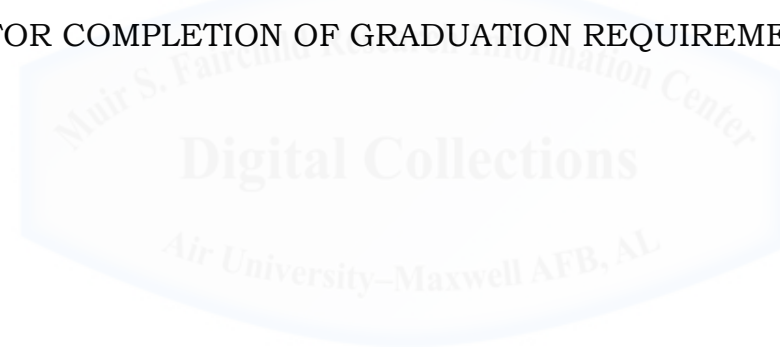


DESIGN AT THE EDGE OF THE WORLD:
THE BIRTH OF AMERICAN AIR INTELLIGENCE IN THE CHINA, BURMA,
INDIA, AND THE PACIFIC THEATERS DURING WORLD WAR II

BY
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DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.



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ABSTRACT

At the start of World War II, American air intelligence was immature and the organization and design of intelligence often differed significantly between each numbered Air Force, particularly in the China, Burma, India and Pacific theaters. This paper examines the leadership, resources and organization of air intelligence in Fifth, Tenth and Fourteenth Air Force. In each numbered Air Force, a confluence of factors reveals the development of principles for air intelligence which remains relevant to this day. The successes of Fifth and Fourteenth Air Force, and later Tenth Air Force correlate with an emphasis established by leaders, to establish a timely flow of intelligence, primarily through the integration of intelligence activities at the forward edge of air operations. By 1945, each of the three numbered Air Force developed effective methods for collecting and utilizing intelligence in support of air operations. The ingenuity and resourcefulness of key Airmen developed from meager beginnings, these organizations which overcame severe resource constraints to produce the intelligence to help defeat the Japanese. This study provides a historical analysis of the often-forgotten men and organizations who shaped air operations in the China, Burma, India and Pacific theaters. Further, it provides inspiration and lessons for leaders seeking to develop organizations which can thrive under resource constraints in unfamiliar or unanticipated circumstances.

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Introduction

The United States experience in the China, Burma, India (CBI) and the Pacific theater intersect with the story of air intelligence in the very first minutes of World War II. Japan's surprise attack on Pearl Harbor, Hawaii on 7 December 1941 was one of the largest intelligence failures in United States history. When reports of the attack on Pearl Harbor began to reach Clark Field the commander of Far East Air Forces Bomber Command, Lieutenant Colonel Eugene Eubank, began to prepare his force for retaliatory strikes against Takao Harbor in Formosa, a pre-designated target in the event of war. As Eubank began to prepare his force, he found the target folders in poor shape and lacking such basic information as approach routing, calibrated targets, and even aerial photographs of the target.¹

The commander of Far East Air Forces (FEAF), Major General Lewis H. Brereton, hours after learning of Pearl Harbor, shifted the targets from Takao Harbor to Japanese naval ships and transports, and ordered air reconnaissance of Japanese airfields.² The lack of intelligence on targets in Formosa made photoreconnaissance a necessary precursor to launching an attack.³ Brereton's plan was to launch the initial airstrikes against Formosa only after the reconnaissance mission returned and the photos were assessed for target data.⁴ Three B-17s were set to undertake the first US photo reconnaissance mission of World War II. However, the mission was delayed due to the absence of cameras on Clark Field.⁵ Even maps of Formosa were in short supply.⁶ The Far East Air Force diary records that at 10:14 AM, 8 December 1941, General Brereton received a call from General

¹ Walter D. Edmunds, *They Fought With What They Had* (1951, Lexington, KY: Uncommon Valor Reprint, 2017), 81.

² Edmunds, *They Fought With What They Had*, 81

³ D. Clayton James, *The Years of MacArthur Volume II, 1941-1945* (Boston MA: Houghton Mifflin Company, 1975), 7.

⁴ James, *The Years of MacArthur*, 8.

⁵ Edmunds, *They Fought With What They Had*, 86.

⁶ Edmunds, *They Fought With What They Had*, 83.

MacArthur ordering the withholding of bombing missions against Formosa until the photo reconnaissance mission returned or until later in the afternoon.⁷ Approximately two hours later Japanese attacks obliterated half of the FEAF B-17 force and left Clark Field with no flyable aircraft.⁸ Following the attacks, FEAF ordered reconnaissance missions against Formosa, but every mission failed to reach the target area due to maintenance issues.⁹ As the dust settled at Clark Field, those pilots who had lost aircraft were put to work, building maps of Formosa.¹⁰ The attacks of 8 December 1941 against US installations in the Philippines represent an intelligence failure for the United States Army Air Forces (USAAF). With meager resources, air intelligence in the CBI and Pacific theaters would need to improve from the most catastrophic of starts to defeat a formidable enemy.

At the start of 1942, Japanese forces stretched to Burma and across the Pacific. The United States organized in the CBI and Pacific Theaters three numbered Air Forces, the Fifth, Tenth and Thirteenth, and created a fourth in 1943, the Fourteenth. Each numbered Air Force faced daunting intelligence challenges and organized its limited capabilities in different manners. From the catastrophic beginnings of December 1941, the Army Air Forces in the CBI and the Pacific developed some of the most successful, as well as the most disappointing, intelligence operations in World War II. The limited resources available to the CBI and Pacific theater Air Forces created a need to innovate that was absent in the resource-rich European Theater. How successfully each Air Force organized its intelligence operations largely determined the Air Force's success. The intelligence experience in the CBI and Pacific theater is the story of a collection of missionaries, architects, lawyers and oilmen who overcame limited resources and experience to

⁷ Edmunds, *They Fought With What They Had*, 87.

⁸ Edmunds, *They Fought With What They Had*, 108.

⁹ Edmunds, *They Fought With What They Had*, 88.

¹⁰ Edmunds, *They Fought With What They Had*, 90.

create a new American way of air intelligence. Many of today's Air Force intelligence organizational design and processes are rooted in the World War II lessons of Fifth, Tenth, and Fourteenth Air Force. As the United States now pivots back to the Pacific, the lessons developed over 70 years ago are more relevant than ever.



Chapter 1

Building Air Intelligence

When General Hap Arnold became Chief of the Air Corps in 1938, he assessed intelligence the weakest element of the entire Corps.¹ The ability to produce intelligence on adversary air forces for Airmen was practically non-existent. Despite roots in observation and intelligence during World War I, the Air Corps failed to grow a dedicated air intelligence capability following 1918. It would not be until 1939 that the Air Corps even developed intelligence requirements to support air operations.² The official A-2 function on the Air Staff, charged with the assessment and dissemination of intelligence, was not formed until five months before Pearl Harbor.³ Unlike strategic bombing or fighter operations, air intelligence was not theorized and developed during the interwar period. Instead, air intelligence, particularly in the Pacific, was largely forged in the crucible of World War II.

The organization of a professional intelligence force in the field was absent in the CBI and Pacific theaters before World War II. At the start of the war, not a single dedicated Army Air Forces intelligence officer existed in any organization.⁴ Intelligence was an additional duty typically assigned to grounded aircrew.⁵ In the absence of clear direction or experience, each numbered Air Force in World War II developed its intelligence operations differently.⁶ Within the European theater, British mentorship influenced intelligence organization and procedures. In the CBI and the Pacific, British influence was present via contact with the Royal Air Force and Royal

¹ Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces in World War II, vol. 6, Men and Planes* (1949, new imprint, Washington DC: Office of Air Force History, 1983), 480. [Six volume in the series]

² John F. Kreis, ed., *Piercing the Fog* (Washington DC: Air Force History and Museums Program, 1996), 1.

³ Craven and Cate, *Men & Planes*, 481.

⁴ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944, Call #730.601-2, IRIS #01015633, USAF Collection, AFHRA, Maxwell AFB, AL.

⁵ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁶ Kreis, *Piercing the Fog*, 112.

Australian Air Force, but it was significantly less pronounced than in Europe. As a result, the task of organizing an intelligence capability evolved as primarily an American effort, influenced by the leaders, geography and resources within each numbered Air Force.

Leadership

The organization of operational and tactical air intelligence in World War II was largely determined by each individual numbered Air Force. Consequently, the preference of the commander significantly influenced how air intelligence activities were prioritized and conducted. The late professionalization of air intelligence as a separate career field in the Air Forces meant key leaders in each of the numbered Air Force's possessed experience as reconnaissance pilots or previously served in intelligence positions. This experience meant several commanders entered World War II with existing theories regarding the relationship of intelligence to air operations. Combined with the existence of only limited air intelligence doctrine, the perspective of the numbered Air Force commander played an outsized role in the organization of intelligence within each numbered Air Force. The expectations and guidance of the numbered Air Force commander was the starting point for intelligence leadership, whose job it was to build the organization and processes in each numbered Air Force.

The formal leader of intelligence activities in each numbered Air Force was the A-2. Within Washington DC the Assistant Chief of Air Staff, Intelligence, or A-2 officially, oversaw intelligence operations in the field.⁷ However, the Air Force A-2 had no direct control over units and possessed only limited train and equip responsibilities. The A-2's primary responsibilities included training intelligence personnel and providing area studies and target maps.⁸ The Air Force A-2's most important impact was the allocation and creation of "Harrisburg men." The term "Harrisburg man"

⁷ Kreis, *Piercing the Fog*, 4.

⁸ Kreis, *Piercing the Fog*, 4.

meant the intelligence officer had received formal air intelligence training from the Intelligence School located in Harrisburg Pennsylvania.⁹

Throughout the conflict, the number and assignment of Harrisburg men became the primary connection between the Air Force A-2 and the numbered Air Force A-2s.

Operational leadership of intelligence started with the numbered Air Force A-2. The roles, responsibilities, and authority of the A-2 varied with each command.¹⁰ The organization and intelligence processes of one numbered Air Force often were completely different from another numbered Air Force. The primary determinate of A-2 responsibilities was the trust that senior leaders had in their A-2, and this differed significantly between each numbered Air Force.¹¹ The rank of a numbered Air Force A-2 ranged from captain to colonel. However, once operations began to normalize in late 1943 and early 1944, most A-2s were of the rank lieutenant colonel or colonel, although the importance of the position continued to vary between the numbered Air Forces. Throughout the war, the relationship between the numbered Air Force commander and his A-2 was a critical predictor of the organization and effectiveness of air intelligence.

People

The US Army Air Forces' official criteria for selecting men for intelligence assignments, based on the Royal Air Force model, sought professional middle aged men.¹² However, the relative youth of aircrews later created an unofficial general rule that intelligence officers of a young age with previous experience working with large groups of people were most likely to succeed.¹³ In the CBI and the Pacific, this general finding seemed to apply. Many of the most successful officers were young businessmen and

⁹ Headquarters Army Air Forces, Intelligence Requirements of Tenth and Fourteenth Air Forces, 24 May 1943, Call #142.0411-8, IRIS #00115241, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁰ Kreis, *Piercing the Fog*, 4.

¹¹ Kreis, *Piercing the Fog*, 2.

¹² Craven and Cate, *Men & Planes*, 688.

¹³ Craven and Cate, *Men & Planes*, 688.

missionaries, although notable exceptions to the rule existed. The CBI and Pacific theaters particularly placed an unusually eclectic group of men in prominent intelligence leadership positions. A desperate need for intelligence officers meant lieutenants and captains were immediately important to the success of air intelligence operations.

Most of the officers who comprised the intelligence staffs of the numbered Air Forces had no formal intelligence training. The Air Intelligence school did not even begin to train officers until January 1942.¹⁴ As late as the summer of 1943 A-2 staffs were still receiving officers with no formal intelligence training. Sending intelligence “veterans” from the field to teach at the Air Intelligence School in Pennsylvania became a way for A-2s to provide rest for the force and produce more Harrisburg men with the hopes of growing intelligence capabilities within their command.¹⁵ Despite this effort, the impact of formal training remained limited in CBI and the Pacific. Most training was on the job, refined through the challenge of war. There existed no magic formula for creating effective intelligence officers, and like most things involving air intelligence the answer depended on the importance leadership placed on success and resources available.

Intelligence Resources

The sources of information available to build air intelligence were as varied as the commands. Throughout the war, photo reconnaissance was the backbone for intelligence activity. The quality of target folders and maps which supported combat operations relied extensively on imagery of the target and surrounding area. Although each numbered Air Force possessed organic photo reconnaissance capabilities, no dedicated photo reconnaissance aircraft existed in the USAAF.¹⁶ Dedicated photo reconnaissance units did not even exist until early 1942, and it was over a

¹⁴ Craven and Cate, *Men & Planes*, 687.

¹⁵ Assistant Chief of Air Staff, Intelligence, Intelligence Requirements of 10 and 14 Air Forces, 24 May 1943

¹⁶ Craven and Cate, *Men & Planes*, 221.

year later, in the fall of 1942 that the first reconnaissance groups reached the theater.¹⁷ The significant distances required to cover the Asian continent and the Pacific Ocean required the use of converted bombers and fighters to conduct photo reconnaissance missions.¹⁸ The practice in the CBI and the Pacific contrasted with the European theater, which primarily utilized fighter aircraft for most photo reconnaissance missions.

The resources required to conduct photo reconnaissance included more than aircraft. Once a photo reconnaissance mission was complete, the film was processed by a photo lab and then interpreted for intelligence value. Photo interpretation typically occurred in three stages. The first two stages of analysis occurred at the operating base of the flying unit which took the image.¹⁹ Third phase analysis often occurred near the headquarters and focused on strategic level analysis.²⁰ Central Interpretation Units (CIU) typically conducted third phase interpretation. Designed on the British model, CIUs centralized the processing of photos to maximize the use of the limited number of photo-interpreters.²¹ A centralized process also established straightforward procedures for cross referencing new images with old images and enhancing the level of analysis.²² Within the Pacific, the debate on where to accomplish each stage of photo interpretation became a significant organizational decision. The significant geographic distances in each theater often meant distributing photo interpretation operations resulted in delayed intelligence reporting. Particularly as operations became dispersed, the limited number of photo interpretation resources meant critical decisions needed to be made with regard to the location of photo interpretation. The availability and importance of photo reconnaissance

¹⁷ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944; Kreis, *Piercing the Fog*, 81; Maurer Maurer, ed., *Air Force Combat Units of World War II* (Washington DC: Office of Air Force History, 1983), 42, 138.

¹⁸ Kreis, *Piercing the Fog*, 82.

¹⁹ Kreis, *Piercing the Fog*, 84-85.

²⁰ Kreis, *Piercing the Fog*, 85.

²¹ Kreis, *Piercing the Fog*, 85.

²² Kreis, *Piercing the Fog*, 85.

made decisions regarding its operation one of the first organizational intelligence challenges to confront each numbered Air Force.

A second intelligence resource for numbered Air Forces was the intercept of enemy communications. Signals Intelligence (SIGINT) describes the intelligence produced by intercepting adversary communication.²³ Army Air Forces in the Pacific developed only limited SIGINT capabilities. Referred to as radio intelligence, the intercept of unencrypted communications was primarily used to tip the potential movement of enemy aircraft and supplement rudimentary early warning radars.²⁴ ²⁵ Throughout most of the war SIGINT in the Pacific was produced by external agencies, most notably the Navy and Army.²⁶ The most critical source of SIGINT was the intercept of encrypted Japanese communications referred to by the codename ULTRA.²⁷ ULTRA intelligence informed the decision to launch some of the most successful air operations in the Pacific theater. While the production of SIGINT was never a strength of air intelligence, the ability to successfully use SIGINT in operations highlighted the speed and flexibility of air power during the war.

The third intelligence resource used by numbered Air Forces was the oldest form of collection, human intelligence (HUMINT). In the CBI and Pacific theater, HUMINT was an integral part of air intelligence. HUMINT encompasses any information derived from human sources.²⁸ The numbered Air Forces in the CBI and Pacific Theaters remained starved for information throughout most of the war, and anyone with access or information in the region was instantly a potentially valuable intelligence

²³ Joint Chiefs of Staff, *Joint Publication 2-0, Joint Intelligence*, 22 October 2013, B-5, http://www.dtic.mil/doctrine/new_pubs/jp2_0.pdf.

²⁴ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

²⁵ Edward J. Drea, *MacArthur's ULTRA: Codebreaking and the War against Japan, 1942-1945* (Lawrence, KA: University Press of Kansas, 1992), 14.

²⁶ Drea, *MacArthur's ULTRA*, 14.

²⁷ Drea, *MacArthur's ULTRA*, xi.

²⁸ Joint Chiefs of Staff, *Joint Publication 2-0, Joint Intelligence*, 22 October 2013, B-4.

source. Visual observers, businessmen, prisoner of war interrogations and dedicated spies all integrated into Air Force operations.

The Fifth, Tenth, and Fourteenth Air Forces each developed a different mix and resource preference. The availability of a particular intelligence resource shaped intelligence organization and processes. However, never did the type of intelligence resource available exert more influence than did the leadership within a numbered Air Force. In some cases, leadership dictated and even prevented the development of additional intelligence collection capability. Understanding the resources available to a numbered Air Force is only an indicator of potential. How resources were organized and integrated with the operations of a numbered Air Force determined reality.

Summary

Air intelligence entered World War II with no practical doctrine or design for air intelligence. The combination of geography, leadership, and resources resulted in three distinct air intelligence organizations in the CBI and Pacific Theaters. In each case, the organizational design of air intelligence articulated in structure and processes significantly influenced the effectiveness of the numbered Air Force. This paper examines the leaders, resources, structure and processes of the three numbered Air Forces led by Airmen in the CBI and Pacific Theater. Examination of each Air Force reveals an important heritage and lessons, some forgotten, which continue to influence the Air Force of today.

Chapter 2

Tenth Air Force

The Americans never had a good idea of what a G-2 is made for – to get information

– Major General Howard C. Davidson
Tenth Air Force Commander

The CBI Theater was one of the most resource constrained and poorly designed theaters in all of World War II. At the start of 1942, General Joseph “Vinegar Joe” Stilwell was selected to lead and unite the Allied effort against Japan on mainland Asia and keep open the Burma road which ran from Rangoon, Burma to Chungking, China.¹² The task proved daunting for the 58-year-old commander. Throughout the war, the CBI theater was a political morass of different motives and objectives between the United States, British, Chinese officials.³ The outsized personality of Chinese Nationalist Leader, General Chiang Kai-Shek, combined with British motives to preserve colonial interests, often challenged Stilwell’s efforts throughout the war to develop a united theater-wide effort against Japan.

Tenth Air Force and its intelligence organization reflected many of the challenges Stilwell faced at the theater level. Limited resources combined with the challenging and expansive natural environment of the CBI tested air operations. On an organizational level, external coordination issues made achieving any unit of effort difficult.⁴ Internally, leadership struggles and confusing organizational design led to inefficient operations throughout Tenth Air Force. The intelligence officers in Tenth Air Force struggled to overcome the multitude of challenges to support air operations effectively.

¹ Joseph Stilwell, *The Stilwell Papers*, ed. Theodore H. White (New York: Schocken Books, 1972), 26.

² Charles F. Romanus and Riley Sunderland, *United States Army in World War II, China-Burma-India Theater, Stilwell’s Mission to China* (1953, new imprint, Washington DC: Center of Military History United States Army, 1987), 74.

