

SAASS 627

AIR POWER IN THE AGE OF TOTAL WAR

AY 2019

4 SEPTEMBER-5 OCTOBER 2018



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Syllabus Approved: _____ Date: _____

SAASS 627: Air Power in the Age of Total War

Course Description: This course examines the historical development of air power and strategy in the crucible of the two World Wars. SAASS 627 explores a number of key issues dealing with airpower development and employment during that period. The course is organized around a series of core books, selected for their impact upon airpower's theoretical development, their contribution to our understanding of airpower's influence on events, or because they raise issues worthy of discussion and examination.

The topic is vast, and this short course cannot claim to be all-encompassing. Many interesting and relevant topics—the air war on the Eastern Front, airpower's vital role in winning the Battle of the Atlantic, US carrier aviation development—are not covered. The course does attempt to take a look at diverse topics (strategic bombing, air defense, tactical aviation, naval aviation, economics and air warfare, morality) as they developed in several major airpower nations. The course progresses from early experience, through the golden age of airpower theory (some of which you have already studied in SAASS 600), to the hard school of the Second World War. Three short chapters from John Andreas Olsen's edited anthology *A History of Air Warfare*, covering World War I and World War II in Europe and the Pacific, are assigned to provide background.

An integral part of this course is the Field Study, a rare opportunity to visit the sites in Great Britain and France where much of this history was actually made. Consider this trip as an extension of the seminar experience into the field. This will not be a passive learning opportunity: each student will be responsible for leading the academic discussions associated with two historical sites.

Although our focus in the course is on the past, the takeaways point to the future. Your predecessors grappled with many of the same issues we confront today. How well did they do? What can we learn from their mistakes, and their successes?

Faculty:

Seminar rules: All of the threads of this course—reading, thinking, reflecting, and learning—come together in our seminar time. In order to have a meaningful discussion, engagement with the readings is a must. In order to discuss airpower and strategy effectively, one must have mastered the facts and the arguments. The only way to accomplish this is to read, think, speak, and write—a lot. So come to class dressed and ready to play.

Academic requirements: The essay is due on the final seminar day, **5 October 2018**. You will also research and deliver two assigned presentations as part of the Field Study in Europe.

Grading: Your final grade will be determined as follows: 50% essay grade, 20% field study briefings, 30% seminar contribution.

Additional Readings: The literature on air power from 1914-1945 is incredibly rich and growing almost daily. Please see the course director or your instructor for additional reading suggestions or about potential thesis topics.



**The great hope: Rollout of the Boeing 299, prototype of the B-17 Flying
Fortress, 16 July 1935**

COURSE OUTLINE

DAY 1, 4 September: Baptism of Fire and Crucible of Airpower Theory: The Great War
Lee Kennett, *The First Air War*; “The First World War, 1914-1919,” in John Andreas Olsen, ed.,
***A History of Air Warfare*, pp. 3-25.**

The airplane was widely seen as a toy in 1914--yet by 1918 modern air force organizations were an indispensable element of national defense. Nearly all of the modern airpower roles and missions—air superiority, strategic attack, ISR, interdiction, close air support--emerged during the First World War. Just as importantly, the advent of military aviation seemed to suggest a new type of warfare, providing ample grist for the postwar mill of airpower theory.

DAY 2, 6 September: Mitchell and the American Experience
William Mitchell, *Winged Defense*; Pater Faber, “Interwar US Army Aviation and the Air Corps
Tactical School: Incubators of American Airpower”, in Philip S. Meilinger, ed., *The Paths of*
Heaven, pp. 183-238.

The United States was a latecomer to World War I and to military aviation, but embraced the new form of warfare with some zeal. Billy Mitchell is best known as a crusader and zealot whose professional self-immolation prematurely ended his career, but he was also a thoughtful writer and thinker regarding the wider potential of military aviation. Out of Mitchell’s ideas developed the sophisticated targeting schemes of the Air Corps Tactical School’s “industrial web” theory, as well as ideas about air force organization that still reverberate.

