Military Academy to begin developing a curriculum to instill two things in its cadets: a belief in democracy, and a zeal for airpower equivalent to early American and European airpower theorists and aviators like Mitchell, Arnold, and Douhet.[84] In May 2015 the Afghanistan Air Force Academy graduated its first class of 184 cadets.[85] The implementation of an Afghan Air Force Academy appears to show

[83] Tom Roeder, "Afghans Taken Under AFA's Wing ; Professors Design Curriculum for Fledgling Air Force's School.," *The Gazette* (Colorado Springs, CO, March 4, 2007), https://lumen.cgsccarl.com/login?url=https://search-proquest-com.lumen. cgsccarl.com/ docview/ 268283106?accountid=28992.

[84] Ibid.

[85] Jeff M. Nagan, "Afghan Air Force Academy Graduates First Class," *U.S. Central Command*, accessed December 7, 2017, http://www.centcom.mil/MEDIA/NEWS-ARTICLES/News-Article-View/Article/885118/afghan-air-force-academy-graduates-first-class/.

that the USAF is resourcing the development of sustainable host nation airpower. The Academy training, however, is focused more on tactics and technical skills than airpower theory.[86] The course of education occurs in three phases, where "the first two phases provide leadership, tactics and military training …. and the third phase focuses on studies unique to the air force, such as air tactics, avionics, air safety and meteorology.[87] None of the three phases explicitly cover airpower theory or its development.[88] Despite the initial hope that the academy would make the Afghan Army Air Forces an institution staffed by airmen that could not only fly well but think deeply, the latter goal has failed to materialize. As described in the Vietnam case study, above, training pilots to fly without theory will only work until there are no planes able to fly or there is no incentive to take flight. While the USAF's development of airpower academics shows the implementation of lessons learned in Vietnam, such academics need to provide instruction in airpower theory and how airpower might best be used in Afghanistan, not merely to provide flying lessons.

This paper previously discussed the requirements for a good instructor and noted how the USAF failed to seek these individuals out during SFA operations in Vietnam. In Afghanistan, the USAF has sought and trained individuals willing and able to train and certify Afghan pilots. However, they have not provided the tools necessary to achieve the mission set before them, resulting in limited achievement of the desired outcomes. These tools included sufficient cultural awareness, immersive language training, and adequate practice instructing. Following a 2006 survey conducted by the USAF after it was given primary responsibility for rebuilding Afghan air capabilities, a concept of operations was developed to remedy these issues. This concept of operations included several items required for this mission; perhaps most important among them

[86] Nagan, "Afghan Air Force Academy Graduates First Class."

[87] Ibid.

[88] Ibid.

was pre-deployment training for selected teams.[89] As of 2009, the pre-deployment training required for servicemembers selected for roles as trainers and advisors had dwindled from several months to two weeks; this limited training time fails to adequately prepare advisors or provide the requisite skills needed for their assigned roles.[90]

Another issue that has plagued the selection of trainers in the role of rebuilding the Afghan Army Air Force is the nature of the coalition forces. In 2011 over thirty countries were providing airmen to the NATO train and assist mission.[91] In many cases, these airmen were trained in aviation using outdated Soviet methodologies, which in some cases resonated with older Afghan pilots who were familiar with the system, but stymied US advisors using western training methods.[92] These cultural differences are proving to be challenging to overcome, with the Afghan pilots accepting the western methods but "keeping their Russian-style training system' basically in their 'hip pocket.'"[93] The failure of the USAF in asserting control of who was assigned to the role of training, or ensuring NATO trainers were trained to the same standard, has led to a confusion of standards and program goals for this aviation-SFA.

In addition to cultural differences in instruction, language barriers also present a problem. In several cases, the units have found it easier to converse in Russian than English, limiting the effectiveness of English language-based training programs. The failure of the English language programs is in part due to the low levels of literacy in Afghanistan.[94] According to a RAND

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[89] Jennifer D. P. Moroney et al., *International Cooperation with Partner Air Forces*, RAND Corporation monograph series (Santa Monica, CA: RAND Project Air Force, 2009), 46.

[90] Ibid.

[91] Forrest L. Marion, "Training Afghan Air Force Pilots, 2006-2011," *Air Power History* 63, no. 1 (2016): 25.

[92] Marion, "Training Afghan Air Force Pilots, 2006-2011," 25.

[93] Ibid., 27.