³ Romanus and Sunderland, *Stilwell’s Mission to China*, 74.

⁴ John F. Kreis, ed., *Piercing the Fog* (Washington DC: Air Force History and Museums Program, 1996), 307.

Changes in leadership and organization structure left Tenth Air Force Intelligence in a constant state of transition from a headquarters focused, centralized control design to a focus on delivering intelligence rapidly to support dynamic air operations.

Leadership

An omen of the chaos which plagued Tenth Air Force throughout its early existence confronted Stilwell before he even set foot in Asia. Claire Chennault and Clayton Bissell were in disagreement over who would be Stilwell's Airman. General George C. Marshall had promised Chiang that Chennault would remain his lead Airman.⁵ However, Arnold and Stilwell both sought someone other the leader of the American Volunteer Group (AVG) to lead Tenth Air Force operations. The disagreement was about more than command. In his memoirs, Chennault expressed that he held Bissell in poor regard as early as 1931, when Chennault was a student at the Air Corps Tactical School.⁶ Chennault viewed Bissell as tactically inept and feared Bissell's concepts for air war would discount and ignore the utility of fighter aircraft in combat, the very strength of the AVG.⁷ Accordingly, Chennault recommended Major General Millard Harmon or Colonel Larry Hickey to lead Tenth Air Force if it was not to be Chennault himself.⁸ Instead, Arnold chose and Stilwell endorsed the decision to assign Brigadier General Clayton Bissell to lead Tenth Air Force.⁹ ¹⁰The air war in CBI would start with leadership problems that continued through a majority of Tenth Air Force's wartime history.

Clayton Bissell arrived at Tenth Air Force with the credentials of a World War I ace and instructor at the Air Corps Tactical School.¹¹

⁵ Stilwell, *Stilwell Papers*, 37.

⁶ Claire Lee Chennault, *Way of a Fighter: The Memoirs of Claire Lee Chennault*, ed. Robert Hotz (New York, G.P. Putnam's Sons, 1949), 20.

⁷ Chennault, *Way of a Fighter*, 170-171.

⁸ Chennault, *Way of a Fighter*, 170-171.

⁹ Stilwell, *Stilwell Papers*, 37.

¹⁰ Chennault, *Way of a Fighter*, 171.

¹¹ Chennault, *Way of a Fighter*, 20.

Immediately, he faced internal organization problems. One month into the job, the Army Air Forces Inspector General released a report criticizing the state of Tenth Air Force morale, personnel management, and transportation.¹² Bissell responded to Arnold about the challenges by citing his recent arrival and requests for more material and manning.¹³ The challenges which confronted Bissell in his first few months of command illustrated first that the internal problems in Tenth Air Force would be possibly as daunting as the external Japanese threat. Second, it illustrated Bissell's inclination to offer excuses and seek resources over innovations as solutions to Tenth Air Force's problems. Both challenges influenced the shape air intelligence took in the CBI.

Bissell shaped the early nature and disposition of intelligence operations in Tenth Air Force. During his tenure, intelligence operations focused on actions to support planning at the headquarters level. Bissell's approach to intelligence was not that of the typical commander who always craved more information. Instead, he often rejected proposals by the A-2 to expand collection operations, commenting on one request with the handwritten response "A-2, not your job."¹⁴ For unknown reasons, Bissell placed restrictions on the expansion of Tenth Air Force's technical intelligence capability and information sharing with the Royal Air Force (RAF).¹⁵ Yet, at the same time he was restricting capability and access, Bissell was receiving letters from British intelligence regarding significant requests from Chennault for intelligence support.¹⁶ Bissell's seemingly low faith in intelligence oriented the Tenth Air Force A-2 to focus on basic headquarters functions at the cost of expanding collection capability or

¹² Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces in World War II, vol. 4, The Pacific: Guadalcanal to Saipan August 1942 to July 1944* (1949, new imprint, Washington DC: Office of Air Force History, 1983), 418. [Six volume in the series]

¹³ Craven and Cate, *The Pacific: Guadalcanal to Saipan*, 418.

¹⁴ Tenth Air Force, Memorandum from Wright to Bissell on Enemy Blockade Running, 20 Feb 1943, Call# 830.605, IRIS# 00267416, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁵ Kreis, *Piercing the Fog*, 301.

¹⁶ Tenth Air Force, Letter from Jack Baldwin to Maj Gen Clayton Bissell, 10 May 1943, Call# 830.289-1 V.1, IRIS# 00267300, USAF Collection, AFHRA, Maxwell AFB AL.

developing methods to better support operations at the task force or group level.¹⁷ The Tenth Air Force Headquarters A-2 section daily logs reflect activities labeled routine matters, censoring news reports, calling for intelligence updates from British sources, and updating the situation map.¹⁸

The friction between Bissell and Chennault ultimately led to Bissell's replacement and the reorganization of air operations in CBI.¹⁹ In little over a year after its creation, Tenth Air Force had a new commander, a new command structure, and a refined area of responsibility. Brigadier General Howard Davidson assumed command of Tenth Air Force on 19 August 1943 and reported to Lieutenant General George Stratemyer, the new commander of United States Army Air Forces, India-Burma Sector, China-Burma-India.²⁰ The personable and driven Davidson was a stark change from Bissell. One of Davidson's first actions as Tenth Air Force commander was to move his headquarters forward from New Delhi to Calcutta.²¹ In an interview nearly 30 years after the war, Davidson recounted how he thought Bissell was comfortable in the distant headquarters and unmotivated to get into the fight, stating his predecessor was "running it about like the British, to stay out of the war."²² On Bissell's choice to place the headquarters in New Delhi, Davidson provided his impression that "Bissell loved it because he had a wonderful room, a war room, and we even got Lord Wavell over there to watch the war room. I don't think he (Bissell) was interested in going any further forward."²³

But Davidson sought to get Tenth Air Force in the fight. The creation of Fourteenth Air Force to focus on China in March 1943 provided the Tenth Air Force commander the opportunity to concentrate on the manageable

¹⁷ Tenth Air Force, Tenth Air Force Activity Summary G-2, 16 March -28 Jun 1942, Call# 830.6041, IRIS# 00267404, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁸ Tenth Air Force, Tenth Air Force Activity Summary G-2, 16 March -28 Jun 1942.

¹⁹ *Tenth Air Force History 1943*, 17 July 1946, AAFRH-17, 20, 23.

²⁰ Craven and Cate, *The Pacific: Guadalcanal to Saipan*, 451.

²¹ Oral History Interview of Major General Howard C. Davidson, by Hugh Ahmann and Tom Sturm, 5-8 December 1974, typed transcript, p. 527, 539. Office of Air Force History.

²² Oral History Interview of Major General Howard C. Davidson, 539.

²³ Oral History Interview of Major General Howard C. Davidson, 539.

task of evicting the Japanese from Burma.²⁴ Davidson's personal fire engaged Tenth Air Force into gear and created a new emphasis on accurate and timely air intelligence.

As a commander, Davidson valued the importance of intelligence in operations. However, he never relied on or valued the intelligence capability within his command. Even years after the war, Davidson remained critical of air intelligence operations in Tenth Air Force. In his oral history conducted in 1974, Davidson recounted his efforts to get RAF officers assigned to his headquarters when it moved to Burma. His motive for retaining British officers on his staff was because his American intelligence staff failed to meet Davidson's number one requirement, 'to get information.'²⁵ The lack of information feeding Davidson's command most likely stemmed from the combination of limited resources and the operating restrictions previously instituted by Bissell. Whatever the reason, the lack of information drove Davidson to be a commander who largely out-sourced his intelligence requirements.

Davidson sourced intelligence primarily from the British and the newly formed Office of Strategic Services (OSS). Davidson personally believed the British officers who worked within the combined command were markedly better than his American staff at getting information.²⁶ Undoubtedly, they were, given that the British had established intelligence services in India and Burma decades before the war. Davidson's access to British intelligence mostly ended when his headquarters moved to Burma in late 1943. Even after being separated from British sources, Davidson did not turn to Tenth Air Force Intelligence. Instead, he developed a reliance on a new external organization, Detachment 101 of the OSS. A forerunner to the CIA, Detachment 101 of the OSS performed operations similar to the

²⁴ Craven and Cate, *The Pacific: Guadalcanal to Saipan*, 440.

²⁵ Oral History Interview of Major General Howard C. Davidson, 551.

²⁶ Oral History Interview of Major General Howard C. Davidson, 551.

missions of special forces today, including the collection of intelligence.²⁷ Detachment 101 did support Tenth Air Force operations during Bissell's tenure, but under Davidson's leadership the cooperative relationship grew to the point that by 1944 nearly 80% of Tenth Air Force's intelligence was based on Detachment 101 reports.²⁸ Davidson's relationship with Detachment 101 was so strong that he later was named an honorary member of the Detachment veteran's organization.²⁹

Internal to Tenth Air Force, the information source Davidson valued the most were reports from Air Force officers he embedded with ground units.³⁰ The scheme of operations Davidson formulated most closely resembled what is today described as on-call Close Air Support (CAS). By 1944 Davidson had 15-20 aircraft on call, each equipped with reference photographs and prepared to strike within 5 minutes targets called in from ground forces in the field.³¹ Particularly compared to Bissell, Davidson was an intelligence-minded commander. The challenge for the Tenth Air Force A-2 was that Davidson most valued intelligence produced outside of Tenth Air Force.

The combination of limited resources, Bissell's reluctance to expand intelligence operations, and Davidson's reliance on outside intelligence sources limited the role of Tenth Air Force Intelligence throughout the war. The Tenth Air Force A-2 during most of World War II was Colonel H.B. Wright. Wright served Bissell in what was likely a limited role. Review of Wright's daily activities reveals the A-2 typically worked less than ten hours a day, closing his office by 1700.³² His morning generally started off with an hour dedicated to routine checks of incoming intelligence followed by staff

²⁷ Troy J. Sacquety, *The OSS in Burma: Jungle War against the Japanese* (Lawrence, KS: University Press of Kansas, 2013), 1-4.

²⁸ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. in Relation to Air Force Action in North Burma, 11 Sept 1944, Call #830.601-1 IRIS #00267399, USAF Collection, AFHRA, Maxwell AFB AL.

²⁹ Oral History Interview of Major General Howard C. Davidson, 545.

³⁰ Oral History Interview of Major General Howard C. Davidson, 368.

³¹ Oral History Interview of Major General Howard C. Davidson, 367-368.

³² Tenth Air Force, Tenth Air Force Activity Summary G-2, 16 March - 28 Jun 1942.

meetings with various officers in the Tenth Air Force, New Delhi headquarters.³³ Wright's deputy, Captain Harold L. Lewis, worked similar hours and focused on updating the Tenth Air Force War Room each morning.³⁴ Wright's energies and activities focused on gathering intelligence from external agencies at the cost of creating capability within Tenth Air Force. Wright's focus on external intelligence is likely the pragmatic response to the limited resources available and the constraints Bissell placed upon Wright the few times the A-2 attempted to create new sources of intelligence collection.

Wright's leadership matched most of Tenth Air Force. With limited resources and internal and external challenges, intelligence operations met standards. A War Department inspection of the Tenth Air Force A-2 in May 1943 noted the section as "well set up" with a "good photographic laboratory" which permitted "satisfactory" results from aerial reconnaissance.³⁵ Wright worked with what he had, but no more. When the War Department sent only objective folders for Japan, Wright remained complimentary and stated he had nothing to criticize about their quality even though his aircrew had no prospects of striking Japan for another two years.³⁶ By 1943 he was reluctant to lobby for even a regular courier service to speed the one-month timeline in receiving intelligence from the United States.³⁷ Instead of driving for innovation or clamoring for new resources, Wright established Tenth Air Force Intelligence as an

³³ Tenth Air Force, Tenth Air Force Activity Summary G-2, 16 March -28 Jun 1942.

³⁴ Tenth Air Force, Tenth Air Force Activity Summary G-2, 16 March -28 Jun 1942.

³⁵ Headquarters Army Air Forces, Memorandum to Brigadier General E.P. Sorenson from Major Joseph McGee, Observations of my Mission to the Tenth and Fourteenth Air Force Headquarters, 24 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

³⁶ Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Tenth and Fourteenth Air Forces, 21 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

³⁷ Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Tenth and Fourteenth Air Forces, 21 May 1943.

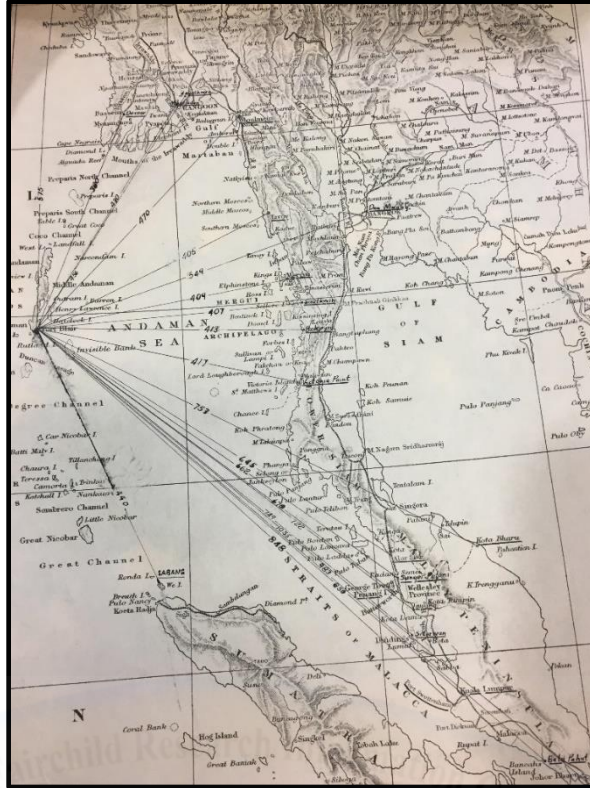
organization which would happily work within the narrow confines of the easily possible.

One of the few bright spots of Wright's leadership was his ability to synthesize intelligence from external agencies to develop operational assessments to support Tenth Air Force's meager strategic bombing campaign. Wright's correspondence with Bissell regarding the plan to capture an airfield on the Andaman Islands in the spring of 1943 reflects his emphasis on analysis over intelligence collection. Codenamed "Andy", the plan to capture the airfield was designed to place key Japanese occupied cities and shipping lanes within reach of Tenth Air Force B-24s.³⁸ Most of the facts about the airfield and islands Wright used came from the British Joint Planning Division.³⁹ Wright's analysis and recommendations are the only information that goes beyond what he acquired from British intelligence.⁴⁰ Andy reflects Wright's use of intelligence collection by other sources to produce analysis his commanders could use to make decisions.

³⁸ Tenth Air Force, Memorandum to Brigadier General Bissell on Retaking of Port Blair, Andaman Islands, 25 February 1943, Call# 830.322-1, IRIS# 00916103, USAF Collection, AFHRA, Maxwell AFB AL.

³⁹ Tenth Air Force, Memorandum to Brigadier General Bissell on Additional Information on the Project to Retake Port Blair, Andaman Islands, 14 March 1943, Call# 830.322-1, IRIS# 00916103, USAF Collection, AFHRA, Maxwell AFB AL.

⁴⁰ Tenth Air Force, Memorandum to Brigadier General Bissell on Additional Information on the Project to Retake Port Blair, Andaman Islands, 14 March 1943



Picture 1: Tenth Air Force A-2 Project ANDY Planning Document

Source: Tenth Air Force, Memorandum to Brigadier General Bissell on Additional Information on the Project to Retake Port Blair, Andaman Islands, 14 March 1943.

Davidson's emphasis on acquiring, instead of assessing, information likely spelled the end of Wright's tenure. By 1944 Wright was replaced by Colonel Marvin L. Harding as the Tenth Air Force A-2.⁴¹ The correspondence of Harding's deputy, James F. Pinkney, reveals the shift in mindset which accompanied Davidson's arrival. A 1944 memo from Pinkney to Tenth Air Force intelligence officers assigned to the A-2 and Bomber Groups emphasized the basics of effective reporting and timely dissemination of information to combat units. In a break from headquarters-centric policies early in the war, Pinkney's memorandum explicitly established a policy of assigning the "most capable unit" to accomplish key Tenth Air Force

⁴¹ Tenth Air Force, Intelligence Officers, 22 August 1944, Call# 830.6031, IRIS# 00267402, USAF Collection, AFHRA, Maxwell AFB AL.

intelligence tasks.⁴² Despite efforts by Harding and Pinkney to increase forward presence and orient processes to support flying units, the Tenth Air Force A-2 remained mostly a facilitator throughout the war. The effectiveness of external organizations to collect and report directly to combat units limited the consequence of many of Harding's organizational changes.

The stark contrast in philosophies amongst the different Tenth Air Force leadership teams significantly influenced the organizational design of Tenth Air Force Intelligence. Under Bissell and Wright, headquarters functions were prioritized over operational and tactical intelligence activities. The arrival of Davidson with Harding in the fall of 1943 shifted the priority of intelligence activities to support directly flying operations. The result of the two unique designs was Tenth Air Force Intelligence remained an organization in transition throughout the war and struggled to develop a unique or permanent organizational identity.

Intelligence Resources

Limited equipment, extreme ranges, and a changing operational concept placed Tenth Air Force's intelligence resources in a supplemental role to external sources of information throughout most of the war. Like most Air Forces in the Pacific, the intelligence collection capability of Tenth Air Force was primarily photo-reconnaissance. As Tenth Air Force changed from a strategic bombing focus to one of interdiction and CAS, photo-intelligence was a source considered secondary to the guy on the ground with a radio. The limited static targets available in 1944 and the time required to process and distribute photos could not keep pace with the rapidly changing events in the Burmese jungle. Instead, maximizing intelligence resources for Tenth Air Force was more about quickly

⁴² Tenth Air Force, Memorandum from Lt. Col James F. Pickney A.C. of S., A-2, 9 Oct 1944, Call# 830.603-1 IRIS# 00267401, USAF Collection, AFHRA, Maxwell AFB AL.

integrating other organizations' collection instead of improving the meager capability which resided within the organization.

Internal Resources

The total size of Tenth Air Force's entire India Air Task Force (IATF) in the spring of 1943 was approximately 100 aircraft.⁴³ Tenth Air Force did not even possess a dedicated internal collection capability until 13 December 1942.⁴⁴ The December mission conducted by the 9th Photo Reconnaissance Squadron provided Tenth Air Force its first ability to conduct photo-reconnaissance and develop desperately needed target data without cutting into the limited number of combat sorties available. The seven F-4s (converted P-38 "Lightning" fighters) of the 9th Photo Reconnaissance Squadron were critical to maximizing combat capability.⁴⁵ In tradition with the hard-luck of Tenth Air Force, less than one month after 9th Photo's first mission the F-4s were grounded for leaks in the fuel tanks.⁴⁶ As a result, for the rest of the war the 9th Photo Reconnaissance Squadron conducted photo reconnaissance missions with B-25s as well as the F-4 and later F-5 on its way to becoming the longest serving squadron in Tenth Air Force.⁴⁷

The arrival of the 9th Photo Reconnaissance Squadron brought with it essential photo laboratory equipment. A flight of 9th Photo personnel and an equipment trailer were assigned to IATF headquarters to allow for effective exploitation of headquarters-requested photos.⁴⁸ Despite the new resources, target imagery often failed to reach operational units. The bomb groups and even IATF complained to Tenth Air Force as late as June 1943 regarding the

⁴³ Tenth Air Force History 1943, 28-29.

