The Air War

Strategy, Planes and Men who flew the missions of WWII
The AXIS Powers - 1942
What are the obstacles to fighting the air war in the Pacific?
What was the state of U.S. naval aviation after Pearl Harbor?
History of Air Power

• Only 36 years after the 1st flight of manned air power.
• After WWI the Army and Navy were slow to accept the strategic role of air power.
• In 1925 Col. Billy Mitchell is court martialed for his criticism of the neglect of the air service.
• FDR and military leaders saw the need for an aviation build-up beginning in the mid 1930s.
• Luftwaffe demonstrates the superiority of air power during the Blitzkrieg.
• Japanese had surpassed U.S. in combat aircraft technology.
Army Air Corps – Early 1942

Fighting a war on two fronts required a dramatic increase in pilots, crews, planes, instructors and airfields.

1937 – 184 pilots graduated from advanced flight training.
Plan in 1939 - 4,500 pilots
End of the war – graduated 250,000 pilots (50% washout)

Acute shortage of planes: 4,500 combat planes in 1941
FDR ordered production of 10,000 planes in 1938

Few military flying schools
Army contracted with civilian schools
It is December 8, 1941
You are a freshmen in college. What are your thoughts? What are your options? What choice will YOU make?

Sunday afternoon  December 5, 1943
Dear Mother,

Two years ago, on a sunny and yet snappy Sunday afternoon . . . As I came up the walk Professor Fink rushed from his house next door and shouted, “The Japanese have bombed Pearl Harbor.”

That moment changed the whole course of my life. . . .
Recruiting and the Draft

Poster courtesy of Sandra O’Connell Minker & Dickinson College
Europe had been under attack by Germany since 1939.

The Allies lacked the supplies, trained troops, and landing craft to land on the continent of Europe.

Air power was needed to strike at the heart of Nazi Germany.
The Pacific - 1942

Japanese were in near total control of the Pacific.

USAAF did not have a long range bomber.

U.S. had to build air bases on remote islands.

Japanese Zero was a superior naval fighter in 1941.
## AAF Build Up

<table>
<thead>
<tr>
<th></th>
<th>12-31-41 Beginning of the war</th>
<th>12-31-44 At peak strength</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Aircraft</strong></td>
<td>12,247</td>
<td>72,726</td>
</tr>
<tr>
<td><strong>Combat Aircraft</strong></td>
<td>4,477</td>
<td>41,961</td>
</tr>
<tr>
<td><strong>Support Aircraft</strong></td>
<td>7,820</td>
<td>30,765</td>
</tr>
<tr>
<td><strong>Total Personnel</strong></td>
<td>354,161</td>
<td>2,359,456</td>
</tr>
<tr>
<td><strong>Officers</strong></td>
<td>24,521</td>
<td>375,973</td>
</tr>
<tr>
<td><strong>Enlisted</strong></td>
<td>329,640</td>
<td>1,983,483</td>
</tr>
</tbody>
</table>

Source: Army Air Forces Statistical Digest (World War II), Tables 84 and 4
Training Pilots for the Air War

An American Family in World War II

By Ralph L. Minker, Sandra O’Connell Minker, and Harry Butowsky
Pilot Training

Basic Training

College Training Attachment

Classification and pre-flight

Basic Fight Training

Primary Flight Training

Advanced Flight School

Transitional Flight School

Operational Training

PIPER CUB

CESSNA AT-17

STEARMAN

BT-17

B-17, B-24
Basic Flight Training

Stearman bi-wing, October 17, 1943
Thunderbird Field. AZ
Dear Bernice,

Today we cadets were permitted to indicate our choice for Advanced Flying Training. These choices will be weighted with recommendations by our instructors and the army needs-of-the-moment in assigning us for future training. I asked for B-26 medium bombardment, B-25 medium bombardment and Air Transport, in that order. I will soon know the result for Basic training ends January 7, 1944, and Advanced training begins on the ninth.

