

# Home Front Episode 1: Students of the Air

*Home Front theme in then under*

**Emily:** Welcome to Home Front, a production of AirSpace from the Smithsonian's National Air and Space Museum sponsored by Lockheed Martin, I'm Emily.

In this four part series we're bringing you stories of civilian contributions to aviation during World War II.

For this first episode we're winding it all the way back to just a little bit pre-WWII, because in order to understand flying, both civilian side of flying and military flying, during the war years, it's really important to know about the New Deal Era scheme called the Civilian Pilot Training Program. This is usually called the CPTP.

*Theme slowly fades out under*

**Emily:** And according to the New York Times<sup>1</sup>, on July 1, 1937 there were 16,578 licensed pilots in the United States. And by the time the U.S. entered the war in December of 1941, there were nearly 100,000 licensed pilots<sup>2</sup>. Many of these pilots were thanks to CPTP.

Basically how this worked was the government funded colleges and flight schools across the country to train local student pilots to a basic level license; that included 72 hours of ground school and 35 to 50 hours of flight training. Students only had to pay the cost of the insurance.

Throughout this series, almost every pilot we'll meet either got their flight training with the CPTP, or taught for the CPTP. It was a very common experience for flyers in the late 30s and early 40s.

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<sup>1</sup>

<https://www.nytimes.com/1937/07/09/archives/16578-pilot-licenses-in-effect-on-july-1-licensed-aircraft-in-t.html#:~:text=California%20led%20in%20number%20of%20pilots%20with,limited%20commercial%2C%207%2C581%20private%20and%20808%20amateur.>

<sup>2</sup>

[https://www.faa.gov/sites/faa.gov/files/about/history/milestones/The\\_CAA\\_Helps\\_America\\_Prepare\\_for\\_World\\_WarII.pdf](https://www.faa.gov/sites/faa.gov/files/about/history/milestones/The_CAA_Helps_America_Prepare_for_World_WarII.pdf)

**Eleanor Thompson Wortz**<sup>3</sup> *“The government knew we were going to be in that War. And they knew they didn’t have enough pilots and so they put in this Civilian Pilot Training Program in colleges throughout the Country and Catawba College, small as it was, got an allotment of 10, of which 1/10th could be women.”*

**Robert Arn**<sup>4</sup> *“So when I joined Otterbein College, my freshman year, two weeks after I enrolled the government came along with the CPT Program: Civilian Pilot Training Program. Well, I naturally was crazy about flying and lo and behold”*

**Roberta Sandoz Laveaux**<sup>5</sup> *“He recommended me to a Civilian Pilot Training Program. It was a group of ten, and they allowed one woman per program, and I was that gal. And it was wonderful training. It really saved my life a couple of times when I was in England.”*

**Emily:** That was Eleanor Thompson Wortz who flew for the Women Airforce Service Pilots, Robert Arn who flew for the Civil Air Patrol, and Roberta Sandoz Laveaux who flew for the Air Transport Auxiliary.

CPTP pilots would go on to train military flyers, they would fly for the Army Air Force or the Navy. More would become WASPs, or flew submarine spotting missions off the coast of the United States in the Civil Air Patrol. And still more went to England to fly for Britain’s wartime ferry service, called the Air Transport Auxiliary.

Any flying that needed to be done, CPTP pilots were there to serve<sup>6</sup>.

I talked to Dorothy Cochrane to learn more,

**Dorothy:** *“Hello, I’m Dorothy Cochrane, and I’m the curator for General Aviation in the aeronautics department of the National Air and Space Museum.”*

**Dorothy:** *“The Civilian Pilot Training Program came about in the late 1930s. As a way to accomplish several different goals. In a nutshell, it was to create a pool of pilots, um, just to have them available.”*

<sup>3</sup> <https://archive.org/details/MilCollOH0957Wortz>

<sup>4</sup> [https://history.cap.gov/media/cms/CAP\\_B5E1E5B8F211C.pdf](https://history.cap.gov/media/cms/CAP_B5E1E5B8F211C.pdf)