⁴⁴ 9th Photographic Reconnaissance History, December 1942, Call# SQ-Photo-9-HI, IRIS# 00065093, in the USAF Collection, AFHRA, Maxwell AFB AL.

⁴⁵ Tenth Air Force History 1 January – 10 March 1943, AAFRH-4, Chief of Air Staff, Intelligence Historical Division, November 1944, 28-29.

⁴⁶ Tenth Air Force History 1 January – 10 March 1943, AAFRH-4, 20.

⁴⁷ 9th Photographic Reconnaissance Squadron History, 29 March 1945, Call# SQ-Photo-9-HI, IRIS# 00065095 in the USAF Collection, AFHRA, Maxwell AFB AL.

⁴⁸ 9th Photographic Reconnaissance, Operations of 9th Photographic Squadron (L) December 13, 1942 to May 31, 1943, Call# SQ-Photo-9-HI, IRIS# 00065097, USAF Collection, AFHRA, Maxwell AFB AL.

lack of target imagery.⁴⁹ Wright's priority throughout his tenure focused on keeping the war room in New Delhi up to date and equipped.⁵⁰ The target folder problem remained unaddressed until the arrival of Davidson in the fall of 1943, when 9th Photo took a larger role in ensuring coordinating collection.

As the first photo-reconnaissance unit to arrive in Tenth Air Force and the longest serving, 9th Photo led the development of an effective system to maximize the utility of limited resources. As new photo-reconnaissance squadrons joined Tenth Air Force, 9th Photo established a liaison officer with the Tenth Air Force A-2 to process requests for photos and assign the task to the most appropriate squadron.⁵¹ Most missions were flown by a single aircraft taking the first ever aerial photograph of the Burmese jungle.⁵² Less than two hours after landing, photo interpretation began, and target photos could reach units for the following day's mission.⁵³ Although the 9th Photo Reconnaissance Squadron never grew larger than 12 F-5 aircraft, it played an outsized role in leading the professionalization of intelligence within Tenth Air Force.

External Resources

From its inception, Tenth Air Force relied on the existing British intelligence infrastructure in India. In this manner, Tenth Air Force resembled air intelligence operations in Europe.⁵⁴ However, the Tenth Air Force experience differed from the Europe model in that there was a limited integration of US Airmen.⁵⁵ It was not until the summer of 1942 that Tenth Air Force began to produce target folders. Before that time, the command was entirely reliant on the RAF to accomplish the task.⁵⁶ Even as late as

⁴⁹ Kreis, *Piercing the Fog*, 305.

⁵⁰ Tenth Air Force, Tenth Air Force Activity Summary G-2, 16 March -28 Jun 1942.

⁵¹ 9th Photographic Reconnaissance Squadron History, 29 March 1945

⁵² 9th Photographic Reconnaissance Squadron History, 29 March 1945

⁵³ 9th Photographic Reconnaissance Squadron History, 29 March 1945

⁵⁴ Kreis, *Piercing the Fog*, 304.

⁵⁵ Kreis, *Piercing the Fog*, 304.

⁵⁶ Kreis, *Piercing the Fog*, 305.

May 1943 the British were producing all of Tenth Air Forces target charts.⁵⁷ The reliance on British intelligence reflected the dire condition of Tenth Air Force Intelligence. It was not Wright's preference to depend on British intelligence. In a report to an Air Staff officer, Wright described the information on enemy-occupied territory coming from British Intelligence agencies as "sketchy" and limited.⁵⁸ However, it was better than anything Wright was able to produce with the resources under his supervision. The relationship between British Intelligence and Tenth Air Force was often uneven and less than perfect, but it was critical to support Wright's intelligence activities when Tenth Air Force was at its most resource constrained state.

The closest Tenth Air Force came to actual integration with RAF intelligence efforts was the creation of the Combined Photographic Interpretation Center (CPIC) in May 1944. The creation of CPIC was designed to capture the lessons learned from the Central Interpretation Units established in Medmenham, England and Brisbane, Australia early in the war.⁵⁹ ⁶⁰ The lessons replicated in India were often behind the professional standard evolving in other theaters. As Tenth Air Force was integrating photo-interpretation capabilities in India, Eighth Air Force and other commands were growing out of the centralized model to a more decentralized approach to improve responsiveness to air operations. More importantly, Davidson's operational shift from strategic bombing to close-air support limited the importance of a centralized photo-interpretation organization conducting long-range analysis.

⁵⁷ Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Tenth and Fourteenth Air Forces, 21 May 1943, Call# 142.05-1, IRIS#00115241, USAF Collection, AFHRA, Maxwell AFB AL.

⁵⁸ Headquarters Army Air Forces, Memorandum to Brigadier General E.P. Sorenson from Major Joseph McGee, Observations of my Mission to the Tenth and Fourteenth Air Force Headquarters, 24 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

⁵⁹ Kreis, *Piercing the Fog*, 85, 308.

⁶⁰ Kreis, *Piercing the Fog*, 85, 262.

When US and British Forces advanced into Burma, Tenth Air Force's primary source of intelligence shifted. Davidson's focus on generating time sensitive air operations against interdiction and CAS targets raised Detachment 101 of the OSS to the single most important source of intelligence in Tenth Air Force. By the fall of 1944, 80% of all intelligence Tenth Air Force received on Japanese activity in Burma was supplied by Detachment 101. The information collected by OSS agents primarily consisted of information on Japanese personnel movement as well as equipment and communications disposition.⁶¹ The time sensitive nature of targeting Japanese troop movements naturally coincided with the observation techniques of the OSS -- so much so that by September 1944, Tenth Air Force Intelligence assessed Detachment 101 as the "most certain means of obtaining information."⁶²

Reliance on Detachment 101 was so extensive that Tenth Air Force Intelligence openly admitted they made almost no effort to evaluate the incoming information.⁶³ Instead, OSS - supplied intelligence was communicated in a manner to ensure it could be acted upon immediately.⁶⁴ Further, Tenth Air Force officers made a conscious effort not to levy particular intelligence requirements, like battle damage assessments, on the OSS for fear of overburdening the small force.⁶⁵ Tenth Air Force's reliance on the OSS underpinned Davidson's ability in 1944 to support ground operations in Burma. Having outpaced available British Intelligence, Davidson's intelligence operations were poorly organized and equipped to provide timely intelligence on rapidly changing enemy positions. Detachment 101 provided the very information Tenth Air Force needed and Davidson accepted it without question, continuing the Tenth Air Force tradition of outsourcing intelligence until the end of the war.

⁶¹ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. 11 Sept 1944.

⁶² Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. 11 Sept 1944.

⁶³ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. 11 Sept 1944.

⁶⁴ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. 11 Sept 1944.

⁶⁵ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. 11 Sept 1944.

Organization

The organization of Tenth Air Force Intelligence struggled throughout the war to integrate effectively information throughout all its elements. Early in the war, a difference in motives between A-2 headquarters and the intelligence officers in the bomber groups prevented the unity of effort necessary to develop Tenth Air Force into an effective intelligence organization. These struggles were not unique to intelligence; for most of the war Tenth Air Force was a collection of flying units which operated with limited coordination day-to-day.⁶⁶

Tenth Air Force Intelligence under Bissell and Wright met the challenge of limited communications, resources and a large theater by focusing on consolidating functions at the headquarters in New Delhi. Wright fashioned the organization of Tenth Air Force Intelligence to support strategic mission planning at the cost of developing intelligence products for mission crews. The result of Wright's design was excellent headquarters work that often stressed the limited capabilities of the intelligence units tasked with conducting operations. An excellent illustration of the situation Tenth Air Force Intelligence organization created was the planning and execution of Operation LOW.⁶⁷

At the start of 1943, Tenth Air Force Intelligence estimated Japanese forces transited 30,000-40,000 tons of shipping weekly along the Rangoon River.⁶⁸ The port area around Rangoon was a vital line of communication for Japanese forces in Burma, but the actual collection Wright and his staff conducted to reach this assessment was minimal.⁶⁹ Instead, what the A-2 provided was detailed analytical work which drove the decision to conduct mining operations against Rangoon Harbor. While the analysis conducted by the A-2 section was critical to the decision to conduct the operation,

⁶⁶ Tenth Air Force History 1 January – 10 March 1943, AAFRH-4, 31.

⁶⁷ Tenth Air Force History 1943, 67.

⁶⁸ Tenth Air Force History 1943, 67.

⁶⁹ Kreis, *Piercing the Fog*, 306.

Wright delegated the substantial task of intelligence preparation for the crews to the intelligence officers assigned to IATF and the bomber groups. In 1943 IATF consisted of three intelligence officers, less than half the number of intelligence officers assigned to Tenth Air Force A-2 in New Delhi.⁷⁰ Similarly, intelligence at the bomber groups usually consisted of two officers and a small team of enlisted personnel.⁷¹ A critical organizational flaw within Tenth Air Force was that the least equipped portions of Tenth Air Force Intelligence held the massive responsibility of preparing charts, objective maps and mission directions for all combat crews.⁷² The limited manning in Tenth Air Force below the headquarters level generated delays in mission planning. The first mission against Rangoon on 23 February 1943 required two days of extensive planning by the IATF and 7th Bomb Group Intelligence.⁷³ Multi-day mission preparation was not unusual. A mission of nine B-24s against Bangkok in November 1942 also took several days to build the appropriate objective folders.⁷⁴ Luckily, the limited operational pace of Tenth Air Force in 1942 and 1943 helped prevent the complete failure of Tenth Air Force Intelligence. However, by the summer of 1943, the IATF and multiple bomb groups were complaining that the limited support from Tenth Air Force's A-2 was degrading mission capability.⁷⁵ Despite the success of mining operations against Rangoon Harbor, Operation LOW demonstrated that Tenth Air Force Intelligence would

⁷⁰ Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Tenth and Fourteenth Air Forces, 21 May 1943.

⁷¹ Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Tenth and Fourteenth Air Forces, 21 May 1943.

⁷² Headquarters Tenth Air Force, Memorandum to Major Pound from Major Norman, Historical Data, Narrative Description, 21 Feb 1944, Call# 830.309-1, IRIS# 00916086, USAF Collection, AFHRA, Maxwell AFB AL.

⁷³ Tenth Air Force, Memorandum to Major Pound from Major Norman, Historical Data, Narrative Description, 21 Feb 1944

⁷⁴ Tenth Air Force, Memorandum to Major Pound from Major Norman, Historical Data, Narrative Description, 21 Feb 1944

⁷⁵ Kreis, *Piercing the Fog*, 305.

buckle under its weight in the event of sustained strategic bombing campaigns into Burma.

In the summer of 1943, the arrival of Davidson brought an increased operational pace and the demand that the Tenth Air Force Intelligence structure change or fail. The advance of Allied Forces under General Stilwell and British Lieutenant General Viscount Slim created a rapidly changing environment which demanded effective air integration from Tenth Air Force. Under the leadership of Harding and Pinkney, Tenth Air Force Intelligence reorganized to support flying units over headquarters planning. The first notable change was an emphasis on target production. Target folder production had been a complaint of intelligence officers in IATF and bomber groups for months. Harding and Pinkney increased the size of the Targets Section of the A-2 staff to three officers and four enlisted members.⁷⁶ The Targets section was now the second largest in the reorganized A-2 staff. The only section larger was the newly formed A-2 Forward Echelon.⁷⁷ Comprised of three officers and five enlisted members, the Forward Echelon was prioritized to receive special intelligence and support the Allied advance into Burma.⁷⁸ In the autumn of 1944, Tenth Air Force Intelligence was for the first time in the war organized and poised to operate effectively at the operational and tactical level.

By 1944 Tenth Air Force operated with the highest quality of intelligence it ever possessed. Other than the reorganization of the A-2 section, a critical factor in the improvement was that external sources of intelligence now often bypassed multiple layers of headquarters to reach aircrew directly. Intelligence reports from the British and OSS reached Tenth Air Force bombers in almost real time. During the British advance, Slim's signal officers immediately passed Tenth Air Force any intelligence on

⁷⁶ Tenth Air Force, Memorandum from Lt. Col James F. Pickney A.C. of S., A-2, 9 Oct 1944.

⁷⁷ Tenth Air Force, A-2 Section Tenth Air Force, 30 Sept 1944.

⁷⁸ Tenth Air Force, A-2 Section Tenth Air Force, 30 Sept 1944; Tenth Air Force, Tenth Air Force Special Intelligence Plan Oct 1-15 1944, 9 Oct 1944, Call# 830.603-1, IRIS# 00267401, USAF Collection, AFHRA, Maxwell AFB AL.

the location of Japanese forces. Bombers then attacked the identified targets, in Slim's words, "like terriers on to rats."⁷⁹ Coordination between the OSS and Tenth Air Force operated similarly, but on a larger scale. Initially connected via headquarters radio, integration with Tenth Air Force evolved to the point that the OSS installed a direct radio in the Tenth Air Force headquarters and co-located Forward Headquarters 101 with Tenth Air Force's Forward Air Headquarters.⁸⁰ By creating direct paths for collected information to reach operational units the speed of actionable intelligence accelerated from the multiple planning day efforts of early 1943 to the ability to react in hours.

The drawback of the direct communication between external organizations and Tenth Air Force's combat units was that almost all incoming information was left practically unchecked or unviewed by Tenth Air Force, creating the potential for costly mistakes.⁸¹ Moreover, a common operating picture was practically non-existent in the theater. Creation of Fourteenth Air Force and Eastern Air Command freed Davidson and Tenth Air Force to focus on the offensive in Burma. However, the new organizations and layers of command created the unintended consequence of multiple organizations attempting to solve the same intelligence problem.⁸² By 1944, for instance, five different organizations were maintaining Japanese order of battle, and seven different organizations were working on building target data.⁸³ Eastern Air Command at times received five different requests from organizations in CBI asking for support on the same intelligence task.⁸⁴ While Tenth Air Force's intelligence situation had improved by the close of the war, the theater was never organized to integrate fully all intelligence sources.

⁷⁹ Field-Marshal Viscount Slim, *Defeat into Victory: Battling Japan in Burma and India 1942-1945* (New York, NY: Cooper Square Press, 2000), 474.

⁸⁰ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. 11 Sept 1944.

⁸¹ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. 11 Sept 1944.

⁸² Kreis, *Piercing the Fog*, 303.

⁸³ Kreis, *Piercing the Fog*, 303.

⁸⁴ Kreis, *Piercing the Fog*, 301.

Summary

Intelligence in Tenth Air Force began in 1941 with a paucity of resources facing a challenging environment and a tenacious enemy. Unfortunately, Tenth Air Force was never able to overcome the challenges and grow into an effective organization. Under Bissell and Wright, the intelligence structure was designed to serve the headquarters. Intelligence at IATF and the bomber groups were left carrying the burden of preparing intelligence for the operational groups and inadequately equipped to provide timely intelligence in a reliable manner. The arrival of Davidson in the summer of 1943 helped change the focus of Tenth Air Force and its intelligence operations. At that point, the emphasis within Tenth Air Force Intelligence critically shifted to supporting combat missions. However, the heavy intelligence work throughout the war was done by external organizations, primarily Detachment 101. Even toward the end, as reform efforts improved Tenth Air Force Intelligence, the effort was focused on collecting more information and implementing shortcuts for preferred sources of intelligence vice synchronizing and integrating operations. Tenth Air Force Intelligence developed an admirable ability to conduct air intelligence, but failed to grow beyond its means and achieve the promise of air intelligence demonstrated by the other numbered Air Force in the

CBI.Chapter 3

Fourteenth Air Force

I do not think that there is an A-2 section in our Air Forces more capable than the one with the Fourteenth Air Force.

– Major Joseph McGee, 24 May 1943

On 11 March 1943, Tenth Air Force China Air Task Force became Fourteenth Air Force.⁸⁵ The purpose of creating a new numbered Air Force

⁸⁵ Martha Byrd, *Giving Wings to the Tiger* (Tuscaloosa, AL: University of Alabama Press, 1987), 187.

was primarily political.⁸⁶ The relationship between Chiang Kai-Shek and General Joseph Stillwell had soured to the point that providing Chiang his own personal airman was viewed a way to appease the Chinese leader and demonstrate US resolve in China.⁸⁷ Despite facing essentially the same poor conditions and daunting prospects as Tenth Air Force, the men of Fourteenth Air Force developed an impressive and highly effective organization and system of intelligence. Free from the overwatch and restrictions imposed by Bissell, Claire Chennault directed his leaders to conduct the operations necessary to defeat Japan in China. The result was a visible and noticeable contrast to the intelligence operations of Tenth Air Force. With a staff of fewer than ten AAF officers for most of the war, Fourteenth Air Force Intelligence developed a decentralized, collection focused intelligence network which generated a level of effectiveness well above the sum of the parts.

Leadership

Intelligence was an essential element to Chennault's way of fighting. Chennault's focus on fighters over bombers led him to develop a different appreciation of intelligence. As early as 1931, during his time at the Air Corps Tactical School, Chennault demonstrated an interest in integrating intelligence with air operations. Chennault believed intelligence in a continuous and timely manner was critical to the effectiveness of fighters to intercept bombers.⁸⁸ This belief pushed Chennault to promote and test the need for an intelligence net designed to get information immediately to fighters. Chennault put his ideas to the test during an Air Corps exercise in 1933 in which he used a net of observation posts to identify and direct fighters to intercept the ingressing bombers.⁸⁹ Between 1933-1934, *Coast*

⁸⁶ Byrd, *Giving Wings to the Tiger*, 187.

⁸⁷ Byrd, *Giving Wings to the Tiger*, 182.

⁸⁸ Capt Claire Lee Chennault, "The Role of Defensive Pursuit, Part II Interceptions" *The Coast Artillery Journal* LXXVII, no. 1 (Jan-Feb 1934): 8,9.

⁸⁹ Claire Lee Chennault, *Way of a Fighter: The Memoirs of Claire Lee Chennault*, ed. Robert Hotz (New York, G.P. Putnam's Sons, 1949), 22-23.

Artillery Journal published three articles authored by Chennault titled the Role of Defensive Pursuit. Citing observations from the 1933 Air Corps exercise, Chennault listed “the provision of means for the timely collection and transmission of accurate, continuing information of the hostile force” as a principle factor in conducting successful air intercept of a bombardment force.⁹⁰ Chennault also recommended “the establishment of an efficient ground information or intelligence net” as the first essential feature of an air defense system.⁹¹ Chennault’s experience and writings in the 1930s significantly shaped Fourteenth Air Force intelligence operations. After returning from retirement in 1941, to rejoin the military as Tenth Air Force, CATF Commander, Chennault communicated the establishment and maintenance of air warning system in China as his “A” priority.⁹² Bissell did not support the use of air nets to intercept aircraft and deemphasized their effects.⁹³ However, Bissell's opposition did little to dissuade Chennault, and with the command creation of Fourteenth Air Force, the concept connecting radio intelligence to aircraft to speed decision making expanded.

Throughout World War II, Chennault communicated his priorities and concept of intelligence operations through written memoranda.⁹⁴ At the close of 1942, Chennault issued a memorandum to Stilwell and the CBI G-2 recommending three tasks for intelligence in China. The first task was expediting the flow of intelligence between Chinese sources and the CATF.⁹⁵ Chennault sought target information to direct the limited combat sorties he

⁹⁰ Chennault, *The Role of Defensive Pursuit*, 8.

⁹¹ Chennault, *The Role of Defensive Pursuit*, 11.