[94] Ibid.

analysis, “English language training programs in Afghanistan have been inadequate resulting in few pilots being eligible for advanced [flight] training.”[95] Afghan pilot candidates who were sent to the United States to undergo intensive English language programs followed by flight training have also been unsuccessful, with some Afghan pilot candidates using the chance to travel to go absent without leave and seek asylum in Canada.[96]

The failure of the USAF cadre to instill airpower theory, instead of merely the knowledge of flight, coupled with the limited success of English learning programs, have both contributed to the problem of low retention rates within the Afghan Air Force. Candidates often choose to leave the pilot program to seek higher paying employment in translator jobs within Afghanistan.[97] Despite the Afghan Air Corps hemorrhaging pilots due to these reasons, the US Army and the USAF have moved forward with allowing the Afghan pilots to conduct missions with only oversight from US forces. Such a change in mission requirements for the USAF may allow for more time to focus on formal education than training pilots to fly missions.

Unlike in Vietnam, the USAF has refrained from doing the Afghan Air Corps’ job for them, instead ceding whole mission sets to them as the pilots become proficient in performing them. During the concept of operations development, the USAF decided that it would be best to focus on developing airlift capabilities instead of initiating combat capabilities.[98] This enabled the training units to work with the Afghan Army Air Forces on developing proficiency in less stressful and pressing missions while coalition forces maintained the role of combat power providers. As the Afghan Army Air Forces became more proficient at airlift operations in both

[95] Moroney et al., *International Cooperation with Partner Air Forces*, 48.

[96] Marion, “Training Afghan Air Force Pilots, 2006-2011,” 28.

[97] Moroney et al., *International Cooperation with Partner Air Forces*, 48

[98] Ibid.

fixed and rotary wing operations, they were empowered to plan and conduct aerial operations ranging from presidential airlift to personnel recovery.

Gradually, the Afghan Air Corp also became trained on combat operations. Currently, Afghan pilots are in control of many of their operations, both with and without overt US military overwatch. [99] The culmination of the gradually increased responsibilities of the Afghan Army Air Force came in 2017 when it flew its first combat missions in the A-29 Super Tucano tuber-prop aircraft.[100] While the Afghans fly these combat missions under the watchful eye of the USAF, the implication of future independence is clear. The USAF has progressively increased the Afghan's responsibility for providing air operations, adjusting their support as needed, until the Afghan Army Air Force proved capable of accomplishing the required tasks without intrusive oversight.

In addition to airpower support to military operations, since the Afghan air service remains an air corps under the Afghan National Army, they also remain tied to the Army in its response to disasters, ensuring that they interact with the Afghan population. Due to the mountainous terrain of Afghanistan, eighty percent of the population remains dispersed in highly inaccessible areas of the country. With the assistance of the US military, the Afghan National Army has used the Afghan Army Air Forces to deliver relief to remote areas affected by disasters, which has also served the purpose of showing the national government's flag to its most remote regions. Over two hundred thousand Afghan citizens are affected by natural disasters a year, many of them in the remote stretches of the country inaccessible except by air and horseback.[101]

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[99] Marion, "Training Afghan Air Force Pilots, 2006-2011"; Moroney et al., *International Cooperation with Partner Air Forces*, 48; Moroney et al., *International Cooperation with Partner Air Forces.*

[100] Richard Sisk, "A-29 Super Tucano Attack Aircraft See First Action in Afghanistan," *Military.Com*, accessed December 11, 2017, https://www.military.com/daily-news/2016/04/15/a29-super-tucanos-see-first-action-afghanistan.html.

[101] UN Office for the Coordination of Humanitarian Affairs, "Afghanistan: Overview of Natural Disasters (as of 13 February 2017) - Afghanistan | ReliefWeb," *Https://Reliefweb.Int*, accessed December 7, 2017, https://reliefweb.int/report/afghanistan/afghanistan-overview-natural-disasters-13-february-2017.

An example of this is when the Afghan Army Air Force provided vital relief to local villagers during a mudslide in the Badakhshan province in 2014.[102] Using aircraft launched from a provincial airfield, the Afghan pilots were able to bring in supplies as well as provide aerial reconnaissance of the area for governmental assessments of the damage.[103] The ability of the Afghan government to use its air force to relieve the suffering of disaster-affected citizens serves as a legitimizing tool for the national government.[104] Militaries win counterinsurgencies through the population; if the population sees the Afghan Army Air Force as a positive benefit to the society, this may help in the broader effort to resolve conflict in Afghanistan. The Afghans were able to execute this mission through the doctrine they developed, using the limited education and ample equipment provided through SFA by the United States.