<sup>5</sup>

[https://historycollection.jsc.nasa.gov/JSCHistoryPortal/history/oral\\_histories/NASA\\_HQ/Aviatrix/LeveauxRBS/LeveauxRBS\\_3-25-00.htm](https://historycollection.jsc.nasa.gov/JSCHistoryPortal/history/oral_histories/NASA_HQ/Aviatrix/LeveauxRBS/LeveauxRBS_3-25-00.htm)

<sup>6</sup> <https://apps.dtic.mil/sti/pdfs/AD1083716.pdf>

**Emily:** At the outset of the program in 1938 the intention was for freshly minted pilots to pursue work in commercial aviation and *controversially*, for potential service in the war that was heating up in Europe and Asia.

Controversial because throughout the 1930s, Americans had consistently chosen to remain out of foreign conflicts<sup>7</sup>, other country's wars were not for America. The CPTP, with its clear potential for training military pilots, came across as warmongering to some.

But the Civilian Pilot Training Program at its outset was specifically, Civilian.

**Dorothy:** *"So they created the idea and then of course it had to go up through, through the administration, it had to be put into a bill, worked out as to what would this training program be all about, put into a bill and get through Congress. And that was no easy task. And there are a lot of different players with a lot of different ideas about how this should be done."*

**Emily:** CPTP was introduced as a New Deal program, and a big part of all these programs was to put people who had lost jobs to the Depression back to work in industries that would move the country forward. CPTP had the added bonus of building an entirely new segment of the economy around aviation and air-mindedness.

*Music button*

**Emily:** The military was unconvinced that the CPTP was a good thing for them. One of the stated goals of the program was 'emergency preparedness,' which is really a euphemism for military flying in the brewing conflict. But the Army and Navy wanted to train their pilots in their own way. And so they scoffed at the ability of civilians to train military pilots properly.

The military also wanted the money that was being sent to private colleges, air schools and airfields to instead go to military bases and airfields.

**Dorothy:** *"The military has its own agenda at this point, and, and there's a difference there because. The aviation in the military, especially in the U.S. Army, uh, the U.S. Army"*

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<sup>7</sup> <https://history.state.gov/milestones/1937-1945/american-isolationism>

*Air Services is part of the military. It's part of the Army. It's not yet a separate Air Force, so they're vying for funding and recognition in building up the military air wing.*

*And not everybody is sold on airplanes yet. Not everyone's thinking, you know, that this is what we need to do. So they're a little leery and they also have their own training programs, so they're like, you know, why do we have to be bothered and, and maybe have to take in some of these civilian pilots later and they're not gonna be trained how we want.*

*And, you know, some of this money that's going to private airports and, and the contracts and to the pilots themselves. We wanna see money coming towards the military rather than to any civilian effort. ”*

**Emily:** The CPTP did have supporters. The program was championed by the President, Franklin Delano Roosevelt, and Robert Hinckley, the head of the Civil Aeronautics Authority, the CAA, which was the 1930s version of the FAA-the Federal Aviation Administration- that regulates airports, planes, and pilots today.

Hinckley had run a small airport in Utah and also had a lot of experience in other FDR Depression era New Deal programs, like the Works Project Administration. The WPA built a lot of things in the 30s, like the Hoover Dam and the Bay Bridge and also a bunch of air fields and airports, like La Guardia<sup>8</sup>.

**Dorothy:** *“So the CPTP was the brainchild of Robert Hinckley, who was a New Deal administrator. And their goal was to create this federally funded project that's in the order of a lot of different New Deal ideas coming from the administration of Franklin Roosevelt. And use this program to bring aviation more to the forefront and to prepare, you know, for any, uh, eventualities in the future.”*

**Emily:** Hinckley was no stranger to ‘airmindedness,’ the idea that the general population would benefit from knowing more about flight and airplanes.

Aside from training pilots, ‘airmindedness’ was another stated goal of CPTP. At this point, commercial aviation was in its infancy--most people would not have even seen an airplane in 1930 unless they lived really close to an airfield.

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<sup>8</sup> <https://livingnewdeal.org/new-deal-categories/infrastructure/airports/>

Despite conflicting interests, the CPTP started with a small test program in 1938 with 330 students across 13 Universities and flight schools.

