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The Dawn of SOWT: OSS Weathermen in the Balkans, 1944

Bryan David Carnes
bcarnes13@gmail.com

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THE DAWN OF SOWT:
OSS WEATHERMEN IN THE BALKANS, 1944

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In
History

by

Bryan David Carnes

Approved by

Dr. Phillip T. Rutherford, Committee Chairperson

Dr. Daniel Holbrook

Dr. Kevin T. Law

Marshall University
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ABBREVIATIONS

AAF – Army Air Forces

AGL – Above Ground Level

ACRU – Air Crew Rescue Unit

BATS – Balkans Air Terminal Service

COI – Coordinator of Information

FBI – Federal Bureau of Investigation

G-2 – U.S. Army Intelligence

GHQ – General Headquarters

HG – Inches of Mercury

JCS – Joint Chiefs of Staff

JMC – Joint Meteorological Center

mb - Millibar

OG – Operational Groups, Office of Strategic Services

ONI – Office of Naval Intelligence

OSS – Office of Strategic Services

SI – Secret Intelligence, Office of Strategic Services

SIS – British Secret Intelligence Service

SO – Special Operations, Office of Strategic Services

SOE – Special Operations Executive

SOWT – Special Operations Weather Technician/Team

WS – Weather Squadron

ABSTRACT

This thesis will examine the rise of Special Operations Weathermen during World War II, from the founding of the Weather Bureau to the formation of the Office of Strategic Services (OSS). OSS-weathermen and their contributions played a significant role to the overall Allied victory in all theaters of operation. Concentrating on the first documented use of clandestine weathermen in Yugoslavia, I contend that Special Operations Weather was not only crucial to the war effort, but as a result, revolutionized behind-the-line weather reporting in modern U.S. military. Since meteorological data transcends alliances and nationalities; those who can accurately forecast and observe the weather and relay information back for operational use, play a significant role in the “go / no-go” decisions for military air, land and sea operations. The successful use of these elite group of personnel make weathermen indispensable to the achievement of military operations across the globe.

CHAPTER 1

INTRODUCTION

The modern day Special Operation Weather Technician (SOWT) is a highly skilled Air Force meteorologist who is not only trained as a weather forecaster, but also attends some of the toughest Special Operations schools the United States Military has to offer. With a streamlined training process that weeds out the meek so the strong survive, the Air Force maintains only 110-115 of these weather warriors in its arsenal at one time. SOWTs are assigned to support conventional and nonconventional units such as the 82d Airborne Division, 101st Airborne (Air Assault) Division, Army Rangers, Green Berets, Delta Force, Marine RECON and Navy SEAL teams. These specialized weather operators are a relatively recent addition to the U.S. military. While their origins trace back to WWII, as this thesis will explore, it was only in 2008 that the Air Force officially recognized SOWT as a specialty career field.

Background

Before U.S. involvement in WWII, the United States' weather skills lagged significantly behind those of the Europeans. With advancements in aviation, specifically the building of faster, higher and longer-range aircraft, there was a need for more accurate weather forecasts and observations. These aviation advancements necessitated the ability to forecast over an extended period of time in a more diverse and geographically dispersed topography in order to ensure increased flight safety and mission success. To fill this skill gap in the U.S. military, the United States recruited leading meteorologists from Norway, Sweden and Germany to train weather officers in advanced forecasting skills at both the California Institute of Technology (Cal Tech) and Massachusetts Institute of Technology (MIT). At the same time, the U.S. military consolidated its weather observing and forecasting schools into a single location at Chanute Field

in Illinois and increased the frequency of weather reporting for the expanding Air Force. This streamlined training, along with the recruitment of more weather personnel and developments in weather equipment for transmitting observations and forecasts, led to the exponential buildup of the new Weather Bureau.

After discussing improved weather training and techniques in Chapter Two, this thesis will focus on the conundrum of Yugoslavia, which, prior to WWII, was embroiled in internal turmoil due to conflict among the culturally diverse ethnic groups within its population. The Illyrian movement of the mid-Nineteenth century, for instance, was an attempt to form a pan-Slavic nation based on ethnicity and language under the Hungarian Empire.¹ But this effort inevitably failed. For one, nationalistic ideologies led to cultural dissent from Croatia and resistance from the Hungarian royalty. Power over the region was divided between Hungarians and Ottomans until the balance of power began to shift again in 1870. After this point, the geographical boundaries were redrawn by the Triple Alliance and Triple Entente.² The new boundaries disregarded the ethnic, religious and cultural differences that existed in the Balkans. This sparked the creation of the Balkan League, an alliance of Balkan states that fought against the Ottoman Empire in 1912-1913.³ It was not until after World War I, during the Conference of Ambassadors in 1920, that Yugoslavia became recognized as a state consisting of six Socialist Republics: Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia and Slovenia. With support from the British and French, Yugoslavia was meant to be ruled by a constitutional monarch. Following internal rifts, King Alexander I abolished the Constitution and ruled the

1. Wesley M. Gewehr, *The Rise of Nationalism in the Balkans, 1800-1930* (New York: Henry Holt and Company, 1931).

2. Misha Glenny, *The Balkans: Nationalism, War, and the Great Powers, 1804-1999* (New York: Penguin Books, 2001).

3. Jasminka Udovički and James Ridgeway, *Burn This House: The Making and Unmaking of Yugoslavia* (Durham: Duke University Press, 2000).

country as dictator until his assassination in 1934. His son, King Peter, opposed the growing Tripartite Pact, an agreement that established the Axis Powers and included Nazi Germany, Imperial Japan and Fascist Italy, and was forced to flee leaving the people to fend for themselves for control over Yugoslavia while simultaneously fighting the Axis Powers.⁴

Following a paltry eleven days of resistance on 6 April, 1941, Yugoslavia capitulated to the Axis powers. The presence of German, Italian and Bulgarian forces did little to quell the internal rifts among the people. With the existing government in exile, two guerrilla factions emerged: Dragoljub "Draža" Mihailović and his Chetniks, who were loyal to the abdicated royal government, and Marshal Josip Broz "Tito" and his Partisans, who were Communists fighting against the Axis and the former Yugoslav regime.

After establishing the historical context of a Balkan region embroiled in struggle during Chapter Three, Chapter Four will turn to the creation and evolution of the Office of Strategic Services (OSS) and its relationship to this conflict. Although there has been an abundance of scholarly research conducted regarding the OSS and its role during the war, not much attention has been given to its actions in Yugoslavia. Prior to the formation of the OSS, which was led by World War I hero William "Wild Bill" Donovan, President Franklin D. Roosevelt had sent Donovan to observe the situation in the Mediterranean Area in 1940.⁵ Upon receiving Donovan's report, Roosevelt concluded that the area was crucial to halting Axis expansion. In 1942, the OSS was finally activated, modeled closely after the British's new intelligence service, the Special Operations Executive (SOE) branch. At this point, the two national agencies began to

4. Prince Paul, the Regent of Yugoslavia, sent his ambassadors to sign the Axis pact, against the people's will, on March 25, 1941. This led to a *coup* which led to King Peter taking the throne at an earlier than expected age. Britain and Russians praised the *coup* but neither offered to help when Hitler launched attacks on Belgrade. Robert Lee Wolff, *The Balkans in Our Time* (Cambridge: Harvard University Press, 1956).

5. For an in-depth review of the formation and mission of the OSS, see Kermit Roosevelt, *War Report of the OSS (Office of Strategic Services), Vol 1* (New York: Walker, 1976).

operate in unison – albeit not a happy one. The OSS and SOE both held the mandate to conduct sabotage and espionage activities behind enemy lines. Only the OSS ran intelligence gathering and propaganda efforts, since the SOE had to concede these duties to MI-6, its intelligence-gathering brothers.

The OSS and SOE were at one time supporting both Mihailović and Tito. However, following the Tehran Conference in 1943, the British and American governments decided, along with Soviet leader Joseph Stalin, to concentrate Allied support on Tito's efforts. This choice, which has been second-guessed by the annals of history, was made because the Big Three believed it would yield the most success in the fight against the Nazis. Despite Tito's distrust of both British and American agents, given their prior support to Mihailović, the Allied backing of Tito and his Partisans resulted in enough strength and momentum to force the Nazis from the country.⁶ During this time, there was still strife between the Chetniks and Partisans, as well as between the OSS and SOE. Despite these struggles, the mission was successful. Many historians nonetheless believe that Yugoslavia and the roles the OSS and SOE played in Balkans were not significant in the overall scheme of the war. I plan to demonstrate that this conclusion is false, that the OSS and SOE helped Tito reach the apex of power that ensured an Allied victory and that covert operations, specifically the use of clandestine weathermen, precipitated this success and was a major factor in ridding the country of the Nazi regime.

The unique culmination of the aforementioned events, along with the Allies' decision to support the Yugoslavian partisan movement, made weather support for Air Raids, Strategic Bombing and military operations in enemy-held territories a new focus of the war effort. This thesis will specifically examine the impact of the American-run weather network established in

6. Walter R. Roberts, *Tito, Mihailović, and the Allies, 1941-1945* (New Brunswick, N.J.: Rutgers University Press, 1973) and Stephen Clissold, *Whirlwind; An Account of Marshal Tito's Rise to Power* (New York: Philosophical Library, 1949).

Yugoslavia in 1944 on missions that helped to eradicate the Nazi war machine's presence in Yugoslavia and surrounding regions. Focus is given to how the weather network allowed for increased air support to Tito's Partisans in Yugoslavia and their fight against the Nazi occupation of their homeland.

The thesis will also examine how Allied weather stations allowed for more frequent and accurate bombing raids against Nazi factories in Hungary and Czechoslovakia and the destruction of the oil fields at and near Ploesti, Romania. By supporting the guerilla uprising and destroying key military manufacturing facilities and refineries, the Allied activities in the Balkans were crucial to the Red Army's 1944 offensives that all but annihilated the Nazi regime on the Eastern Front and paved the way for the arguably more significant Allied invasion in Normandy: Operation OVERLORD. The following chapters will present – through critical analysis of unit histories, after action reports, personal interviews and letters – the story of the OSS weathermen in the Balkans and their contributions to the overall Allied mission. The success of OSS weathermen in this operation had a profound impact on the remainder of the war, as well as on future military actions across the globe. Following these experimental Balkan missions, specially trained weathermen were inserted behind enemy lines in almost every major military advancement from Normandy to the Pacific Islands during WWII.

Historiography

U.S. and Allied military operations in Yugoslavia have been largely neglected in the historical accounts of activities during World War II. For example, in the *Green Books*, which are considered the U.S. Army's official history of World War II, operations conducted in Yugoslavia are not addressed in great detail. The section titled "The Mediterranean Theater of Operations" has only fleeting references to Yugoslavia, and even less information on OSS

missions in the country.⁷ While some might argue that the OSS was not a military unit, it was under direct command of the Joint Chiefs of Staff (JCS) and comprised of military personnel from the different U.S. branches. By all reasonable accounts, the OSS, which relied heavily on the U.S. military and Allied support to succeed in Yugoslavia, was an extension of the military and their courageous and often dangerous actions should not have been overlooked in any “official account.” While *The Army Air Forces in World War II*, the “Blue Books” which are not an official history, do mention OSS weathermen being deployed to Yugoslavia as part of a “special infiltration mission,” nothing further is mentioned.⁸

Rick Atkinson’s *Liberation Trilogy*, which focuses on U.S. forces during World War II in the European Theater of Operations, explores the importance of Air Power and Strategic and Tactical Bombing in the Mediterranean.⁹ Atkinson argues that the destruction of targets such as the Ploesti Oil Fields and the Fifteenth Air Force’s (based out of Bari, Italy) dominance in the air was significant to stopping the Nazi War Machine. However, he fails to give details of how exactly these achievements were made possible. My thesis will discuss the details of OSS operations that allowed these missions to succeed. Specifically, it will outline the role of OSS weathermen in enabling more effective and frequent day and night-time flying over Yugoslavia, which increased air dominance by sending vital weather reports back to Bari for missions to

7. The sections in this volume are titled “Northwest Africa: Seizing the Initiative in the West,” “Sicily and the Surrender of Italy,” “Salerno to Cassino” and “Cassino to the Alps.” The Tehran Conference is mentioned in “Salerno to Cassino” along with the decision to support the Partisans, yet no detail on how the support was carried out is given. United States, *United States Army in World War II. The Mediterranean Theater of Operations* (Washington, DC: Office of the Chief of Military History, 1957). Vol 6.

8. It is mentioned that one OSS weather team was parachuted in near Ticevo in February 1944, yet there were actually four teams in country. The team referenced during that time parachuted in near Dravr – Tito’s headquarters. Wesley Frank Craven and James Lea Cate *The Army Air Forces in World War II: Europe: Augment to V-E Day* (Chicago: University of Chicago Press, 1953), 519-520.

9. Rick Atkinson, *The Day of Battle: The War in Sicily and Italy, 1943-1944* (New York: Henry Holt, 2007) and *The Guns at Last Light: The War in Western Europe, 1944-1945* (New York: Henry Holt, 2013).

resupply the country, rescue downed pilots and injured allies, as well as allow for aerial attacks on key targets in the Balkans.

Not all historians agree that special operations efforts in Yugoslavia were of importance to the overall success of the war. Historian John Keegan, for instance, characterizes the effect of SOE/OSS operations on the ultimate defeat of Hitler as “ambiguous,” arguing that they fail[ed] in [their] claim to have contributed significantly to Hitler’s defeat.”¹⁰ This position is a common mistake in historical accounts. Misunderstanding and lack of information has led to the prevailing neglect of this topic in “official” military history interpretations. Most appear to track Allied advances from Sicily, to the Gustav Line, to the Alps, then skip straight to the invasion of Normandy on D-Day. However, during the period of Allied actions on the mainland of Italy, the cross-Adriatic covert operations in Yugoslavia paved the way for the success of D-Day.

Historians and World War II experts have mentioned the impact of weather on military operations; however, they mostly focus on the larger scale operations such as OVERLORD and MARKET GARDEN. This holds true for military historians and even large military organizations such as the Air Force Weather Agency and Air Force Historical Research Agency. It is unfortunate that OSS weathermen, in particular those deployed in Yugoslavia, have been mostly overlooked, and on the rare occasions they are mentioned, it is generally in inaccurate accounts that fail to reveal the bigger picture of these men’s involvement in the liberation of Yugoslavia.

In terms of histories written by military agencies, three books, all of which have appeared on the Air Force Weather Professional Reading List, inadequately address these men and their accomplishments. The first book, *America's Weather Warriors: 1814-1985*, written by WWII Naval weatherman Charles Bates along with long-time Air Weather Service Historian John

10. John Keegan, *The Second World War* (New York: Penguin Books. 2005), 495.

Fuller, contains a number of inaccuracies in its account of weather warriors in Yugoslavia. Bates and Fuller claim, for one, that weather was a prime issue affecting supply drops to Tito and his Partisans. This is true, yet they also assert that, to overcome weather difficulties, the “Cairo-based 19th Weather Squadron trained eleven officers and sixteen enlisted men to work behind the lines with Tito’s guerillas ...”¹¹ Bates and Fuller also report that these operations began on March 14, 1944, with the insertion of a two-man weather team in Slovenia. My extensive research using primary military sources has shown that, in fact, the Cairo-based weather squadron did not train these men. It was the OSS that recruited them. Secondly, the airborne infiltration of these weathermen began earlier than the date given, and the mission the author recounts was not the first weather team in country.