Since the USAF began to work at rebuilding the Afghan Air Corps in 2006, it has turned several mission sets entirely over to the Afghans and began integrating Afghan pilots into others. This development has led to an increase in the platforms purchased by or bequeathed to the Afghan Army Air Forces. Several airframes have been successful, while several others have not. Initially, the Afghan Air Force operated with Mi-17 Soviet-made helicopters, and while these helicopters are sturdy, they are quickly coming to the end of their usable life and require replacement.[105] The USAF decided that the best replacement for the Mi-17 would be western-

[102] UN Office for the Coordination of Humanitarian Affairs, "Afghanistan: Overview of Natural Disasters (as of 13 February 2017) - Afghanistan | ReliefWeb."; "Afghan Landslide Rescue Focuses on Displaced," *Reuters*, May 3, 2014, accessed February 13, 2018, https://www.reuters.com/article/us-afghanistan-landslide/hundreds-killed-thousands-missing-in-afghan-landslide-idUSBREA410MP20140503.

[103] Aaron Tucker and Aimal Pacha Sayedi, "Advising the Afghan Air Force," *Joint Forces Quarterly* 80 (January 1, 2016), accessed December 11, 2017, http://ndupress.ndu.edu/Publications/Article/643089/advising-the-afghan-air-force/.

[104] Ibid.

[105] Marion, "Training Afghan Air Force Pilots, 2006-2011." The Mi-17 helicopters were provided to the Afghan Air Force during the Cold War era and have reached the end of their lifespan due to fatigue on the parts and improper maintenance conducted since the collapse of Afghan Communist forces.

made air rotary and fixed wing aircraft.[106] The UH-60 Blackhawk, the workhorse of the US Army and base model of the USAF's HH-60 Pavehawk, was selected as the rotary wing aircraft of choice due to its ability to operate in the rugged terrain, and availability of maintenance assets from the United States.[107] Currently, the Afghans primarily use rotary wing aircraft for personnel recovery and casualty evacuation missions. While militaries often use rotary wing aircraft for combat operations, they require specialized maintenance and are more expensive to operate than small fixed-wing aircraft with similar payloads; fixed-wing aircraft are preferable for combat operations. For this reason, the Afghans also require a light and medium lift fixed wing aircraft able to operate within the country.

The United States invested nearly five hundred million dollars into the C-27J Spartan program to give to the Afghan Air Force in an effort to combine the requirements of light and medium lift assets into one airframe. However, the aircraft never flew and was eventually scrapped. Instead, the Afghan Air Force adopted the C-130 for medium lift and the C-208 for light lift and casualty evacuation. The C-130 is now used throughout Afghanistan to move important people, high-value equipment, and other items or people which may prove to be a valuable target to the Taliban.[108] Since the C-130's initial use in the Afghan Air Force in 2013, it has become "a source of national pride, [and] an indicator of governmental legitimacy," to such

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[106] Moroney et al., *International Cooperation with Partner Air Forces*, 48.

[107] Pamela Constable, "U.S. Wants to Build 'Tsunami of Air Power' in Afghanistan, but Impact Is Years Away," *Washington Post*, November 12, 2017, sec. Asia & Pacific, accessed December 12, 2017, https://www.washingtonpost.com/world/asia_pacific/us-wants-to-build-tsunami-of-air-power-in-afghanistan-but-impact-is-years-away/2017/11/10/91c453ae-c3e1-11e7-9922-4151f5ca6168_story.html; Josh Smith, "New U.S. Helicopters Mark Major Change for Afghan Air Force," *Reuters*, October 8, 2017, accessed December 11, 2017, https://www.reuters.com/article/us-afghanistan-helicopters/new-u-s-helicopters-mark-major-change-for-afghan-air-force-idUSKBN1CC0KB.

[108] Sharon Weinberger and Paul McLeary, "Building the Afghan Air Force Will Take Years," *Foreign Policy*, August 21, 2017, accessed December 11, 2017, https://foreignpolicy.com/2017/08/21/building-the-afghan-air-force-will-take-years/.

an extent that the aircraft itself is now considered a high-value target by the Taliban.[109] Casualty evacuation in Afghanistan requires two flights. Initially, both flights were via helicopter, first an initial lift from the battlefield to an exchange point, and then from the exchange point, where the casualty would be loaded onto a waiting helicopter and flown to a medical center near Kabul. With the introduction of fixed-wing air, now the C-208 Cessna Grand Caravan "can operate at 3 percent of the cost of generating the flights of two Mi-17s," when used as a casualty evacuation vehicle.[110] This has permitted the first flight by helicopter to go from the battlefield to an ambulance exchange point at a nearby airfield, and the final evacuation to via faster and cheaper fixed wing assets.