I had an hour of formation yesterday (Saturday) and I must say that it is the most exacting as well as the most fun of any of my flying so far. Never must your eyes waver from the leader and always you must keep the formation intact from the moment you take off to the moment you land.
Wednesday, March 22, 1944

Dearest Lee:

I seem to be walking around in circles this morning, not being able to settle down to anything for very long. This time last week we were all excited about your coming home, and this morning you are gone again. . . . we miss you terribly and are looking forward to the day when this mess will be over and you will be home once more to stay. . . . We are very proud of the way you have come along in the air force. . . . I did want you to know that it was grand to have you home again.

With all my love.

Mother
Dear Bernice,

Today P flew a Flying Fortress! At 5:30 this morning P went to the flight line to be assigned a transition instructor and to fly the Boeing B-17 for the first time. Lieutenant Jerry Minia of St. Paul and P were assigned to Lieutenant Paul Starnage of Phoenix and at 6:00 the three of us were conducting a pre-flight inspection of Anita before going into the blue. Jerry and P alternated at the controls for four hours and 45 minutes of intensive work. P shot seven landings and practiced stalls, climbs, glides and steep and shallow turns. By the end of the period P was really worn out for during the constant maneuvering every muscle in the body was at work and every pore sweated. For the Fort is a big plane—combat weight 70,000 pounds, wingspan 104 feet, four 1750 horsepower engines, a cruising
Pilot’s Manual

Your assignment to the B-17 airplane means that you are no longer just a pilot. You are now an airplane commander, charged with all the duties and responsibilities of a command post. You are now flying a 10-man weapon. It is your airplane, and your crew. You are responsible for the safety and efficiency of the crew at all times – not just when you are flying and fighting, but for the full 24 hours of every day while you are in command.
Ready for Combat
Monday evening  March 19, 1945

Dear Dad,

Perhaps you would like to know about a typical mission day with the 8th United States Air Force. At 0300 the squadron C.Q. snaps on a barracks light and wakes the men checked off for flying. He tells briefing time, bomb load and gas load. Speculation as to the target begins as we get up at 0400 and check through the orderly room on the way to the mess hall. (half pre-mission breakfasts are of real, fresh, fried eggs.)

[After the briefing] About 0545 I go to my locker to dress. I put on a 2 piece GE wire lined electric heated flying suit, and a light green coverall flying suit. I also wear a wool lined leather flying helmet with built in radio head phones...

An actual mission is one continuous surge between tense eager expectancy and weary monotony – the thrill as power surges to lift the great silver bird in flight ... formation by 1200 planes, England – a gilt of sunlit fields and towns ... the cold grey channel, Germany...

Flac close and black – the plane staggers from the concussion, peaceful smoking target . . . . I’m tired, the channel and England again, off oxygen at last.
“The best damn crew ever!”

Gordon Dodge, CP
Wes Pitts, N
John Rosiala, B
Ralph Minker, P
Joe Trambley, TG
Max Shepherd, BT
Olaf Larsen, RO
Jim Shannon, E
Harold MacKay, A
Missions of the *Blue Hen Chick*

**Mission #9  Blue Hen Chick**  
*Wed 6 Dec 1944*

Target – Leuna Synthetic Oil Plant at Merseburg and rail yard at Bielefeld  
Briefing at 0500  Take off began at 0815  
Bad weather assembly. Flak over the target. Lt. H.R. DeMallie (708th) and his crew, on the first mission, hit by flak, went down over Germany.  
Landing at 1523  
Crew Log: *Mission lasted 7.20 hours. This is the target that scares most of the crews as it has a 40 mile stretch of flak and over 400 flak guns. Had a leak in prop governor and a runaway propeller over the target.*

**Mission #12  Blue Hen Chick**  
*Sun 24 Dec 1944*

Target – Airfield at Babenhausen  
This was the mission to end all missions. The groups were instructed to put up everything that would fly. First clear day since Dec. 16.  
Crew Log: *Mission lasted 7.00 hours. This was biggest single mission. Hell [to] try to stop German counter-Attack. [Saw] ship in our formation go down in flames. Hit in right wing by flak. Had to crank up bomb bay doors. German Fighters in the area.*
Discussion

- What did it take for the army to train 250,000 combat pilots?
- What fears did Lee have throughout pilot training?
- What role did the family play in supporting a serviceman or woman?
- Could we expect leadership from so many 20 year olds today?
- What were Lee’s views about war?
- What do primary sources contribute to our understanding of history?
“My friends, we were in England in both the hell and the hope of wartime. We helped to make a great victory happen. Some of us died in that struggle. Some of us have died since that time. We who are here today shall follow after them. In the meantime, however, we still have a solemn responsibility to give witness to who we are and have been, to say to each other and those who have passed away: still standing for peace with justice, still faithful to a common cause.”

