

What role did aviation play during World War II?

Questions/Key Points	Notes
<p>WWII was a major military conflict that saw widespread use and innovation of aircraft for many purposes.</p> <p>Many airpower theories developed before WWII were proven wrong.</p>	<ul style="list-style-type: none"> ● Background <ul style="list-style-type: none"> ○ https://www.history.com/topics/world-war-ii/world-war-ii-history ○ https://www.britannica.com/event/World-War-II ○ Largest and deadliest war in history ○ Existing political instability in Europe following the Great War ○ Hitler rises to power in 1933 and becomes chancellor, then becomes fuhrer in 1934 ○ Violates the treaty of versailles and begins rearming the German Military ○ Germany negotiates with USSR to split Poland and signs a nonaggression pact ○ Germany invades poland and the war begins ○ Axis powers - Germany, Italy, Japan ○ Allied Powers - France, Britain, US (after Pearl Harbor), USSR, China ● Overview of aviation during the war <ul style="list-style-type: none"> ○ https://www.jstor.org/stable/resrep24881.8 (cite entire report) ○ Airpower had a much more prominent role than in the First World War ○ https://www.jstor.org/stable/resrep13918.25 ○ Focus of aircraft ops vs ground ops - Ground war focuses more on immediate tasks at hand while aviation gives a bigger picture of the war as a whole ○ By the end of the war, air superiority was necessary before any ground operation; was very difficult to do anything if enemy controls the air ○ Aircraft production was a major part of the war economy <ul style="list-style-type: none"> ■ US production increased rapidly as the war progressed while other countries didn't produce as much ● Interwar Period <ul style="list-style-type: none"> ○ Radar was developed and implemented during this time ○ Naval aviation/Aircraft Carriers <ul style="list-style-type: none"> ■ https://www.history.navy.mil/our-collections/photography/us-navy-ships/aircraft-carriers.html ■ https://www.history.navy.mil/browse-by-topic/communities/naval-aviation0.html ■ https://www.britannica.com/technology/aircraft-carrier ■ Started as cruisers with flat decks that pilots could land and take off from ■ British in WWI made the first aircraft carrier designed for that purpose ■ First US carrier was the USS Langley and the first Japanese carrier was the Hosyo, both in 1922 ■ Were important in the Pacific ○ Airpower theorists <ul style="list-style-type: none"> ■ Douhet, Mitchell, etc <ul style="list-style-type: none"> ● Had good ideas but a lot of them turned out wrong ● Douhet - <i>Command of the Air</i> <ul style="list-style-type: none"> ○ https://www.airuniversity.af.edu/Portals/10/AUPress/Books/B_0160_DOUHET_THE_COMMAND_OF

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Was the separation of the USAAF from the army beneficial or harmful to the US Forces, or did it not have an affect?

Would the outcomes have been different if the Germans had a better air force?

[THE AIR.pdf](#)

- Assumed that future navies and armies would be defensive against air power and that civilian morale was fragile. Could win a war just by bombing. Assumed that bombers could always go anywhere in the air.
- August 1941 - Air War Planning Division writes up a set of plans for how aviation was to be used in wwii
 - Focused more on strategic bombing than aerial supremacy
 - "our bomber aviation...our real striking force...If the air offensive is successful, a land offensive may not be necessary"
 - Refined their ideas as the war further unfolded. Still focused on strategic bombing, particularly on aircraft factories
 - Not much attention on air-to-air combat, purpose of all other types of aviation was to serve as support to long-range bombers.
- US Army Air Forces
 - Founded June 20, 1941, previously army air corps
 - Began training airmen as soon as the war began in Europe
 - "plans to train 7,000 pilots and 3,600 bombardiers and navigators annually"
 - Used AT-6 Texans as trainer aircraft
 - Initial thoughts about strategy were wrong
 - Thought that fighter escorts weren't important, bombing accuracy wasn't important, proper navigation wasn't necessary
 - Strategic bombing
 - Thought that they should bomb aircraft factories to do the most damage but didn't actually hinder the industry much by doing so unless the Luftwaffe itself was hindered
 - Air to air combat was actually more effective because Luftwaffe lost many experienced pilots, which then allowed strategic bombing to work well
 - US Produced 300,317 military aircraft b/w 1/1/1940 and 8/14/1945
- Luftwaffe
 - Blitzkrieg - "Lightning war", combination of infantry, airplanes, and tanks
 - Officially started in 1935
 - Strategy - control the air then provide ground support
 - Designed to support the ground rather than operate independently
 - Tactical rather than strategic
 - Spent a significant amount of money developing aerospace tech before the war
- RAF
 - <https://web.archive.org/web/20111229064029/http://www.raf.mod.uk/history/>
 - <https://www.britannica.com/topic/The-Royal-Air-Force>
 - Was created in April of 1918 as an independent air force from the rest of the army and navy
 - Trained pilots in Canada, South Africa, Southern Rhodesia (Zimbabwe)