The cost savings associated with fixed-wing aircraft for light lift and casualty evacuation have generated interest in the search for a fixed-wing attack aircraft. Attack aviation that is capable of air to ground or close air support missions are the most recent mission set the USAF has sought to transfer to the Afghans. Unlike in Vietnam, where the USAF sought to use jet aircraft in an attempt to create a mirror image of itself in miniature, it has used a different logic in Afghanistan. The USAF recommended the Afghan Air Force focus on propeller-driven aircraft due to their ruggedness and general ease of maintenance. Two aircraft were considered to fill this role: the C-208, modified to be an attack aircraft, and the A-29 Super Tucano. The C-208 provides an airframe familiar to the Afghans. However, it also lacks several key features. As a converted civilian aircraft, it lacks the armor built into most close air support airframes.[111] With an operational ceiling of 25,000 feet, the C-208 is unable to operate in some of the higher terrains

[109] Tucker and Sayedi, "Advising the Afghan Air Force."

[110] Tucker and Sayedi, "Advising the Afghan Air Force."

[111] Aaron Gregg, "Defense Firms Look to Give Old Weapons Systems a 21st-Century Reboot," *The Washington Post*, July 5, 2017, sec. Capital Business, accessed January 25, 2018, https://www. washingtonpost.com/ business/ capitalbusiness/defense-f…387341_story.html?utm_term=. 6c7cd22e62b0&wpisrc=nl_rainbow&wpmm=1.

in Afghanistan and does not have a pressurized cabin, which is required to operate at higher altitudes.[112] Based upon the C-208's limitations for combat operations, the USAF sought different platforms, ultimately deciding on the A-29 Super Tucano. With a service ceiling of 35,000 feet and the life support systems including onboard oxygen generation and cabin pressurization, the A-29 is the best available aircraft for use by attack aviators in the Afghan Air Force.[113] The A-29 also possesses advanced avionics, internal machine guns, the ability to mount additional guns and rockets such as precision-guided munitions, and Kevlar armor on the underside of the plane to protect the pilot from hostile ground fire.[114] For these reasons, the USAF selected the A-29, and in 2016 it saw its first combat operations flown by Afghan pilots to support Afghan ground troops.[115] In sum, the USAF has had success in outfitting the Afghan Air Corps with aircraft appropriate to their mission. This successful equipping strategy can be brought forward as the USAF applies the lessons learned in Afghanistan to aviation-SFA in the future.

The USAF learned multiple lessons in Afghanistan, which may be applicable in future SFA missions throughout the world. The first lesson is to provide an educational foundation which moves beyond an officer's ability to fly an aircraft or conduct tactical missions. This foundation must lead to officers being able to develop an airpower theory based upon their country's needs. The USAF did not follow through on this lesson in Afghanistan, despite its acknowledgment as an objective, and initial development of an airpower-focused curriculum. The second lesson is that trainers should be selected for their competence in training, and their desire to educate, not their proficiency as a pilot. Next, aviation-SFA efforts should provide an

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[112] Tucker and Sayedi, "Advising the Afghan Air Force"; "Grand Caravan EX," accessed December 12, 2017, http://cessna.txtav.com/en/turboprop/grand-caravan-ex#_model-specs.

[113] Sisk, "A-29 Super Tucano Attack Aircraft See First Action in Afghanistan"; "EMB-314 Super Tucano / ALX Trainer and Light Attack Aircraft," *Airforce Technology*, n.d., accessed December 12, 2017, http://www.airforce-technology.com/projects/super_tucano/.

[114] "EMB-314 Super Tucano / ALX Trainer and Light Attack Aircraft."

[115] Sisk, "A-29 Super Tucano Attack Aircraft See First Action in Afghanistan."

environment suitable for education and training, in order to allow the host nation time to develop its own theory of airpower, and then commensurate doctrine. As education leads to theory and theory to doctrine, air advisors can then begin slowly ceding missions sets to the host nation air force, as it increases in proficiency. Fourth, the USAF should ensure the host nation air force remains tied to the population by conducting humanitarian missions; this will increase the host nation's governmental legitimacy. Finally, the USAF must help the host nation select proper equipment, in accordance with its own airpower theory, through appropriate FMS.

Analysis

In this monograph, two case studies were analyzed to extract lessons to apply to current and future aviation-based SFA. In both Vietnam and Afghanistan, the USAF used SFA to build a partner nation's airpower capacity. In many respects, the mistakes made in Vietnam were analyzed and corrected before Afghanistan, resulting in a much more efficient use of SFA time and staff in the latter instance. Despite the improvement in some areas, there is still room to improve in several other areas. In Afghanistan, the aviation-SFA effort attempted to include a focus on education, instead of solely focusing on training. It emphasized providing the right equipment instead of the newest equipment. However, the USAF has still put little effort into integrating its SFA abilities into those of the US Army with respect to inherently joint missions such as humanitarian aid/disaster relief and close air support. However, both of these missions are likely to serve as in important part of a small wars-focused airpower theory.