Thor’s Legion: Weather Support to the U.S. Air Force and Army 1937-1987, by John Fuller, states similarly that eleven officers and sixteen men were trained to “support bombing missions from North Africa against Balkan’s targets ... and AAF and Royal Air Force C-47s airlifting urgently needed supplies to Marshall [sic] Josip Tito’s pesky partisans.”¹² Fuller comes closer to telling a more accurate story of the OSS weathermen; however, his account lacks verifiable detail and disregards the actions of the other OSS weathermen in the country. One such inaccuracy is the fact that the bombing missions were not launched from North Africa, but rather from Bari and Brindisi, Italy.

Air Force Weather: Our Heritage 1937-2012, a book self-described as one of “milestones” of Air Force Weather, contains only one mention of the OSS weather mission in Yugoslavia. Inaccurate information again leads readers to believe that on March 10, 1944, two

11. Charles C. Bates and John F. Fuller, *America’s Weather Warriors: 1814-1985* (College Station: Texas A&M University Press, 1986), 81.

12. John F. Fuller, *Thor’s Legions: Weather Support to the U.S. Air Force and Army 1937-1987* (Boston: American Meteorological Society, 1990), 65.

weathermen, along with their radio operator, parachuted into Slovenia with Tito's men on C-47 resupply missions.¹³ Here again, the date given for the jump is incorrect, and the first mission is not cited at all. It was Captain Cecil E. Drew and weather observer S/Sgt Joseph J. Conaty Jr. who on February 27, 1944, first parachuted into Yugoslavia and set up operations at Tito's headquarters, according to After Action Reports and Sortie Mission Logs.

In addition to academic and military historic accounts, scattered references to OSS weathermen in autobiographies of those who flew the missions or led ground troops do not adequately address the OSS' efforts. Examples of this genre include Brigadier Fitzroy Maclean's *Eastern Approaches* and Frank Lindsay's *Beacon in the Night*.¹⁴

By relying on unpublished primary sources, I plan to set the record straight and provide an accurate account of Operation BUNGHOLE and its role in liberating Yugoslavia from the Nazi regime. Using untouched primary sources held at the National Archives Records and Administration in College Park, MD, The National Archives in the Public Records Office in Kew, London and the U.S. Air Force Historical Research Agency, this thesis will paint a fuller picture of the importance of Allied support and OSS weathermen in Yugoslavia. These documents include the personal 201 Files on the individuals who participated in the Operation, After Action Reports, Army Air Forces Squadron Sortie reports, OSS monthly reports, SOE correspondence and other documents which pertain to the mission. The thesis also utilizes personal interviews and letters from these OSS weathermen archived with the Grey Beret Association. The project argues that these specialized weathermen were instrumental in

13. Air Weather Association, *Air Force Weather: Our Heritage 1937-2012*, 2nd ed. Compiled by George N. Coleman III. AFW 37-12v2 (Offutt AFB: Air Weather Service and Air Force Weather Agency, 2014), 2-9.

14. Fitzroy Maclean, *Eastern Approaches* (London: Penguin Books, 1991); Franklin Lindsay, *Beacons in the Night: With the OSS and Tito's Partisans in Wartime Yugoslavia* (Stanford: Stanford University Press, 1993).

solidifying Nazi defeat on the Eastern Front, allowing the Red Army to continue their advance to Berlin in 1945.

CHAPTER 2

EXAMINING WEATHER IN A CHANGING ENVIRONMENT

People have been fascinated with atmospheric phenomena throughout time, as ample historical evidence has shown. Not until the advent of aviation, however, did meteorology become truly indispensable to military endeavors. With the construction of a rudimentary wind vane in 500 B.C., the Greeks were arguably the first to develop any type of meteorological instrument. Rainfall was the first weather element to be collected; documentation traces back to India in 400 B.C.E. Galileo invented the thermometer around 1603 based on the principle that the density of liquid changes in response to changes in temperature. Notable figures have made weather observations throughout U.S. history: Francis Bacon recorded weather data in his writings, Benjamin Franklin annotated wind and sky conditions to track storm movement and Thomas Jefferson maintained a daily log of weather reports in his *Garden Book*.

Building from these early American weather observations, a permanent and consolidated meteorological service developed over a century later in the United States, when technology and science caught up with human curiosity. Establishing a permanent weather network was made possible by more accurate weather recording equipment, scientific understanding of the atmosphere and the invention of telegraphy. With the advent of telegraphic communications, daily weather observations and forecasts could be sent out via telegraph to newspapers and railroad stations. In order to centralize this new assemblage of weather predictions, President Ulysses S. Grant signed into law the creation of what is known today as the National Weather Service on February 9, 1870, under the care of the U.S. Army Signal Service. On October 1, 1890, President Benjamin Harrison passed an act that transferred governmental meteorological responsibilities to the newly formed U.S. Weather Bureau under the Department of Agriculture.

As communications and aeronautics became more prominent in the U.S., the aviation weather service was established in 1926 under the Air Commerce Act and in 1940 the U.S. Weather Bureau was moved to the Department of Commerce.¹⁵ On December 26, 1941, 19 days after Pearl Harbor, President Franklin D. Roosevelt (FDR) designated the Weather Bureau a “war agency” by Executive Order 8991.¹⁶

This chapter will explore the background that made WWII Special Operations Weathermen a possibility. First, I introduce basic weather concepts necessary for taking surface observations and creating forecasts in combat situations. I then outline some meteorological advancements that were central in the growth of military weather before WWII and discuss the consolidation of military weather agencies and training. Next, I give an account of early twentieth century advancements in aviation that required and facilitated a drastic change in how weather was used in military situations. Lastly, I describe the particular weather phenomena that concerned military aviators in the Balkans during the Second World War and the OSS weathermen who were tasked with supporting them.

Measuring and Understanding Atmospheric Elements

Weather is typically defined as the state of the atmosphere at a given time and place. Knowledge of basic meteorological surface conditions and the instruments used to measure them is necessary in order to understand how weather impacts aviation and other mission conditions. The standard equipment issued to weather observers during the first half of the twentieth century included a barometer, thermometer, hygrometer, anemometer, wind vane and other instruments.¹⁷ Weather observers used their training to report cloud types and coverage, along

15. Donald R. Whitnah, *A History of the United States Weather Bureau* (Urbana: University of Illinois Press, 1965), 195.

16. Bates and Fuller, *America's Weather Warriors*, 51.

17. Whitnah, *A History of the United States Weather Bureau*, 25.

with other visually observable weather phenomena such as precipitation type, thunderstorms, lightning and visibility.

Barometers are used to measure atmospheric pressure at a stationary location. Pressure is defined as the amount of force exerted over a given surface area and is typically reported using the nearest tenth of a millibar (mb). However, pressure can also be measured by how far mercury is forced in a barometer. If a mercury barometer is used, pressure is reported using inches of mercury (inHG). Meteorologists are interested in finding areas of relatively low pressure and high pressure as lows typically are responsible for storms and highs are responsible for clear weather. Since pressure naturally decreases with altitude, all observed pressure is reduced to a common level, usually sea level, or the so-called standard atmosphere (29.92 inHG or approximately 1,013.2 mb) to compare locations at different elevations. A measured increase or decrease in pressure at a stationary location is used to determine what type of weather system is approaching. Pressure can also be used to determine altitude, as pressure decreases the higher one rises in the atmosphere. Altitude can be estimated from the pressure's distance from that at standard atmosphere (34 mb equals about 1 inHG which is equivalent to 1,000 feet).

Thermometers are used to measure air temperature (heat) at a given location. In the U.S., temperatures are reported in degrees Fahrenheit (F); however, most countries use Celsius (C). Temperature, like pressure, can be used to estimate altitude. For upper air analysis, the average decrease in temperature by altitude is approximately 2° C per 1,000 feet, although it can vary greatly. Another important aspect of temperature is the knowledge of insolation, or incoming solar radiation that is received from the sun. The amount of radiation that reaches the earth is directly correlated to the conditions of the sky and the ground. For example, cloudier days reflect more insolation, causing less radiation to be absorbed by the ground and cooler temperatures

during the daytime. Cloudy conditions create warmer temperatures during the night, as a greenhouse effect is established since clouds absorb and re-emit longwave radiation that is emitted by the land. At the same time, the type and condition of the surface must be taken into consideration. Sand, water and snow all have different conduction properties. Sand heats the quickest since it has a lower specific heat than water. Specific heat is the ability of 1g of a substance to change 1°C. Water has a high specific heat so it heats and cools slowly. Snow tends to reflect most of the radiation back into the atmosphere, and depending on the condition of the sky, can produce different effects. The significance of temperature cannot be underestimated in forecasting, as it is directly connected with pressure and wind.

Hygrometers (or sling psychrometers) are instruments used for measuring the moisture content in the atmosphere, referred to as humidity. Knowing the humidity can help predict precipitation, fog, clouds and other water-based conditions. The purpose of a hygrometer is to establish how much the atmosphere must be cooled before condensation occurs, which is called its dew point. When there is increased moisture in the air at surface level and a decrease in clouds, for instance, it is reasonable to expect the formation of fog. Increased moisture and increased clouds tend to create precipitation, while clouds are formed from upper level moisture as water particles gather around neutral particles, or “condensation nuclei,” such as dust.

Anemometers with attached tachometers are used to determine wind speed (movement of air) across a horizontal surface, which is reported in miles per hour. The standard anemometer used until the early twentieth century was comprised of four hemispheric cups attached vertically to four horizontal arms and mounted to a pole which then “harnesses” the wind. In 1926, Canadian meteorologist John Patterson discovered that a three-cup anemometer was able to measure wind speeds and gusts more accurately. Slight modifications made by Brevoort and

Joiner in 1935 produced wind measurements with less than 3% error. During WWII, wind vanes were used to determine the direction the wind was coming from, sixteen-point compasses were used when relaying the information for surface winds and a 360-degree scale for upper level winds.

Four basic forces affect the direction of air movement. The first, pressure gradient force, is the movement of air based on differences in pressure created by variation in heating. It dictates that air moves from areas of high pressure to those of low pressure. The second is Coriolis force, based upon the earth's rotation, which causes an apparent deflection of air movement to the right in the Northern Hemisphere and left in the Southern Hemisphere. The amount of deflection is based on geographic location. There is zero Coriolis at the equator and maximum deflection at the poles. The third includes centrifugal and centripetal force, according to which the direction of air directly correlates with the speed and radius of the gradient. Centrifugal force is outward momentum of air when rotating around the radius and centripetal refers to inward motion. Finally, frictional force posits that the greater the friction, the more wind speed is reduced, which consequently alters the direction of the air when taking into account other factors affecting air movement. However, friction can be neglected in the upper levels due to less interaction with the surface. This causes winds to be much stronger with altitude since the frictional force is greatly reduced. Friction is typically considered up to 1,500 feet above ground level (AGL) on flat surfaces and up to 6,000 feet AGL in mountainous terrain.

Visual observation of weather in a given area is just as important as the instruments used to measure atmospheric conditions. Cloud heights, types and coverage are observed and reported during weather observations. The height of a cloud, or, more specifically, the height of the base of a cloud, can be calculated by comparing it to prominent objects, such as towers and

mountains, for which the height is already known. For an exact determination of height, a pilot-balloon can be launched. This involves a tripod-mounted theodolite and a hydrogen-filled balloon. Tracing the balloon through the theodolite gives observers both the exact height of the clouds and directions of the wind in the upper atmosphere. Knowing the three main types of clouds can also help determine height of the cloud base. Stratus clouds are considered to be low-level clouds, alto clouds are mid-level and cirrus are considered high-level clouds.

Once the heights are ascertained, the observer reports the base of a cloud to the nearest hundred feet. Total cloud coverage, which is inclusive of all layers of clouds, is reported in tenths of the total visible sky. “Clear skies” means there are no clouds below 12,000 feet. Few clouds mean that less than one-tenth of the sky is covered by clouds. One-tenth to five-tenths is considered scattered coverage, six-tenths to nine-tenths is broken coverage, and greater than nine-tenths is overcast.¹⁸ The cloud ceiling is defined as the height above ground level of the lowest broken or overcast cloud layer. Since clouds are generally layered at different heights, it is important to calculate the total cloud coverage. As an example, if there are low-level clouds covering three-tenths of the sky, a middle layer covering three-tenths and higher layer covering one-tenth, then the total cloud coverage would be seven-tenths (broken cloud coverage) with the ceiling height being the height of the middle layer.

Visibility – and the atmospheric phenomena affecting it – is another significant element of weather observation. Visibility is the greatest distance that can be seen unobstructed in a horizontal view. A maximum visibility of 10 miles is coded as “unrestricted.” For any distance less than that, a report of what is restricting the visibility is needed. Constructing a visibility chart is helpful in this situation. In the daytime, calculating the distance of known objects is optimal

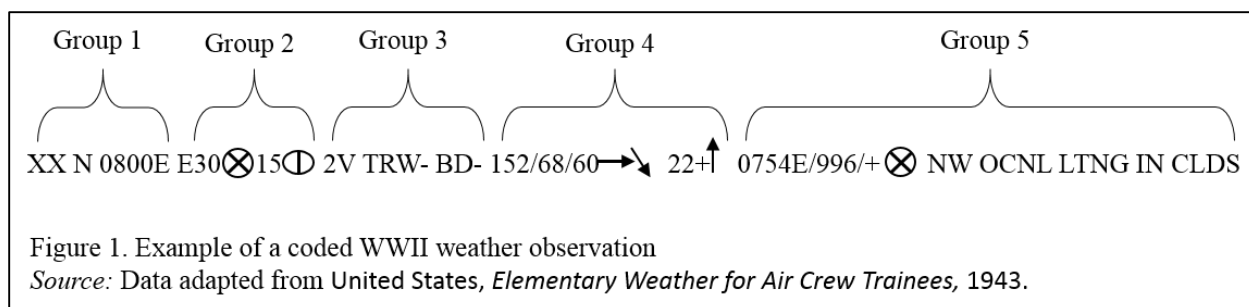
18. The observation techniques and sky conditions recounted here pertain to weather observing and reporting during the early to mid-twentieth century.

and at night, using distant lights as markers is required. It is common to have varying visibilities in different directions. If this is the case, the observer reports the differences and includes what is obstructing the visibility. This can include anything from haze, fog and smoke to various forms of precipitation.¹⁹

Forecasting from Observations

Initially standard observations were taken twice a day, increasing to four times a day during WWII, with the exception of “special” observations, which were taken as needed. To be considered a special observation, elements such as reduced or new ceiling height, the beginning, ending or change of precipitation or an increase or decrease in visibility must be noted. Observations generally contained five coded groups which were compiled in a linear format. Group 1 was the identification group, containing the station identifier, classification of the report (which pertained mainly to pilots) and type of report. Group 2 was the condition of the sky, which included ceiling height, sky condition and visibility. Group 3 contained special weather conditions such as precipitation or obstructions to visibility. Group 4 listed the properties of the atmosphere: pressure, temperature, wind direction and speed. Group 5 included miscellaneous data and additional remarks that the observer felt important to aviators and forecasters to identify, such as dangers in the area that are deemed a threat, including lightning or thunderstorms. An example of a WWII teletype weather observation is given in Figure 1.