—Rev. Ralph L. Minker, Jr.
Captain of the Blue Hen Chick
447th Bomb Group Reunion, 1991
Air War in the Pacific

In 1942, U.S. did not have a bomber with range to reach Japan. Doolittle Raid April 1942 brought the war to the Japanese homeland. No other bombin gs of Japan until late 1944 after the capture of the Mariannas.

<table>
<thead>
<tr>
<th>Theatre</th>
<th>Sorties flown</th>
</tr>
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<tbody>
<tr>
<td>Europe &amp; related areas</td>
<td>1,693,565</td>
</tr>
<tr>
<td>Pacific &amp; Far East</td>
<td>669,235</td>
</tr>
<tr>
<td></td>
<td>2,352,800</td>
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</tbody>
</table>
The AAF also supported Admiral Chester Nimitz's aircraft carriers in their island-hopping across the Central Pacific and assisted Allied forces in Burma and China. Arnold directly controlled the Twentieth Air Force, equipped with the new long-range B-29 Superfortresses used for bombing Japan's home islands, first from China and then from the Marianas.
Strategy in the Pacific

• The strategy used by the U.S. in the Pacific was called “island hopping.”
• Operations in the Central Pacific relied on carrier-based air power.
Battle of Midway

• Due to effective code breaking after Pearl Harbor, Admiral Chester Nimitz commanded a considerable force, including three aircraft carriers to Midway Island.

• Japanese fighters were met by a strong air response from the Hornet, Yorktown, and Enterprise.

• The Yorktown would be lost, and 5,000 Japanese fighting men were killed, but the Japanese threat to the Eastern Pacific was over.
Corsair

On Display at Smithsonian Udvar-Hazy Center, Dulles

F4 Hellcat
B-29 Superfortress: *Enola Gay*

Returning from the raid on Japan August 6, 1945

Restored on display at Smithsonian Udvar-hazy Center
Airpower and Defeat of Germany

• Impact of air power on Germany:
  - Food was in short supply for military and civilians.
  - Raw materials were scarce or unobtainable.

• The bombing of German cities created a second front in Europe that drained resources from the German war effort.

The air offensive was decisive in the end.
Airpower and Defeat of Japan

- Doolittle raid in 1942
- Capture of the Marianas
- New B-29 superfortress with range of 5800 mi.
- Erratic weather, poor visibility
- Bombing of Japanese cities began in late 1944
- 20th Bomber command – incendiary bombs began in Feb. 1945
- Hiroshima and Nagasaki August 1945
# The Price of the Air War - USAAF

<table>
<thead>
<tr>
<th>Total</th>
<th>Killed</th>
<th>Wounded and Evacuated</th>
<th>MIA, Interned and Captured</th>
</tr>
</thead>
<tbody>
<tr>
<td>121,867</td>
<td>40,061</td>
<td>18,238</td>
<td>63,568</td>
</tr>
</tbody>
</table>

*Table 34 -- Battle Casualties in All Overseas Theaters, Dec 1941 to Aug 1945. Army Statistical Digest, World War II.*
## The Price of the Air War - USN

<table>
<thead>
<tr>
<th>Aviation</th>
<th>Killed in combat</th>
<th>Killed in accidents</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers &amp; O/Candidates</td>
<td>3,200</td>
<td>8,184</td>
<td>10,184</td>
</tr>
<tr>
<td>Enlisted</td>
<td>3,515</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Memoriam

Mighty Eighth Museum
Savannah GA

Naval Aviation Monument
Virginia Beach