⁹² Headquarters Tenth Air Forces, Plan for Employment of US Air Forces in China, Claire Chennault, Call#825.01, IRIS#00266313, USAF Collection, AFHRA, Maxwell AFB AL.

⁹³ Byrd, *Giving Wings to the Tiger*, 142.

⁹⁴ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942, Call# 142.05-1, IRIS# 00115241, USAF Collection, Maxwell AFB AL.

⁹⁵ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942

had available.⁹⁶ Specifically, Chennault wanted a US officer attached with Chinese Divisions to validate and promulgate target intelligence.⁹⁷ Chennault's second recommended task was to increase coordination between ground and air intelligence activities.⁹⁸ Unlike Bissell, Chennault valued technical intelligence and was concerned that the looting of downed aircraft by Chinese troops was destroying valuable intelligence on Japanese aircraft performance.⁹⁹ The third and final recommendation was the establishment of liaison with Chinese Guerilla Forces to support US operations.¹⁰⁰ Each recommendation demonstrated the expansive role Chennault envisioned for intelligence and what became the building blocks of an air intelligence network in China. Timely intelligence was valuable, and Chennault sought to seize it wherever available.

Chennault emphasized intelligence to the point that Hap Arnold commented to Stratemyer that Chennault was his own G-2 and G-3.¹⁰¹ While the statement was not entirely false, it missed the mark. Chennault understood early the importance of intelligence. Although Chennault took a personal role in shaping intelligence in Fourteenth Air Force, he never ran the day-to-day intelligence operations of his organization. Chennault's intelligence activities most often aimed to manage the tangled politics of intelligence collection in China. It was unlikely that an A-2 could have effectively conducted the negotiations and agreements necessary to

⁹⁶ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942

⁹⁷ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942

⁹⁸ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942

⁹⁹ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942

¹⁰⁰ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942

¹⁰¹ Tenth Air Force 1 Jan -10 March 43, 79

establish reliable air intelligence collection in China for multiple reasons. On an international level, Chinese fears regarding post-war interests of the French and British prevented the sharing of intelligence amongst allies.¹⁰² The political sensitivity associated with collecting information required Chennault to turn down British funding for intelligence operations to maintain an image as an impartial ally.¹⁰³ At the American level, Stillwell was against the establishment of intelligence collection in China, choosing instead to rely on the Chinese War Ministry for information on Japanese movements.¹⁰⁴ In fact, Stillwell expressly prohibited Fourteenth Air Force from conducting intelligence collection operations.¹⁰⁵ Chennault's personality and thirst for intelligence were such that throughout the war Fourteenth Air Force artfully disobeyed the spirit of Stillwell's order to gain the necessary intelligence to support air operations.¹⁰⁶ More than his own A-2, Chennault's was a leader who managed the essential tasks of managing political challenges to open the door to improve air intelligence operations.

Internal to Fourteenth Air Force, the interest Chennault took in the staffing of Fourteenth Air Force Intelligence had an important influence on the success of air operations in China. Fourteenth Air Force Intelligence officers were personally hand-picked by Chennault for their knowledge of Chinese culture and language.¹⁰⁷ Local knowledge was important to all intelligence activities in Fourteenth Air Force, and it was essential to gathering intelligence from the field. Chennault's focus on local expertise resulted in the hiring of a unique blend of missionaries, oilmen, and even a cosmetic salesman as the men who would lead air intelligence in China.¹⁰⁸ The absence of intelligence experience was a problem pervasive throughout the Army Air Forces, but by focusing on language and culture skills

¹⁰² Chennault, *Way of a Fighter*, 256-257.

¹⁰³ Chennault, *Way of a Fighter*, 257.

¹⁰⁴ Chennault, *Way of a Fighter*, 257.

¹⁰⁵ Chennault, *Way of a Fighter* 257.

¹⁰⁶ Chennault, *Way of a Fighter*, 257-258.

¹⁰⁷ Chennault, *Way of a Fighter*, 258.

¹⁰⁸ Chennault, *Way of a Fighter*, 258-259.

Chennault cultivated the attributes of an experienced intelligence force almost overnight. Local expertise provided an inherent capability to collect intelligence in China that would be nearly impossible to create through the assignment of stateside officers. Chennault's investment in shaping the political environment and personnel resources provided a critical foundation on which to build air intelligence.

The man charged to lead intelligence operations for Fourteenth Air Force was Colonel Jesse C. Williams. Williams took over intelligence operations at the beginning of 1943, replacing Lieutenant John Birch who was standing in as the A-2 following the departure of Colonel Merian C. Cooper on 30 November 1942.¹⁰⁹ An oilman with the Texas Oil Company before the war, Williams, like most of the A-2 staff, had firsthand knowledge of China before entering the war.¹¹⁰ ¹¹¹ An Air Staff officer who met with Williams a few months after he became the Fourteenth Air Force A-2 described him as a leader with a “keen imagination” who “knows how to handle men to good advantage.”¹¹² In his memoirs, Chennault evaluated Williams as one of the few staff officers he respected.¹¹³ Williams likely gained Chennault’s esteem by working quickly to build and expand an air intelligence net in China.

Upon arrival to what was then CATF headquarters, Williams focused on improving the organization and communication of intelligence. In the first line of a 31 December 1942 memorandum, Williams declared the sources and transmission of information in Fourteenth Air Force as “unsatisfactory.”¹¹⁴ William’s assessment matched the assessment nine days earlier of Brigadier General Brady who communicated to Bissell the

¹⁰⁹ China Air Task Force, Review of A-2 Activities, Lt. Col. Jesse Williams, 31 December 1942, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

¹¹⁰ Chennault, *Way of a Fighter*, 258.

¹¹¹ Headquarters Army Air Forces, McGee Memo, to Brock Jr. 24 May 1943

¹¹² McGee Memo, to Brock Jr. 24 May 1943

¹¹³ Chennault, *Way of a Fighter*, 232.

¹¹⁴ China Air Task Force, Recommendations for A-2 Activities, Lt. Col Jesse Williams, 31 December 1942, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

improper organization of the A-2 section.¹¹⁵ The development of objective folders was nearly non-existent, and Williams immediately began an effort to build objective folders for future Fourteenth Air Force operating areas and create methods to ensure intelligence materials could reach the flying squadrons quickly.¹¹⁶ Further, a system of rotating intelligence officers from flying units to the A-2 staff was established to promote an understanding of intelligence activities at all levels of Fourteenth Air Force. Williams' energy and Chennault's support was apparent in a memorandum the commander sent to Bissell two weeks after Brady's report, which cited the A-2 shop as now running "very satisfactory."¹¹⁷ Williams' leadership and focus on quickly fixing material deficiencies was critical to the quick turnaround and to ensure effective air intelligence when CATF became Fourteenth Air Force in March.

In the three months between January and March 1943, Williams organized the five officers and four enlisted members who comprised the A-2 staff into an effective organization. After an initial focus on the basics, Williams prioritized extending the reach and speed of intelligence within Fourteenth Air Force. Williams' priorities as A-2 matched Chennault's recommendations for intelligence activities.¹¹⁸ Throughout the war, gathering intelligence in any manner and quickly disseminating it to aircrew was a crucial part of Williams' intelligence strategy. As Fourteenth Air Force matured, Williams became critical to the coordination and development of Fourteenth Air Force's distributed intelligence net. Like Chennault, he worked to empower his men with the freedom to deliver results without

¹¹⁵ Tenth Air Force, Notes re Visit to China, Brig Gen, Francis M. Brady, 22 December 1942, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

¹¹⁶ China Air Task Force, Recommendations for A-2 Activities, Lt. Col Jesse Williams, 31 December 1942

¹¹⁷ Tenth Air Force, Memorandum to Commanding General, Comments on General Brady's Memo to CG, Tenth AF dated 22 December 1942, Chennault, 5 January 1943, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

¹¹⁸ China Air Task Force, Recommendations for A-2 Activities, Lt. Col Jesse Williams, 31 December 1942.

burdensome headquarters interference.¹¹⁹ Williams ability to lead a staff of untrained intelligence officers to conduct impressive operations with limited instruction is a testament to his crucial role in Fourteenth Air Force's success.

The emphasis Chennault placed on finding the best people for his command created unlikely intelligence leaders. One of the most important intelligence leaders in Fourteenth Air Force was Captain John Birch. Birch started the war as a Baptist missionary serving in China. By mere happenstance, in April 1942, John Birch encountered then Lieutenant Colonel Jimmy Doolittle and several of the other crew members of the famed Doolittle Raid and aided their evasion from Japanese forces.¹²⁰ Birch's assistance to Doolittle placed him in contact with Chennault, who later commissioned him as 2nd Lieutenant and assigned him to work intelligence for CATF.¹²¹ Birch's talents as an intelligence officer later led Chennault to evaluate the missionary turned intelligence officer as "more valuable than any pilot I had in my entire force."¹²²

In the spring of 1943, Williams selected Birch to conduct field work and gather intelligence for Fourteenth Air Force. The success of Birch's initial field work led to his assignment as ground liaison to Chinese General Xue Yue's Nationalist's Ninth War Area.¹²³ Soon Birch was leading the establishment of a system to report ground intelligence to Fourteenth Air Force headquarters for immediate relay to fighter and bomber units for targeting.¹²⁴ In a little over a year, the missionary who stumbled upon the Doolittle Raiders was now the first intelligence station in Fourteenth Air Force's air intelligence network. The success of Birch's effort to establish liaison teams with Chinese forces earned Birch the Legion of Merit and led

¹¹⁹ Byrd, *Giving Wings to the Tiger*, 128.

¹²⁰ Terry Lautz, *John Birch: A Life* (New York, NY: Oxford University Press, 2016), 84.

¹²¹ Lautz, *John Birch: A Life*, 89-97

¹²² Lautz, *John Birch: A Life*, 96

¹²³ Lautz, *John Birch: A Life*, 97.

¹²⁴ Lautz, *John Birch: A Life*, 97, 100.

to a rapid expansion of field collection within Fourteenth Air Force and later the OSS. Birch is most famous as the namesake of the John Birch Society. However, testimony from several who knew Birch suggests he was not the fanatic characterized by the John Birch Society.¹²⁵ Instead, John Birch is perhaps better remembered as, in the words of one Fourteenth Air Force officer, "the eyes of Fourteenth Air Force."¹²⁶

Intelligence leadership in Fourteenth Air Force started with Chennault and carried down to the tactical level. From start to finish, Chennault demanded, guided and supported an effective intelligence organization. Although often characterized as a "one-man show," Chennault relied on others to execute his vision and provided the freedom necessary to shape operations.^{127 128} The arrival of Williams in December 1942 was essential to organizing intelligence activities to support the creation of an intelligence network. Williams' leadership and direction enabled junior officers like John Birch to collect and lead intelligence operations with impressive results. Intelligence-minded leaders at all levels positioned Fourteenth Air Force to integrate limited collection resources and disparate sources of information and deliver timely air intelligence to combat aircrews.

Intelligence Resources

The resource restraints imposed on Fourteenth Air Force were both physical and political. Physically, the Himalaya mountains restricted the movement of supplies, including fuel, and limited the number of available sorties. Politically, General Stillwell's order prohibiting Chennault from conducting intelligence operations and emphasis on opening the Burma Road limited the resources allocated to Fourteenth Air Force. The constraints pressed Fourteenth Air Force to incorporate outside intelligence collection capabilities and develop unique internal capabilities. To satisfy

¹²⁵ Lautz, *John Birch: A Life*, 249.

¹²⁶ Lautz, *John Birch: A Life*, 100.

¹²⁷ Tenth Air Force, Notes re Visit to China, Brig Gen, Francis M. Brady, 22 December 1942.

¹²⁸ Byrd, *Giving Wings to the Tiger*, 128.

Chennault's demand for a constant stream of intelligence, Fourteenth Air Force was throughout the war poised to accept nearly any source of intelligence collection capability. However, the relationship between Fourteenth Air Force and external organizations was not purely transactional. Each organization which operated with Fourteenth Air Force became in some way part of Chennault's organization. Despite Chennault's desperate need for resources, working with Fourteenth Air Force required operating in accordance with Chennault's concept of operations.

Internal Resources

Photo reconnaissance was the backbone of air intelligence capabilities for most numbered Air Forces, but in Fourteenth Air Force the resource was limited and played a supporting role in intelligence operations. Before the formation of Fourteenth Air Force, Chennault determined it would require a minimum of 6 long-range reconnaissance aircraft to defend the India-China Ferry and support air operations in China.¹²⁹ A detachment of three F-4s from the 9th Photo Reconnaissance Squadron served as Fourteenth Air Force's core photo reconnaissance capability throughout most of the war.¹³⁰ The limited number of photo reconnaissance aircraft is stark but, even if a more robust photo reconnaissance force supported Fourteenth Air Force, it was unlikely to add significant capability. Fuel shortages always plagued Fourteenth Air Force. In this environment, each sortie was precious, and sustaining large photo reconnaissance missions nearly impossible.¹³¹ Chennault's minimal request for photo reconnaissance aircraft and plans for intelligence activities suggest he realized the sortie limitation and quickly focused on developing other intelligence collection capabilities.

¹²⁹ Headquarters Tenth Air Forces, Plan for Employment of US Air Forces in China, Claire Chennault

¹³⁰ China Air Task Force, Review of A-2 Activities, July 4 1942, to Dec 31, 1942, Lt. Col Jesse C. Williams, 31 December 1942. Call#825.01, IRIS#00266313, USAF Collection, AFHRA, Maxwell AFB, AL.

¹³¹ Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces in World War II, vol. 6, Men and Planes* (1949, new imprint, Washington DC: Office of Air Force History, 1983), 518. [Six volume in the series]

Williams's A-2 shop in Kunming processed the photo reconnaissance collection which occurred in Fourteenth Air Force. Williams staff had limited resources or space to conduct the photo interpretation. However, despite limited resources and equipment, Fourteenth Air Force accomplished impressive results. A May 1943 trip report from Major Joseph McGee, an Air Staff intelligence officer, described William's photo laboratory "the hardest working unit" he had ever seen."¹³² McGee's notes also documented that the Fourteenth Air Force A-2 shop was not properly equipped to produce objective or target folders which would make the photos usable for combat missions. However, sitting on empty packing crates, William's men produced work which amazed the War Department officer.¹³³ Although Fourteenth Air Force accomplished a great deal with limited photo capability, the collection and processing of photos would never be quick enough to by itself satisfy Chennault's demands for rapid intelligence.

The radio-net concept, which Chennault had envisioned during his time at ACTS, became the Fourteenth Air Force's foundational intelligence resource. The arrival of additional intelligence personnel in the spring of 1943, combined with Chennault's decision to either develop a loophole or ignore Stilwell's order, led to the creation of Fourteenth Air Force's human collection operation. John Birch was the first and most prolific leader of Fourteenth Air Force's human intelligence collection operations. At the beginning of 1943, Williams sent Birch to survey the damage at several airfields that the Japanese had attacked in the fall of 1942.¹³⁴ Birch returned with valuable intelligence which Fourteenth Air Force's limited photo reconnaissance was unable to provide. Following the March 1943

¹³² Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Fourteenth Air Forces, 22 May 1943, Call# 142.05-1, IRIS#00115241, USAF Collection, AFHRA, Maxwell AFB AL.

¹³³ Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Fourteenth Air Forces, 22 May 1943.

¹³⁴ Fourteenth Air Force, Interview: Captain John M. Birch, Assistant A-2, Fourteenth Air Force, with Fourteenth Air Force Historical Office Staff, 20 March 1945, Call# 862.04-3, IRIS# 00268316, USAF Collection, AFHRA, Maxwell AFB AL.

mission, Williams began to send Birch on more collection operations and used the quality of Birch's reports to request more officers like Birch because, as another Fourteenth Air Force officer said at the time, Williams' human collection operation was then a one-man show centered on John Birch.¹³⁵

In late 1943, Chennault found the manpower pool he needed to expand his intelligence net. The OSS was struggling to gain a foothold in China. The OSS first tried working with the Sino-American Special Technical Cooperative Organization (SACO). However, the OSS relationship with the Chinese Intelligence Chief, Tai Li, soured and limited OSS operations.¹³⁶ Instead of further pursuing a relationship with Chinese intelligence, the OSS approached Chennault and Williams in late December 1943 offering to support Fourteenth Air Force operations.¹³⁷ Chennault enthusiastically accepted.¹³⁸ However, as in numbered Air Forces around the world, bureaucratic requirements required OSS agent participation with Fourteenth Air Force to occur under Chennault's command.¹³⁹ Despite fears within the OSS of losing their unique identity, in the spring of 1944 the OSS combined operations with Fourteenth Air Force.¹⁴⁰ The 5329th Air and Ground Forces Resources and Technical Staff (AGFRTS), Provisional was created as the organization responsible for Fourteenth Air Force's human intelligence operations. Chennault made a former professor of Oriental history at Ohio University, Lieutenant Colonel Wilfred Smith, as commander

¹³⁵ Headquarters Army Air Forces, Memorandum to Major John R. Haas from Major Joseph McGee, Report of 1st Lt. John M. Birch, Assistant A-2, Fourteenth Air Force, Kunming China; April 1 1943, 17 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL; Paul Frillmann and Graham Peck, *China: The Remembered Life* (Boston, MA: Houghton Mifflin Company, 1968), 172, 175.

¹³⁶ Maochun Yu, *OSS in China: Prelude to the Cold War* (New Haven, CT: Yale University Press, 1996), 149-152.

¹³⁷ Yu, *OSS in China*, 154-155.

¹³⁸ Yu, *OSS in China*, 154.

¹³⁹ Yu, *OSS in China*, 155.

¹⁴⁰ Yu, *OSS in China*, 155.

AGFRTS and assigned fourteen of his intelligence officers to work alongside 22 OSS agents in the new organization.^{141 142}

The relationship between Fourteenth Air Force and the OSS signified how Chennault managed resources. Alone, Fourteenth Air Force was resource constrained. However, Chennault often conducted the only American combat operations occurring in China, and many organizations likely wanted to participate in operations generating tangible results. Chennault was happy to accept help, but he managed in many cases to gain control over personnel and operations. For nearly a year, the majority of OSS personnel in China were assigned and operated as part of Fourteenth Air Force.¹⁴³ The OSS was one of the several organizations who sought out Fourteenth Air Force and then found their personnel operating as members of Fourteenth Air Force. At its height, AGFRTS operated six liaison teams, some with as many as 17 members, and conducted joint OSS and Fourteenth Air Force operations from shared offices in Kunming.¹⁴⁴ AGFRTS formalized Fourteenth Air Force's air intelligence network and was Chennault's most timely and accurate intelligence resource during the war. Chennault's vision of an air intelligence network came to fruition partially on the backs of OSS agents who found themselves working for Fourteenth Air Force.

External Resources

Chinese intelligence was the primary external intelligence source for nearly every American organization operating in China. The primary factor which determined the utility of Chinese intelligence was the source. China was replete with information, but a significant amount was unreliable or dependent on the American organization who dealt with the Chinese, and

¹⁴¹ Yu, *OSS in China*, 156.

¹⁴² Chennault, *Way of a Fighter*, 258.

¹⁴³ Yu, *OSS in China*, 156.

¹⁴⁴ Fourteenth Air Force, Memorandum to Commanding Officer, OSS, China Theater, 5329th AGFRTS (P) Administration and Plans, Col Milner, 9 Feb 1945, Call#862.609-1, IRIS# 00268877, USAF Collection, AFHRA, Maxwell AFB AL.