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Did Japan make a poor strategic decision by attacking Pearl Harbor? Did they underestimate the American military?

The Battle of Britain was the first battle to be fought only using airpower.

Although aerial reconnaissance was not emphasized as heavily as strategic bombing during WWII, it was still a critical factor.

- Most recognized for the Battle of Britain
- Soviets
 - <https://archive.org/details/redphoenixriseof0000hard/page/224/mode/2up>, pg 225
 - Copied aircraft designs from other armies, did not spend much time researching new designs
 - Notable aircraft: Yak-3 fighter, Il-2 for ground attack
- Japanese
 - Kamikaze
 - <https://www.jstor.org/stable/j.ctt1pk3jj7.13>
 - "Divine wind"
 - Young nationalistic/brainwashed boys, given minimal flight training to crash into various things in suicide missions
 - <https://www.jstor.org/stable/resrep19586.22>
 - Pearl Harbor
 - <https://www.jstor.org/stable/24456182>
 - Japanese aircraft were able to use an aircraft carrier to attack pearl harbor
 - Americans at Pearl Harbor were warned about the impending attacks, but they didn't do enough about it
 - There were a series of communication mix-ups
 - About 200 Japanese aircraft attack Pearl Harbor, ended up destroying over 180 US aircraft. Not enough time for US aircraft to take off and fight back.
 - The USS Arizona and the USS Oklahoma are completely destroyed and many other ships are damaged
 - Causes US to enter the war
- Battle of Britain
 - <https://www.britannica.com/event/Battle-of-Britain-European-history-1940>
 - Germany goes for Britain after they collapse France
 - Again tries to take control of the air before ground attack, but the battle ends up being fought exclusively in the air
 - Germany does air raids on Britain but the RAF fights back
 - Mainly bombs ships, ports, aviation related places
 - British actually have better aircraft than the Luftwaffe
 - RAF fighters kept shooting down bombers, so the Germans start the "Blitz"
 - Night raids on civilians
 - Not really relevant to their goal of controlling skies above Britain
 - Ends up being a failure for the Germans
- Battle of Normandy/Operation Overlord
 - Reconnaissance before
 - <https://www.jstor.org/stable/24572789>
 - Allows them to get a good sense of what they will deal with, what preparations they need, and an appropriate strategy
 - Tactical support during
 - <https://www.jstor.org/stable/resrep19551.8>
 - Tactical fighters came in after D-day landings to support ground
 - Advantages of having air bases near the actual battle site vs having

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Bombings caused significant damage to civilians. Is it an ethical practice? Was it necessary to use it to the extent that it was?