DAY 3, 7 September: Shrinking the Globe
Jennifer Van Vleck, *Empire of the Air: Aviation and the American Ascendancy*

Hap Arnold, John Slessor, and Billy Mitchell would make most people’s lists of significant air power movers and shakers. But what about Juan Trippe? The colorful head of Pan American Airways had a vision of the future of aviation that was as sweeping as Douhet’s. Commercial aviation transformed 20th century civilization and cut across all of the instruments of national

DAY 4, 10 September: The German Experience

James Corum, *The Luftwaffe: Creating the Operational Air War*; “The Air War in Europe, 1939-1945,” in Olsen, *A History of Air Warfare*, pp. 27-52.

After the Allied victory in 1945, many airmen dismissed the German air force, or Luftwaffe, as a mere tactical air force, swept aside in a war in which the long-range strategic bomber was the weapon of choice. Yet German airmen were reacting to a very different set of priorities and constraints than their counterparts. At least in the short run, the Luftwaffe was better situated to meet the challenges of a European war than its Polish, French, and British adversaries. Yet these strengths concealed serious weaknesses which a lengthy war of attrition would unmask.

DAY 5, 11 September: The Battle of Britain

Stephen Bungay, *The Most Dangerous Enemy*

78 years ago this month, the biggest air battle the world had yet seen was reaching its climax. The Battle of Britain is so shrouded in myth that is difficult to examine it for what it was: a clash between the two most technically advanced air forces of the day, one emphasizing the power of the air offensive, the other employing the first practical integrated air defense system. Of the hundreds of books on the Battle, this one is the best—it gives full play to the competing national and air strategies, the operational decisions, the technology, and the element of chance that ultimately determined the outcome.

DAY 6, 13 September: The Bomber Offensive: The Target State

Adam Tooze, *The Wages of Destruction: The Making and Breaking of the Nazi Economy*, pp. xix-xxvii, 203-676

For decades, both advocates and critics of air power have cited the effect strategic bombing had—or did not have—on the German nation. Yet many of these judgments took place in the absence of any real knowledge of the workings of the Nazi war economy. Adam Tooze’s book is valuable to students of strategy on many levels. He examines the central role the Luftwaffe played in German economic planning. He discusses the impact of the bombing on the Nazi economy, and reappraises the efforts of Albert Speer’s Armaments Ministry to stave off collapse. It would be hard to find a better discussion of the nexus between economic planning, grand strategy, and air power.

DAY 7, 14 September: The Bomber Offensive: The Execution

Conrad Crane, *American Air Strategy in World War II: Bombs, Cities, Civilians, and Oil*

For many airmen, the bombing of Germany was the central event of the Second World War. All of the prewar theories of the warring air forces were put to a sustained test. The USAAF bombed by day, attempting to eliminate vital choke points in the German war economy, while RAF Bomber Command waged a lengthy campaign against German cities—the Night Area Offensive. Neither side’s campaign unfolded as planned. USAAF unescorted daylight bombing was halted by a vigorous German air defense in fall 1943, and RAF Bomber Command failed to break German morale. Yet when Allied troops came ashore on D-Day, there was no German air force to meet them, and the powerful German army fought at a disadvantage, starved of fuel and pinned to the ground by Allied airpower. How then do we assess the contributions of the bomber offensive to Allied victory? How effectively did American airmen develop strategies for wielding the new weapon?

DAY 8, 17 September: World War II Reinterpreted?

Phillips Payson O’Brien, *How the War was Won: Air-Sea Power and Allied Victory in World War II*

When we think of decisive turning points of the Second World War, battles such as Moscow, Stalingrad, El Alamein, and Normandy jump to the fore. This new work argues that while such epic land battles were dramatic and costly, their strategic significance pales in comparison with the effects of aerial and naval activity. Land battles may have represented the pinnacle of joint operational art, but the strategy of the major powers was dominated by air and sea power. This work represents a dramatic reappraisal of the “master narrative” of the Second World War.

