Great War in the Air: A Literature Review

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Abstract

Despite the vast familiarity with the Red Baron, the vast majority of readers do not know how the airplane became a major offensive weapon during World War I. (This literature review delves into the secondary resources.) The sources contain information on things that lead to the beginning of the war in the air from reconnaissance to dog fights to strategic bombing. All of the sources utilize biographies as sources for information to an extent but biographies are not included in this review. This Literature review is good reference point for people to see the main works on the air war in WWI. The research looks at many different factors related to the technologies of utilizing the airplane to its full potential as the newest weapon in war. These books discuss and evaluate the production and quality of the airplanes, fuels and other technologies used by all the belligerents in the war.
In 1914 the First World War it was fought on the land and at sea with the newest front in the air. The first air forces were crude and “reconnaissance was their designated purpose”\(^1\). Initially the spotter pilots began shooting at each other with pistols and rifles, it was extremely ineffective, soon they started mounting machine guns on the back seats or top wings, this was necessary because they could not shoot through their propellers without shooting them off. In 1915, the first interrupter gears were introduced which allowed machine guns to fire through the props without hitting them. The invention of the interrupter gear cleared the way for a new type of aerial combat, the dog fight. As pilots gained experience they started developing tactics using newer, faster and stronger planes. The air battles became more intense and stylized. Pilots like, Baron Manfred von Richthofen and Eddie Rickenbacker, improved upon and perfected this new art of war and its tools, strategies and planes used. Eventually, larger planes were built and were used by both side. Primarily, the Allies used these larger planes to bomb areas behind the lines. World War I produced a new theater of war that encompassed air land and sea. The air war was violent and one on one combat like a joust, where it was kill or be killed.

The published literature chronicles of the air war in World War I is limited to a small number of works written in many different decades. Many of them use the same resources and information from early volumes that are then referenced by later authors. Despite the overlap of sources, they have a variety of opinions concerning the most important key ideas. For example, some focus on the pilots’ accounts and training, others are more focused on the technological advancements and a few authors give both equal value. Most authors use the letters of the pilots and flight records as well as observations from the ground as the perspective from the air.

\(^1\) Eric Lawson and Jane Lawson, The *First Air Campaign, August 1914-November 1918* (Conshohocken, PA: Combined Books, 1996), 32.
Almost all look at the war from many different angles, from the American side and the perspective of other nations. The chronicle of books was written in a variety of time periods by authors with many different backgrounds and main areas of study.

*The First Air War 1914-1919* was published by Lee Kennett in 1991, and is the best book on the topic. He looks at all the aspects of the air war. Kennett’s goal in the book is to give the reader a clear overall picture of the air war not just a view from the Anglo, German, or French side but also from other belligerents. He starts by giving the reader a background to the start of aerial warfare using Helium airships. Very quickly, nations adopted the recently invented airplane as a tool for reconnaissance. This was especially true once the fighting bogged down into trench warfare. The use of airplanes was extremely accurate in getting information about what was happening behind the enemy lines very quickly. Kennett says that in addition to reconnaissance many planes were used as artillery spotters because airships proved extremely vulnerable because of their visibility and slower speeds. Tactics evolved as planes became faster and more maneuverable, especially when Air Forces started mounting machine guns on their planes. The author describes how it went from single plane duels to formation flying and more precise maneuvers and tactics such as diving on the enemy planes from the direction of the sun so they could not see you until it was too late to evade the attack. Kennett discussed the technology and design of the planes especially the use of the interrupter gear and how that gave the Germans an advantage until the Allies got their own version and began installing it in their planes. weaknesses of each. Kennett tells of the fame that pilots came to enjoy, and how they became like the knights of old and were seen as heroes by the men in the trenches. Kennett also discussed the air war on the lesser fronts in locations such as Italy, Russia and the Middle East.
He mentions that the air war was also fought over the ocean which in other works is overlooked completely and how it was different from the other theaters of war. Kennett describes how as the end of the war nears how vital air forces and air superiority were in huge battles. One of Kennett’s last points is that the air war played a huge role throughout the war and had opened a new way to wage war and how that had speed up technological developments that would change the ways wars were fought.