- to fly from England
- Battle of Midway
 - <https://www.nationalww2museum.org/war/articles/battle-midway>
 - June 4, 1942
 - Japan uses aircraft carriers to bomb US base in Midway
 - US uses Douglas TBD Devastator and Douglas SBD Dauntless to bomb Japanese aircraft carriers which are eventually destroyed and the Japanese have to retreat
 - Allowed the US to gain more control in the Pacific
- Pacific Theater
 - Island hopping
 - Would not have been possible if they didn't control the airspace in the Pacific
 - Also needed aircraft carriers
 - Guadalcanal
 - Not many examples of ground attacking air forces but Japanese attacked Henderson Field and destroyed aircraft, etc.
- Bombings
 - Bombers
 - <https://www.jstor.org/stable/26652285>
 - Airpower theorists underestimated the importance of having fighter escorts for bombers
 - Famous bombers: B-17, B-25, B-29, He 111H-6
 - <https://www.jstor.org/stable/10.2307/26652284>
 - Tradeoffs in bomber design - performance, bomb load, defensive weapons
 - Atomic bombings
 - Bombed Hiroshima and Nagasaki
 - <https://www.defense.gov/Explore/Inside-DOD/Blog/Article/2279986/the-enola-gays-history-lives-on/>
 - B-29 "Enola Gay"
 - Modified B-29 without armor and many features removed to save space
 - Enola Gay was involved in both Hiroshima and Nagasaki
 - Strategic bombing
 - <https://link.gale.com/apps/doc/CX2876500021/UHIC?u=monm93287&sid=UHIC&xid=114a0e74>
 - Was bombing really necessary? Did they need to do that much of it?
 - Many moral implications of bombing civilians
 - See USAAF/strategic bombing
- Notable Fighters
 - <https://www.jstor.org/stable/44523577>
 - <https://www.warhistoryonline.com/military-vehicle-news/ten-of-the-best-fighters-of-wwii.html>
 - Initial US fighters after Pearl Harbor - Bell P-39
 - Supermarine Spitfire, Focke-Wulf 190, Yak-3, Me 262 (first jet fighter), F6F Hellcat, P-51 Mustang, P-38, P-47, Mitsubishi Zero
- Reconnaissance

What role did aviation play during World War II?

If missiles were more widespread earlier in the war, would the war still have been fought in the same way?

- <https://www.jstor.org/stable/26276705>
- <https://blogs.loc.gov/maps/2017/02/the-bob-crozier-collection-aerial-reconnaissance-in-world-war-ii/>
- Not as much emphasis on reconnaissance and more on bombings
- However, reconnaissance is still very important and allows armies to take aerial photographs and plan ahead for ground
- New technologies
 - Jet aircraft
 - Independently developed in both Britain and Germany
 - Came about towards the end of the war
 - First jet fighter: Me 262
 - Allows for better performing aircraft in speed and load
 - Missiles/rockets
 - <https://www.britannica.com/technology/rocket-and-missile-system#ref57313>
 - Developed first by Germany
 - Started as projectiles propelled by rockets
 - Britain developed an explosive warhead
 - Soviets did not develop rockets much and instead used mainly barrage rockets
 - Extensively used the Katyusha
 - US - Clarence Hickman invents the bazooka, a handheld rocket. Germans come up with a similar device after seeing them used in North Africa
 - Rockets were also used to shoot down enemy aircraft
 - All major powers also developed rockets and missiles that could be launched from aircraft
- Other notable items
 - Aircraft naming conventions
 - <https://web.archive.org/web/20071025181044/http://www.dtic.mil/whs/directives/corres/pdf/4120151.pdf>
 - A for attack, B for bomber, F for fighter, C for transport, etc

Resources

<https://www.jstor.org/stable/resrep19553.11>
<https://www.jstor.org/stable/resrep19586>
<https://www.jstor.org/stable/26276742>
<https://www.nationalww2museum.org/sites/default/files/2017-07/mv-education-package.pdf>
<https://www.jstor.org/stable/resrep20093>
<https://www.britannica.com/technology/aerospace-industry/World-War-II>

Summary

During World War II, the use of aviation was much more widespread than in the First World War, as a result of airpower theories and improvements in aviation technology during the interwar period. Overall, the role of air superiority became more well-understood and emphasized, both as a support for the ground, and in battles that occurred solely in the air.