During both the Vietnam War and Operation Enduring Freedom in Afghanistan, the USAF was tasked with providing aviation-based SFA; both instances resulted in operations that were tactically and technically based training missions. In both case studies, the USAF did not sufficiently establish a functional education system to teach host nation air force officers how to think about airpower. Billy Mitchell, as the 'father' of the USAF and a prominent airpower theorist, advocated air-minded individuals to focus on airpower and its uses; the USAF has

moved away from this principle in educating other national air forces.[116] The USAF learned from its failure in Vietnam and worked to implement an education program in Afghanistan, which had limited success. In contrast, the equipping program has been highly successful in Afghanistan.

The USAF showed the most significant improvement in SFA operations through the type of equipment it provided to Afghanistan versus Vietnam, and in the way, it introduced mission sets to host nation forces. During Vietnam, the USAF made two significant errors: giving the RVN Air Force jets and maintaining the role of the lead nation in all aerial missions. These mistakes led to an overequipped air force unable to counter its most significant threat, that of insurgents, and undertrained pilots who could do little more than assist in aerial forward air controller operations while American pilots flew combat missions. In Afghanistan, this did not happen as the Afghan Army Air Force was given roles at which it could succeed, such as presidential lift, and humanitarian aid/ disaster relief missions, as soon as it proved capable. The USAF continued to conduct harder combat missions in full, and more in-depth humanitarian aid roles only as required. Equipment such as the C-208 and C-130 for air mobility proved crucial in times of disaster-related crises. The Afghan Army Air Force has proved adept at delivering humanitarian aid in conjunction with the Afghan Army ground forces who distribute the aid. As the Afghan Army Air Force transitions to an independent service, it must remain capable of close integration with the Army on the ground.

The two primary missions of many host nation air forces and a rational basis of any airpower theory developed by countries facing insurgencies and with dispersed populations, humanitarian aid/disaster relief and close air support, are inherently joint operations. However, the US military lacks a similar joint organization that is fully able to bridge the gap between aviation-based SFA and land-based SFA stymieing the ability of host nations to develop a coherent airpower theory that focuses on aerial support to land-based operations. During

[116] William Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power--Economic and Military* (Tuscaloosa, AL: University of Alabama Press, 2009).

Vietnam, the USAF focused on strategic bombing and air interdiction, but neither of these foci positively affected relations with the host population or the US Army. The failure of the USAF to ensure the RVN Air Force conducted humanitarian aid crippled the South Vietnamese government's ability to conduct aid operations and show its legitimacy to rural areas of the country. Furthermore, poor communication between the RVN Army and Air Force hindered cooperation between the US Army and Air Force regarding SFA. This poor communication resulted in the US Army pushing the RVN Army to seek its own air corps to conduct close air support sorties, which enraged the USAF, who took the issue to Secretary of Defense Robert S. McNamara.[117] From Vietnam to Afghanistan, the USAF has undoubtedly increased its capacity to both conduct foreign SFA and operate within a joint construct.

In sum, the United States military has a history of providing aviation-SFA. However, these efforts have not been entirely successful; a framework based on theory, education, and doctrine would contribute to aviation-SFA effectiveness. The USAF's ability to conduct aviation-SFA was hindered early on due to the view that every air force should look like the USAF. This mantra became incongruent as the USAF embraced the jet age while also advising air forces waging proxy wars in small, underdeveloped nations. Partially due to the difficulties caused by trying to create a mirror image RVN air force in Vietnam, the USAF developed new techniques for SFA in Afghanistan. The USAF increased its efforts to educate, rather than train, new Afghan Air Force Officers, while still failing to impress upon the Afghanis the need for a coherent theory for the national use of airpower. However, in Afghanistan, the USAF more successfully assessed the type of war the host nation would likely be involved in and helped them procure equipment that would be most effective in that environment. Finally, while the USAF recognized the need to conduct population-based operations such as humanitarian aid and disaster relief, both the USAF and the US Army have failed to integrate a joint SFA effort, able to advise on the conduct of

[117] Corum and Johnson, *Airpower in Small Wars*, 253.

genuinely seamless operations. This lack of joint integration between the US Army and the USAF likely leads to a disjointed SFA effort resulting in both overlapping and missing services.