**Dorothy:** *“What they did first was they created a temporary group and they contacted a few airports and said we wanna start this program, will you be experimental with us? And they did a dry run and that did well with the pilots who were trained.”*

**Emily:** Then Hinckley helped get the bill that would create the full CPTP through Congress in 1939.

With \$5.6 million in 1939 and 1940, the CPTP started to expand. By the end of the program it had operated in 1,132 colleges and universities and 1,460 flight schools in all 48 states, plus Puerto Rico, Hawaii and Alaska<sup>9</sup>.

If you were a student at one of the colleges that taught this program or you lived near an airfield you’d probably see the posters, read articles, seen ad in newspapers and magazines, or even heard the ads on the radio urging students to join

**Dorothy:** *“The CAA went on a broad campaign to broadcast this. And it was in all the aviation magazines, it went on air, it went on radio and all of the different aspects.*

*So there was a big push to let people know that this was something that they could do to help their country to be airminded and to be prepared for anything in the future,”*

**Emily:** One article that appeared in the Harvard Crimson in September 1939<sup>10</sup> said...

**VO:** *“The men who will finally be permitted to take the course will be chosen from those who meet the preliminary qualifications. They will be picked on the basis of "academic standing, interest in aviation and allied fields, maturity, and an interview," according to the official announcement.”*

**Emily:** But what was it like to actually enroll in one of these programs? If you signed up for the program and paid your insurance fee and passed your CAA physical you would join your fellow potential pilots first in ground school.

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<sup>9</sup> Hawaii and Alaska were not added as states until 1959

[https://www.faa.gov/sites/faa.gov/files/about/history/milestones/The\\_CAA\\_Helps\\_America\\_Prepare\\_for\\_World\\_WarII.pdf](https://www.faa.gov/sites/faa.gov/files/about/history/milestones/The_CAA_Helps_America_Prepare_for_World_WarII.pdf)

<sup>10</sup> <https://www.thecrimson.com/article/1939/9/25/harvard-and-us-combine-to-offer/>

And there was a good chance that your class would be co-ed. CPTP allowed for one woman in every 10 students<sup>11</sup>, at least in the beginning.

### *Music button*

**Emily:** The flying part of the program was run by flight schools at airports and airfields. But the ground school component was taught at colleges and universities nearby. Like Harvard, tiny Grove City College, the University of Minnesota-- but also Historically Black Colleges and Universities including Tuskegee Institute and Howard University.

But, like the Army at the time, the CPTP was segregated.

With the program paying the costs of some women and Black students, CPTP was more inclusive than a lot of other government programs of the era.

**Dorothy:** *“And that came as a push from some of the people you know, who had to get through Congress and they wanted to see avenues open. And at this point we're not at war. So men and women, uh, minorities, primarily just African Americans are at least not banned.”*

**Emily:** Students took 72 hours of ground school which included learning about the history of aviation, civil air regulations, navigation, meteorology, parachute training, aircraft and theory of flight, engines, instruments, and different forms of radios and how to use them.

Finally, when students were allowed to take to the air. Most student pilots were trained in small, light, easy to fly aircraft.

**Dorothy:** *“The pilot training program used very light, small airplanes as your entry level, and again, that's still ongoing today. You have to start with the smallest, the safest, the least powerful, the least complicated type of airplane.”*

**Emily:** Getting aircraft manufacturers to work designing and building these aircraft was another goal the government had when funding CPTP.

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<sup>11</sup> <https://www.fieldoffirsts.com/post/women-cptp-cap>

Because of the Depression, airplane manufacturers were really struggling, so the contracts to supply light, easy to fly trainers to CPTP schools were a hot commodity. The program required one plane for every 10 students and there was one design that stood out among the rest,

**Dorothy:** *“We’re talking about, Taylorcraft airplanes, Aranka airplanes. These are some of the early light planes. And then most especially the Piper Cub and the Piper Cub was the big winner in the market. They were already recognized as a superior, small, light, civilian, inexpensive, easy to fly aircraft.*

*And they became the aircraft of choice. Some estimates are like 70 to 75% of the people who learned to fly in this program learned on Piper Cubs.”*

**Emily:** These are small, two person, propeller aircraft with one wing on each side that sits above the cabin. They were most often painted a bright jaunty yellow with a black lighting bolt down both sides.

