Teacher’s Guide for the Special Exhibit
February – September 2010

WAR IN FLORIDA WATERS
1942-1943
EYES OF THE HOME SKIES
War in Florida Waters 1942-1943
Eyes of the Home Skies
Exhibit Dates: February – September 2010

 Remembering Coastal Patrol 3, Civil Air Patrol

During the opening months of World War II a little known story of the war took place at Lantana Airport in Palm Beach County. For seventeen months, a group of volunteers serving in the Civil Air Patrol helped fight one of the biggest threats to our country’s safety: German submarines called U-Boats. They hunted their prey along the East Coast of the United States and in the Gulf of Mexico. Men and women of the Civil Air Patrol volunteered their time and resources to help protect our shores from the U-boat menace.

Europe was already at war and the German U-boats were destroying allied shipping in the Atlantic. By 1940 the four thousand strong Florida National Guard had been called into service. This left the state without anyone to respond to state emergencies. The Florida Legislature and Governor Spessard Holland established the Florida Defense Force in April 1941. One month later the First Air Squadron, an aviation division of the Florida Defense Force, was established at Morrison Field in West Palm Beach. On December 1, 1941 just six days before the Japanese attack on Pearl Harbor the Civil Air Patrol was established and the First Air Squadron was assimilated into the Civil Air Patrol. With the establishment of the CAP, civilian pilots and aviation enthusiasts were able to put their skills and private, light planes to use for civil defense efforts.

The temporary exhibition, which commemorates the history of Civil Air Patrol’s Coastal Patrol 3, is a fascinating story is one whose impact is still felt and remembered in this community. The Civil Air Patrol (CAP) worked to fill the wartime void by providing small civilian airplanes for anti-submarine patrols along the coast until the military could take over the mission. Exhibit highlights include: cartoons and an authentic CAP uniform from Zack Mosley, nationally known comic strip artist; World War II CAP insignia and hats, replica of a lifesaving device known as a barracuda bucket; and other artifacts.

This exhibit is made possible by the generous sponsorships of the Marshall E. Rinker, Sr. Foundation, Inc. and Florida Airmotive, Inc.
Teacher’s Guide to the Special Exhibit
*War in Florida Waters 1942-1943: Eyes of the Home Skies*

For Teachers: All sections of this guide may be reproduced for your students.

**Suggested Activities**

Please see pages

**Suggested Reading**

Burnham, Frank A. *Hero Next Door: The Story of the Civil Air Patrol*

Hoyt, Edwin P. *U-boats offshore: When Hitler Struck America*

Gannon, Michael. *Operation Drumbeat: The Dramatic True Story of Germany’s First U-Boat Attacks Along the American Coast in World War II*

Hickham, Homer H. Jr. *Torpedo Junction: U-Boat War off America’s East Coast, 1942*

Keefer, Louis E. *From Maine to Mexico: With America's Private Pilots in the Fight against Nazi U-Boats*


Neprud, Robert E. *Flying Minute Men, the story of the Civil Air Patrol*

Paterson, Lawrence. *U-Boat War Patrol: The Hidden Photographic Diary of U-564*

**Websites to Visit**

National Museum of the Civil Air Patrol [http://www.caphistory.org](http://www.caphistory.org)

CAP Coastal Patrol History 60 Years [http://history.nhq.cap.gov](http://history.nhq.cap.gov)

History of the Civil Air Patrol [wwwarmedforceshistory.org/Civil_Air_Patrol_History.html](wwwarmedforceshistory.org/Civil_Air_Patrol_History.html)

Operation Drumbeat [http://uboat.net/ops/drumbeat.htm](http://uboat.net/ops/drumbeat.htm)

U-Boat Archive [http://www.uboatarchive.net](http://www.uboatarchive.net)

U-boat [http://www.uboat.net](http://www.uboat.net)

German U-Boats and Battle of the Atlantic [http://www.uboataces.com](http://www.uboataces.com)
Florida Sunshine State Standards

4th Grade Social Studies
SS.4.A.1.1 Analyze primary and secondary resources to identify individuals and events throughout Florida History.
SS.4.A.1.2 Synthesize information related to Florida history through print and electronic media.
SS.4.A.7.3 Identify Florida’s Role in World War II.
SS.4.A.9.1 Utilize timelines to sequence key events in Florida History.

Language Arts
LA.4.1.6.1 Use new vocabulary that is introduced and taught directly.
LA.4.2.2.2 Use information from the text to answer questions related to explicitly stated main ideas or relevant details.
LA.4.4.1.1 Write narratives based on real or imagined ideas, events, or observations that include characters, setting, plot, sensory details, a logical sequence of events, and a context to enable the reader to imagine the world of the event or experience.
LA.4.6.2.1 Select a topic for inquiry, refine a predetermined search plan.