19. For a complete list of conditions which restrict visibility, and how they are coded, see United States, *Elementary Weather for Air Crew Trainees* (Washington, DC: War Department, 1943), 17, fig.4.



Observations were received by the forecaster who, after decoding the data, would plot the information on a synoptic map for aviators to look at and complete their own forecasts.²⁰ Ideally, the forecaster would receive more than one observation from the area in order to keep an eye on trending weather patterns and extrapolate a forecast for the area. Forecasts could range from a 6-hour outlook to a week from the time of forecast. The accuracy of the forecast is diminished significantly the further in time it covers. Since the weather observations are not exact, it is difficult to predict the weather conditions accurately. Conditions that would normally produce one outcome, would not necessarily produce an identical outcome again. With that said, persistence is one of the best tools a forecaster can have. Knowledge of an area's climatology and its localized weather patterns and terrain also helps bolster the accuracy of forecasts.

In Yugoslavia, for example, the OSS-led weathermen were strategically arranged in order to provide the best coverage of the terrain, often along the flight path of sorties providing tactical air support to Yugoslavia's resistance group and targeting Axis-controlled factories in Romania, Bulgaria, Hungary and Austria. Three teams were deployed on the windward side of the Dinaric Alps, one team in Slovenia, one in Bosnia-Herzegovina and the other in Montenegro, effectively spanning the mountain range. The fourth team was located on the island of Vis off the Dalmatian Coast. Although it is unclear whether these teams had contact with each other, it is known that

20. Synoptic maps are maps of a region or country that show large scale systems, such as fronts, and provides the person with a "big picture" scenario of conditions in the area. It is useful in predicting weather and also comprehensive when adding localized observations and other weather elements.

their observations were sent back to Bari, Italy, to the OSS headquarters, where a forecaster was able to combine the data to produce a forecast for the region.²¹ The forecast was then briefed to the flying squadrons based in Brindisi, Italy, to inform the commanders of the current and forecasted conditions in the area.

The teams in Yugoslavia were likely able to utilize the weather observations to produce their own forecasts through single station analysis. This would have been difficult, since they did not possess the other teams' information, yet, having the same skillset as those at the headquarters, they could have monitored the atmospheric changes, applied the localized weather effects, and produced forecasts of similar accuracy.

Developments in Meteorology and the Establishment of Military Weather

The development of military weather unit in WWII was made possible by the incorporation of the newest weather techniques into post-World War I military strategy. Due to lack of funds following WWI and the stagnant thinking of weather forecasting, the Weather Bureau fell behind its European counterparts. Norwegian meteorologist Jacob Bjerknes of the Bergen School developed the revolutionary, three-dimensional notion of "Polar front theory," a term used to describe the boundaries of differing air masses whose movements could be predicted through mathematical calculations.²² In 1926, Bjerknes' student, Swedish meteorologist Carl-Gustav Rossby, arrived at the U.S. Weather Bureau via a research grant, bringing with him the knowledge of the Norwegian theory of air masses and their movement. In December 1927, Rossby was able to demonstrate the importance of the new model to aviation

11. 21. Charles T. Hight, "The Yugoslavia Caper," *Air Weather Association Newsletter*, Vol. 13 (July 1999),

22. Bates and Fuller, *America's Weather Warriors*, 31.

when he provided the forecast for Charles A. Lindbergh's 27-hour flight from Bolling Field, Washington D.C. to Mexico City.²³

A year later, Rossby was appointed lead instructor at MIT, which began offering a one-year meteorological curriculum based on the Norwegian air mass model. Cal Tech soon joined the ranks of MIT as a leading school in the field of meteorology. Due to growing anti-Semitism in Europe, Hungarian aerospace physicist Dr. Theodore von Kármán emigrated to the U.S. in 1930 to assume the chair of Cal Tech's Guggenheim Aeronautical Laboratory. At the same time, geophysicist Dr. Beno Gutenberg, a former German WWI army meteorologist, accepted a professorship at the school. Under their tutelage, Irving P. Krick studied meteorology and in 1933 became the head of the department. MIT and Cal Tech were thus established as clear leaders in the field, thanks to these Western European imports. Under the leadership and persuasion of Rossby, three more universities were added to the pre-WWII training of forecasters. By the beginning of the war, New York University, the University of Chicago and the University of California, Los Angeles, rounded off what was considered the "Big Five" which were responsible for wartime weather training.²⁴

Also integral to establishing military weather was the reorganization of the existing structure of the Weather Bureau and its training schools so that all weather services fell under a single command with standardized training. This restructuring happened concurrently with the development of MIT's and Cal Tech's meteorological programs. The Signal Corps Meteorological Service (Army) and Air Corps (Air Force) were the military extensions of the Weather Bureau and, following the end of WWI, they consisted of only eleven officers and

23. It is worth noting that it was the Daniel Guggenheim Fund for the Promotion of Aeronautical Meteorology which propelled Rossby to the forefront of U.S. Weather.

24. John D. Cox, *Storm Watchers: The Turbulent History of Weather Prediction from Franklin's Kite to El Niño* (New York: John Wiley, 2002), 187.

forty-nine enlisted men.²⁵ This was hardly enough men to support Brigadier General William “Billy” Mitchell’s newly founded Air Service, which he maintained would be a vital military force in the coming years. Initially operating as two separate entities, the Air Corps and Air Service were integrated by the Air Corps Act of 1926, relieving the stress placed on the Signal Corps for handling all weather ground operations. After a series of weather-related aircraft accidents in 1934-1935, the Air Corps took over the air mail service by presidential decree. FDR then placed the supply and training of weather personnel under the control of the Air Corps. Tactical and combat missions were then subsumed under a new organization, the General Headquarters (GHQ) Air Force.²⁶

Consolidated Training for the Military

In 1920 the Signal Corps established a weather school for enlisted observers and enlisted and officer forecasters at Camp Alfred Vail, NJ.²⁷ After the establishment of the Air Corps in 1926, weather training was moved to Fort Monmouth, NJ. Trainees attended the 4½ month course and only a handful of officers were selected to receive advanced weather training at MIT or Cal Tech each year. In 1937, when the Air Corps assumed responsibility for training weathermen, the locations shifted again. There was a weather course for enlisted observers and forecasters at Patterson Field, OH, from 1937-1939. A subsequent split beginning in 1939 relocated observer training to Scott Field, IL, while forecaster training remained at Patterson. By the end of 1939, the Air Corps had fully trained 30 officers and 388 enlisted men.²⁸ In a final attempt to consolidate and standardize training, enlisted weather forecasting and observing schools were relocated permanently to a single location. A three-month school was established at

25. Fuller, *Thor's Legions*, 17.

26. Fuller, *Thor's Legions*, 18.

27. Raymond Walters, "Weather Training in the AAF, 1937-1945." *USAF Historical Studies*, no. 56 (1951), 6.

28. Bates and Fuller, *America's Weather Warriors*, 48.

Chanute, Illinois, where trainees received university-equivalent classes in mathematics, physics and other subjects.

In 1937, the Air Corps focused on aviation weather as more aircraft were being developed that could fly higher, faster and longer than previously. To support these needs, it became even more crucial to supply accurate upper air wind readings, atmospheric pressure changes and climatic data that would alert the pilots to any dangerous atmospheric occurrences that could result in mission failure. At this point, the military proposed combining weather personnel from the Signal Corps and the Air Corps, all but ending the Signal Corps' role of meteorological support. This combined branch, the Air Corps Weather Service, concentrated on flexible weather training in diverse environments as war loomed in the not so distant future in Europe. By the time Pearl Harbor was attacked, the Air Corps boasted a total of 400 weather officers and 2,000 enlisted men. Entering WWII, the Air Corps Weather Service was renamed the Joint Meteorological Committee (comprised of the Weather Bureau, Navy and Army meteorologists) and was placed under the control of the Joint Chiefs of Staff. In 1942, the Joint Meteorological Committee divided among its three branches, one of which became the Army Air Forces (AAF) Weather Service.

Advancing Weather for Aviation Support

Prior to American involvement in WWI, the connection between aviation and meteorology was still in its infancy, but both pilots and meteorologists realized the importance of weather to the future of aviation. Pilots relied heavily on surface observations, paying close attention to wind speed and direction, and were able to obtain limited upper air data. When America entered WWI, the use of military aviation expanded, and with that, funding from the Army Appropriations Act of 1918 increased the Weather Bureau's operations to obtain upper air

data and produce daily forecasts.²⁹ The advent of telecommunications led to the transmission of weather data to greater areas, yet, the Weather Bureau's initiatives still fell drastically short of supporting aviators, mainly because of limited communications to the pilots.

The result was devastating. Without proper communication and manned observation posts, it was almost impossible to relay critical information to aviators, leading to a series of crashes. With the mounting death toll, aviators looked to Congress to support the growing weather industry. On May 20, 1926, Congress passed the Air Commerce Act, which dictated that the Weather Bureau:

(a) ... furnish such weather reports, forecasts, warnings, and advices as may be required to promote the safety and efficiency of air navigation in the United States and above the high seas, particularly upon civil airways designated by the Secretary of Commerce under the authority of law as routes suitable for air commerce, and (b) for such purposes to observe, measure, and investigate atmospheric phenomena, and establish meteorological offices and stations.³⁰

The Air Commerce Act allowed for greater funding to the Weather Bureau, which resulted in an increase in weather stations at airports. In 1926, there were no weather stations at airports, but by 1930 there were fifty, manned twenty-four hours, seven days a week, and two-hundred and fifty additional stations reporting intermittent visual observations. Though this was a start, aviation continued to outgrow meteorological support.

Improvements in communications in 1932 occurred when sheet-model teletype replaced the tape model and, in 1937, the speed of transmission was increased from forty to sixty words per minute.³¹ By 1938, the Civil Aeronautics Authority gathered weather reports from the Weather Bureau and transmitted the information out via radio every thirty minutes. Two-way communications allowed pilots to contact weather stations for updates. One other major

29. Whitnah, *A History of the United States Weather Bureau*, 169.

30. Whitnah, *A History of the United States Weather Bureau*, 181.

31. Whitnah, *A History of the United States Weather Bureau*, 185.

deficiency was rectified with the introduction of the radio meteorograph (later called radiosondes). This device was able to record and transmit temperatures, pressure and humidity in the upper atmosphere. Using the same concept of pilot-balloons, it recorded data up to a height of 50,000 feet and relayed the raw data through electrical impulses to a receiving station on the ground. Once received, the information was plotted on a thermodynamic map to interpret the vertical profile of the atmosphere. Recognizing the import of such advancements, in 1943 the Joint Meteorological Committee (JMC) briefed the Joint Chiefs of Staff (JCS) that the top research priority should be upper-level forecasting and techniques for long-range forecasts to support aviation missions.³²

Aviation

Military aviation expanded significantly when the U.S. entered WWI, stimulating the need for upper-air observation and the issuance of daily aviation and special forecasts tailored to mission-specific objectives. Air power proved effective during the war and military and civilian agencies sought to expand the role of aviation thereafter, which in turn required more substantial meteorology in the military. Advances in communication and forecast techniques allowed for the relay of more accurate and precise forecasts. In 1929, ceiling heights and visibility were now included in airway reports. Upper air maps displaying wind speed and direction from the surface to 13,000 feet were used starting in 1933 and, to keep up with European efforts, the Weather Bureau began to issue aviation maps twice a day to pilots in 1935. By 1940, new 100-gram pilot balloons replaced the 30-gram balloons used for the deployment of radiosondes. The larger balloons accelerated the ascension rate from 600 to 1,000 feet per minute, allowing data to be transmitted more quickly and collected from higher altitudes (52,000-60,000 feet).

32. Kristine Harper, *Weather by the Numbers: The Genesis of Modern Meteorology* (Cambridge, Mass: MIT Press, 2008), 81.

With FDR's announcement in 1940 that 50,000 aircraft would be added to the Army Air Forces, the JMC focused meteorological training on four specific areas.³³ The first of these was called analysis/atlas, which involved reanalyzing forecast maps after including all available weather data. This was done without a time constraint so forecasters could more thoroughly study atmospheric patterns and its results. The second was climatology. This was comprised of collecting all available weather observations and forecasts from countries in which the military foresaw itself engaged in future operations. Climatology determined long-term averages of relevant weather elements. This was especially helpful to military planners in selecting base of operation airfields and also in choosing the optimal times to launch missions. Tropical meteorology was also a high priority since it was an area of mostly unknown weather patterns to U.S. troops in the Pacific Theater. Lastly, upper-air data became a new focus, which allowed forecasters to determine the dynamic structure of the atmosphere by studying circulation patterns, heightening the accuracy and lengthening the range of forecasts.

During flight school, aviators were trained in basic weather elements and its impact on missions. Two of the most significant atmospheric conditions, especially to pilots and aircrew, are temperature and moisture. These elements and its changes served as indicators for both wind and pressure; as noted earlier, wind is controlled by pressure and pressure is controlled by temperature. Knowledge of these basic elements, with a limited understanding of atmospheric and thermodynamics, can determine a mission's success or failure.

At the start of WWII, meteorology had transformed from a scientific netherworld of approximation to a more concrete methodology, which allowed pilots during the war a greater

33. Harper, *Weather by the Numbers*, 73.

chance of success. This, despite the fact that they were told not to have “blind confidence” in everything a forecaster briefs.³⁴

Weather Effects in the Mediterranean

The topography of the Mediterranean area and the geographic locations of Allied forces and the enemy within the region were far from ideal for both meteorologists and aviators. During 1944's Operation BUNGHOLE, the main Allied airfields were in Bari and Brindisi, both located on the eastern coastline of Italy with the Apennines Mountains to their west, their peaks reaching upwards to 9,500 feet. After crossing east over the Adriatic Sea into Yugoslavia, pilots had to contend with the Dinaric Alps, which ran the length of the country near the coastline and reached a maximum height of 8,900 feet. This created localized wind conditions accompanied by other atmospheric hazards, a constant threat to aviators in the area.