DAY 9, 18 September:

Max Hastings, *Overlord: D-Day and the Battle for Normandy*

Air power did much to set the stage for the successful invasion of Western Europe in 1944. Supreme Allied Commander General Dwight D. Eisenhower was able to reassure his troops, “If you see aircraft overhead, they will be ours.” Yet months of hard fighting remained as Allied forces pushed inland. Airpower is rarely if ever applied in isolation, and considering the fighting in Western Europe from a joint and combined perspective, and from grand strategy to tactical

execution, is a valuable exercise. This book, among the best of the many single volume histories of the Normandy campaign, will also provide necessary context for the latter portion of our field study.

20-28 September: Field Study: The Battle of Britain; Air War in Europe; The Normandy Campaign

Individual assigned readings

Each seminar, mentored by several faculty members, will examine a series of “stands”—physical locations associated with significant air power events of the Second World War. Student presentations will provide the jumping-off point for these examinations, supplemented by faculty presentations as appropriate. You will have an unparalleled opportunity in this course not only to read about and discuss, for example, the RAF’s integrated air defense system, but also to visit the site of No. 11 Group’s operations room at Uxbridge, where the Battle of Britain was fought and won. You will receive presentation assignments and other information on the Field Practicum shortly before SAASS 627 begins.

Day 10, 1 October: Air Warfare and Morality

Michael Sherry, *The Rise of American Air Power*

As student of ethics in warfare Michael Walzer tells us, there is value in “winning well”—that is, fighting even a total war within the boundaries of “*jus in bello*” (just conduct in war). Some argue that in bombing German and Japanese civilians, the Allies, despite the rightness of their cause and the evil nature of the Axis, overstepped these boundaries. Some authors even equate the fire bombings of Dresden and Tokyo with the genocide at Auschwitz. Historian Michael Sherry rejects this extreme viewpoint, yet is critical of the American tendency towards “technological fanaticism” that undergirded the bomber offensive. His book is sure to generate spirited debate and provide an important dimension to our examination of the formative decades of the evolution of air power.

DAY 11, 2 October: The Japanese Experience

Mark Peattie, *Sunburst: The Rise of Japanese Naval Air Power, 1909-1941; “The Air War in the Pacific, 1941-1945,”* in Olsen, *A History of Air Warfare*, pp. 53-79.

Despite limited resources, Japan won a string of spectacular victories in the early months of World War II in the Pacific. Air power was an important element in these successes. In the years before the war, Japanese naval leaders created a potent air force that related tactical

capacities to operational realities, leveraged war experiences in China, and rested on calculated risks of qualitative and technical advantages over potential adversaries. These risks, in turn, rested on strategic estimates that were products of Japan's geopolitical circumstances in the inter-war years. As the Pacific campaign turned into a battle of attrition, however, these risks served to limit Japan's innovative ability, raising timeless questions of strategic choice, especially as they relate to the temporal advantage of qualitative, technical superiority.

DAY 12, 4 October: Before the Pivot

Thomas E. Griffith Jr., *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific*

Certain war theaters demanded a flexible approach from air commanders, and none more so than the Southwest Pacific Area (SWPA). Far from the center of the action, working for a notoriously difficult and demanding superior in a hostile physical environment, George C. Kenney turned his Fifth Air Force into a highly successful member of the joint team. He is widely regarded as the first modern Combined Forces Air Component Commander (CFAACC). The history of air power sometimes emphasized technology at the expense of people, so reading a biography reminds us of the human dimension of aerial warfare.

DAY 13, 5 October: Trash Hauling and International Relations

John Plating, *The Hump*.

Early air power theorists saw the air as the new commons, competing with the sea as a gateway to an emerging globalism. They foresaw guns and bullets and bombs, to be sure, but they also gleaned air power's capacity to supply and connect distant places. World War II's global scope offered ample opportunity for air power's many roles. In the China-India-Burma Theater, air power's capacity to act as a diplomatic lever grew to prominence in ways that suggested its latter-day strategic utility in non-kinetic operations. In operations there, air power's effect was measured in ways different from bombing campaigns. Today, the non-kinetic use of air power continues to have vast strategic potential for the nation willing and able to think with some agility about military aviation.

COURSE PAPER DUE: At the beginning of class, 5 October 2018