If you visit the Museum in person, you can see two different Piper Cubs on display. One in the new Pioneers of Flight gallery at our national mall building and the other one is out in Chantilly, Virginia at the Steven F. Udvar Hazy Center.

*Music button*

**Emily:** If students passed ground school and flight training and passed the licensing test, they would end their time in the Civilian Pilot Training Program with a private pilot’s license.

At the end of 1941, everything changed for America and the Civilian Pilot Training Program.

**NBC News Bulletin:**

*“From the NBC News Room in New York: President Roosevelt said in a statement today that the Japanese have attacked the Pearl Harbor, Hawaii from the air. I’ll repeat that. President Roosevelt says that the Japanese have attacked Pearl Harbor in Hawaii from the air.” fades out*

**Emily:** But it didn't take the attack on Pearl Harbor for the CPTP to start changing. As the chance of America joining the war got more and more likely in 1940, women were no longer allowed to join the program. It was beginning to be civilian in name only.

And at that point anyone who enrolled in CPTP was required to sign up for the Army or the Navy. And only men could fly for the Army or the Navy.

**Dorothy:** *"In later in 1940, 41, the women were then not part of the program anymore because the idea had then been surfaced that you had an agreement that you would go on into military aviation if you took part in this program, so it became less inclusive. And women were basically knocked out of it because of the emerging war and the emerging need for pilots."*

**Emily:** And, at that point, an argument was brewing over Black pilots being trained in the CPTP. At the time, Black people were barred from flying in the military. But in the end, Black men were allowed to continue to enroll.

**Dorothy:** *"So it took effort then by the Roosevelt Administration to break that and eventually demand that they be included, and that brought about the Tuskegee Experiment. And Tuskegee Airmen."*

**Emily:** Though the change had been brewing for a year, following Pearl Harbor the Civilian Pilot Training Program officially became the War Training Service<sup>12</sup>. It would continue to train pilots in the first stage of military flying through 1945. Pilots that started out in CPTP or the WTS were much more likely to succeed in later military training<sup>13</sup>.

Towards the end of the program in 1944 and 45, more and more training was taken over by the Army and Navy. They slowly phased out the parts of war flying that were taught by civilians. The CPTP, then called the WTS, was officially ended in 1945.

### *Music Button*

**Emily:** No more students meant the civilian instructors from the program were about to be out of jobs. And without a protected position, that meant they were eligible to be

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<sup>12</sup>

<https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/196137/civilian-pilot-training-program/>

<sup>13</sup> From *To Fill the Sky With Pilots*



drafted. So the instructors lobbied for another stateside job, ferrying aircraft from factories and repair shops back and forth to where they would be shipped overseas.

The women of the Women Airforce Service Pilots, most trained by the CPTP before the war, were already doing that ferry work and doing it really well. But the men won that fight, taking the women's jobs and ending the WASP program.

*Theme fades up and under*

**Emily:** The Civilian Pilot Training Program later known as the War Training Service ran for more than four years. And over that time, students logged nearly 12 million flying hours. Between 1939 and 1945, 435,165 pilots were trained in the program. Including 2,500 women and about 2,000 Black people.

The legacy of CPTP stretches past the war. Many pilots that would go on to fly for or start airlines, or work as mechanics and other ground support into the jet age were trained as part of the Civilian Pilot Training Program.

*Theme up then under again*

**Emily:** Home Front is a production of AirSpace from the Smithsonian's National Air and Space Museum.

Home Front is produced by Jennifer Weingart and mixed by Tarek Fouda. Narrated by Dr. Emily Martin. Our Managing Producer is Erika Novak, our production coordinator is Joe Gurr and our Social Media Manager is Amy Stamm.

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Find more citations in the transcript for this episode on our website [s.si.edu/airspace](https://s.si.edu/airspace)

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*Theme up and out*