Chinese trust did not apply evenly to each American organization.¹⁴⁵ Early in the war, Roosevelt assigned the US Navy as the lead American intelligence organization.¹⁴⁶ Led by Commodore Milton “Mary” Miles, the US Navy Group in China was not a major player due to Roosevelt’s decree on the number of personnel Miles commanded, although Miles developed a personal relationship with Tai Li, the head of Chinese Secret Police, and possessed access to the critical intelligence Tai Li shared.¹⁴⁷

Chennault’s desire to improve intelligence, and his strong relationship with and trust in the Chinese drove him to seek a working relationship with Miles. For his part, Miles respected Chennault’s appreciation of the Chinese people and his sources. Additionally, Miles later wrote Chennault “wasn’t jealous of the US Navy” for its access with the Chinese Secret Police.¹⁴⁸ Through regular conversation, Chennault and Miles found ways to improve each other’s intelligence operations. One particular example is after noticing targeting errors on bombing runs near Hong Kong in the winter of 1942, Miles offered to send two navy photo-interpreters to Kunming to support Fourteenth Air Force operations.¹⁴⁹ By May 1944, Miles had sent over 98 Navy photo-reconnaissance, interpretation, and radio intelligence personnel to support Fourteenth Air Force as part the new 14th Naval Unit.¹⁵⁰

How Miles and Chennault each viewed the dynamics of the personnel exchange was likely the key to the program’s success. In his memoirs, Miles described the 14th Naval Unit as a part of the Navy Task Group, working within Fourteenth Air Force to send the intelligence collected by Fourteenth Air Force to support US Navy operations.¹⁵¹ Chennault wrote of the same personnel in his memoir briefly as “a sizable group of Miles’ Navy officers

¹⁴⁵ Chennault, *Way of a Fighter*, 256.

¹⁴⁶ Chennault, *Way of a Fighter*, 257.

¹⁴⁷ Chennault, *Way of a Fighter*, 257.

¹⁴⁸ Milton E. Miles, *A Different Kind of War: The Little-Known Story of the Combined Guerrilla Forces Created in China by the US Navy and Chinese during World War II* (Garden City, NY: Doubleday, 1967), 307.

¹⁴⁹ Miles, *A Different Kind of War*, 307.

¹⁵⁰ Miles, *A Different Kind of War*, 309.

¹⁵¹ Miles, *A Different Kind of War*, 315.

who operated in Fourteenth Air Force headquarters under my command.”¹⁵² Although different command perceptions existed at the top, the influx of intelligence expertise enhanced Fourteenth Air Force operations. Williams pushed some of Miles’ men out to the flying units operating at forward airfields, where they achieved impressive results.¹⁵³ Colonel Clinton “Casey” Vincent, Commander of the 68th Composite Wing, praised the Naval Radio Unit assigned to his command for "supplying intelligence in advance of that from other sources."¹⁵⁴ As with the incorporation of OSS agents, Chennault and Williams demonstrated with Miles’ Navy Unit a willingness to incorporate resources into Fourteenth Air Force Intelligence operations.

The intelligence capability Miles’ men provided Chennault significantly improved Chennault’s ability to strike Japanese shipping along the Chinese coast. By the summer of 1943, Fourteenth Air Force routinely received real-time observations of Japanese shipping via radio from Miles’ sources. The newly assigned Navy personnel then fused the data at Fourteenth Air Force headquarters to produce actionable intelligence. During a period of six months, between May and October 1944, using intelligence sourced from Miles’ group and B-24s with sea-search radar, Fourteenth Air Force sank over 248,000 tons of shipping -- an amount significantly more than low-altitude bombing campaigns in Fifth and Thirteenth Air Force.¹⁵⁵

In Fourteenth Air Force the divide between internal and external intelligence resources was thin and often non-existent. The manner in which both the OSS and US Navy provided external resources to Fourteenth Air Force is an example of the unique way Chennault grew intelligence capability despite limited resources. For most of the war, Chennault had less than ten aircraft dedicated to photo-reconnaissance and less than 32

¹⁵² Chennault, *Way of a Fighter*, 257.

¹⁵³ Miles, *A Different Kind of War*, 316.

¹⁵⁴ Miles, *A Different Kind of War*, 316.

¹⁵⁵ John F. Kreis, ed., *Piercing the Fog* (Washington DC: Air Force History and Museums Program, 1996), 317.

AAF intelligence officers.¹⁵⁶ However, Chennault built Fourteenth Air Force Intelligence into an organization three times larger than the number described in official AAF documents by cooperating and incorporating external organizations. Chennault demanded that intelligence support from external organizations be more than purely transactional. Personnel sent by the OSS and Navy to support Chennault became a part of Fourteenth Air Force and worked under the direction of Williams. Chennault's position for the majority of the war as the primary American fighting unit in China enabled him to build Fourteenth Air Force into the intelligence network he envisioned. The critical task for Chennault and Williams would then become transferring Fourteenth Air Force's growth into an effective intelligence organization.

Organization

Chennault's vision of air operations supported by a "continuous stream of accurate information" overriding shaped the design and processes of Fourteenth Air Force Intelligence.¹⁵⁷ The pressing emphasis communicated throughout Fourteenth Air Force correspondence was a need to expedite the flow of intelligence.¹⁵⁸ Williams' A-2 headquarters in Kunming served as a central resource for not only Chennault but also the combat units and intelligence personnel in the field. Despite the A-2 headquarters' important role in Fourteenth Air Force operations, intelligence was often collected and immediately communicated to combat aircrew. This combination of centralizing key functions to maximize efficiency while distributing time sensitive collection operations is a critical element of Fourteenth Air Force's success as an intelligence organization.

¹⁵⁶ Headquarters Army Air Forces, Memorandum for Col. A.W. Brock Jr. from Major Joseph McGee, T/O Requested by Lt. Colonel Jesse C. Williams, 24 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁵⁷ Chennault, *Way of a Fighter*, 21.

¹⁵⁸ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942

The primary focus of Williams and the A-2 headquarters throughout the war was improving the combat capability of the flying units. An orientation toward operations matched Chennault's leadership style and was sometimes criticized by members of Fourteenth Air Force as overly focused on operations vice taking care of administrative functions.¹⁵⁹ In May 1943, Fourteenth Air Force consisted of eight intelligence Officers.¹⁶⁰ All but Williams were captains and lieutenants, and only three had any formal intelligence training.¹⁶¹ Throughout 1943, the A-2 headquarters staff conducted the majority of intelligence work and coordination of intelligence collection activities. Work focused on developing an appropriate list of targets in China and distributing them effectively to flying units. By the spring of 1943, the A-2 staff was able to build effective objective folders and develop and disseminate photographs within 24 hours.¹⁶² In describing his visit to observe Fourteenth Air Force Intelligence, Major McGee assessed Williams' operation as "more than 100 percent efficient" and described "their willingness to work 24 hours a day as nothing short of inspirational."¹⁶³ Major McGee's outside observation of Fourteenth Air Force is important to understand the driving sense of purpose which existed at the A-2 headquarters. At the very highest level of Fourteenth Air Force, intelligence operations were conducted with a sense of urgency.

Intelligence operations in the field operated with the same sense of urgency and dedication. The collection efforts of John Birch and later AGFRTS was essential to directing Fourteenth Air Force combat operations.

¹⁵⁹ Byrd, *Giving Wings to the Tiger*, 162.

¹⁶⁰ Headquarters Army Air Forces, Intelligence Officers with the Fourteenth Air Force, Major Joseph McGee, 26 May 1943, Call#142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁶¹ Headquarters Army Air Forces, Intelligence Officers with the Fourteenth Air Force, Major Joseph McGee, 26 May 1943.

¹⁶² Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Fourteenth Air Forces, 22 May 1943.

¹⁶³ Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Fourteenth Air Forces, 22 May 1943.

Birch's assignment to the Chinese 9th War Area in April 1943 represented the first step in establishing Fourteenth Air Force's intelligence net.¹⁶⁴ Later in 1943, additional intelligence officers were assigned to expand the network.¹⁶⁵ A former AVG Chaplain turned intelligence officer, Paul Frillmann, was assigned to the 6th War Area near Changteh and several other stations were assigned along the Yangtze River to report ship and troop movement.¹⁶⁶ Each station typically consisted of one or two members of Fourteenth Air Force who spoke Chinese and had experience with the Chinese culture and was responsible for reporting daily via radio intelligence to Fourteenth Air Force bases.¹⁶⁷ The intelligence supplied from the intelligence net became critical to build intelligence products and plan future operations.

The Battle of Changteh in fall 1943 best illustrated how Fourteenth Air Force's intelligence network operated. As early as August 1943, Fourteenth Air Force weekly intelligence summary began noting the possibility of a Japanese offensive in central China.¹⁶⁸ On 14 October Birch's station began reporting movement of Japanese troops and cited Chinese sources who assessed the Japanese plan was to capture the city of Changteh.¹⁶⁹ Two weeks later a Japanese force of 40,000 troops began an assault on Changteh.¹⁷⁰ The first American reporting on the Japanese offensive came from Birch's station. Birch's prompt reporting highlighted a genuine difference in the quality of American intelligence in China. Eight

¹⁶⁴ Fourteenth Air Force, The Changteh Campaign of October – December 1942, 20 May 1945, Call# 862.04-3, IRIS# 00268316, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁶⁵ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁶⁶ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁶⁷ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁶⁸ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁶⁹ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁷⁰ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

days after Birch radioed intelligence on the Japanese attack, Stillwell's theater intelligence passed message traffic from Chinese sources reporting a Japanese attack to Fourteenth Air Force.¹⁷¹

The Fourteenth Air Force intelligence net hit high gear as the Battle of Changteh developed. The size of the battle engulfed both Birch's and Frillmann's stations. Throughout the battle, both Frillmann and Birch relayed intelligence and target positions to Fourteenth Air Force fighter groups for action.¹⁷² The real-time reports from Birch and Frillmann were not the only source of intelligence during the battle of Changteh. Of the 1278 sorties flown by Fourteenth Air Force during the battle, approximately 12 percent were reconnaissance.¹⁷³ Augmented by Miles' Navy Group personnel, William's photo-interpretation capability helped direct B-25s from the 11th Bomb Squadron to destroy Japanese supply areas.¹⁷⁴ In his memoirs, Chennault praised the work of his field intelligence in the Battle of Changteh.¹⁷⁵ However, Williams' entire organization was involved in the battle. The success of real-time reporting was the result of months of operations and assessments which help Fourteenth Air Force deliver Chinese Forces a crucial victory.

The creation of AGFRTS in April 1944 signified the rapid growth and success of Chennault's intelligence network.¹⁷⁶ However, expansion also presented negative organizational consequences for Fourteenth Air Force. As the number of organizations operating in China began to increase in late 1944, Fourteenth Air Force likely found itself under an increasing demand

¹⁷¹ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁷² Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945; Chennault, *Way of a Fighter*, 261.

¹⁷³ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁷⁴ Fourteenth Air Force, The Changteh Campaign of October–December 1942, 20 May 1945.

¹⁷⁵ Chennault, *Way of a Fighter*, 261.

¹⁷⁶ Yu, *OSS in China*, 156.

to provide intelligence to the new organizations, and cooperation with OSS agents quickly became competition. The mission and culture of Fourteenth Air Force struggled to incorporate the OSS completely as it had other organizations. OSS leadership began to refer to Williams as “a bitter enemy of the OSS who has never lost an opportunity to injure us.”¹⁷⁷ In an interview, Birch stated the OSS did not match his “nature, methods, and purposes.”¹⁷⁸ In February 1945, AGFRTS personnel received assignment to serve in the OSS. In a memorandum to the new CBI commander, Lieutenant General Albert Wedemeyer, Chennault, despite not being consulted, expressed his support for the move of AGFRTS to the OSS.¹⁷⁹ However, in the same memorandum, Chennault expressed concern that the move would result in a delay of intelligence and his desire to regain possession of the nucleus of Fourteenth Air Force intelligence officers, including Birch and Frillmann.¹⁸⁰ Chennault's concerns reflect the value he placed not only on timely intelligence but the men in the organization who provided Fourteenth Air Force the intelligence it needed to fight and win. However, for the last seven months of the war, Fourteenth Air Force operated without exclusive possession of the intelligence net.

Summary

The organizational design of Fourteenth Air Force Intelligence was the deliberate manifestation of Chennault's radio-net concept. Williams had the near impossible task of organizing and leading Chennault's vision. With motivated personnel like John Birch, Williams established effective field intelligence operations less than four months after his arrival. Emphasis on local knowledge vice Air Force technique was an essential ingredient to the success of Fourteenth Air Force Intelligence. It is hard to imagine Williams

¹⁷⁷ Yu, *OSS in China*, 157.

¹⁷⁸ Fourteenth Air Force, Interview: Captain John M. Birch, Assistant A-2, Fourteenth Air Force, with Fourteenth Air Force Historical Office Staff, 20 March 1945

¹⁷⁹ Fourteenth Air Force, Letter to Lt. Gen Wedemeyer from Gen Chennault, 4 Feb 1945, Call# 862.609-1, IRIS# 00268877, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁸⁰ Fourteenth Air Force, Letter to Lt. Gen Wedemeyer from Gen Chennault, 4 Feb 1945

being able to orchestrate such successful operations if Chennault did not recruit former missionaries like Birch and Frillmann, who already had extensive knowledge of Chinese language and culture. Short on technical resources and equipment, Fourteenth Air Force Intelligence played to its strength and utilized the wealth of experience of its personnel to deliver rapid and timely intelligence.

A unique aspect of Fourteenth Air Force Intelligence was that the majority of intelligence personnel were not members of the AAF. Chennault's personality and leverage as the primary American combat force in China led to the assignment of over 100 OSS and US Navy personnel to work directly for Fourteenth Air Force. The tactic gave Fourteenth Air Force Intelligence expertise and capacity it would not otherwise be able to produce. However, the incorporation of other organizations, particularly the OSS, led to infighting and ultimately the transfer of Fourteenth Air Force's intelligence net to the OSS. Ultimately, Fourteenth Air Force Intelligence success led to growth Chennault and Williams were unable to contain within Fourteenth Air Force. Although Fourteenth Air Force came into existence for purely political reasons, the stark comparison between Williams's intelligence operation and that of Tenth Air Force suggests the creation of new numbered Air Force improved air operations in China. Shortages of fuel and aircraft made every sortie in Fourteenth Air Force valuable. The value Chennault placed on intelligence created an organizational culture which excelled at ensuring each sortie had the best intelligence available.

Chapter 4

Fifth Air Force

Combat fliers in South West Pacific Area have...been intelligence minded almost from the first and have not had to be 'sold' on its value.

– Air Evaluation Board SWPA

From the ashes of 8 December 1941, Fifth Air Force developed into one of the most intelligence driven and effective organizations in the Pacific theater. General George Kenney, a World War I observation pilot, relied on intelligence to support the innovative approaches he took to air combat.¹ Intelligence was rooted in every Fifth Air Force mission by necessity. Limited resources required the efficient use of each sortie and the consequences of missions hitting a wrong or an inconsequential target was comparatively more than in the resource-rich European theater. Fortunately, Kenney's organization was the beneficiary of ULTRA, one of the most sensitive intelligence sources in the war. The intercept and decryption of Japanese communications provided a rich intelligence source which Kenney was quick to capitalize upon to shape his air campaign. Yet, for all its worth, General Douglas MacArthur's and Kenney's use of ULTRA has historically overshadowed the true achievements of air intelligence in the Pacific theater.

The distributed organization of Fifth Air Force Intelligence was uniquely designed to capitalize on strategic intelligence sources like ULTRA as well as intelligence produced at the tactical and operational level. The men who led intelligence and operations in Fifth Air Force, particularly within the Advanced Echelon (Fifth ADVON), created a structure which integrated intelligence at every level. From nearly nothing, Fifth Air Force developed into an organization which overcame limited resources and the huge expanse of the Southwest Pacific to collect, process, exploit and capitalize on intelligence within hours. Intelligence operations within Fifth Air Force demonstrated a mastery of the

¹ Thomas E. Griffith Jr., *MacArthur's Airmen: General George C. Kenney and the War in the Southwest Pacific* (Lawrence, KA: University Press of Kansas, 1998), 11.

operational art of intelligence which enabled Kenney to outpace Japanese operations and play a vital role in victory.

Leadership

Kenney's leadership and access significantly influenced the organization of Fifth Air Force Intelligence. MacArthur's trust in Kenney gave Fifth Air Force the freedom to conduct operations with limited interference and organize Fifth Air Force in the manner he saw fit.² Intelligence played an important early role in building MacArthur's trust in Kenney and Fifth Air Force. In his memoirs, *General Kenney Reports*, Kenney recounts how he gained MacArthur's trust with the promise to dedicate reconnaissance assets to locate Japanese shipping.³ At the very start Fifth Air Force was an organization which valued the ability to integrate intelligence and operations at every level, starting with at the very top with the Fifth Air Force commander.

ULTRA provided Kenney strategic awareness of the battlespace. Before Kenney's arrival, SWPA Air Forces began receiving decrypted intercepts of Japanese naval communications, codenamed ULTRA. However, the process of disseminating ULTRA was clumsy and passed through as many as five different offices before it reached the air commander.⁴ Kenney's access to the highly-classified intelligence forced him to the center of intelligence and operations integration within Fifth Air Force. Kenney's appreciation for the value of the intelligence combined with MacArthur's authorities and trust enabled Kenney to streamline the process for ULTRA dissemination into his operations.⁵ Kenney's streamlined dissemination process increased the impact of ULTRA intelligence by simultaneously using it for strategic indications as well as an additive source for directing photo reconnaissance. The unique organizational design created a highly efficient intelligence cross-cue system which allowed

² General George C. Kenny, *General Kenney Reports: A Personal History of the Pacific War* (1949, new imprint, Washington DC: Air Force History and Museums Program, 1997), 44-45.

³ Kenney, *General Kenney Reports*, 44-45.

⁴ Edward J. Drea, *MacArthur's Ultra: Codebreaking and the War against Japan, 1942-1945* (Lawrence, KS: University Press of Kansas, 1992), 36.

⁵ Drea, *MacArthur's Ultra*, 28, 42.

the intelligence operations at the strategic and operational level to complement each other. Despite the critical role ULTRA played, it was not the sole source of the effectiveness of Fifth Air Force's intelligence operations.

Kenney's most significant contribution to the intelligence success of Fifth Air Force was the creation of Fifth ADVON and later its associated air task forces. The organization of distributed control within Fifth Air Force created an ability to overcome the extreme geographic area and the poor communications of SWPA to conduct flexible air operations against Japanese forces. Intelligence activities were organized along the same lines as Fifth Air Force operations. The result was an integrated operations/intelligence structure which facilitated the rapid collection and dissemination of intelligence throughout Fifth Air Force. The creation of Fifth ADVON created a clear delineation between strategic and operational intelligence activities and limited the time Fifth ADVON's analytical capability needed to devote to meet requirements from higher headquarters. Kenney's design enabled Fifth Air Force's operational leaders to create a genuinely intelligence-minded organization.

As commander of Fifth ADVON, Ennis C. Whitehead complemented Kenney's organizational design. Like Kenney, Whitehead had prior intelligence and observation experience. Whitehead was the post intelligence officer at Altbook Field in Panama 1932 and served over two years, June 1938 - February 1941 in the G-2 section of the War Department General Staff.⁶ While serving in the G-2 section, then Lt. Col Whitehead led the creation of an air intelligence section within the G-2 office.⁷ The two officer, four-person section was a forerunner to the creation of the A-2 section which stood-up seven months after Whitehead left the G-2 office.⁸ Whitehead often cited his small air intelligence shop as one of his greatest accomplishments, highlighting the importance he placed on intelligence.⁹

⁶ Donald Goldstein, *Ennis C. Whitehead, Aerospace Commander and Pioneer* (Ann Arbor, MI: UMI Dissertation Services, 1971), 56, 58, 72.