Small-scale, thermally induced wind systems generally occurred in the region of the Dinaric Alps due to the terrain. Sea (Lake) breeze occurs during the daytime when the earth's temperature is at its warmest, generally a few hours after sunrise. Overland, convection draws upward, creating a lower pressure system. Since the water is typically cooler than the land, the air does not rise as quickly, causing it to move from the higher pressure system to the lower one, in this case, from the sea to land. The difference in air density results in two opposing flows, one at the surface (sea breeze) and the return flow aloft. Increased wind speed and change of direction is common with this condition, along with increased humidity from the water. The rise of moisture through convection of the warm air leads to thunderstorms and other hazards. Land breeze is the opposite of sea breeze and occurs during the night. The process is reversed since the land cools more quickly during the evening and the water retains the heat longer.

A valley breeze is another localized condition that occurs due to the slope and terrain

34. United States, *Basic Weather for Pilot Trainees* (Washington, DC: War Department, 1942), 5.

differences associated with mountain systems. A daytime phenomenon, it occurs because of the heating of the valley floor, resulting in anabatic wind flow, which is the movement of warmer air up the mountainside. As the warmer air reaches the top, it is cooler than the surrounding atmosphere, sometimes resulting in convection, which can lead to the formation of clouds and rain. Mountain breeze is the opposite of valley breeze and takes place during the evening. Night time radiation cools the air on the sides of the mountain, resulting in the air becoming denser and thus sinking into the valley. The katabatic wind flow, the movement of cooler air downward, is typical in the Adriatic region and is referred to as the Bora. The Bora brings with it gusty conditions and colder temperatures.

Other conditions specific to the Balkan region are related to local orographic effects, which are produced by the four dominant wind patterns that occur over the Adriatic Sea.³⁵ For Yugoslavia, when the air masses approach the coastline on the windward side, the warm air flowing over the Adriatic Sea begins to rise over the Dinaric Alps and starts to cool. This process induces significant cloud coverage, decreased visibility and increased precipitation as the air mass reaches the peaks. The precipitation can occur up to 25 miles on the leeward side of the range, depending on the stability of the atmosphere. The OSS weathermen in Operation BUNGHOLE were in prime position to report this phenomenon, which could produce impassible conditions for aircraft, along with diurnal cumulus formations producing a low cloud base that could also impair air missions.

Although this is not an all-inclusive list of weather conditions and patterns that impacted missions in the area, it serves as a general outline of the conditions with which OSS weathermen, pilots and commanders had to contend. Weather in the area changed rapidly, making conditions

35. For an in-depth account of the effects that occur during an orographic lift, see Zoran Pasarić, Danijel Belušić and Jacopo Chiggiato, "Orographic Effects on Meteorological Fields over the Adriatic from Different Models." *Journal of Marine Systems* 78, Supplement, no. 0 (2009), S90-S100.

hazardous for pilots during takeoffs, landings and en-route to their primary objectives.

Unfortunately, the situation on the ground in Yugoslavia was just as dangerous.

CHAPTER 3

YUGOSLAVIA: CHAOS AND CONFUSION

The region that comprises the former Yugoslavia has long been fragmented and dominated by foreign powers. The nineteenth and early twentieth centuries saw continuous exploitation of Slavic people by the Great Powers of Europe and the Ottoman Empire. Against this backdrop, movements for an independent, unified South Slav nation began to take form. Sparked by European romantic notions of nationalism, these efforts attempted to bring together the South Slavic people by establishing a common language, Serbo-Croat, as a marker of a distinctive Slavic culture.³⁶ In order to accomplish this, these prideful people had to break the chains with which the Austro-Hungarian and Ottoman Empires had bound them.

The establishment of the Balkan League during 1912 marked the beginning of the formation of Yugoslavia (South-Slav) as an independent nation. During World War I, the newly-formed Yugoslav Committee, consisting mostly of Croats, met in London in 1915 to discuss Slavic unification with the Allies. The Serbian Parliament, which at this point was in exile in Corfu, Greece, agreed with the Yugoslav Committee, and, in 1917, the Kingdom of Serbs, Croats and Slovenes was established. This new alliance among Serbia, Croatia, Slovenia, Bosnia-Herzegovina, Montenegro and Macedonia, did not take effect until 1918, after the collapse of the Austro-Hungarian Empire. The territory was renamed the Kingdom of Yugoslavia in 1929.³⁷

The goal for this territory was to establish one nation joined together by ancestral blood, a common language and a shared historical culture. Long-standing distrust between Croats, Slovenes and the other nationalities began to surface, however, as the Slavic people realized their

36. During the Illyrian movement of the 1840s, a pluralistic Serbo-Croat language using the *Štokavian* dialect was advocated by Croatian Ljudevit Gaj, however during the 1860s, Vuk Karadzic, founder of the Serbian language, thought this was too close to the Serbian language and in 1868; Croatia and Serbia maintain a separate language. Robert Lee Wolff, *The Balkans in Our Time* (Cambridge: Harvard University Press, 1956), 76-77.

37. Ivo Banac, "Yugoslavia," *The American Historical Review* 97, no. 4 (1992): 1085.

nation would be controlled by the Serbian House of Karadordević, the ruling dynasty at the time. Even with the consensual agreement for a constitutional monarchy, the non-Serbian nation-states feared their desire for self-identification would not be met. A fragmented nation, once founded on the principles of nationalism, now realized the nostalgic ideology of past glory during the Middle Ages with Byzantium, would not work in this new world order. This became especially clear during World War II, following the Nazi invasion of Yugoslavia on April 6, 1941. After 11 days of resistance, the Royal Yugoslav government surrendered and fled in exile to Britain, which led to the uprisings of Dragoljub "Draža" Mihailović and Josip Broz Tito against Nazi occupation. Mihailović and his Chetniks were loyal to the abdicated royal government while Tito and his Partisans were Communists fighting against the Axis and the former Yugoslav regime.

This chapter will investigate the period spanning the creation of Yugoslavia as an independent state through the Nazi invasion and exile of the Yugoslav monarch, and finally to the uprising of the Chetnik and Partisan resistance movements, which were supported by British Special Operations Executive (SOE) and the American OSS in helping defeat the Nazi occupation.

The Balkan League

King Peter I Karadordević took the throne on June 15, 1903 and served as the last King of Serbia. He modified the constitution of 1889 and issued the constitution of 1903, which was based on democratic and liberal ideas, making Serbia a parliamentary and constitutional monarchy. The reforms, led mainly by Nikola P. Pašić and the People's Radical Party, spanned Serbian cultural, social, economic and cultural realms. King Peter sought Serbian democracy and independence in foreign affairs. He also sought unification with the South Slavs, which he attempted with a series of military and economic treaties between Serbia and Bulgaria. They

were joined later by Greece and Montenegro in the formation of the Balkan League. The main purpose was to eliminate Ottoman rule in the Balkan Peninsula and to unite all the South Slavs under one nation.

The Balkan League's quest for unification did not come without conflict. The First Balkan War broke out on October 8, 1912. The Ottomans, who wanted to defend all their lands in the region, spread themselves too thin and, through a series of coordinated attacks by the Balkan League, were defeated. On May 30, 1913, with the signing of the Treaty of London, the Ottomans were deprived of all their territories in Europe and their lands were divided among the victors. Bulgaria, believing it did not receive a fair share of territory in Macedonia, aligned itself against its former allies, initiating the Second Balkan War. This war lasted from July 29 – August 10, ending with the Treaty of Bucharest, in which Bulgaria not only lost lands to her former allies gained during the first war, but also territory to the Ottomans. The results of the Balkan Wars included not only territorial gain for the Balkan League, but also a boost in confidence for the South-Slav movement.³⁸

World War I

King Peter was viewed by many as the liberator of the South Slavs, though he specifically promoted the idea of a Serbian-controlled Yugoslavia. He accomplished a great deal in unifying the Slavic people, but not without resistance. On June 28, 1914, the Black Hand, a secret military society within the Serbian Army, led by Captain Dragutin Dimitrijević and consisting of the officers who assassinated Serbia's previous ruler, Alexander I Obrenović and his family, sponsored the assassination of Austria-Hungary's Archduke Franz Ferdinand in

38. Udovički and Ridgeway, *Burn This House*, 47.

Sarajevo.³⁹ Backed by Germany, Bulgaria and Turkey (Central Powers), the Hapsburg Empire declared war on Serbia a month later, as Russia, France and Great Britain (Allied Powers) rallied to her aid, thus beginning World War I.

During World War I, the newly-formed Yugoslav Committee, consisting mostly of Croats, met in London in 1915 to discuss with the Allies the creation of a unified Slavic nation. The government of Serbia was in exile in Corfu, Greece, and so the Serbian Parliament met with the Yugoslav Committee in 1917, forming the Kingdom of Serbs, Croats and Slovenes, commonly called the Kingdom of Yugoslavia.⁴⁰ Thus, from the ashes of revolution and war, “Yugoslavia was ... born in the chaos and blood,” as the Allies proved victorious on November 11, 1918.⁴¹

Interwar Period

On December 1, 1918, Peter I’s son, Prince-Regent Alexander I, proclaimed the formation of the Kingdom of Serbs, Croats and Slovenes. He became the first king of Yugoslavia after his father’s death in 1921. Alexander I, a respected military leader during the Balkan Wars and WWI, found himself with the daunting task of creating a political and economic supranational unity. Leaders of the individual republics, including their intellectual elites, were opposed to the constitution and felt that individual state-building should take precedence over nation-building.⁴² Gustav Krklec, a Croatian poet, described it best:

We have neither a unified strong cultural activity inside the country, nor do we have a unified, healthy well-organized cultural propaganda abroad. That is, in

39. Nicknamed Apis after the Egyptian bull-deity because of his physical stature, Dimitrijević led the gruesome assassination of King of Serbia, Alexander I Obrenović and his family, on June 10, 1903, which ended the Obrenović dynasty. André Gerolymatos, *The Balkan Wars: Conquest, Revolution, and Retribution from the Ottoman Era to the Twentieth Century and Beyond* (New York: Basic Books, 2002), 35.

40. Yugoslavia was not officially used as the name of the country until 1929.

41. Udovički and Ridgeway, *Burn This House*, 48.

42. Referred to as the Vidovdan Constitution, this was the first constitution of the newly formed Kingdom, which was passed by a majority vote by the Constitutional Assembly on June 28, 1921.

other words, a definite lack in the cultural atmosphere without which there is no initiative, no pride, and no desire for serious work.⁴³

One main reason for this discord was that the states, specifically Croatia, wanted a liberal-democratic constitution, as they were wary of a Serb-dominated government. Stjepan Radić (founder of the Croatian Peasant Party) and his followers continually opposed Serb centralism. Serb nationalists, with their centralized state constitution, faced resistance from the majority of the non-Serb states. Radić was assassinated in parliament on August 8, 1928, and things quickly spiraled out of control. Radić's death ignited a firestorm of uprisings, including one by Ante Pavelić's Croatian ultranationalist terrorist group, the *Ustaša*. Then, on January 6, 1929, Alexander I dissolved the constitution, suspended parliament, changed the name of the Kingdom of Serbs, Croats and Slovenes to the Kingdom of Yugoslavia and declared a dictatorship.⁴⁴

Alexander I issued a new constitution in 1934, which transferred all executive power to himself, including the ability to appoint half of the upper house. The remainder was elected by the public. For all intents and purposes, the constitution established an authoritarian. This further alienated Alexander I from the non-Serb people he ruled; he even lost a majority of support from the Serbian nationalists. By the time he realized his dictatorship was in ruin, he was assassinated by an *Ustaša*-connected Macedonian in 1934, under the hit-for-hire direction of Fascist Italy. Alexander I's son, Peter II, was too young at the time to rule, so his cousin, Prince Paul, who saw himself as more Yugoslav than Serbian, became the Regent of Yugoslavia. This initiated a political regrouping, as Prince Paul attempted to reverse the dictatorship that Alexander I created in 1929. Two main issues plagued Prince Paul's rule: the pressure applied by Croatia for

43. Andrew Wachtel, *Making a Nation, Breaking a Nation: Literature and Cultural Politics in Yugoslavia* (Stanford: Stanford University Press, 1998), 94.

44. Dennis P. Hupchick, *The Balkans: From Constantinople to Communism* (New York: Palgrave MacMillan, 2002), 341.

independence from the Yugoslav state; and the Axis powers' exploitation of the persistent internal conflicts in Yugoslavia.

The Serbian-Croatian relationship, which helped unite Yugoslavia, was ruined with the assassination of Radić. Vladimir Maček, Radić's successor as the leader of the Croatian Peasant Party, called for Croatian semi-autonomy within the state of Yugoslavia in 1934. In an attempt to assuage Maček's concerns, Prince Paul addressed Croats' concerns by combining two of the nine regional provinces (*banovine*) that made up Yugoslavia to form the Banate of Croatia. Yugoslav premier Dragiša Cvetković and Maček signed the agreement on August 26, 1939, which outlined Croatia's borders.⁴⁵ Although still subordinated to the Yugoslav government, Croatia was the only banovine to which Prince Paul gave special concessions. This, as Croatia saw it, was a step closer to a truly unified South-Slav nation, with equal representation and recognition of separate ethnic groups within the whole. But it came too late, as the Axis was already encroaching on Yugoslavia.

During the early stages of WWII, Yugoslavia attempted to maintain a policy of neutrality with the Axis powers, believing the Allies' military presence on the western front would keep the Nazis contained. However, on June 22, 1940, with the surrender of France, the power shifted in favor of the Axis and its attention shifted towards the east, forcing Yugoslavia to shift its priorities from upholding a balance of power in the Balkans to a defensive posture against the Axis. When Italy entered the war on the same day France capitulated, Benito Mussolini promised Italy would take no action against "those with whom it shared land or sea frontiers," specifically referring to Yugoslavia and Greece.⁴⁶ However, on October 28, seeing Hitler's military and territorial successes, Mussolini invaded Greece, which included the town of

45. Udovički and Ridgeway, *Burn This House*, 56.

46. Jacob B. Hoptner, *Yugoslavia in Crisis, 1934-1941* (New York: Columbia University Press, 1962), 180.

Salonika, a shipping port used extensively by Yugoslavia for trade. This conflict, called the Italo-Greek War, marked the beginning of Yugoslavia's entrance into the war. Prince Paul, honoring the Balkan Entente, sent troops to the southern frontier and supplied the Greeks with war materials, which helped defeat the Italians and push them back into Albania.⁴⁷

Frustrated with what he considered Mussolini's ineptness, Hitler refused to help the Italians in this battle. At the time, he was preparing for an all-out war against the Soviet Union, for which he needed raw material located in the Balkans. With the promise of protection from the Russians, both Hungary and Romania signed the Tripartite Pact in November 1940.⁴⁸ Hitler knew he needed Yugoslavia as well, not only for its resources, but also for "egotistical ... reasons."⁴⁹ Prince Paul, having met with Hitler on several occasions, repeatedly refused to sign the Tripartite Pact both to maintain neutrality and satisfy the will of the people who did not want Germany or Italy to occupy their lands. Hitler, knowing the importance of Salonika to Yugoslavia, offered the Yugoslavians the port and protection from the Italians, as well as promising that no German troops would enter the nation if they signed. Still reluctant to sign, Prince Paul looked for a pledge of military support from the United States, France and Britain in case Hitler decided to invade the country. The situation grew grimmer when Bulgaria signed the Pact on March 1, 1941. Now Yugoslavia was surrounded on all sides by the Axis. With nowhere to turn, and acknowledging that Yugoslavia alone could not defend itself from an attack, Prince Paul sent his prime minister to sign the Pact in Vienna on March 25, 1941.