Recommendations

This paper makes three recommendations which would improve the quality of aviation-based SFA provided to West African allies. First, it argues that the current IMET initiative is insufficient in providing education to partner nation officers due to its limited capacity. Therefore, the United States should focus on developing host nation airpower education facilities. Due to the inherent joint air/ground nature of small wars and counterinsurgency operations West African nations have traditionally fought, the US military should seek to work within this joint framework by expanding the US Army's current SFAB concept into a joint unit by including the USAF units in its organic structure. Finally, this monograph argues that a whole of government approach must be used to ensure host nations can acquire the equipment required to execute newly established host nation theory and doctrine.

During SFA operations, the US military should pay particular attention to the education of junior field grade officers, in order to inculcate the ability to not only perform tactically but also to think critically about the future of airpower in their home country. The US military can do this by establishing national air staff colleges, or air education centers attached to army staff colleges. The United States can provide educators from the United States Air Education and Training Command to oversee curriculum development to ensure the focus remains operationally and strategically based, without devolving to solely teaching tactics. Developing host nation education centers will lead to the provision of perpetual airpower education, which will allow other country's air forces to continue to thrive despite potential breaks in United States advisor presence. Educated officers will not only be able to operate with a continued United States advisor presence in the country but will also be able to operate and grow once the United States advisors leave.

Detractors can make two arguments against establishing a national or regional staff college in West Africa: the first is that the US military already conducts international military education and training (IMET) by inviting many of these countries to send officers to Air Command and Staff College and Army Aviation Captain's Career Course. During the 2016-17 academic year, Air Command and Staff College hosted roughly seventy-three international students from sixty-eight countries only seven or eight of these students were from Sub-Saharan Africa.[118] The first retort to this critique involves the curriculum taught to these students; airpower was taught from a wholly American standpoint, focusing on the development of a strategic air force, intercontinental ballistic missiles, space power, and cyber capabilities.[119] The second retort to this critique is the inability of seven officers to have a profound effect on a region consisting of sixteen different countries.

Additionally, those in disagreement may argue that the United States should maintain a continual advisor presence in these countries, which would negate the need for standalone host nation airpower education institutes. This argument fails to account for the waxing and waning of United States support after significant events. Following the events in Niger discussed in the introduction of this paper, several United States senators began to discuss the possibility of altering or ending the 2001 Authorization for the Use of Military Force Act.[120] The Executive Branch has used this act to commit forces in advise and assist roles throughout the world, and its alteration or end would result in changes to the US military's ability to conduct SFA. Therefore, United States education assistance to other countries is not assured. By developing host nation

[118] The author of the paper attended Air Command and Staff College during AY 16-17. The class created a yearbook which was used to conduct a count of foreign and African students during the class year. Therefore, the exact numbers may vary by one or two due to miscounts by the author.

[119] "Airpower 1: Genesis of Airpower AY 17 Course Syllabus" (Air Command and Staff College, Maxwell AFB, Montgomery AL, July 15, 2016); "Airpower 2: Korea to GWOT AY 17 Course Syllabus" (Air Command and Staff College, Maxwell AFB, Montgomery AL, September 15, 2016).

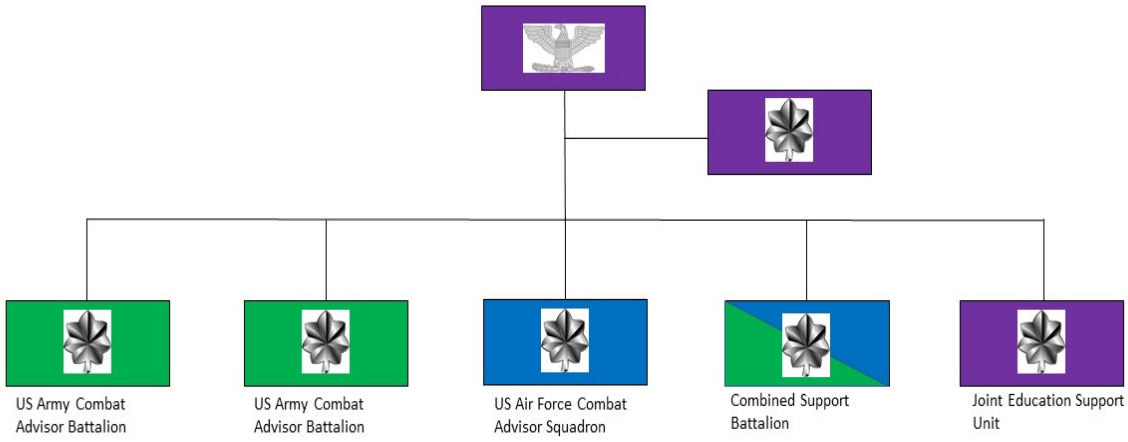
[120] Elana Schor and Connor O'brien, "McCain Calls for War Powers Debate After Niger Attack," *POLITICO*, last modified October 23, 2017, accessed January 7, 2018, https://www.politico.com/story/2017/10/23/mccain-war-powers-niger-attack-244085.

education facilities, this potentially inconstant support will not hinder the development of a coherent theory and a coherent national doctrine tailored to the needs of the host nation. Establishing such educational facilities can be most efficiently done through a joint approach from the US Army and Air Force.