⁷ Goldstein, *Ennis C. Whitehead*, 71-72.

⁸ Goldstein, *Ennis C. Whitehead*, 71-72.

⁹ Goldstein, *Ennis C. Whitehead*, 72.

Kenney transferred MacArthur's trust to Whitehead to lead operations in Fifth Air Force. Kenney had known Whitehead for over 20 years before placing him in charge of Fifth ADVON, and respected his intellect and work ethic.¹⁰ Whitehead was also a friend of MacArthur.¹¹ Trust and familiarity through the chain of command provided Whitehead the freedom to lead the Fifth Air Force ADVON from Port Moresby in Papua New Guinea. Whitehead did not officially gain access to ULTRA intelligence until later in the war, so his primary sources of intelligence collection focused on photo reconnaissance and the use of visual observations via Australian Coast Watchers. This emphasis aligned with Kenney's ULTRA focus to create a holistic collection effort for Fifth Air Force.

Whitehead's leadership style centralized the decision-making regarding daily operations. Daily meetings were the venue for determining the next day's missions.¹² ¹³ The limited resources available to Fifth Air Force and its ADVON force enabled this level of detail. Fewer sorties also made making the mission count even more critical. It is unsurprising then that two of Whitehead's handpicked staff officers were his intelligence officer, Colonel Harry Cunningham, and the commander of the 6th Photo Group, Colonel David W. "Photo Hutch" Hutchinson.¹⁴ Both men served alongside Whitehead throughout the war and integrated intelligence into all of Fifth ADVON's operations. The combined leadership of Kenney and Whitehead positioned Fifth Air Force to value intelligence as part of its operations and made the quality of intelligence leadership critical to the organization's success.

Benjamin Cain was the man assigned the task of leading the intelligence organization in Fifth Air Force. Cain arrived in the Pacific Theater in March 1942, five months before Kenney.¹⁵ The then-major was one of the few experienced intelligence officers in the Army Air Forces, with over 26 years of

¹⁰ Kenney, *General Kenney Reports*, 11-12.

¹¹ Goldstein, *Ennis C. Whitehead*, 89.

¹² Goldstein, *Ennis C. Whitehead*, 103.

¹³ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

¹⁴ Goldstein, *Ennis C. Whitehead*, 102, 455.

¹⁵ Colonel Benjamin Cain, "Intelligence Experiences During World War II" (Lecture, Air War College, Maxwell AFB, AL, 10 December 1946).

experience. As a lance corporal, Cain was an information soldier with a machine gun unit during the 1916 hunt for Pancho Villa; he later labeled his experience a failure because he never got to interview a “live” Mexican.¹⁶ Before becoming the first American air intelligence officer in the Pacific, Cain served as a combat intelligence officer with the British.¹⁷ When he first arrived in the Pacific, Cain was the Assistant Director of Allied Air Force Headquarters, South West Pacific Area, serving under Air Commodore Hewitt of the Royal Australian Air Force.¹⁸ In September 1942, when Kenney stood up Fifth Air Force, Cain gained the additional duty of A-2, Fifth Air Force.

Cain was exactly the type of A-2 Fifth Air Force needed at the beginning. A no-nonsense leader, Cain believed intelligence was virtually unchanged since the time Moses sent spies to Canaan, and he derided intelligence officers who sought to be a “Dick Tracy” or overly profound.¹⁹ Creating Fifth Air Force Intelligence required starting at the very beginning. The command lacked even the most basic of intelligence resources. The attacks on the Philippines destroyed most of the engineering maps and data for the Pacific and left Fifth Air Force reliant on maps from oil companies or National Geographic.²⁰ Luckily, building a fundamental picture of the battlespace matched Cain’s expertise, and he used early 1942, when Fifth Air Force was flying limited mission, to focus on building-block intelligence operations.

Cain’s Fifth Air Force Headquarters office in Brisbane, Australia, produced minimal original analytical products.²¹ Instead, Cain, who rose to the rank of colonel, served mostly as a connector and communicator. The Navy possessed most of the SIGINT on Japanese operations until early 1944, and MacArthur’s command already included multiple outsized intelligence personalities, including the G-2, Brig Gen. Charles A. Willoughby, and the head

¹⁶ Cain, “Intelligence Experiences During World War II”

¹⁷ Cain, “Intelligence Experiences During World War II”

¹⁸ Kenney, *General Kenney Reports*, 53.

¹⁹ Cain, “Intelligence Experiences During World War II”

²⁰ Cain, “Intelligence Experiences During World War II”

²¹ John F. Kreis, ed., *Piercing the Fog* (Washington DC: Air Force History and Museums Program, 1996), 258.

of MacArthur's Central Bureau, Col. Spencer B. Akin. It's likely the former lance corporal who failed to interview a single Mexican in 1916 looked at the state of his intelligence organization and its limited collection capabilities and set himself to create an efficient organization which could capitalize on the strategic intelligence already being produced in the Pacific. Kenney often expressed frustration with the lack of imagination he received from the A-2 office but, Cain's straight forward approach was critical to building an effective intelligence organization from scratch and enabled the deputy A-2, located in Port Moresby, New Guinea, to lead the more imaginative intelligence work Kenney sought.²²

Colonel Harry F. Cunningham served as Whitehead's A-2 at Fifth ADVON and later as Fifth Air Force A-2 when Kenney assumed command of Far East Air Forces (FEAF). The 55-year-old Cunningham was the oldest intelligence officer in theater, and perhaps the most capable intelligence leader.²³ A veteran of World War I, Cunningham remained a Reserve officer while teaching at the University of Nebraska as an Assistant Professor of Military Science and Tactics. A professional architect, Cunningham designed portions of the Nebraska State Capital Building, and had been planning the new German embassy in Washington D.C prior to the start of World War II.²⁴ After Germany's occupation of Czechoslovakia in 1939, Cunningham ripped up his \$12,500 contract with the German government and returned to active duty.²⁵

Cunningham's World War II service began with the assignment to lead the War Staff, G-2 Western European Section. It is likely in the G-2 office where Cunningham first met and developed a relationship with Ennis Whitehead, who was also working in the European Division of the G-2 at the

²² Kreis, *Piercing the Fog*, 257.

²³ Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, January, February 1945, Call# 730.600, IRIS# 00258192, USAF Collection, AFHRA, Maxwell AFB AL.

²⁴ Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, Jan, Feb 1945.

²⁵ Dwight D. Eisenhower: "Memorandum of Disapproval of Bill for the Relief of Colonel Harry F. Cunningham," August 15, 1953. Online by Gerhard Peters and John T. Woolley, *The American Presidency Project*. <http://www.presidency.ucsb.edu/ws/?pid=9676>;

Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, Jan, Feb 1945.

time.^{26 27} Both men left the G-2 office in 1941. As Whitehead went off to an assignment to lead flight training at Luke Field, Cunningham, who had attended school in France, departed to join Free French forces as a US military observer in Africa.^{28 29} Cunningham marched alongside Phillipe LeClerc de Hauteclocque during the French General's 1000-mile march from Fort Lamy, Chad to Tripoli. Cunningham's effort earned him honorary rank in a French Colonial Infantry Regiment and the French Colonial Wars Medal.³⁰ Shortly after returning to the United States, the combination of Cunningham's desire for a frontline assignment and Whitehead's personal request sent the hard-nosed architect to lead intelligence operations for Fifth Air Force ADVON.

The responsibility of feeding Whitehead's and Kenney's appetite for tactical and operational intelligence motivated Cunningham to work 17 hours a day. A driving leader, Cunningham demanded excellence from his team, and did so with enough grace that he became known affectionately as "Uncle Harry."³¹ Cunningham's writing reflects his personal and professional drive to succeed.³² It was not until 15 August 1945, the day Japan announced surrender, that the 57-year-old architect acknowledged the "incredible" achievement of Fifth Air Force and the big organizational deeds accomplished with so little.³³ Cunningham was the Fifth Air Force A-2 for all things operational and tactical. The Fifth ADVON A-2's respect and allegiance rested solely with Whitehead, a man he suggested in letters was the real hero of Fifth Air Force, and Whitehead and Cunningham became personal friends and maintained correspondence years after the war, when Cunningham in many ways remained Whitehead's A-2, sending personal letters after the war advising

²⁶ Goldstein, *Ennis C. Whitehead*, 58.

²⁷ Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, Jan, Feb 1945.

²⁸ Goldstein, *Ennis C. Whitehead*, 72-74.

²⁹ Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, Jan, Feb 1945.

³⁰ Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, Jan, Feb 1945.

³¹ Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, Jan, Feb 1945.

³² Fifth Air Force, Past, Present and Future, 15 August 1945, Call# 730.600, IRIS# 258192, USAF Collection, AFHRA, Maxwell AFB AL.

³³ Fifth Air Force, Past, Present and Future, 15 August 1945

him on developing events in Washington and foreign policy.³⁴ Cunningham even renewed Whitehead's subscription to *US News and World Report* every Christmas to ensure the General stayed informed years after the war.³⁵

In many aspects, Fifth Air Force had two separate A-2s. Cain led strategic and long-term analysis from Australia, and interfered little in the conduct of processes of Fifth ADVON Intelligence. However, a major point of conflict between Cain and Cunningham involved personnel decisions. As Fifth Air Force expanded in 1943, it created the need to expand intelligence operations in Brisbane. The personnel Cain selected to operate at the headquarters were often the most experienced intelligence officers in Fifth ADVON's tactical squadrons, and this threatened the effectiveness of Cunningham's operations.³⁶ On a professional level, Cunningham had little respect for Cain. After the war, Cunningham confided in Whitehead that he thought Cain was more fit for public relations work than intelligence.³⁷ Yet, despite points of contention between the two intelligence leaders, each worked to ensure Fifth Air Force received the very best intelligence support.

The leaders of Fifth Air Force played a significant role in shaping the role of intelligence in the SWPA. The structure and processes which enabled Fifth Air Force to capitalize on time-sensitive intelligence were the product of leadership and relationships. Kenney and Whitehead were both operational leaders with previous experience in intelligence. More importantly, both understood and appreciated the importance of intelligence to the success of operations. Furthermore, Benjamin Cain's straightforward approach to intelligence helped build Fifth Air Force's basic capabilities and established

³⁴ Col. Harry Cunningham To Gen. Ennis Whitehead, 26 February 1946, Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell AFB AL;

Col. Harry Cunningham To Gen. Ennis Whitehead, 28 July 1946, Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell AFB AL;

Col. Harry Cunningham To Gen. Ennis Whitehead, 13 December 1949, Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell AFB AL.

³⁵ Col. Harry Cunningham To Gen. Ennis Whitehead, 24 April 1948, Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell AFB AL.

³⁶ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

³⁷ Col Harry Cunningham to Gen. Ennis Whitehead, 28 July 1946.

critical communication to the external intelligence capabilities in the Pacific. Although Cunningham did not fully appreciate it, Cain's deliberate approach created the path for Cunningham to orchestrate the intelligence which spurred the tactical and operational successes which became the hallmark of Fifth Air Force.

Intelligence Resources

The intelligence collection resources available to Fifth Air Force included a mix of external and internal capabilities. Internally, photo reconnaissance was almost exclusively the only collection capability available. The limited number of aircraft and extreme distances of the SWPA hampered even meager collection efforts using Fifth Air Force aircraft. Everything in Fifth Air Force, including reconnaissance aircraft, quickly became multi-role. To rely solely on internal collection capabilities would have resulted in disaster. Constraints on internal collection capability forced the early integration of intelligence collected by external organizations. By necessity, the intelligence resources of Fifth Air Force from the very beginning was a mixture of coalition and joint capabilities which were integrated to support Fifth Air Force operations.

Internal Resources

Photo reconnaissance was Fifth Air Force's primary internal collection capability and was essential to confirm and refine the location of ULTRA collection. Approximately 75% of Fifth Air Force's intelligence was produced by the 91st Reconnaissance wing, and the images collected from photo reconnaissance missions were often the sole source of intelligence for combat crews at the tactical level.³⁸ Aircrew study of the target was essential to ensure bombs dropped on the correct target. Photo reconnaissance included more than the aircraft. Photo laboratories and interpretation units were also an important internal capability.

³⁸ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944; 91st Reconnaissance Wing, Informal History of Organization, 1 December 1945, Call# WG-91-HI, IRIS# 00106849, AFHRA, in the USAF Collection, Maxwell AFB AL.

The first reconnaissance unit in Fifth Air Force was the 16 pilots of the 8th Photographic Squadron in April 1942.³⁹ It took 17 months for Fifth Air Force's photo reconnaissance capability to grow to the size of a group.⁴⁰ The 6th Photographic Reconnaissance group primarily flew F-5 and F-7, reconnaissance versions of the P-38 and B-17 respectively, and grew to become the 91st Photographic Wing by 1944.⁴¹ The 91st Photographic Wing comprised seven flying squadrons in 1944; three squadrons of which were B-25 and P-39 attack squadrons with the mission of armed reconnaissance.⁴² The remaining four squadrons were dedicated to photo reconnaissance. The photo missions of the 91st Photo Wing throughout the war would serve as Fifth Air Forces primary source of imagery throughout the war.

The most basic imagery requirement placed on Fifth Air Force was photographic mapping. Mapping was an essential function to support MacArthur's advance and to help select future airfield sites. The attacks on Clark Field in 1941 destroyed practically all maps and photographs in the region. The extreme distances in the Pacific would often require sending F-7s on missions which lasted 12-13 hours.⁴³ Early in the war, distance and time conspired to reduce the ability for mapping missions to direct time sensitive missions. In time, however, mapping missions provided critical background for future missions as Fifth Air Force advanced closer to the target area. By August of 1944, the 91st Photo Wing mapped 4250 miles of territory in a single month.⁴⁴

³⁹ 8th Photo Reconnaissance Squadron, Historical Sketch, 4 April 1945, Call # WG-91-HI, IRIS# 00106848, USAF Collection, AFHRA, Maxwell AFB AL.

⁴⁰ 6th Photographic Group Reconnaissance, Historical Resume (Activation through 31 December 1944), 12 April 1945, Call# WG-91-HI, IRIS# 00106848, AFHRA, in the USAF Collection, Maxwell AFB AL.

⁴¹ 6th Photographic Group Reconnaissance, Historical Resume (Activation through 31 December 1944), 12 April 1945.

⁴² 91st Photo Wing, Monthly Statistical Report for June 1944, Call# WG-91-HI, IRIS# 00106851, AFHRA, in the USAF Collection, Maxwell AFB AL.

⁴³ 6th Photographic Group Reconnaissance, Historical Resume (Activation through 31 December 1944), 12 April 1945.

⁴⁴ 6th Photographic Group Reconnaissance, Historical Resume (Activation through 31 December 1944), 12 April 1945.

Mapping efforts supplemented the main photo reconnaissance effort directed against specific targets. Early in the war F-5s conducted most of the photo reconnaissance missions within 300 miles of Fifth Air Force airfields.⁴⁵ The demand for imagery intelligence was ceaseless within Fifth Air Force and MacArthur's command. The amount of film processed in Fifth Air Force reflects the importance imagery had in mission planning. By July of 1944, the production capacity within just the 91st Photographic Wing reached the ability to produce 3,000 prints daily in an attempt to satisfy the relentless demand.⁴⁶



Picture 2: Intelligence Sergeant in 91st Reconnaissance Wing

Source: 91st Photo Reconnaissance Wing, Monthly Statistical Report July 1944.

External Resources

In the initial stages of the war, the most valuable collection came from human observation in the form of Coast-Watcher reports. Coast-Watchers were a collection of primarily Australians located in remote areas of the Pacific who provided crucial intelligence on Japanese positions and activities.⁴⁷ Some Coast-Watchers included soldiers and sailors left behind during Japan's rapid advance.⁴⁸ Developed by the Royal Australian Navy, the program was operated

⁴⁵ 8th Photo Reconnaissance Squadron, Historical Sketch, 4 April 1945.

⁴⁶ 91st Photo Reconnaissance Wing, Monthly Statistical Report July 1944, Call# WG-91-HI, IRIS# 00106852, AFHRA, in the USAF Collection, Maxwell AFB AL.

⁴⁷ Kreis, *Piercing the Fog*, 276.

⁴⁸ Cain, "Intelligence Experiences During World War II"

by the Allied Intelligence Bureau during the war.⁴⁹ In 1942, while Fifth Air Force was standing up, Coast-Watcher reports were often the only intelligence Cain deemed of any value.⁵⁰ The information most valued by Fifth Air Force addressed the location of Japanese shipping.⁵¹ Intelligence on the location of convoys was critical to increasing the success of the limited sorties Fifth Air Force could generate in 1942. As capabilities increased in the region, the role of the Coast-Watchers transformed and their most important role was the ability to corroborate ULTRA collection and attribute the sensitive collection of Japanese communications to the activity of a few brave men operating behind Japanese lines.⁵²

The intercept and decryption of Japanese naval, air and later ground communication was the single most important source of intelligence for Fifth Air Force. Kenney's uncanny ability to predict Japanese operations and place his aircraft in an advantageous location was largely the result of his obsessive consumption of ULTRA.⁵³ Japanese forces in the Southwest Pacific passed over 1400 messages a day decrypted by ULTRA.⁵⁴ Many of the messages provided the location and intent of Japanese naval convoys as well as aircraft deployments. Operational successes in the Battle of Bismarck Sea and at Rabaul, Buna, Biak, Lae, Wewak, Hollandia, Leyte and Kyushu are all connected to ULTRA intelligence.⁵⁵ Knowledge of the location and intent of Japanese activity enabled Fifth Air Force to concentrate operations toward efforts with an expected high pay-off. For an Air Force with limited resources, the ability to mass on critical target areas would have been nearly impossible without the external influence of ULTRA.

Through 1943 the collection of ULTRA was almost exclusively a Navy operation against the Japanese navy, as MacArthur's Central Bureau did not

⁴⁹ Drea, *MacArthur's Ultra*, 54.

⁵⁰ Cain, "Intelligence Experiences During World War II"

⁵¹ Cain, "Intelligence Experiences During World War II"

⁵² Drea, *MacArthur's Ultra*, 54.

⁵³ Drea, *MacArthur's Ultra*, 42.

⁵⁴ Drea, *MacArthur's Ultra*, 53.

⁵⁵ Drea, *MacArthur's Ultra*, 45-46, 42, 64, 68, 81, 83-84, 89, 109-110, 175, 212.

manage to break the Japanese army codes until January 1944.⁵⁶ Fortunately, most of the Navy intercepts had significant importance to Kenney's operations. The location of shipping convoys and Japanese Navy aircraft movements were important targets in the struggle to control the battlespace around New Britain Island. Still, reliance on a collection operation run by the Navy presented critical challenges. 7th Fleet and the Office of Naval Intelligence, the offices responsible for the decrypt of Japanese ULTRA, initially only briefed MacArthur.⁵⁷ Later, as the Navy increased ULTRA communication to SWPA offices, many still felt critical intelligence remained withheld.⁵⁸ Cain attributed the early dissemination struggles to the Navy not fully understanding the importance of some intelligence to Fifth Air Force operations.⁵⁹ Not everyone shared the A-2's sentiments. On either account, however, the dissemination struggles highlighted a critical risk associated with relying on external intelligence sources.