Kennett’s book, *The First Air War 1914-1919*, is a book that is extremely thorough and covers many subtopics that most other WWI books overlook. His book is very enlightening and a key resource in the topic overview. While Kennett was not a pilot, he is a very accomplished military historian who worked with the Air and Space Museum and as a professor at the University of Georgia. He addresses many of the myths surrounding the air war in WWI and is the most well rounded source with many areas of impact covered, is thorough and complete without being too detailed. He argues in his book that there are many ways to look at the war a many other books look at it in a very limited scope. Kennett says that while there were many improvements in military technologies that aviation is the most important and has a larger impact than other technologies developed during the war. He focuses on not just the parts of the air war over the western front but the forgotten ones because they are just as important to telling how air power developed. This book tries very hard to be unbiased towards one side or the other giving it a very unique look at the air war.

The most recent book published on the air war *The First Air Campaign August 1914 - November 1918* which was written in 1996 by Eric and Jane Lawson. This book takes you

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through the war year by year. They cover the development of tactics used in combat including
the weapons, planes, and strategies used to fight in all theaters. The Authors talked about the
people who fought on their respective side and how they innovated and improved the tactics
already in place. They talk about how the airplane as a weapon developed throughout the war,
and became an “acknowledged weapon of war.” They review how in the beginning many
military leaders thought that planes would be a non-factor but then quickly proved themselves to
be an invaluable asset for military leaders. This work covers every year of the war going into
detail, extremely clearly, in and a condensed way. The First Air Campaign has a quick paced
narrative enriched by detailed information on the organization employed for units, aircraft
performance and new maps describing the first attempts to apply the principles of war to aerial
combat.

In the context of the works on the air war it is an extremely well researched piece of
writing and fact. Eric and Jane Lawson use copious primary resources such as diaries and
several secondary sources to put all the primary sources into context of larger events. This book
is a very important book in the study of the great war in the air not just because of how well it is
researched but because of how thoroughly it explains everything from the numbers, to the
technology and the people who flew the machines. The book is a key secondary source for
anyone who wants to understand the war in the air. The book was written recently in 2002 and is
the most recent book to come out on the topic. The Authors Eric and Jane Lawson wrote this
book as part of an ongoing series that they have written called The Great Campaigns Series.

This book argues that while

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3 Eric Lawson and Jane Lawson, The First Air Campaign, August 1914-November 1918
(Conshohocken, PA: Combined Books, 1996), 32
John Morrow wrote the book *The Great War in the Air: Military Aviation from 1909 to 1921* in 1993, as a part of the Smithsonian History of Aviation Series. Morrow states that “The famous pilots and airplanes of the war are the focus of popular and technical works; the doctrine, politics, and industry of airpower are the subject of scholarly studies.” His book is a very technical and discusses the many of the less popular parts of this subject but he argues that they are just as important as the celebrated men who flew. Morrow doesn’t just cover the war years but he also covers the beginning of flight and of aviation in the years immediately after the war. The author talks a lot about the industries, how they were made and the improvements and innovations made in aviation such as increased engine power and the interrupter mechanism. Morrow delves into the politics that swirled around the subject of military aviation especially about how effective it truly was. This work is extremely important to the literature on the subject because of how detailed it is and of how it pulls all the dispersed elements in a very broad topic scope together.

Morrows book is exceedingly far-reaching because he looks at the subject with very little bias towards one side or the other. He makes sure that he mentions a great deal of very important areas of the war and how aircraft played an important part. This book as a whole has massive amounts of critical information regarding the air war and is key to understanding many aspects of the topic. The book throws quite a few numbers at you, such as production numbers from factories while it is especially important to have the numbers they are very scattered and not as well organized as they could be. The authors Book used not only very similar primary

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sources but he used other influential books on this topic in his secondary sources. He has not only written this book on the air war in WWI but he wrote a second book on the same topic as this one but from the German prospective.