This jointness is not limited to education alone. The United States must fundamentally change the way it conducts SFA to match the inherently joint operations required in the small wars currently being waged in West Africa. In such conflicts, the airpower focus is typically on supporting efforts on the ground and rarely requires an air-to-air component, making close air support the primary mission of local air forces. Close air support is an inherently joint operation conducted between attack pilots in the air and ground forces located below. The United States military will need to reframe its view of aviation-SFA from one that can be provided by the individual services to one that requires an inherently joint force, operating with an inherently joint host nation force. In such conflicts, joint units will likely become a necessity to achieve the desired effects, and SFA units are no different. The US Army is currently the only service to stand up a brigade-size element dedicated to SFA, providing a framework the US military can rapidly expand upon. Under the current construct, SFA is conducted and managed by each service.[121] However, the joint force can use the Army's SFAB framework as a reference point from which to build a joint security force assistance brigades (JSFAB). The proposed JSFAB is an expandable model under which services could permanently merge smaller combined units into a joint brigade size element. It would consist of several ground combat advisor battalions, a single air advisor squadron, a combined support battalion, and a joint education support unit able to

[121] US Department of the Air Force, *Air Force Instruction (AFI) 10-4201, Air Advising Operations* (Washington, DC: Government Printing Office, 2015), accessed August 30, 2017, http://static.e-publishing.af.mil/production/1/af_a3/publication/afi10-4201v3/afi10-4201v3.pdf; US Department of the Air Force, *Air Force Tactics Techniques and Procedures (AFTTP) 3-2.76, Multi-Service Tactics, Techniques, and Procedures for Advising Foreign Security Forces* (Washington, DC: Government Printing Office, 2014); US Department of the Army, *Army Techniques Publication (ATP) 3-05.2, Foreign Internal Defense* (Washington, DC: Government Printing Office, 2015).

assist in theory development and the establishment of national or regional staff colleges geared toward officer professional military education. Figure 1 provides an example of how a JSFAB could be organized.



* The Brigade may be commanded by a Colonel from either the US Army or the US Air Force, while the deputy commander should be selected from the other branch

* The Combined Support Battalion can be commanded by either service and will consist of company/flight size units able to support both the ground and air advisor battalions

*The Joint Education Support Unit should consist of civilian and military instructors from US Army Training and Doctrine Command/ USAF Air Education and Training Command best able to assist in theory development

Figure 1. Joint Security Forces Assistance Brigade. Author.

In addition to ensuring a viable long-term education solution provided through jointly integrated operations, the United States will need to work through DSCA and Department of State to create a FMS policy to support future execution of host nation doctrine. The United States must ensure that a partner nation can acquire the equipment needed to execute their doctrine. Currently, the most prominent type of warfare Western African nations conduct is that of small wars. Small prop-driven and rotary wing aircraft have proven adept at close air support, air interdiction, and transportation during counter-insurgency operations in multiple countries. As described above, the A-29 Super Tucano has been used in Afghanistan, Brazil, and the

Philippines.[122] Recently the country of Nigeria was approved to purchase multiple A-29 Super Tucanos from the United States for use in ground attack operations against rebel groups.[123] Ghana has made use of the C-27J Spartan for transportation and logistics support since DSCA approved the sale in 2009.[124] The USAF, in conjunction with DSCA, should expand this program and encourage other African countries to purchase these type of prop aircraft. Furthermore, the United States should ensure that the purchasing countries can maintain the aircraft, devoid of long-term contracts with defense contracting firms. The USAF must overcome not only its own bias toward jet aircraft but also the biases of other nations which perceive jets as a form of governmental legitimacy in the eyes of their neighboring states.