The handling of ULTRA was unique in SWPA. In other theaters, ULTRA was centrally controlled and processed.⁶⁰ In the European theater, special security officers (SSOs) were attached to commands to serve as liaisons and control the dissemination and handling of ULTRA material.⁶¹ MacArthur scorned central control of the valuable intelligence and maintained independent control over the use of ULTRA, despite General Marshall's concerns over the lack of a central policy for ULTRA in the Pacific Theater as late as May 1944.⁶² ⁶³ The War Department did dispatch SSOs to the South West Pacific in 1943, but MacArthur quickly regulated their influence and constrained their ability to communicate.⁶⁴ In all instances, MacArthur and Kenney often worked to conceal the existence of ULTRA. Coast Watchers and

⁵⁶ Drea, *MacArthur's Ultra*, 7, 57, 93.

⁵⁷ Drea, *MacArthur's Ultra*, 24.

⁵⁸ Kreis, *Piercing the Fog*, 257.

⁵⁹ Cain, "Intelligence Experiences During World War II"

⁶⁰ Drea, *MacArthur's Ultra*, 28

⁶¹ Kreis, *Piercing the Fog*, 65.

⁶² Letter Marshall to MacArthur on the use of Ultra, SRH-034

⁶³ Drea, *MacArthur's Ultra*, 28.

⁶⁴ Drea, *MacArthur's Ultra*, 28-29.

photo reconnaissance missions served as cover sources for ULTRA intelligence regarding Japanese convoys or air movements.⁶⁵ Kenney himself never referred to ULTRA in his memoirs, because the capability remained classified, but he frequently cites photo reconnaissance missions as the source of critical intelligence on Japanese activity. Underneath Kenney's account, the reality is that many of the photo reconnaissance missions were successful because of ULTRA.

MacArthur's decentralized approach to ULTRA likely increased its integration into Fifth Air Force operations. By January 1944, it is probable that Whitehead and Cunningham were aware of ULTRA and used the information to direct operations. In response to the SWPA Air Evaluation Board, the procedures for handling Special Intelligence is described as "held within the command levels", indicating the ADVON force was aware of the existence of ULTRA and procedures for handling the sensitive information.⁶⁶ Fifth Air Force ADVON weekly intelligence reviews, produced by Cunningham's staff, contained the heading "Special Information" which directed readers to "Annex I."⁶⁷ SIGINT, specifically ULTRA, served as the ultimate tipper to allow Kenney and Whitehead to concentrate their limited resources. Yet to label Fifth Air Force as a SIGINT reliant organization would be a misnomer and suggest the organization used external collection exclusively. The combination of internal resources and external capability provided Fifth Air Force the necessary tools to conduct intelligence operations.

Organization

The organizational design of Fifth Air Force Intelligence was operations integrated, rapid and flexible -- and presents some of the best practices of air intelligence in World War II. Fifth Air Force Intelligence overcame obstacles in the form of extreme physical distance, limited resources, and an agile

⁶⁵ Drea, *MacArthur's Ultra*, 70.

⁶⁶ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁶⁷ Fifth Air Force, Fifth Air Force ADVON Weekly Intelligence Review, 12 January 1944, Call#730.607-7, IRIS# 00258228, USAF Collection, AFHRA, Maxwell AFB AL.

adversary to facilitate rapid decision-making by mirroring the overall structure of Fifth Air Force. Fifth Air Force followed the guidance established by Kenney. Whitehead and Fifth ADVON determined the best manner to meet Kenney's guidance. Similarly, Cain, as the Fifth Air Force A-2, provided strategic and long-term analytical support, while Cunningham led the development of operational and tactical intelligence for immediate use. The organizational design of intelligence operations, distributed geographically and by function, resulted in an intelligence capability within Fifth Air Force greater than the sum of its parts.

Most of the Strategic intelligence functions within Fifth Air Force operated from Brisbane, Australia. Distance often delayed products produced in Brisbane from reaching forward locations. The primary resources from Cain's office which supported Cunningham and Fifth ADVON included large target maps, a semi-weekly summary of operations, enemy order of battle, and target data.⁶⁸ However, at no point did Fifth ADVON overly rely on the intelligence products produced in Australia by Cain's team. Cain's brilliance was recognizing this and directing A-2 functions at Fifth Air Force headquarters to focused on strategic level products, such as 3rd phase photo interpretation and study of captured enemy documents which primarily served the commanders in Brisbane.⁶⁹ Cain's A-2 section also doubled as a source of intelligence capabilities resident in the combined RAAF and USAAF Directorate of Intelligence.⁷⁰

The analysis accomplished by Cain's intelligence shop in Brisbane played an important role in shaping Kenney's strategy. One of the most significant strategic analysis projects Cain led supported MacArthur's assault on Hollandia in the spring of 1944. As MacArthur prepared to land troops at Hollandia, Fifth Air Force was perilously limited in the ability to provide fighter

⁶⁸ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁶⁹ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁶⁹ Goldstein, *Ennis C. Whitehead*, 102, 455.

⁷⁰ Kreis, *Piercing the Fog*, 262.

support.⁷¹ In his memoirs, Kenney noted that the operation was "quite a gamble" which could fail if the Japanese increased the number of aircraft at Wakde and Sarmi, the airfields closest to Hollandia.⁷² Kenney commissioned Cain on 8 March to produce special analysis on the Japanese air order of battle in the vicinity of Hollandia.⁷³ The analytical product the Fifth Air Force A-2 provided directly influenced the scheme of operations for landings at Hollandia. Cain briefed Kenney on the regional picture 40 days after the commander had made the initial request.⁷⁴ The assessment predicted the Japanese could place 100 aircraft, 50 fighters and 50 bombers over Hollandia three days after MacArthur's initial landing at Hollandia. The potential implications of Cain's assessment drove Kenney to seek air support from 7th Fleet to support the landing.⁷⁵ Kenney's memoir recounted the "baby carriers" which "stayed around for several days" during the landings at Hollandia. From Cain's perspective, the presence of the 7th Fleet carriers was an operational by-product of analysis made by a maturing organic strategic air intelligence capability.⁷⁶

Cain focused primarily on consolidating and amplifying collection done at the tactical and operational level as well as disseminating intelligence throughout Fifth Air Force.⁷⁷ The direct operational impact of the Hollandia project highlighted the strategic decision making intelligence supported at Fifth Air Force headquarters. Although most of this work was unoriginal, it was essential. The delineation of responsibility between Fifth Air Force Headquarters and Fifth ADVON prevented significant duplication of effort between Fifth Air Force and Fifth ADVON. In addition to providing a critical reserve capability for Fifth ADVON when operational demands outpaced the

⁷¹ Kreis, *Piercing the Fog*, 280.

⁷² Kenney, *General Kenney Reports*, 383-384.

⁷³ Kreis, *Piercing the Fog*, 280.

⁷⁴ Kreis, *Piercing the Fog*, 283.

⁷⁵ Kreis, *Piercing the Fog*, 283.

⁷⁶ Kenney, *General Kenney Reports*, 392.

⁷⁷ Kreis, *Piercing the Fog*, 258.

capabilities, Cain's staff was a valuable source of strategic analysis for Kenney and Fifth Air Force.

Unique to the organizational design of Fifth Air Force Intelligence was Kenney's role as often the exclusive source of ULTRA intelligence in Fifth Air Force. The sensitive intelligence was introduced and disseminated outside of Cain's intelligence structure. The desire to prevent the Japanese from knowing their encrypted communications were vulnerable to ULTRA was typically personally briefed to Kenney by MacArthur's signals team. Kenney would then order reconnaissance flights to the areas ULTRA had indicated significant enemy activity.⁷⁸ Ultra intercepts, for instance, indicating movement of Japanese aircraft triggered reconnaissance flights against Japanese air bases at Hollandia and Wewak indicating movement in Japanese aircraft.⁷⁹ Similarly, reconnaissance detection of convoys was often triggered by the ULTRA intelligence passed from the Navy.⁸⁰ Regulation mandated the use of cover sources, like reconnaissance flights, to provide plausible deniability to the existence of ULTRA.⁸¹ The practice of Kenney directing photo reconnaissance based on ULTRA intelligence created an unintended and critical bridge between strategic and operational intelligence. Today the use of imagery assets to confirm signals intelligence is considered a best practice amongst intelligence professionals, but in 1943 Kenney's direction of armed reconnaissance flights based on ULTRA intelligence was a new and lethal innovation.

At its core, the organizational structure and processes of intelligence in Fifth Air Force was designed to emphasize operational and tactical decision making. The contribution of Cain's strategic analysis enhanced Kenney's operations, but it was never the main show. Kenney provided Whitehead the freedom to direct Fifth ADVON operations, and Whitehead trusted Cunningham to lead his intelligence operations. The hard driving Cunningham

⁷⁸ Drea, *MacArthur's Ultra*, 70, 107.

⁷⁹ Drea, *MacArthur's Ultra*, 84, 109-110.

⁸⁰ Drea, *MacArthur's Ultra*, 54, 64.

⁸¹ General George C. Marshall to General Douglas MacArthur on the Use of Ultra and related correspondence SRH-034 May 23, 1944

used the opportunity to create a structure which at every chance placed intelligence officers alongside combat aircrew. The impact of Cunningham's design produced most of the original intelligence products within Fifth Air Force and some of the most integrated air intelligence operations of the war.

The intimate connection between the intelligence structure and flying operations existed at all levels of Fifth ADVON. As previously documented, Whitehead and Cunningham were close friends and trusted each other. Cunningham participated in Whitehead's daily staff meetings throughout the war and communicated directly with the Fifth ADVON commander regarding the philosophy behind each target selection.⁸² At the tactical level, the close integration of intelligence and flying operations was partially the output of circumstance. The small size of Fifth ADVON forced a break from the tradition within the USAAF of intelligence officers briefing and debriefing at the group level.⁸³ Early Fifth Air Force missions typically only encompassed a single squadron, naturally creating a lower level connection between intelligence officers and flyers. In a 1944 Air Evaluation Board, the practice of briefing and debriefing at the squadron was cited to "have resulted in better execution of missions and more accurate reports."⁸⁴ The positive results led Fifth Air Force to keep the practice as additional squadrons arrived despite the increased manning implications. Driving intelligence officers to the squadron level also enabled Fifth ADVON to overcome challenges in communications associated with geographically separated operations. Squadrons operating away from their group were able to maintain an intelligence picture and contribute mission reports and battle damage assessments to higher headquarters, despite the geographic separation.⁸⁵

The most important effect of placing intelligence officers in the squadrons was the trust it built with aircrew. The commitment of Fifth Air Force

⁸² Goldstein, *Ennis C. Whitehead*, 103.

⁸³ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁸⁴ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁸⁵ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

intelligence officers to fight and die alongside aircrew created a culture in Fifth Air Force where the importance of intelligence did not have to be "sold."⁸⁶ For the intelligence officers, flying and working with the crew built empathy for the stress combat flyers faced, and they used this to make more effective their intelligence briefings, products and debriefings.⁸⁷ A 1944 Air Evaluation Board highlights the true impact of tactical level focus – "Combat fliers in SWPA have...been intelligence-minded almost from the first".⁸⁸

The Fifth ADVON intelligence structure operated around Whitehead's daily staff meeting. Each morning Whitehead's staff meeting included Cunningham, the operations officer, Chief of Staff, commanders of the bomber and fighter groups, and the supply and maintenance officers.⁸⁹ During the staff meeting, Whitehead developed the scope and nature of the next day's missions.⁹⁰ The first intelligence product to influence operations was the daily intelligence summary which each commander received each morning with their breakfast.⁹¹ A weekly intelligence summary was also produced for the commanders and included Cunningham's written assessment.⁹² Both written products reflect the emphasis Cunningham placed on effective writing. Fifth Air Force intelligence documents are replete with his corrections and edits. Cunningham's personal correspondence with Whitehead after the war lambasted the lack of literacy in the AAF and stress the importance of effective writing as a critical skill for intelligence officers.⁹³ The intelligence summary was one of Cunningham's primary tools to inform and influence. Before start of Whitehead's staff meeting, the cunning former architect had already ensured his was the first voice in each commander's ear.

⁸⁶ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁸⁷ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁸⁸ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁸⁹ Goldstein, *Ennis C. Whitehead*, 102.

⁹⁰ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹¹ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹² Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹³ Col. Harry Cunningham To Gen. Ennis Whitehead. Letter, 07 June 1947, Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell AFB AL.

Whitehead's meeting produced the daily fragmentary (frag) order sent to the groups and task forces. It was then the responsibility of Bomber Command to select targets and mission routes to achieve the intent of the frag order.⁹⁴ The intelligence officers associated with Bomber Group were responsible for producing the master target maps and target information to support group planning. Approximately 9-12 hours after issuance of the frag order, group representatives attended a meeting and ensured the plan reached the squadron level through the designated squadron officers.⁹⁵

The desired level of operational flexibility created extensive demand on ADVON and Bomber Command and squadron intelligence. To capitalize on time-sensitive intelligence, photo interpretation and unencrypted SIGINT operations were moved early in the war from Fifth Air Force headquarters to the ADVON and group level. Previously, photo interpretation and preparation of targets took 5-30 days to process at the Central Interpretation Unit in Brisbane and return to the Bomber Command.⁹⁶ Shifting photo interpretation to the ADVON and group level allowed rapid exploitation of reconnaissance photos and the creation of target material. Basic SIGINT operations followed the same trend. Exploitation at the ADVON and group level created the ability to decrease the time between collection and exploitation and drive changes in targets almost immediately.

At the squadron level, flexible air operations proved the quality of intelligence officers serving under Cunningham's leadership. The typical squadron intelligence brief had to account for the potential to strike multiple targets depending on any incoming intelligence before take-off. Often it was not until minutes before takeoff that the crews knew for certain their mission targets.⁹⁷ The squadron intelligence officer's preparation of target materials and threat research for each potential was critical to ensuring this level of

⁹⁴ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹⁵ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹⁶ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹⁷ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

flexibility. Squadron intelligence officers were also the first source of time sensitive intelligence from returning missions. Each Fifth ADVON mission generated four different reports.⁹⁸ Within three hours of landing the squadron intelligence officer was responsible for interrogating the mission crews and radioing enemy sightings, operational success to inform Fifth ADVON Intelligence to be included in the next daily intelligence review.⁹⁹ Within 24 hours, each mission was to be summarized in a narrative report and used to supplement target and tactical decisions for subsequent missions.¹⁰⁰ Throughout the entire process, the flexibility of Fifth ADVON was an intelligence-driven operation. By designing intelligence functions to focus on the tactical level Fifth, Air Force was able to capitalize rapidly on adversary changes unlike any other Air Force in the Pacific.

Summary

The hallmark of Fifth Air Force Intelligence is an operational design which integrated intelligence at the operational and tactical level. The assignment of intelligence officers to flying squadrons was particular to Fifth Air Force and directly improved mission effectiveness. A flexible mission planning process created the impressive ability to change targets only minutes before takeoff. Integration of external intelligence collection, most notably ULTRA, created an economy of force necessary to maximize the combat capability of the resource-starved Fifth Air Force. The use of photo reconnaissance to amplify ULTRA intelligence is today labeled intelligence cross-cue, and is considered a best practice. The effective integration of intelligence generated by external strategic organizations with internal tactical capability is a testament to the organizational design of Fifth Air Force Intelligence.

⁹⁸ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹⁹ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

¹⁰⁰ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

Chapter 5: Conclusion

Air Combat Intelligence was something new which had to be developed and improvised until experience would give the knowledge from which to crystallize basic principles

– Air Evaluation Board SWPA, 30 September 1944

The disparity in the performance between the three case studies suggests resources did not determine the success of air intelligence in the CBI and Pacific theaters. Experience as well is unlikely the determining factor since the men who conducted and led air intelligence activities were largely inexperienced and lacked formal training. Instead, each case reveals there was not a single recipe for building an air intelligence organization. Air intelligence at the beginning of World War II was a concept which still required innovation and development. The lessons learned in the CBI and Pacific theaters were American solutions to produce intelligence for air operations. Absent the resources to follow British procedures for air intelligence, American airmen developed unique and inventive organizations and processes. The successes and failures of Fifth, Tenth and Fourteenth Air Force reveal three organizational principles for air intelligence: timeliness, forward presence, and integration.

Timeliness

Within each case study, the concept of rapidly disseminating intelligence is prominent. Improving the speed of intelligence was a concept over which both Fifth and Fourteenth Air Force obsessed. In early 1942, Fifth Air Force sometimes took 30 days to get target information to tactical units.¹ In China, Fourteenth Air Force was constantly frustrated by the lag in intelligence reporting from Stillwell's headquarters.² ³ For Tenth Air Force, the arrival of

¹ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

² Fourteenth Air Force, The Changteh Campaign of October – December 1942, 20 May 1945, Call# 862.04-3, IRIS# 00268316, USAF Collection, AFHRA, Maxwell AFB AL.

³ Claire Lee Chennault, *Way of a Fighter: The Memoirs of Claire Lee Chennault*, ed. Robert Hotz (New York, G.P. Putnam's Sons, 1949), 257.

Davidson created a new impetus to increase the timeliness of intelligence. The speed at which aircraft operated and the dynamic nature of targets created within each numbered Air Force the constant pressure to deliver timely intelligence. The success of intelligence in air combat was as much about obtaining information as it was about rapidly disseminating the information to combat crews.

By the conclusion of the war, Fifth, Tenth, and Fourteenth Air Force Intelligence found methods to improve timeliness. Tenth Air Force increased timeliness by relying on OSS Detachment 101 reports to direct combat aircraft. The simplest method to improve the timeliness of intelligence was deciding to act on direct reports from external intelligence sources. In 1944, most air action consisted of reactive strikes on targets called in by Detachment 101, which were often not followed up with by combat assessment.⁴ A streamlined process improved the speed of intelligence in Tenth Air Force, but by relying on external agency action Tenth Air Force became dependent on a single source of intelligence and sacrificed a more holistic awareness of the battlespace.

Both Fifth and Fourteenth Air Force Intelligence focused on improving speed through internal processes vice external sources. The processes Cunningham developed in Fifth ADVON created the ability to turn collected information into mission materials within 24 hours.⁵ For time sensitive intelligence, targets could be updated within minutes. Fifth ADVON aircraft often would change targets based on updated intelligence minutes before takeoff.⁶ Within Fourteenth Air Force, the development of an intelligence network improved the time required for intelligence to reach combat aircrew. The network concept improved aircraft response to time-sensitive intelligence and provided the ability to change targets in flight.⁷ Unlike Tenth Air Force

⁴ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. in Relation to Air Force Action in North Burma, 11 Sept 1944, Call #830.601-1 IRIS #00267399, USAF Collection, AFHRA, Maxwell AFB AL.

⁵ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁶ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁷ Fourteenth Air Force, The Changteh Campaign of October – December 1942, 20 May 1945.

reliance on Detachment 101, Fourteenth Air Force intelligence stations were controlled by Fourteenth Air Force officers who ensured a flow of long-term intelligence in addition to time-sensitive updates. While each numbered Air Force improved upon the timeliness of intelligence, the organizational and process approach taken by Fifth and Fourteenth Air Force achieved timeliness without sacrificing oversight and control. The achievement of each numbered Air Force demonstrates the lesson that timeliness is not an exclusive function of available resources, but is achievable through organizational design.