The British kept a keen eye on the political developments in Yugoslavia with the intent to incite a revolution if the current regime capitulated to Germany. The British wanted to replace

47. The Balkan Entente was a mutual-defense agreement between Yugoslavia, Greece, Turkey and Romania signed on 9 February, 1934.

48. The initial Tripartite Pact, signed September 27, 1940, formed the basis of the Axis Powers in WWII between signatories Nazi Germany, Imperial Japan and Fascist Italy.

49. Hoptner, *Yugoslavia in Crisis*, 218.

the Yugoslav government with one that opposed the Axis. The British plans for a *coup d'état* in fact began a year earlier with the formation of the SOE under the leadership of Hugh Dalton. When Dalton learned that Yugoslavia signed the Pact, he signaled his agents in Belgrade to 'use all means [necessary] to raise a revolution.'⁵⁰ The *coup* was initiated in the early hours of March 27, 1941, by ranking Royal Yugoslav Air Force officers, as Prince Paul and his cabinet were on their way to Belgrade. By noon the same day, the conspirators announced over the radio that Peter II Karadordević, the heir to the throne, had assumed control of the government. The news was met with great joy from the Serbs, who filled the streets that afternoon chanting and cheering pro-Allied messages mixed with nationalist claims for independence. Hitler heard the news the same day, and despite the promise that this change in leadership would not affect Yugoslavia's relationship with Germany, Hitler issued Directive 25 – the order to attack Yugoslavia.

The invasion of Yugoslavia came on April 6, 1941, with an overwhelming aerial bombardment by the Luftwaffe on Belgrade and a ground assault from Bulgaria. Soon after, Hungary, Romania and Italy joined in. It took eleven days for the Axis to bring Yugoslavia to its knees. On April 17, 1941, an armistice was signed for the unconditional surrender of Yugoslavia as Peter II and his cabinet members fled the country. The remaining government and military officials met the Germans in Belgrade to discuss the terms of the armistice. Many Serbs refused to surrender and fled to the mountains, creating resistance networks engaged in guerilla warfare against the Axis occupation. The most notable of these groups was led by a staunch Serbian loyalist, Colonel Draža Mihailović, who was the leader of the Chetnik Detachment's of the Yugoslav Army, or Chetniks. At about the same time, Croatian Josip Broz Tito of the Communist Party of Yugoslavia issued a pamphlet calling on all people to unite against the

50. Hoptner, *Yugoslavia in Crisis*, 243.

occupation. In these early years of Yugoslavian engagement in the war, Tito and Mihailović worked with the same goal in mind: fighting the German occupation. In years to come, however, these groups not only fought their common enemy, but began to take arms against each other. The internal fighting later caused issues as the Allies switched their support from Mihailović to Tito following the meeting of the leaders of the Allied powers on November 28, 1943 at the Soviet Embassy in Tehran to discuss their combined strategy. The primary outcome of the conference was the commitment to open up a second front against the Nazis; however, the first military conclusion was that “the Partisans in Yugoslavia should be supported by supplies and equipment to the greatest possible extent, and also by commando operations.”⁵¹ This conclusion paved the road for the first test of OSS weathermen during the war.

51. United States, *A Decade of American Foreign Policy: Basic Documents, 1941-49*, Prepared at the request of the Senate Committee on Foreign Relations by the Staff of the Committee and the Department of State (Washington, DC: Government Printing Office, 1950), 24.

CHAPTER 4

WILLIAM J. DONOVAN AND THE OFFICE OF STRATEGIC SERVICES

In July 1940, Secretary of the Navy Frank Knox urged FDR to send an envoy to Britain as an informal observer to report on how the British were holding up against the Germans. Colonel William “Wild Bill” Donovan, Knox’s close friend and decorated WWI hero, was selected for the assignment. Upon his return, he reported to FDR that the British armed forces’ morale was high and that it was able to protect Britain against German attacks. Donovan, due to his standing as a war hero, was also privy to Britain’s Secret Intelligence Service (SIS) espionage and intelligence gathering activities, a privilege never held before by any American. This unparalleled access led Donovan to realize the need for a similar intelligence organization in the U.S. Following several more trips to Europe, including to the Mediterranean arena, Donovan, with the support of the British, was able to convince the president of the necessity for such an agency.⁵² Unwilling to commit fully at the time, FDR established the Office of Coordinator of Information (COI) in July 1941, with Donovan at the helm. A civilian agency, the mission of the COI was to collect and analyze intelligence information not otherwise done so by the military or the Federal Bureau of Investigation (FBI). Following U.S. entry into war, Roosevelt, with much persistence from Donovan, created the OSS on June 13, 1942, to wage unorthodox warfare against the enemy. This also led to the OSS being the central hub for all military intelligence organizations.

52. Kermit Roosevelt, *War Report of the OSS (Office of Strategic Services), Vol 1* (New York: Walker, 1976), 6. Roosevelt and Donovan felt the Mediterranean area was of particular importance to stopping the Axis during World War II. Roosevelt specifically sent Donovan to “make a strategic appreciation from an economic, political and military standpoint” of the area.

William “Bill” Donovan: The Early Years

Born on New Year’s Day 1883 to Timothy and Anna Donovan, William Joseph Donovan was the first of four children. The family was second generation Irish-American, living in the slums of the First Ward in southwest Buffalo, New York. His parents, both devoted Catholics and disciplinarians, instilled in their children the importance of hard work and education to achieving success in life. Donovan, who from an early age had issues controlling his violent temper, struggled with academics. He excelled, however, in sports and oration. Though he thought of becoming a priest – typical for a son of Irish Catholic immigrants – Donovan was persuaded by his religious mentor that his oratory skills suited the legal profession.⁵³ He attended Columbia College in New York City in 1903, excelling once again in sports and speech, and graduated in 1905. He immediately enrolled in Columbia Law School, where one of his classmates was Franklin D. Roosevelt. Although Roosevelt and Donovan attended school together and often saw each other on campus, they had little else in common. Donovan, a staunch Republican from a lower class family, was not particularly fond of Roosevelt, a Democrat from a wealthy New York family who had attended the best schools and, most importantly, had a different outlook on politics. After two years at Columbia Donovan earned his law degree and returned home to Buffalo where he lived with his parents for over a year before joining the law firm of Love & Keating in 1909.

Donovan’s legal career quickly became a gateway to the social elite in New York.⁵⁴ He was introduced to and befriended prominent politicians and businessmen. Following two years at Love & Keating, Donovan started his own law firm with Bradly Goodyear, a Columbia

53. Douglas C. Waller, *Wild Bill Donovan: The Spymaster Who Created the OSS and Modern American Espionage* (New York: Free Press, 2011), 13.

54. Anthony F. Caruana, *William J. Donovan: Visionary, Strategic Leader: An Historical Perspective* (Carlisle Barracks, PA: U.S. Army War College, 1991), 14.

classmate, to practice civil law. Three years later, they merged with John Lord O'Brien, a high-brow lawyer in Buffalo, who had once advised William H. Taft. As Donovan's reputation grew, so did his status. He landed lucrative contracts for the firm and was admitted into the prestigious Saturn and Greater Buffalo Clubs, where New York's wealthiest individuals socialized.

During the spring of 1912, Donovan and a group of men from the Saturn Club decided to form their own Army National Guard cavalry unit, Troop I.⁵⁵ Referred to as the "Silk Stocking Boys" – although they preferred the name "Business Men's Troop" – it started out as a riding and camping club that grew in numbers as the members wrote their own bylaws, separated enlisted men from officers, and elected their own leaders. Donovan was named captain of the troop and read extensively on military strategy, eventually taking Army classes on combat tactics. In four years, the club grew to over one hundred cavalymen, with close to forty still being trained, and an increasing list of those who wanted to join. Their impressive numbers caught the attention of the State Department. In 1916, Donovan was commissioned by the Rockefeller Foundation as one of its representatives to Great Britain and Germany. He and others helped pave the way for the foundation's War Relief effort by shipping food and clothing to Belgium, Serbia and Poland. This gave Donovan an opportunity to see the war first hand as he traveled the area and saw the battlefields. His business was cut short, however, as his cavalry unit was ordered to report to Texas under the command of General John "Black Jack" Pershing's expeditionary forces, which were hunting Pancho Villa and his band. Spending less than a year in Texas, "Troop I" saw little action, spending more time dealing with the swamp infested area of McAllen, Texas, than actually fighting the Mexicans. Donovan was promoted to major and his unit returned to Buffalo in March 1917.

55. Waller, *Wild Bill Donovan*, 15.

“Wild Bill” Donovan: From Lawyer to War Hero

Upon his return, Donovan promptly joined the 69th “Irish” Regiment of New York City in preparation for the U.S.’s imminent entrance into the war. Donovan was recruited by Francis Duffy, an Irish priest, to lead the regiment’s 1st Battalion. The Battalion was redesignated the 165th when it moved to Long Island and became a part of the 42nd Rainbow Division with Douglas MacArthur as its Chief of Staff. In October, 1917, the battalion received orders and boarded the *Tunisian* passenger liner to Europe. Arriving in November, Donovan trained his men rigorously. For example, following a three-mile obstacle course in full gear, his men collapsed on the ground, much to his dismay. Standing over his troops, Donovan shouted at them, asking what was wrong with them as he carried the same weight and was older than them. A soldier in the back of the pack (who was never identified) shouted back, “But hell, we aren’t as wild as you are, Bill!”⁵⁶ The name Wild Bill stuck from that point on.

Donovan’s actions during the war were nothing short of heroic. Wounded three times in action, he was awarded the top four military decorations during his service, including the Medal of Honor for his actions from October 14-15, 1918 near the French town of Landres-et Saint-Georges.⁵⁷ The town was part of the *Kriemhilde Stellung*, the southern portion of the Hindenburg Line that stretched across France. Although Donovan was injured before the 42nd could break through the German defenses, news of his actions that day and throughout the war circulated stateside, garnering much attention from the political elite in New York.⁵⁸ Promoted to Colonel, Donovan returned to a grateful New York on April 21, 1919, as the most decorated U.S. soldier

56. Waller, *Wild Bill Donovan*, 23.

57. General Pershing, Commander of the American Expeditionary Forces, originally awarded Donovan the Distinguished Service Cross, his second during the war, however, after four years of lobbying, Father Duffy was successful in having the award upgraded to the Medal of Honor, which was presented to Donovan by Major General Robert Lee Bullard in 1922.

58. For in-depth details on the action of the 69th “Irish” Regiment during World War I, along with Donovan’s actions, see Stephen L. Harris’ book *Duffy’s War: Fr. Francis Duffy, Wild Bill Donovan, and the Irish Fighting 69th in World War I* (Washington, D.C.: Potomac Books, 2006).

of WWI.⁵⁹ He was honored with a key to the city and led a parade down Fifth Avenue with his unit.

After his military successes, Donovan returned to the life of a lawyer despite some talk of a potential political future. He was not interested at this time; however, that would soon change. Before too long, he began to travel abroad in an attempt to secure new clients for his firm. He toured Japan, Korea and China, where he fervently took notes on attitudes towards the United States while receiving political intelligence during private meetings with the countries' leaders. During his travels, the American ambassador in Tokyo asked him to travel to Siberia with Major General William S. Graves to assess the White Russian government and its internal affairs and then proceed to a six-month excursion in Europe. Donovan, who started the trip as solely a lawyer, finished it as a lawyer and a fact-finder, returning to the United States with over 200 pages of information gathered from his conversations about the socio-economic conditions of the areas visited. This trip revealed to Donovan a gap in the U.S. intelligence system: there was a lack of collection and transmission of information between Washington and the field embassies.

Back in the United States once again, Donovan finally turned his attention to domestic politics. He unsuccessfully ran as the Republican candidate for lieutenant governor of New York in 1922. In 1923, he was appointed as the U.S. Attorney for the Western District of New York, and one of his first actions was to raid the prestigious Saturn Club, where he was still a member, for violations against the Eighteenth Amendment.⁶⁰ This move made Donovan unpopular in the

59. Donovan's awards include the Distinguished Service Cross with one oak leaf cluster; the Distinguished Service Medal; two Purple hearts; the French Croix de Guerre, with palm and silver star; the French Légion d'Honneur with the rank of commander; the Italian Croce al Merito di Guerra and Order of the Crown; Knight Commander of the order of British Empire; Belgium's highest award, the Order of Leopold with palm denoting heroism in action; the Polish Commander's Cross with Star; Order of Polonia Restituta; and Norway's Commander's Order with Star, Order of St. Olav. Richard Dunlop, *Donovan: America's Master Spy* (Chicago: Rand McNally, 1982), 107.

60. The Eighteenth Amendment was the federal prohibition against the manufacturing, selling and distribution of alcohol. The Amendment repealed in 1933 by the Twenty-First Amendment.

Buffalo region, but shined an even brighter light on him nationwide as a person who placed a sense of duty before self. Calvin Coolidge, who had become president after Warren G. Harding's untimely death, recruited Donovan to run the Criminal Division of the U.S. Department of Justice. He stayed in that position for nearly a year until he moved to the Anti-Trust Division in March 1929.⁶¹ He was expected to become Attorney General; however, newly elected President Herbert Hoover offered him the govern-generalship in the Philippines, a job that he turned down and which was subsequently given to General Douglas MacArthur. Instead, Donovan went back to New York City and started a new law firm, continuing his travels overseas. In 1932, he ran as the Republican candidate for governor of New York, but lost to Herbert Lehman.

Donovan's interests slowly changed. Although he spent much of his energy speaking out against FDR and the New Deal, his focus steadily shifted to foreign affairs. On a return trip from England in 1935, Donovan wrote MacArthur concerning the Italian excursion into Ethiopia, prophesizing that Mussolini's military actions might turn into a situation that would include more than just European and African nations.⁶² Donovan felt a trip to Ethiopia was warranted and he was subsequently sent by the War Department to Rome to meet with Mussolini by the end of the year. This was a turning point for Donovan. No longer was he merely a lawyer; he became an official advisor to the United States government on the situation in Europe. Mussolini gave Donovan unprecedented access in 1935 to his Italian army's operations in Ethiopia. Reporting back to the War Department on the situation, he visited Germany in 1937 and was authorized to view the Reserved Artillery Officers' training and was granted first-hand access to

61. Thomas F. Troy, *Donovan and the CIA: A History of the Establishment of the Central Intelligence Agency* (Frederick, MD: Univ. Publications of America, 1984), 25.