Many nations see jet aircraft as a hallmark of strategic air forces; however, this view is flawed because it frames a strategic air force as a necessity. Western Africa consists of nearly twenty countries that lack the resources to provide top-tier militaries able to defend against adversaries with much larger and more sophisticated militaries. The United States should enter partnerships with these countries, or expand current alliances, to allow the United States access and influence in return for a strategic air umbrella, not unlike the current nuclear umbrella provided to many ally countries. Under these types of agreements, the United States would provide aerial protection from invasion by larger state militaries, allowing the host nations' air corps to train and focus on the more likely small wars. As a country becomes more sophisticated and wealthy, it can take on more responsibility in strategic roles. The United States will benefit

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[122] "EMB-314 Super Tucano / ALX Trainer and Light Attack Aircraft"; Sisk, "A-29 Super Tucano Attack Aircraft See First Action in Afghanistan"; Chen Chuanren, "Philippines Chooses the Super Tucano," *Aviation International News*, last modified December 1, 2017, accessed March 29, 2018, https://www.ainonline.com/aviation-news/defense/2017-12-01/philippines-chooses-super-tucano.

[123] Valerie Insinna, "US Approves A-29 Super Tucano Sale to Nigeria," *Defense News*, last accessed August 3, https://www.defensenews.com/air/2017/08/03/us-approves-a-29-super-tucano-sale-to-nigeria/.

[124] *The Government of Ghana – C-27J Aircraft and Related Support*, News Release (Washington D.C: Defense Security Cooperation Agency, September 9, 2009), accessed August 8, 2017, http://www.dsca.mil/sites/default/files/mas/ghana_09-47_0.pdf.

from these partnerships through access to airspace and material support in the region, while simultaneously denying influence to other near-peer adversaries seeking influence.

These recommendations address the problems in theory, education, and equipment currently associated with aviation-based SFA. Beginning with improving. First, the US military can improve the officer education system of the United States' partner nations by empowering a joint US Army/USAF security forces assistance unit with the ability to establish a firm educational base while simultaneously working to improve tactical proficiency within partner nations. Second, the US military can encourage partner nations to use this educational base to develop a coherent airpower theory based upon their national needs, which can drive the development of doctrine and the economical procurement of airframes. Finally, the United States should work to change the way partner nations procure aircraft, from an ad hoc system of purchasing what is available to a well thought out system of purchasing what is most effective.

Conclusion

Western African countries provide many resources and valuable security partnerships to the United States. However, this paper argues that the United States needs to relook at the way it conducts aviation-SFA in the countries of West Africa. If the United States is unsuccessful in providing such SFA, or if it fails to fill this role, it risks losing influence and access in these countries. For the West African countries receiving aviation-SFA, such advising and equipping may mean the difference between successfully or unsuccessfully defeating rebel groups and promoting stability.

In order to be more effective at aviation-SFA, the US military should focus on providing assistance in the development of airpower theory and education which will complement the small wars facing West African nations, as well as procuring equipment that supports this type of conflict. An airpower theory-based education will ensure continued influence in the region, even if the United States should have to decrease its current level of advisors due to political issues at home or abroad.

The case studies on Vietnam and Afghanistan analyzed how the USAF conducted aviation-based SFA through the lens of education, equipment, and organization. In Vietnam, the USAF failed to educate the RVN Air Force in the execution of counterinsurgency tactics, choosing instead to do the mission for them. They also focused on creating a mirror image of the USAF, instead of working to convince the South Vietnamese government to purchase aircraft to fight the threat they were currently facing. Finally, the USAF recruited pilots based on bravado and daring instead of a willingness to teach, train, and work with the other services to achieve a real unity of effort in ensuring an effective RVN Air Force. In Afghanistan, the USAF used these lessons and refocused on education, initially by developing a theoretical curriculum and recruiting trainers that were willing to work with the host nation pilots. These initiatives have not fully developed, and the aviation-SFA mission has since regressed to more technical and tactical training. However, the USAF is incorporating joint training with the Afghan Army and continues to recruit volunteers who will focus on teaching and training.

Given the environment that West African states operate in, this paper proposes that current US military airpower assistance efforts to West African countries should focus on two things. First, it should provide West African states with aircraft capable of the small wars missions they will fly, survivable and maintainable in austere environments. More specifically, the aircraft capabilities required are: easy to maintain, provide long loiter times over target while carrying suitable armament, and able to airlift adequate cargo, supplies, and personnel for mission success. Further, this air force should be able to survive on the limited available infrastructure and still provide a quick response time in order to respond to calls for assistance and time-sensitive targeting requirements. Second, the US military should focus on developing its own SFA programs to enable airpower advising by incorporating both US Army and USAF capabilities, and by developing an operational and theoretical airpower education system for foreign military officers. In order to more effectively provide such education, the United States Military can relook and reorganize the way it conducts SFA by developing a JSFAB which is capable of

integrating all types of airpower, both fixed and rotary wing, attack, and transport, into its SFA mission. If the US Army and the USAF adopt these measures, their aviation-SFA efforts should become more effective, which will, in turn, provide benefits to both the United States and the nations it is assisting.

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