Forward Presence

The second concept which emerges from these case studies is that air intelligence gains utility when functions are moved to forward locations. Conducting intelligence operations with units operating at forward locations can increase the timeliness of intelligence reporting through proximity to combat aircrew. However, more importantly, forward operating locations create operational flexibility. An internal evaluation of Fifth Air Force intelligence in 1944 discussed the benefits of conducting intelligence briefing and debriefing at the squadron level and found the “method elastic enough to meet conditions where individual units have operated away from their parent group and beyond the range of easy communication.”⁸ In Fifth, Tenth and Fourteenth Air Force distinct advantages were gained when air intelligence functions were conducted at forward locations with lower level units.

The success of Fifth ADVON is perhaps the most concrete example of the advantage gained by moving intelligence forward. Harry Cunningham increased the speed and flexibility of intelligence by embedding intelligence officers at each level of Fifth Air Force operations. Fifth Air Force was one of the first organizations to place intelligence officers at the squadron level, a practice now institutionalized in nearly every fighter squadron in the United States Air Force.⁹ The practice of intelligence in forward units provided a method to

⁸ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

⁹ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

overcome communication issues in the Pacific. By placing intelligence activities forward, units were less reliant on intelligence support from headquarters located often over 1000 miles away. When equipped with Cunningham's intelligence capabilities, Whitehead and Fifth ADVON could make reliable decisions. Intelligence functions pushed forward provided units a distinct ability to make operational and tactical decisions based on reliable information, increasing the flexibility and responsiveness of air power in both CBI and Pacific theaters.

In the CBI theater, the intelligence network designed by Fourteenth Air Force specifically reflected the benefits of speed and flexibility borne from moving intelligence functions forward, and the range of the V-100 radio used by Fourteenth Air Force's liaison stations partially necessitated the need to push intelligence forward.¹⁰ Whatever the reason, however, each fighter and bomber base received reports from the stations, and with the intelligence officers forward deployed from Kunming they were able to build an accurate picture to support combat operations.¹¹ By 1944, Colonel "Casey" Vincent of the 68th Composite Wing was equipped with timely information from the intelligence network and had under his command photo-interpretation and analysis capability to develop an accurate intelligence picture.

The early struggles of Tenth Air Force present the negative effects of focusing air intelligence efforts at the headquarters. In 1943, it often took over 48 hours to prepare the intelligence products and information necessary to support combat missions.¹² The poor responsiveness of intelligence activities in Tenth Air Force is in stark contrast to Fifth ADVON's ability to generate mission intelligence in less than 24 hours. Further evidence to support the wisdom of placing intelligence activities forward is once Tenth Air Force established a forward A-2 staff, mission preparation times decreased

¹⁰ Fourteenth Air Force, The Changteh Campaign of October – December 1942, 20 May 1945.

¹¹ Fourteenth Air Force, The Changteh Campaign of October – December 1942, 20 May 1945.

¹² Headquarters Tenth Air Force, Memorandum to Major Pound from Major Norman, Historical Data, Narrative Description, 21 Feb 1944

significantly.^{13 14} Moving intelligence activities forward does risk the probability of duplication, because multiple units could be working on the same task. That in each case study the numbered Air Force chose, under severe resource constraints, to push intelligence activities forward suggests the unpredictability of war and challenges of communicating over great distances made flexibility and speed premium capabilities desirable over improved efficiency.

Integration

The importance of integration between operations and intelligence is the third organizational concept revealed in each of the three case studies. Starting at the top with the relationship between the numbered Air Force commander and his A-2, the success of air intelligence was significantly influenced by how closely intelligence activities were integrated with operations. A positive and close relationship between the leaders directing air operations and intelligence was essential to the success of air intelligence in the numbered Air Force. If integrated with numbered Air Force operations air intelligence often delivered with speed and flexibility the tailored intelligence necessary to support combat operations.

In Fifth Air Force, the relationship between Whitehead and Cunningham at Fifth ADVON facilitated the effective integration of air intelligence. Cunningham ensured intelligence was available and tailored at every step of the mission planning process. Fifth ADVON intelligence processes were aligned to support the morning staff meeting where Whitehead determined the next day's missions. The work of Cunningham's men then followed the mission planning through takeoff and resumed once the aircrew returned. Within Fifth ADVON, the distinction between intelligence and operations was minimal. An internal evaluation of Cunningham's process found both intelligence and

¹³ Tenth Air Force, Memorandum from Lt. Col James F. Pickney A.C. of S., A-2, 9 Oct 1944, Call# 830.603-1 IRIS# 00267401, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁴ Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. in Relation to Air Force Action in North Burma, 11 Sept 1944.

mission effectiveness improved with the integration of at each step of Fifth Air Force operations.¹⁵

In the CBI theater, the relationship between Chennault and his intelligence leadership team built an integrated, intelligence-driven Air Force. In line with Chennault's leadership style, the commander integrated himself with all aspects of air intelligence activity, working to cultivate the right personnel to lead Fourteenth Air Force Intelligence. In late 1942, the intelligence activities implemented by Jesse Williams echoed Chennault's suggestion for intelligence in China.^{16 17} Limited fuel supplies necessitated each Fourteenth Air Force sortie have an outsized impact on operations. The operations of Fourteenth Air Force was connected directly to the intelligence activities of Williams and Birch. Throughout the war, Tenth Air Force Intelligence struggled to integrate with Tenth Air Force operations. However, Davidson did integrate intelligence into his operations using Detachment 101 to support Tenth Air Force combat missions with timely intelligence on fleeting targets. In each case, the effective integration of air intelligence with the operations of the numbered Air Force resulted in more timely and flexible air operations. Designing an effective air intelligence organization could not be an independent endeavor. However, leadership focus on integrating air intelligence with operations was essential to reliably delivering timely and accurate intelligence at the right point in the mission.

Summary

The development of air intelligence in Fifth, Tenth, Fourteenth Air Force was a process of experimentation and innovation that has lasting impact on air intelligence. Each case reflects the development of an American approach to operational air intelligence which remains in practice today. Many of the

¹⁵ Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944.

¹⁶ China Air Task Force, Recommendations for A-2 Activities, Lt. Col Jesse Williams, 31 December 1942, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

¹⁷ Headquarters China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942, Call# 142.05-1, IRIS# 00115241, USAF Collection, Maxwell AFB AL.

operational lessons learned from the Pacific and CBI theater later became hallmarks of intelligence operations of United States Air Force. Struck by the loss of operational intelligence capability after the war, Harry Cunningham in 1946 authored the intelligence section of the Tactical Air Force Command manual.¹⁸ Today, the intelligence network concepts employed by Fourteenth Air Force in 1944 are practiced at the United States Weapons School and employed in combat. Fifth Air Force's practice of cross-cuing SIGINT with airborne imagery, 70 years later is a standard Air Force practice.

In December 1941, amid the ruins of Clark Field, the prospects of air intelligence accomplishing innovative and extraordinary feats in the CBI and Pacific theater seemed unlikely. However, from the wreckage, an American way of air intelligence developed. With limited resources, inspired airmen organized intelligence at the numbered Air Forces to deliver timely intelligence to support combat operations. Their efforts continue to ensure intelligence is in the jet, delivering combat results against America's adversaries.

¹⁸ Col. Harry Cunningham To Gen Ennis Whitehead. Letter, 25 July 1946, Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell AFB AL.

Bibliography

Books

- Byrd, Martha, *Giving Wings to the Tiger*. Tuscaloosa, AL: University of Alabama Press, 1987.
- Chennault, Claire Lee, *Way of a Fighter: The Memoirs of Claire Lee Chennault*, Edited by Robert Hotz. New York, G.P. Putnam's Sons, 1949.
- Craven, Wesley Frank and James Lea Cate, eds. *The Army Air Forces in World War II*, 7 vols., 1948-1958. New imprint, Washington, DC: Office of Air Force History, 1983.
- Drea, Edward J., *MacArthur's ULTRA: Codebreaking and the War against Japan, 1942-1945*. Lawrence, KA: University Press of Kansas, 1992.
- Edmunds, Walter D., *They Fought with What They Had*. Uncommon Valor 1951, Reprint, Lexington, KY: Uncommon Valor Reprint 2017.
- Frillmann, Paul and Graham Peck, *China: The Remembered Life*. Boston, MA: Houghton Mifflin Company, 1968.
- Goldstein, Donald, *Ennis C. Whitehead, Aerospace Commander and Pioneer*. Ann Arbor, MI: UMI Dissertation Services, 1971.
- Griffith, Tomas E. Jr., *MacArthur's Airmen: General George C. Kenney and the War in the Southwest Pacific*. Lawrence, KA: University Press of Kansas, 1998.
- James, D. Clayton, *The Years of MacArthur Volume II, 1941-1945*. Boston, MA: Houghton Mifflin Company, 1975.
- Kenney, General George C., *General Kenney Reports: A Personal History of the Pacific War*. 1949, new imprint, Washington DC: Air Force History and Museums Program, 1997.
- Kreis, John F. ed., *Piercing the Fog*. Washington DC: Air Force History and Museums Program, 1996.
- Lautz, Terry, *John Birch: A Life*. New York, NY: Oxford University Press, 2016.
- Maurer Maurer, ed., *Air Force Combat Units of World War II*. Washington DC: Office of Air Force History, 1983.

Miles, Milton E., *A Different Kind of War: The Little-Known Story of the Combined Guerrilla Forces Created in China by the US Navy and Chinese during World War II*. Garden City, NY: Doubleday, 1967.

Romanus, Charles F. and Riley Sunderland, *United States Army in World War II, China-Burma-India Theater, Stilwell's Mission to China*. 1953. New imprint, Washington DC: Center of Military History United States Army, 1987.

Sacquety, Troy J., *The OSS in Burma: Jungle War against the Japanese*. Lawrence, KS: University Press of Kansas, 2013.

Slim, Field-Marshal Viscount, *Defeat into Victory: Battling Japan in Burma and India 1942-1945*. 1956. New Imprint, New York, NY: Cooper Square Press, 2000.

Stillwell, Joseph, *The Stilwell Papers*. Edited by Theodore H. White. New York: Schocken Books, 1972.

Yu, Maochun, *OSS in China: Prelude to the Cold War*. New Haven, CT: Yale University Press, 1996.

Periodicals

Chennault, Capt Claire Lee, "The Role of Defensive Pursuit, Part II Interceptions" *The Coast Artillery Journal* LXXVII, no. 1 (Jan-Feb 1934): 7-11.

Doctrine Publications

Joint Publication 2-0, *Joint Intelligence*, 22 October 2013, http://www.dtic.mil/doctrine/new_pubs/jp2_0.pdf.

Unit and Staff Office Histories

6th Photographic Group Reconnaissance, Historical Resume (Activation through 31 December 1944), 12 April 1945, Call# WG-91-HI, IRIS# 00106848, AFHRA, in the USAF Collection, Maxwell AFB AL.

8th Photo Reconnaissance Squadron, Historical Sketch, 4 April 1945, Call # WG-91-HI, IRIS# 00106848, in the USAF Collection, AFHRA, Maxwell AFB AL.

9th Photographic Reconnaissance History, December 1942, Call# SQ-Photo-9-HI, IRIS# 00065093, in the USAF Collection, AFHRA, Maxwell AFB AL.

9th Photographic Reconnaissance, Operations of 9th Photographic Squadron (L) December 13, 1942 to May 31, 1943, Call# SQ-Photo-9-HI, IRIS# 00065097, USAF Collection, AFHRA, Maxwell AFB AL.

9th Photographic Reconnaissance Squadron History, 29 March 1945, Call# SQ-Photo-9-HI, IRIS# 00065095 in the USAF Collection, AFHRA, Maxwell AFB AL.

91st Reconnaissance Wing, Informal History of Organization, 1 December 1945, Call# WG-91-HI, IRIS# 00106849, AFHRA, in the USAF Collection, Maxwell AFB AL.

Tenth Air Force History 1943 AAFRH-17, 17 July 1946.

Tenth Air Force History 1 January – 10 March 1943, AAFRH-4, Chief of Air Staff, Intelligence Historical Division, November 1944.

Presidential Proclamations, Executive Orders, other documents

Eisenhower, Dwight D. "Memorandum of Disapproval of Bill for the Relief of Colonel Harry F. Cunningham," August 15, 1953. Online by Gerhard Peters and John T. Woolley, *The American Presidency Project*.

Interviews

Oral History Interview of Major General Howard C. Davidson, by Hugh Ahmann and Tom Sturm, 5-8 December 1974, typed transcript, Office of Air Force History.

Official Records

91st Photo Wing, Monthly Statistical Report for June 1944, Call# WG-91-HI, IRIS# 00106851, AFHRA, in the USAF Collection, Maxwell AFB AL.

91st Photo Reconnaissance Wing, Monthly Statistical Report July 1944, Call# WG-91-HI, IRIS# 00106852, AFHRA, in the USAF Collection, Maxwell AFB AL.

China Air Task Force, Memorandum to Commanding General, American Army Forces, China, Burma and India, Attention G-2 from Claire Chennault, Suggestions for Amplifying Intelligence Activity in This Theater, 28 December 1942, Call# 142.05-1, IRIS# 00115241, USAF Collection, Maxwell AFB AL.

China Air Task Force, Recommendations for A-2 Activities, Lt. Col Jesse Williams, 31 December 1942, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

China Air Task Force, Review of A-2 Activities, July 4 1942, to Dec 31, 1942, Lt. Col Jesse C. Williams, 31 December 1942. Call#825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

Fifth Air Force, Fifth Air Force ADVON Weekly Intelligence Review, 12 January 1944, Call#730.607-7, IRIS# 00258228, USAF Collection, AFHRA, Maxwell AFB AL.

Fifth Air Force, South West Pacific Area Air Evaluation Board, 30 September 1944, Call #730.601-2, IRIS #01015633, USAF Collection, AFHRA, Maxwell AFB, AL.

Fifth Air Force, Colonel Harry F. Cunningham, Assistant Chief of Staff, A-2, January, February 1945, Call# 730.600, IRIS# 00258192, USAF Collection, AFHRA, Maxwell AFB AL.

Fifth Air Force, Past, Present and Future, 15 August 1945, Call# 730.600, IRIS# 258192, USAF Collection, AFHRA, Maxwell AFB AL.

Fourteenth Air Force, Letter to Lt. Gen Wedemeyer from Gen Chennault, 4 Feb 1945, Call# 862.609-1, IRIS# 00268877, USAF Collection, AFHRA, Maxwell AFB AL.

Fourteenth Air Force, Memorandum to Commanding Officer, OSS, China Theater, 5329th AGFRTS (P) Administration and Plans, Col Milner, 9 Feb 1945, Call#862.609-1, IRIS# 00268877, USAF Collection, AFHRA, Maxwell AFB AL.

Fourteenth Air Force, Interview: Captain John M. Birch, Assistant A-2, Fourteenth Air Force, with Fourteenth Air Force Historical Office Staff, 20 March 1945, Call# 862.04-3, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

Fourteenth Air Force, The Changteh Campaign of October – December 1942,

20 May 1945, Call# 862.04-3, IRIS# 00268316, USAF Collection, AFHRA, Maxwell AFB AL.

Headquarters Army Air Forces, Memorandum to Major John R. Haas from Major Joseph McGee, Report of 1st Lt. John M. Birch, Assistant A-2, Fourteenth Air Force, Kunming China; April 1 1943, 17 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL

Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Tenth and Fourteenth Air Forces, 21 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

Headquarters Army Air Forces, Memorandum to Colonel Malcom W. Moss from Major Joseph McGee, Checklist which I used at Headquarters of the Fourteenth Air Forces, 22 May 1943, Call# 142.05-1, IRIS#00115241, USAF Collection, AFHRA, Maxwell AFB AL.

Headquarters Army Air Forces, Intelligence Requirements of Tenth and Fourteenth Air Forces, 24 May 1943, Call #142.0411-8, IRIS #00115241, USAF Collection, AFHRA, Maxwell AFB AL.

Headquarters Army Air Forces, Memorandum to Brigadier General E.P. Sorenson from Major Joseph McGee, Observations of my Mission to the Tenth and Fourteenth Air Force Headquarters, 24 May 1943, Call# 142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

Headquarters Army Air Forces, Intelligence Officers with the Fourteenth Air Force, Major Joseph McGee, 26 May 1943, Call#142.05-1, IRIS# 00115241, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Tenth Air Force Activity Summary G-2, 16 March -28 Jun 1942, Call# 830.6041, IRIS# 00267404, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Notes re Visit to China, Brig Gen, Francis M. Brady, 22 December 1942, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Memorandum to Commanding General, Comments on General Brady's Memo to CG, Tenth AF dated 22 December 1942, Chennault, 5 January 1943, Call# 825.01, IRIS# 00266313, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Memorandum from Wright to Bissell on Enemy Blockade Running, 20 Feb 1943, Call# 830.605, IRIS# 00267416, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Memorandum to Brigadier General Bissell on Retaking of Port Blair, Andaman Islands, 25 February 1943, Call# 830.322-1, IRIS# 00916103, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Memorandum to Brigadier General Bissell on Additional Information on the Project to Retake Port Blair, Andaman Islands, 14 March 1943, Call# 830.322-1, IRIS# 00916103, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Letter from Jack Baldwin to Maj Gen Clayton Bissell, 10 May 1943, Call# 830.289-1 V.1, IRIS# 00267300, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Memorandum to Major Pound from Major Norman, Historical Data, Narrative Description, 21 Feb 1944, Call# 830.309-1, IRIS# 00916086, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Intelligence Officers, 22 August 1944, Call# 830.6031, IRIS# 00267402, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Special Report on Activities of Detachment 101, O.S.S. in Relation to Air Force Action in North Burma, 11 Sept 1944, Call #830.601-1 IRIS #00267399, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Memorandum from Lt. Col James F. Pickney A.C. of S., A-2, 9 Oct 1944, Call# 830.603-1 IRIS# 00267401, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Force, Tenth Air Force Special Intelligence Plan Oct 1-15 1944, 9 Oct 1944, Call# 830.603-1, IRIS#00267401, USAF Collection, AFHRA, Maxwell AFB AL.

Tenth Air Forces, Plan for Employment of US Air Forces in China, Claire Chennault, Call#825.01, IRIS#00266313, USAF Collection, AFHRA, Maxwell AFB AL.

Letters

Cunningham, Col. Harry F. To Gen. Ennis Whitehead. Letter, 26 February 1946, Call#168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell AFB AL;

Cunningham, Col. Harry F. To Gen Ennis Whitehead. Letter, 25 July 1946,
Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell
AFB AL.

Cunningham, Col. Harry F. To Gen. Ennis Whitehead. Letter, 28 July 1946,
Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell
AFB AL.

Cunningham, Col. Harry F. To Gen. Ennis Whitehead. Letter, 07 June 1947,
Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell
AFB AL.

Cunningham, Col. Harry F. To Gen. Ennis Whitehead. Letter, 24 April 1948,
Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA, Maxwell
AFB AL.

Cunningham, Col. Harry F. to Gen. Ennis Whitehead. Letter, 13 December
1949, Call# 168.6008-3, IRIS# 00123909, USAF Collection, AFHRA,
Maxwell AFB AL.

Marshall, George C. Marshall to General Douglas MacArthur on the Use of
Ultra and Related Correspondence SRH-034 May 23, 1944.

Lectures and Addresses

Cain, Colonel Benjamin, "Intelligence Experiences During World War II."
Lecture. Air War College, Maxwell AFB, AL, 10 December 1946.