62. MacArthur and Donovan's relationship began as wartime "pen-pals." Following the war, MacArthur, who was now the Army Chief of Staff, tried to gather information through his Military Intelligence Service on the Italian front. Unable to do so, MacArthur relied on Donovan's access to Mussolini to collect intelligence for him. Waller, *Wild Bill Donovan*, 41, 52.

the new tanks and artillery equipment. In 1938, he visited Czechoslovakia, Italy, and the Balkans, followed by a 1939 trip to Spain where he met with the commanding generals of fascist Spain who openly discussed their tactics. There Donovan was able to observe the Spanish Civil War taking place.

The former vice presidential nominee for the 1936 Republican Party, and a friend of Donovan's, William Franklin Knox, was appointed as the Secretary of the Navy under FDR's administration. It was Knox who bridged the political gap that existed between Donovan and FDR. He urged the president to send Donovan to England in 1940 to observe Britain's Fifth Column and its readiness to survive a German attack. On the first of two trips, Donovan spoke at length to many prominent personnel, including King George VI, Winston Churchill, the head of the British SIS, Stewart Menzies, and John H. Godfrey, Britain's head of the Office of Naval Intelligence (ONI). He was also given rare access to Britain's secrets, such as radar, coastal defenses and intercept planes. Most notably, he was able to witness SIS's use of covert warfare against the Axis, such as turning captured German spies into counterspies.⁶³ During Donovan's second trip to London in 1941, he was asked by FDR to evaluate the military importance of the Mediterranean area, including shipping routes. Following his experience as a first-hand witness to the Axis power, Donovan suggested to the president the creation of a centralized intelligence and information service that would carry out five special functions: "open, or white propaganda; secret or black, psychological-political warfare; sabotage and guerilla warfare; special intelligence; and strategic planning."⁶⁴

63. Caruana, *William J. Donovan*, 42.

64. Memo, LaGuardia to Conant, Sept. 3, 1941, Records of the Office of Civilian Defense, Record Group 171, Entry 12, Box 1, Folder 031.

The Office of the Coordinator of Information

On May 31, 1941, Donovan drafted a memorandum entitled “Memorandum of Establishment of Service of Strategic Information,” in which he detailed the necessity of an intelligence agency, which eventually became the COI, the precursor to the OSS. The function of the organization was simple: to collect and evaluate pertinent information, both foreign and domestic, on the intention of the enemy. The COI would report directly to the president and be assisted by the heads of the existing intelligence agencies in the U.S. Knox pushed for the formation of the COI and Britain sent over Godfrey, the head of the ONI, who brought with him Ian Fleming as the representative of all the British services.⁶⁵ Fleming served as the emissary between Britain and the U.S., helping to lay the ground work and provide the blueprints for the creation of the COI. On July 11, 1941, FDR, using his executive power and without conferring with the existing U.S. intelligence agencies, created the COI as a civilian agency with Donovan at its helm.

The COI, as outlined by FDR, was to undertake measures to secure information vital to the defense of the nation. FDR also had four specific requirements: “first, plan strategy with the Chief of Staff, General Marshall; second, accept guidance from the White House on aims; third, discover who was planning post-war policy; fourth, control security for short-wave [radio] stations.”⁶⁶ Donovan encountered two significant obstacles in building the COI from the ground up. First, he received no pay, and second, he encountered resistance from the existing military and civilian intelligence agencies. Despite these obstacles, Donovan recruited the best. He hired Harvard and Yale professors, famous American writers, Hollywood producers, Pulitzer Prize winners, members of the Civil Aeronautics Board and people from the Justice Department. Also,

65. A successful Naval Intelligence Officer during WWII, Fleming went on to create the James Bond stories following his post-war career. He based his character on the people he met while in service.

66. Dunlop, *Donovan, America's Master Spy*, 291.

he employed FDR's son – James, and Teddy Roosevelt's grandson – Kermit. The list of people recruited by Donovan became the "who's who" in American industry and government following the war.

Donovan created branches, divisions and units within the COI responsible for intelligence, research and special operations. The organization resembled a military hierarchy, with Donovan at the top. Robert Sherwood, playwright and presidential speechwriter, became the head of the Foreign Information Service, the first branch established in the COI. It was responsible for the preparation and dissemination of propaganda overseas. President of Williams College, Dr. James P. Baxter, became the head of the Research and Analysis (R&A) Branch, which was charged with gathering technological, economic, financial and psychological intelligence on varying countries. Positioned under the R&A was the Division of Special Information, which conducted studies and produced reports on countries spanning the globe, broken down into eight regional sections.⁶⁷ WWI Colonel G. Edward "Ned" Buxton Jr., who wrote the first constitution for the founding of the American Legion, served as Donovan's deputy and headed the Oral Intelligence Division.

Special Activities Branch was one of the most important within the COI. Its recruits included Office of Naval Intelligence agent Wallace B. Phillips and G-2 Lt Col Robert A. Solborg. Phillips was responsible for forming a network of intelligence agents in enemy-held territory across the globe.⁶⁸ Solborg went to Britain to study SOE methods and organization in October 1941 and returned three months later with the suggestion to separate Special Activities into two branches, Special Operations and Secret Intelligence. Realizing the difficulties the

67. The eight regional sections were: the British Empire, Central Europe, Eastern Europe, Mediterranean, Near East, Far East and Latin America. Roosevelt, *War Report of the OSS, Vol 1*, 52.

68. The COI had agents in Lithuania, Latvia, Estonia, occupied France, Rumania, Bulgaria, Turkey, Syria, Egypt, Palestine, Saudi Arabia, Iran, North Africa and Mexico. Later it included agents in German, Japanese and Italian occupied territories. Caruana, *William J. Donovan*, 49.

British were facing with the formation of the SOE and its interaction with the existing SIS (MI-6), Donovan complied. Secret Intelligence, led by David K.E. Bruce (SA/B), would obtain information outside the U.S. by utilizing undercover agents in enemy-held territories. M. Preston Goodfellow was placed in charge of Special Operations (SA/G).⁶⁹ Its main objectives were to “organize and execute moral and physical subversions, including sabotage, fifth column activities and guerrilla warfare” against the enemy and to support local area commanders.⁷⁰

Although this discussion does not begin to cover the complexity of the COI and its multiple functions, the organization eventually grew to include around 60,000 personnel, including advisors and consultants, as well as COI agents. It came as no surprise that the existing U.S. intelligence agencies became resentful of its success. Notably, FBI Director J. Edgar Hoover expressed disapproval of the COI, and the Chief of Army Intelligence (G-2), General George V. Strong, refused to speak directly to Donovan. Strong feared that Donovan would keep vital intelligence from him which would hinder his wartime planning and he believed that Donovan would become too powerful in his current position. U.S. Air Force visionary General Henry H. "Hap" Arnold, expressed the overall situation between the COI and other intelligence agencies accurately:

The old Army and the old Navy were not ready, in so far as their G -2 sections were concerned, for the new kind of war that was being forced upon them; the G-2 men could not see over the hill to the necessity of establishing an agency for securing the new kind of information needed ... to meet the requirements of land, sea and air forces in future wars ...⁷¹

Arnold's observation rang true following the attack on Pearl Harbor by Japanese forces on December 7, 1941. Donovan launched an investigation and concluded that evidence on the

69. SA/B stood for Special Activities Bruce and SA/G was Special Activities Goodfellow, taking the last name of the person in charge of each unit.

70. Roosevelt, *War Report of the OSS, Vol 1*, 80.

71. Henry H. Arnold, *Global Mission* (New York: Harper, 1949), 535.

impending attack was there; however, the Army and Navy intelligence services failed to piece together the intercept messages. What was worse, in Donovan's opinion, was that they had completely kept the COI out of the loop because of its civilian status. As the U.S. entered the war, Donovan recommended to FDR that the COI should be the center for intelligence for all branches of the military. On June 13, 1942, FDR issued the "Order Establishing the Office of Strategic Services." The OSS, minus the Foreign Information Activities Division, now fell under the newly formed Joint Chiefs of Staff as part of the War Department. This made the OSS a wartime and military agency, as Donovan had always wanted.

The Office of Strategic Services

Donovan was in London negotiating the Special Operations function of the COI with the SOE when the OSS was formed. Upon his return in June 1942, the OSS was operating on the basis of an interim order until proper paperwork was submitted by Donovan. The JCS requested an outline of the organization and its functions before the OSS could be recognized as a fully functional agency, which Donovan supplied. Along with the creation of the new organization, Donovan was promoted to Brigadier General. The OSS was thus tasked with supplying strategic services to the respective commands in the field. With such an ambiguous definition, the role of the OSS differed from region to region. In the European Theater, it was responsible for the preparation of large-scale amphibious landings. In the Far East, it oversaw the development of guerilla and subversive tactics and in the Mediterranean, it was charged with working alongside their Allied counterparts, the SOE. The first real test of the importance of the OSS came during Operation TORCH, the British-American invasion of French North Africa on November 8, 1942. Although the OSS was preparing for the invasion when it was still designated as the COI,

TORCH utilized every branch of the OSS as the Allies successfully regained control of the continent and prepared for its advance into Sicily and eventually Italy.

Aiding resistance movements became an important mission of the OSS within the Mediterranean area. The mission would mainly be assigned to the Special Operations (SO), Special Intelligence (SI) and Operational Groups (OG) of the OSS. The SO was responsible for sabotage and training guerrilla forces, the SI gathered and reported military intelligence by unorthodox means and the OG conducted irregular warfare against the enemy. The OSS joined the British services, which were already operating in the countries, with the British taking the lead due to the SO/SOE negotiations Donovan agreed to in June 1942. The OSS recruited U.S. service members in Washington and Cairo, Egypt to act as liaisons to Tito's Partisans and Mihailović's Chetnik resistance groups in Yugoslavia. The first SO officers parachuted into the enemy-controlled country on 18 and 22 August, 1943. Once in-country, they were under the command of the SOE and were required to use SOE communication equipment. Donovan, wanting to move out from under SOE control, traveled to Cairo in November 1943 to establish the rights of U.S. operatives in the Balkans. Thus, SO officers were redesignated to SI in order to circumvent the SO/SOE agreement. On December 26, 1943, the first two independently commanded OSS/Yugoslavia teams (ALUM and AMAZON) parachuted into Slovenia with their own radios.⁷²

That same month, the OSS base of operations moved from Cairo to Bari, and the Fifteenth Air Force joined the Balkan Air Force in resupply missions and bombing raids. Intelligence poured out of the Balkans, from target locations to enemy movements, just as quickly as supplies were being dropped to aid the resistance. Jurisdiction issues regarding

72. Roosevelt, *War Report of the OSS, Vol 2*, 128.

operational control in Yugoslavia between the SOE and OSS were just as evident as the political conflict between the Partisans and Chetniks. However, the greater issue concerning the OSS weathermen occurred in the air as weather greatly hampered the Allied air missions. As military personnel crossed the Adriatic Sea from Italy and then the Dinaric Alps, which ran the length of Yugoslavia, weather intelligence played an important element in successful operations in the Balkans. In order to ensure the greatest possible success of Allied operations, a project codenamed BUNGHOLE was formed. It consisted of secret meteorological teams, each consisting of one forecaster, one observer and a radioman to infiltrate the area and established a weather network. They radioed weather reports every six hours back to Bari and then to the 19th Weather Squadron (WS) in Cairo. Once a forecast of the area was made, the weather report was disseminated and briefed to the flying units which supported not only the OSS missions, but all Allied missions in the Balkan region.

CHAPTER 5

CASE STUDY: OPERATION BUNGHOLE

A memo from the OSS was sent to the U.S. 19th Weather Squadron (WS),⁷³ the weather unit based out of Cairo, Egypt, regarding an upcoming recruitment briefing to attract weather observers and forecasters who were looking for a change of pace. According to S/Sgt Joseph J. Conaty Jr., a 19th WS observer, the OSS officer in charge simply told the men that they would be going into enemy territory after the successful completion of jump school. The recruitment turned out to be a success, as six officers and fifteen enlisted volunteered for detached service with the OSS.⁷⁴ In early January 1944, the weathermen left for Ramad David, Palestine to attend the British Parachute Jump Course. The training times varied as multiple classes were taught simultaneously.⁷⁵ According to Joseph Conaty, who was in the group of the first weathermen to graduate from the school, the training lasted nine days. The first five days consisted of “physical torture,” then five jumps in four days, including one night jump.⁷⁶ The training was indeed demanding compared to the sedentary work of a weatherman, and the pace was quick.⁷⁷ The commitment of the new recruits, however, was unwavering. This became evident in an episode recounted by Conaty. While waiting for their first jump, his group observed one of the men from the class before them suffer a chute malfunction and plummet to the ground. Despite this

73. This was mentioned by the majority of sources, along with personal interviews from some of the weathermen, however, I am unable to find the memo or date of this document.

74. This number varies depending on source. Fuller’s book, *Thor’s Legions*, places the numbers at eleven officers and sixteen enlisted (p. 65), while William M. Leary’s *Fueling the Fires of Resistance: Army Air Forces Special Operations in the Balkans during World War II* (p. 10) along with Conaty’s 1997 interview, Joseph J. Conaty Jr., “Video Interview,” *Weather Parachutist Association* 1996. The Weather Parachutist Association was the forerunner to the Grey Beret Association, which maintains it was six officers and fifteen enlisted.

75. In Capt. Charles T. Hight’s account in the “Yugoslavia Caper,” the training lasted around two weeks and his class jumped from a “Joe-Hole” in a Vickers Wellington bomber. Conaty stated that his school lasted nine days and he jumped from a “Joe-Hole” out of a British Dakota (American C-47 Skytrain). Conaty finished with class #91 on January 15, 1944, while Hight graduated with class #99 on February 23, 1944. Charles, T Hight, “The Yugoslavia Caper.” *Air Weather Association Newsletter*, Vol. 13 (July 1999): 10.

76. William M. Leary, “Weatherman with Tito: The Adventures of Joseph Conaty,” *Behind the Lines: The Journal of U.S. Military Special Operations* (May/June 1995): 28.

77. Airborne training was also conducted at Ft. Benning, GA during this time, which lasted 30 days.

potentially discouraging experience, Conaty and his class completed all their jumps. Following graduation, the weathermen were sent back to Cairo for several other physical exams and were subsequently transported to Bari.⁷⁸

Mission to Yugoslavia

Operation BUNGHOLE (sometimes referred to as the California MET in some OSS reports) was the planned insertion of seven OSS trained weather teams behind enemy lines in Yugoslavia.⁷⁹ Although it appears from that only four teams actually made it into Yugoslavia, the other teams remained on standby. BUNGHOLE, along with the British Operation ORATION and Soviet Operation MANHOLE, was part of the joint special operations contingent, Advanced Force 133, which fell under the command of British SOE officer Brigadier Fitzroy MacLean.⁸⁰⁸¹ Its goal was to aid and support Marshal Tito and his Partisans against the Nazi occupation of Yugoslavia as well as conduct espionage and sabotage missions throughout the Balkans.⁸² The main base of operations was located at Tito's headquarters in Drvar, with the garrison based out of Bari. Operations in Yugoslavia were supported by U.S. Lieutenant General Ira C. Eacker, Allied commander of the Mediterranean Theater of Operations. Under his command was the 12th and 15th Army Air Forces and the Royal Air Force's (RAF) Desert and Balkan Force, stationed out of Brindisi, Italy, about 60 miles south of Bari.