Morrow also wrote the book *German Air Power in World War 1* which was published in 1982. This book was the first of these two written by him. This book concentrates on the fact that many German aviation histories are written about World War II than WWI and many of them that are written about WWI are written about the “romanticized concentration on the heroic exploits of aces”\(^6\). In this book he focuses specifically on the German Air force during the war and not the other belligerents. He talks about how that in the beginning the German air force was very disorganized and had an ambiguous start in the air war with supply problems, they had a hard time getting new planes and fuel to the air bases near the front lines. He goes over the inventions that lead to newer and better tactics and more efficient ways of fighting, such as the interrupter gear which many other books do as well. Morrow describes that as the war went on they could not continue to supply enough new planes because of a shortage in skilled labor. They ramped up aircraft production and sent as many new planes and pilots to counter the eventual arrival of American squadrons once they got their aircraft industry up and running because, it was virtually nonexistent when the US entered the war. The book’s conclusion ties all these and other point together into why the Germans lost the air war in the end.

This book is very unique compared to many of the others, because it looks specifically at one side of the fighting unlike many other which try to look at all sides at once. This gives this book the ability to go into more detail about many things because they are not looking at so

\(^6\) John Howard Morrow, *German Air Power in World War 1* (Lincoln: University of Nebraska Press, 1982), xi
many nations and opinions at once. Morrows book is a very intense and deep depiction of the German air force in WWI. This book in the grand scheme of the topic is very limited but while that limits its usefulness while also making it invaluable to understanding how the Germans fought in the air.

The book *Hostile Skies a Combat History of the American Air Service in World War I* was written by James J. Hudson in 1968. He goes into a deep analysis about the training of American pilots and how it was different from other countries training regimens. Hudson organizes his book very differently from the others because he is only writing about American pilots. He writes about the different battles and campaigns such as the battle St. Mihiel. He discusses how American pilots interacted with other allied pilots. He a very helpful table after the epilogue.

Hudson was a professional Historian and he was a combat pilot in WWII which gives the book the feel that the author had experienced air combat which makes it feel different from other books on the same topic by a non-pilot. This book like the last is very specific and extremely valuable to understanding America's pilots in the war. It uses many firsthand accounts and other primary sources such as squadron histories but few other secondary sources. This makes it a highly regarded source.

*They Fought for the Sky* was published in 1957 by Quentin Reynolds. This book is very tied to the people who fought. It tells the story of the war through the fighting of pilots it is less clinical and still gets the history through. He was a journalist in WWII but he did very diligent research for this book. Reynolds gives the reader an insight of to what the pilots were thinking and it gave a grittier feeling to the air war. It follows many of the most important pilots from
France, England, America, and Germany, while telling you the facts of how and why they fought the way they did and what made them so ferocious. This book really is the first book entirely dedicated to the overall view on the air war not just one person or unit.

While there is a substantial amount of literature on the air war a large portion is from biographies of people, the Red Baron and Eddie Rickenbacker, or certain units, such as the Lafayette Escadrille. These personal accounts cannot give the full scope or the forces at work to start and maintain a force in war time. However, there is a smaller number of books on the overall subject without focusing specifically on just one unit or person. Some biographies bring a good point of view, a different perspective to the subject, and some even get into more controversial topics than the broader study books. There is a need for using both types of books for a balanced study of the war and the many perspectives, innovations, and concerns.

While there are a very written set of works that are very comprehensive in scope and detail. They are written predominantly by experts in their field or experienced journalists. While there are few complete chronicle works on the air war many of the books do not talk about how airplanes were used in the war at sea also there is a distinct lack of maps or tables in these books. The Literature has accomplished a lot in dismissing many of the common myths associated with the topic. There has been a surge in publications on this topic in recent decades.
Bibliography


I pledge
The outbreak of war in 1939, as in 1914, brought to an end an era of great intellectual and creative exuberance. Individuals were dispersed; the rationing of paper affected the production of magazines and books; and the poem and the short story, convenient forms for men under arms, became the favoured means of literary expression. Increased attachment to religion most immediately characterized literature after World War II. This was particularly perceptible in authors who had already established themselves before the war. W.H. Auden turned from Marxist politics to Christian commitment, expressed in poems that attractively combine classical form with vernacular relaxedness. Christian belief suffused the verse plays of T.S. Eliot and Christopher Fry.