78. Although the weathermen were considered on "detached service" with the OSS, they were inducted into the OSS Society and became full members of the organization following the war.

79. The OSS Society, CIA Museum and NARA were unable to clarify this issue. It's unclear how operational names were selected.

80. Wesley F. Craven, Wesley Frank, and James L. Cate, *The Army Air Forces in World War II Vol. III: Europe: Augment to V-E Day, January 1944 to May 1945*, Office of Air Force History, USAF. (Washington, DC: University of Chicago Press, 1983), 519.

81. Franklin Lindsay, *Beacons in the Night: With the OSS and Tito's Partisans in Wartime Yugoslavia*, (Stanford, CA: Stanford University Press, 1993), xii. During 1944, Advanced Force 133 changed several times to include Force 133, Force 266, Force 399, 37 Military Mission and MacMis. For the purpose of this paper, I will continue to use Advanced Force 133 as it was called during the first drop of Operation BUNGHOLE.

82. For greater detail on the state of Yugoslavia during WWII, see Misha Glenny, *The Balkans: Nationalism, War, and the Great Powers, 1804-1999* (New York: Penguin Books, 2001) and Ilija Jukić, *The Fall of Yugoslavia* (New York: Harcourt Brace Jovanovich, 1974).

The first group of OSS weathermen arrived in Bari at the beginning of February 1944. Its weather data was to be used for the following purposes: 1) to support Marshal Tito's Partisans with supplies to fight against the Nazis, as outlined during the Tehran Conference, 2) to supply accurate weather for air supplies, nickeling sorties (the dropping of propaganda leaflets) and bombing raids and 3) to allow for the rescue and evacuation of downed Allied pilots and injured Partisans.⁸³

The initial plan was to have two teams, each consisting of one weather forecaster, an observer and a radio operator, insert by parachute near Drvar on February 19. Due to poor weather conditions, the flight was postponed until February 27. Two C-47s, accompanied by nine Italian Savoia-Marchetti SM.82 bombers and twenty-four P-47 Thunderbolts, flew into Yugoslavia.⁸⁴ Due to a severe snowstorm, only one C-47 was able to identify the agreed upon ground signal. The letter "V" which confirmed the drop zone (DZ) was clear of any dangers, enabling the first team of weathermen to jump through "Joe-Holes."⁸⁵ This was followed by an air drop containing the mandated weather equipment.⁸⁶ The first operational OSS weathermen on the ground were forecaster Captain Cecil E. Drew and weather observer Conaty.⁸⁷ Their weather equipment consisted of a handheld anemometer, a mercurial and aneroid barometer, a sling psychrometer, a rain gauge, a thermometer, reduction to sea level tables, a plotting board, a theodolite, balloons and a portable hydrogen apparatus used to launch the balloons for upper air

83. Besides the weather objective, the other objectives were not fully disclosed until after the SOE/OSS operations in the Balkans were completed in late 1944.

84. C-47s were the Army Air Force's version of the British Dakota and civilian DC-3.

85. These were circular holes ranging from 36-40 inches in diameter which were cut in the floor of the aircraft for "Joes" to jump out of.

86. Air Force Historical Research Agency Compilation, "Bunghole (Operation)," *Mediterranean Allied Air Forces*, Maxwell Air Force Base, AL. Microfilm, 25261, Frames 430-444, 18 February, 1944 – 17 April, 1944, Retrieved 10 April, 2014. "To MAAF from Adv Force 133. Nr One of Feb (28)," February 28, 1944.

87. Charles Hight, the OSS weather commander assigned to Bari in March 1944, recounts that there was another weather officer, Major Orval Burroughs, who parachuted into Dravr to discuss increasing the number of weather stations in Yugoslavia with Tito prior to the Drew/Conaty missions, although no further record of this can verify the report. Charles T. Hight, "The Yugoslavia Caper," *Air Weather Association Newsletter*, Vol. 13 (July 1999): 2.

analysis.⁸⁸ The gear allowed the weather team to conduct accurate observations and collect upper air data which were then given to the forecaster to conduct a single-station analysis. This was a technique used to forecast weather patterns from numerous meteorological observations taken at a single geographic location. Once the observations and forecasts were made, they were given to the radioman to send back to Bari using a double-cypher system. From there, the Officer-in-Charge of the OSS weather mission furnished the reports to the OSS and the 12th WS for mission planning purposes.⁸⁹

Having parachuted in near Drvar, Drew's team (being the ranking American weathermen) met up with the local Partisans who brought them to a cabin where they lived for eight days. They eventually reached Tito's headquarters, located in a cave halfway up a mountainside above a waterfall. They were promptly given quarters and were introduced to the British team that debriefed them on the current situation. Then, British Sergeant Major Charlie Brown introduced them to Raki, a favorite local beverage derived from distilled plum juice. They began their weather duties the following day. Taking observations four times a day (at 0600, 1200, 1800 and 2400) and developing forecasts, they radioed the information back to Bari. Although most days were relatively uneventful, they grew accustomed to the morning wake-up calls 3-4 times a week by P-38s and P-40s, which escorted the B-17 and B-24 bombers flying overhead. Conaty was told that these aircraft were dropping supplies on various locations in Yugoslavia to resupply the Partisans and conduct bombing raids on German aircraft factories in

88. Robert A. Schraeder, "Special Account: Activities Report, Station B, Project A," *History of the Nineteenth Weather Squadron Region* (September 28, 1944): 4-5.

89. Hight, "The Yugoslavia Caper," 11.

Czechoslovakia and Hungary. Each time a mission was a success, the P-38 or P-40 would do a belly-roll to indicate that to the Allies below.⁹⁰

Despite the success of these missions, the German *Luftwaffe* consistently flew its Junkers Ju 87 Stukas overhead as a display of force. As Conaty recounts, “if you’ve never been exposed to Stuka dive bombing, you have not lived, particularly in a military sense.”⁹¹ On March 24, Conaty noticed a German bi-plane flying overhead in a pattern consistent with reconnaissance and aerial photography. This information was passed to Tito through the British. The following day the Germans launched Operation *Rösselsprung* (Knight’s Move), a full-scale attack to capture Tito and eliminate his “pesky-partisans.”⁹² The attack was headed by Marshal von Weichs and included elements of the *1. Gebirgs Division* (1st Mountain Division), *Panzerabteilung 202* (202nd Tank Battalion), *92nd Panzergrenadier Division* (Motorized Infantry Regiment) and the *SS-Fallschirmjägerbataillon 500* (500th SS Parachute Battalion).⁹³ Tito, his Partisans and SOE/OSS members knew it was time to leave. Following a sixteen-day escape and evasion plan over the Dinaric Alps, Drew’s team was finally rescued and evacuated back to Bari, three days after the evacuation of Tito. They were then transported back to Cairo to return to their normal weather duties at the 19th WS.

The second weather team parachuted into Yugoslavia on the night of March 13, 1944. S/Sgt Joseph W. Newmyer, S/Sgt Ralph C. Baker and their radioman dropped through the Joe-Hole in a C-47 and landed in Slovenia, located in the mountainous northwest region of Yugoslavia. The drop was disastrous compared to Drew’s team. The pilot misjudged the winds,

90. Joseph J. Conaty Jr., Personal Communications, Interview conducted in 1994 and 1997 per request of the Weather Parachutist Association.

91. Conaty Jr., 1997 Interview.

92. Detail on this operation from the German perspective is given in James Sidney Lucas, *Kommando: German Special Forces of World War Two* (New York, N.Y.: St. Martin's Press, 1985), 104-126.

93. Robert M. Kennedy, “German Antiguerrilla Operations in the Balkans, 1941-1944,” *Department of the Army Pamphlet No 20-243*. (1954): 64-65. This study was conducted using captured German military records after the war.

which caused the dispersion of cargo and troops across the mountains. It took Baker the better part of an hour to link up with the Partisans and after four days of collecting their gear – most of which was destroyed either from parachutes not deploying or the crates being smashed from rolling down the mountainside – the group loaded what was left on an oxen-drawn cart and headed to the local Partisan headquarters.⁹⁴ On March 24, after having traveled to Semic and Draga to avoid enemy patrols, they were able to transmit their first encoded weather observation; however, it wasn't until April 24 that they obtained confirmation from Bari that their transmissions were received. 1st Lt. Robert J. Schraeder, the team's forecaster, parachuted in via a British Halifax on May 14. Originally scheduled to jump with his team, he was delayed due to an ear infection but managed to link up with the others on May 18 after a brief layover at the local Partisan headquarters.⁹⁵

Under constant attack from the Slovenian anti-communist White Guard, the Serbian's secret military group Black Hand, or the Germans, Schraeder's team was never in one place for more than ten days. Despite broken equipment and endless attacks, the team was still able to send back weather information for OSS and AAF consumption. The weather team also served three additional purposes while in the country. The first was to train local Partisans in basic weather observation techniques to utilize once the weathermen were gone. The second was to provide weather information to the Balkan Air Terminal Service (BATS), which maintained concealed airstrips used to evacuate downed pilots and injured Partisans. The third, and arguably most compelling, was to set up their weather station close to the German stations and send out

94. The accounts differ here. In one account by Graham, it was stated that Baker traveled about an hour before finding his team (T.A. Graham, "Partisans were our Friends," *19th Weather Squadron*, December 4, 1944, 2-3), while in his other retelling of the story (T.A. Graham, "Guerilla Observers," *Weather Service Bulletin*, no. 6, (January 1945): 16), Graham stated that following the jump and realization that he was lost, Baker covered himself up and went to sleep, and a search party that Newmyer organized found him the following morning.

95. Franklin Lindsay, *Beacons in the Night: With the OSS and Tito's Partisans in Wartime Yugoslavia*, (Stanford, Calif: Stanford University Press. 1993), 3.

observations and forecasts during the same time in order to break the German weather code for Allied use.⁹⁶ After six months of weather support, Schraeder and his team finally departed on September 3 and headed back to Bari where they were debriefed and returned to Cairo to rejoin the 19th WS.⁹⁷

Two other weather teams landed in Yugoslavia during this period. One was led by forecaster Warrant Officer (JG) Harold F. Guth and included observers S/Sgt Gordon B. Bremer and S/Sgt John C. Gaffney. The three arrived on the island of Vis off Yugoslavia's Dalmatian coast by PT boat sometime in March, where they began to transmit weather information back to Bari. The other known team was headed by forecaster Capt. James H. Armstrong with observer S/Sgt James W. Anderson. On May 9, they parachuted into Montenegro along the southern portion of the Dinaric Alps. Armstrong recounted his mission in the official publication of the 19th Weather Squadron, *WW 19*, released in late 1944. Having gone through the Base Censor shop prior to being sent stateside, all sensitive information was scrubbed from his account. What was left, though, were the harrowing details of the team constantly being on the move from a barrage of Stuka bombers and a hint to their location being somewhere on the air route to the Ploesti Oil Fields.⁹⁸

We do not know the precise location of Armstrong's team, but it can be noted (see Figure 2) that the four weather teams were strategically placed along the western edge of the Dinaric

96. Lindsay, *Beacons in the Night*, 34.

97. Newmyer departed to the U.S. on July 23, 1944, under the rotation system. Schraeder, "Special Account: Activities Report, Station B, Project A," 2.

98. James H. Armstrong, "Yugoslavia," *WW 19* 2, no. 2, (November 1944), 5.



Figure 2. Locations of the OSS weather teams in Yugoslavia, 1944.

Source: Map adapted from University of Texas Libraries, *Former Yugoslavia (Shaded Relief)*, 1996.

Alps, as well as off the coast of Yugoslavia.⁹⁹ As evidenced in the field reports, each team was located on the windward side of the Dinaric Alps, indicating that they were there to report the

99. Craven and Cate, *The Army Air Forces in World War II*, 18, Leary, *Fueling the Fires of Resistance*, 11., and Conaty's interview by Leary, "Weatherman with Tito," 27, all state that there were a total of seven weather teams that parachuted into Yugoslavia as part of the OSS Operation BUNGHOLE; however, I have not located any information pertaining to the other teams other than a reference to a source CM-IN-7362 (10-5-44), MAAF to WD, 10 May 44, #M-16858. It is noted in Hight's *Yugoslavia Caper* (10) that Major Burroughs, who was an OSS weatherman and in charge of the Bari weather office, parachuted into Yugoslavia as well, with no further mention of when and where. Hight went on to replace Burroughs as the Officer-in-Charge of the OSS weathermen in Bari until the end of the operation in late August 1944.

weather on the local orographic effects. The strategic placement of these combat weathermen was therefore integral to maintaining effective military action in the Balkan region.

Impact of OSS Weathermen in Yugoslavia

Given the complexity of a world war, it is sometimes difficult to quantify success. In the case of the OSS weathermen in Yugoslavia, their accomplishments can be measured statistically, through the increase of sorties and airdrops during that timeframe, through the OSS impact on Partisan military success in WWII and through the continued use of special operations weather in military missions.

The 62nd Troop Carrier Group, commanded by the 12th Army Air Force, flew 82 sorties and dropped 187.7 tons of supplies to the Balkans in February and March 1944.¹⁰⁰ In late March, the 60th Troop Carrier Group took over, and with the help of OSS weather reports, a marked increase occurred in both sorties flown and supplies dropped over the Balkans. In April, 445 sorties were flown and 380.8 tons of supplies were dropped, reaching a peak in June with 943 sorties and 1,227.8 tons of supplies. While OSS weathermen were in theater the AAF flew 3,829 sorties and dropped 4,349.8 tons of supplies to the Partisans and evacuated an estimated 19,000 personnel.¹⁰¹ Although operations did not cease when the OSS weathermen left the area, the number of sorties and supplies dwindled to an amount equivalent to when they first took over operations in April. 190 sorties were carried out in October with 99.2 tons of supplies being dropped. The 15th Army Air Force also launched a major operation against the Ploesti Oil Fields, flying continuously over Yugoslavia into Romania from April through August. This effort included a total of 22 missions, which resulted in the reduction of oil output by 60%,

100. Leary, *Fueling the Fires*, 11.

101. Harris G. Warren, "Special Operations: AAF Aid European Resistance Movements, 1943-1945." *USAF Historical Studies*, no. 121 (1947), 33, 223.

equaling 15% of Germany's gasoline supply.¹⁰² It is therefore clear that the presence of OSS weathermen in the Balkan region led to a major increase in supply-drop missions.

Measuring success in terms of Partisan activity is relatively simple. Tito's Partisans, with the help of SOE/OSS agents and resupply missions from the Allies, maintained a consistent threat to German forces. Tito was able to escape and continue his quest of liberating Yugoslavia from Nazi control. On September 6, 1944, the Soviets entered the country and, through a joint offensive, the remaining Germans were forced out of Yugoslavia.¹⁰³ From May 1941 to December 1943, Tito made little headway against the Axis, however in less than year with SOE/OSS support, Tito was able to help liberate his country from the puppet regime forced on them when the existing Yugoslav government fled to London in 1941. Tito's successful use of SOE/OSS and Allied support did not go unnoticed by Hitler; in July 1944, Himmler quoted Hitler saying,

To call a man like Tito a Marshal is absolutely correct. A man who has practically no materiel at his disposal, who keeps a full enemy force constantly on the alert, and who always recuperates from our blows deserves this title much more so than some of our own Colonels, Generals and Field Marshals who could not operate skillfully with the finest machine the world has ever known.¹⁰⁴

102. Historical Section, Headquarters, Mediterranean Allied Air Forces, *Air Power in the Mediterranean, November 1942-February 1945* (Caserta, Italy: Headquarters, Mediterranean Allied Air Forces, 1945), 41.

103. John Keegan, *The Second World War* (New York: Penguin Books, 2005), 494.

104. Conference at the Wolfschanze. 31 July 44, in Himmler's files from Hallein, No.1, 8 Nov. 45, p. 12. Cited in Warren, "Special Operations," 101.

CHAPTER 6

CONCLUSION

The dawn of SOWT was indeed the result of fortuitous circumstances. The advancement of meteorological knowledge, techniques and equipment prior to the outbreak of WWII was nothing short of good timing, planning and resources. The capitulation of the Yugoslav government, which resulted in the rise of the Chetnicks and Partisans resistance groups provided a good opportunity for the newly formed OSS to showcase its intelligence-gathering abilities. For this, the OSS and Allied forces needed more accurate weather observations and forecasts to support the Partisans and attack enemy targets across the region. Cross-channel flights from Italy to the Balkans was no easy feat. Despite the advancements made to aircraft, weather forecasts became more crucial to accomplish the mission. As such, OSS weathermen from the 19th WS were trained in parachuting techniques by the British and dropped behind enemy lines to fulfil these requirements.

The fact that operations in the Balkans, specifically those of the OSS weathermen, have been overlooked by historians and scholars alike, is somewhat perplexing. Especially since the U.S. Army published an in-depth study on the impacts of weather and how it affected missions following the end of WWII.¹⁰⁵ In almost all books concerning aerial combat, weather is mentioned as a key element in the ability to successfully complete the operations. Most of the references though are negative, blaming the weather for poor performance, yet, at the same time,

105. United States and Oregon State College, *Weather Effect on Army Operations: Weather in World War II* (Corvallis, OR: Dept. of Physics, Oregon State College, 1950).

boast of success rates when it comes to supplying the Partisans with supplies and the ability to rescue downed pilots in hostile territory.¹⁰⁶

Those few which do mention the OSS Weathermen as a crucial piece of the overall mission, do so in such a fashion that it is just a mere reference with inaccurate information. According to OSS reports during the time, weather was singled out as an important aspect of success. One report stated “procuring reliable weather data from key locations in enemy and enemy-occupied countries is vitally important to effective aerial operations.”¹⁰⁷ In fact, it was reported that:

(1) It is desirable to establish here local weather stations wherever possible. The proposed station in Serbia would be strategically well located as it lies in a direct line to important targets in southern Rumania and northern Bulgaria. Among those are such places as Bucharest, Ploesti, Constanta, the Danube river, Rumanian communications, etc. (2) Further use of this station and its personnel could be made in the recently implemented plan to evacuate airman from Yugoslavia ...¹⁰⁸

The evacuation mentioned was called Operation HAYLARD, the beginning of daytime operations to land in Yugoslavia and rescue the downed pilots who were stranded in country. The newly formed Air Crew Rescue Unit (ACRU) was responsible for the safe return of 372 downed Allied airmen between August 8 and September 1, 1944.¹⁰⁹

Success in Yugoslavia, and to a greater extent, the war in the Balkans, was due in large part to the OSS weathermen who infiltrated the region and supplied weather data to the Allied Air Forces. This effort was crucial to being able to supply the Partisans with equipment, supplies and en-route data for successful strategic and tactical attacks on targets inside Yugoslavia and

106. See Michael Howard, *Strategic Deception in the Second World War* (New York: Norton, 1995) and Robert Jackson, *The Secret Squadrons: Special Duty Units of the RAF and USAAF in the Second World War* (London: Robson Books, 1983) for further details on operational success in Yugoslavia and the Balkans.

107. Report, *Project 1036. OSS Aid to the Air Forces* Records of the Office of Strategic Services, Record Group 226, Entry 99, Box 139, Folder 4.

108. Report, *SI: Yugoslavia Section: Weather Teams, July 1944* Records of the Office of Strategic Services, Record Group 226, Entry 154, Box 14, Folder 197.

109. Gregory A. Freeman, *The Forgotten 500: The Untold Story of the Men Who Risked all For the Greatest Rescue Mission of World War II* (New York, NY: Penguin, 2007), 281.

throughout the Balkans. This included one of Germany's main supplies of fuel, the Ploiesti oil fields in Romania. OSS weathermen also helped in the establishment of BATS, which enabled supplies which could not be air-dropped to be delivered to the Partisans. BATS was multi-functional as it also served in the evacuation of injured Partisans, which were treated and returned to the frontlines to continue the fight. ACRU, as previously mentioned, was a success in part to the weather units on the ground. They were also instrumental in cracking the German Weather Code by establishing OSS-run weather stations close to German airfields, which allowed the Allies to send out their weather data at nearly the same time as the Germans did to compare and contrast the information. Lastly, this group provided a benchmark for future operations utilizing weathermen in OSS-led and other clandestine missions, including OVERLORD and MARKET GARDEN, as well as future OSS operations in the European and Pacific Theaters, which have not yet been explored in great detail.¹¹⁰

The effective and continued use of weathermen behind enemy lines is without a doubt a force multiplier on the battlefield. Equipped only with their meteorological knowledge and basic airborne training, the OSS' first weather operators volunteered to operate in dangerous and austere environments without any knowledge of what to expect. In doing this, they paved the way for an entirely new, now indispensable, specialty in the U.S. Air Force, which has since been involved in every overt and covert U.S. military operation. This thesis has demonstrated that the missions undertaken by the SOE/OSS in the Balkans, specifically in Yugoslavia, were instrumental in solidifying the Nazi defeat on the Eastern Front as the rise of Tito allowed the

110. Weathermen jumped in with the 82d and 101st Airborne Divisions on D-Day, along with flying gliders in during the initial assault and performing amphibious landings on Utah Beach. Al Moyers, "AAF Weathermen Participated in D-Day Invasion," *Air Force Weather Historian* 2, no. 2 (2004): 1, 4. Submarine and parachute infiltrations were also done in the Pacific Theaters with the OSS DET 404, most notably that of Sgt. Cornelius L. Gray who worked with the Karens and Burmese soldiers to locate POW camps, send weather intelligence and supply target identification. Memo, *Operation Report, PILOT I*, Sept. 15, 1945, Records of the Office of Strategic Services, Record Group 226, Entry 154, Box 154, Folder 2613.

Red Army to continue their advance to Berlin in 1945. The OSS weathermen embodied the current special operations weather motto *Coela Bellatores (Weather Warriors)* by overcoming every obstacle they encountered and setting the example for future SOWT generations.

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APPENDIX A

PHOTOGRAPHS FROM OPERATION BUNGHOLE



Figure 1. Capt. Charles T. Hight. Commander of the OSS weather teams in Yugoslavia. British parachute training in Ramit-David, Palestine. February 1944.

Source: Courtesy, Grey Beret Association.



Figure 2. S/Sgt Joseph J. Conaty Jr. Spring 1944 at Drvar, Yugoslavia, while deployed to Tito's headquarters performing weather duties. Taken in Spring 1944 at Drvar, *Source*: Courtesy, Grey Beret Association.



Figure 3. The home of Capt. Drew and his team at Dravr, Yugoslavia. Spring 1944.

Source: Courtesy, Grey Beret Association.

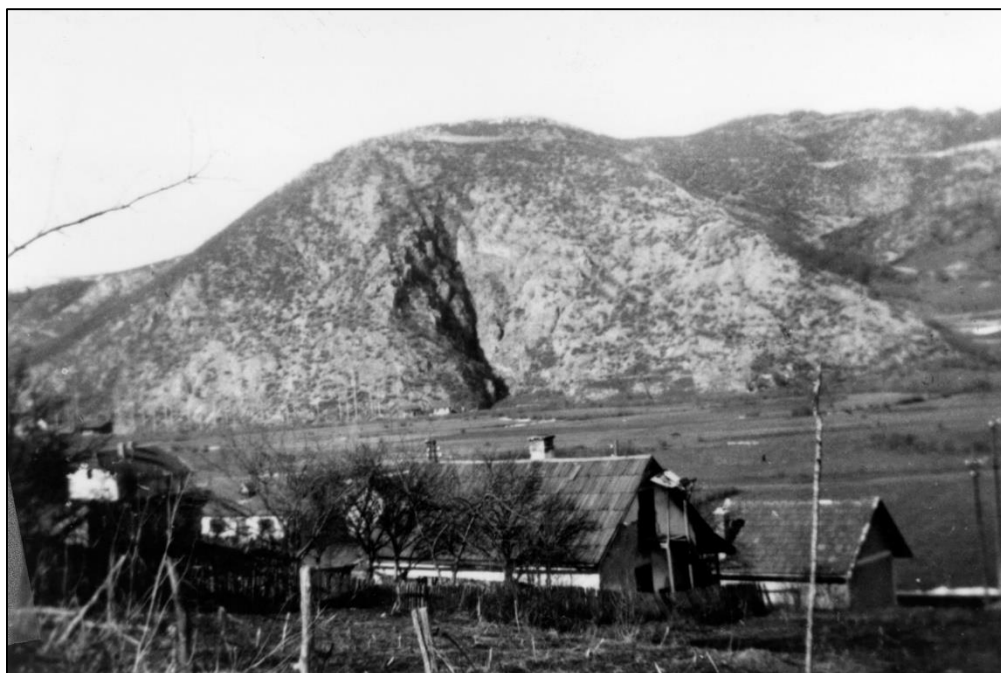


Figure 4. Looking at Tito's headquarters on the mountainside from the OSS weather station at Dravr, Yugoslavia. Spring 1944.

Source: Courtesy, Grey Beret Association.

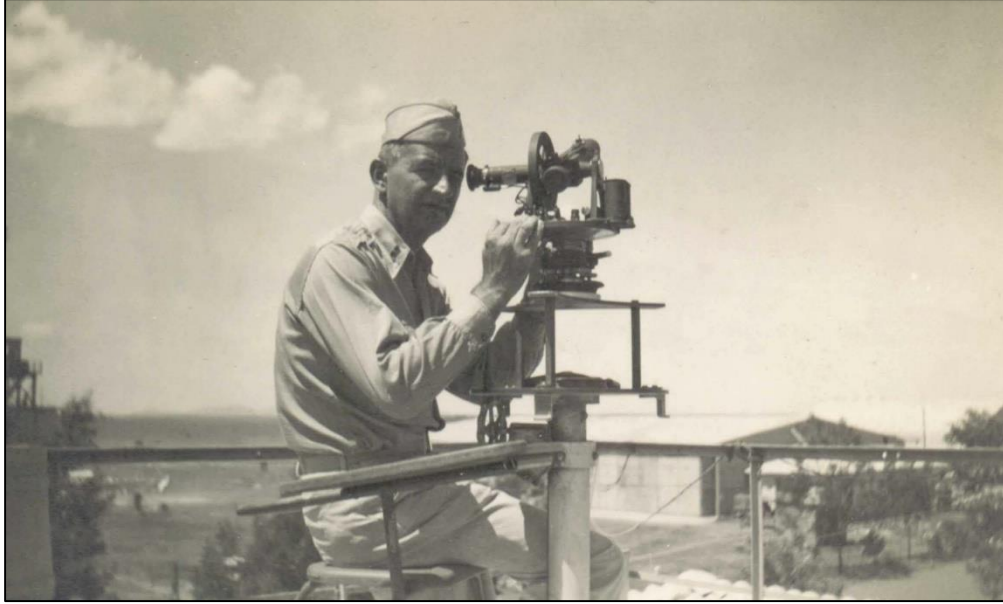


Figure 5. Warrant Officer (JG) Harold F. Guth. Guth, who led an OSS weather Team to the island of Vis, uses a tripod-mounted theodolite to track and record weather balloons. Cairo, Egypt, Summer 1943.
Source: Courtesy, Grey Beret Association.



Figure 6. A member of WO Guth's three-man weather team on the island of Vis. Note the barograph in the background, which records pressure readings from an aneroid barometer. Summer 1944.
Source: Courtesy, Grey Beret Association.



Figure 7. WO Guth's three-man weather team on the island of Vis outside the make-shift weather station. The view overlooks the airfield and harbor.

Summer 1944.

Source: Courtesy, Grey Beret Association.



Figure 8. Vis. "American-built airstrip – 4500 ft. Taxi-ways and dispersal areas along hillside. British airstrip enlarged for parking area. Five P-38s in foreground. Three 'Libs' in corner. Tail-less 'Lib' at one edge of main runway. Airport started April 23 [1944], first plane landed April 30 [1944]." Summer 1944.

Source: Courtesy, Grey Beret Association.



Figure 9. (L) “Young Partisan soldier,” Vis. Note the red star emblem on the hat, identifying himself as a Partisan. Summer 1944.

Figure 10. (Bottom) “Starting out on a raiding party,” Vis. Men, women and children all fought as part of Tito’s Partisans. Summer 1944.
Source: Courtesy, Grey Beret Association.



APPENDIX B



Office of Research Integrity

May 8, 2015

Bryan D. Carnes
1832 Enslow Blvd
Huntington, WV 25701

Dear Mr. Carnes:

This letter is in response to the submitted thesis abstract entitled "*The Dawn of SOWT: OSS Weathermen in the Balkans, 1944.*" After assessing the abstract it has been deemed not to be human subject research and therefore exempt from oversight of the Marshall University Institutional Review Board (IRB). The Code of Federal Regulations (45CFR46) has set forth the criteria utilized in making this determination. Since the information in this study does not involve human subjects as defined in the above referenced instruction it is not considered human subject research. If there are any changes to the abstract you provided then you would need to resubmit that information to the Office of Research Integrity for review and a determination.

I appreciate your willingness to submit the abstract for determination. Please feel free to contact the Office of Research Integrity if you have any questions regarding future protocols that may require IRB review.

Sincerely,

A handwritten signature in blue ink that reads 'Bruce F. Day'.

Bruce F. Day, ThD, CIP
Director