Visual Arts
VA.A.1.2.1 Use and organize two-dimensional and three-dimensional media, techniques, tools, and processes to produce works of art that are derived from personal experience, observation, or imagination.
VA.A.1.2.4 Use good craftsmanship in a variety of two-dimensional and three-dimensional media.

8th Grade Social Studies
SS.8.A.1.2 Analyze charts, graphs, maps, photographs and timelines; analyze political cartoons; determine cause and effect.

Language Arts
LA.8.1.6.1 The student will use new vocabulary that is introduced and taught directly
LA.8.3.5.1 The student will prepare writing using technology in a format appropriate to audience and purpose (e.g., manuscript, multimedia).

9th-12th Grades Social Studies
SS.912.A.6.1 Examine causes, course, and consequences of World War II on the United States and the world. Understand the causes and course of World War II, the character of the war at home and abroad, and its reshaping of the United States role in the post-war world.
SS.912.W.7.7 Trace the causes and key events related to World War II.

Language Arts
LA.910.1.6.1 The student will use new vocabulary that is introduced and taught directly
LA.1112.1.6.1 The student will prepare writing using technology in a format appropriate to the purpose (e.g., for display, multimedia).
LA.910.3.5.1
LA.1112.3.5.1
Vocabulary

**Advocate**
Someone who defends or maintains a cause or proposal; someone who supports or promotes the interests of another.

**Barracuda Bucket**
A barracuda bucket is a homemade flotation device and is a green canvas bag attached to a large rubber inner tube.

**Puddle Jumper**
A nickname civilian aviators called their small aircraft. Other nicknames were aerial egg-beater, grasshopper, and flying jeep.

**PBY**
The Consolidated PBY Catalina was an American flying boat in the 1930s and 1940s produced by Consolidated Aircraft. During World War II, every branch of the military used the PBY. PBYs were used in anti-submarine patrols, convoy escorts, search and rescue missions, and cargo transport.

**Paukenschlag**
This is German for drumbeat. The name was given to the German Operation *Paukenschlag* in January 1942 when German U-boats attacked allied shipping along the U.S. east coast.

**Unterseeboot**
*Unterseeboot* is German for undersea boat or submarine. The abbreviated version is U-Boot or in English U-boat.

**Mae West**
A personal flotation device (also referred to as, lifejacket, life preserver, Mae West, life vest, etc.) is a device designed to assist a wearer, either conscious or unconscious, to keep afloat with his or her mouth and nose (airway) of his or her head's face above the water surface when in or on water.
Background Information for Teachers
War in Florida Waters 1942-1943: Eyes of the Home Skies

Prelude to War
As war loomed over Europe in the late 1930s, American civilian aviators began taking a critical look at United States air power. Some aviation enthusiasts thought the military’s air forces were unprepared, ill-equipped, and incapable of defending the extensive coastline of the United States should war come to America. Civilian pilots came together in different groups at local airports to discuss the situation and to prepare their planes for use in case of a national emergency. At the forefront of this movement was Gill Robb Wilson, the father of the Civil Air Patrol.

In the mid-1930s Wilson, *New York Herald Tribune* aviation editor, Director of Aviation for New Jersey, and president of the National Aeronautics Association, traveled to Germany. During his visit, German Luftwaffe command gave Wilson unprecedented access to observe German military aircraft and training. He even attended a speech given by Adolph Hitler in Nuremberg. On his return trip to the U.S., Germany’s growing air power worried him. Wilson concluded that Germany was preparing for war. He believed, as did other American aviators, that air power was the key to national defense. Etched into Wilson’s memory was a remark made by a German Army officer. The officer, who had been to the U.S., said, “Your east coast is the best submarine hunting ground in the world.”

After Wilson returned to his home in New Jersey, he saw civil aviation as a yet untapped resource to be called upon in the event of a national emergency. Civilian pilots could provide useful services to the nation in a crisis by providing information, patrols, disaster relief, and transportation. Wilson discussed with New Jersey Governor Charles Edison what New Jersey could do in the event of a national or state emergency. With Edison’s approval, Wilson began organizing a state civilian air force called the New Jersey Civil Air Defense Services. On 1 September 1939, Germany attacked Poland launching World War II.

Florida Prepares for War
In reaction to the declarations of war in Europe, in 1940 the U.S. Congress approved a peacetime draft and increased the budget for the military. President Franklin D. Roosevelt, in turn, declared a state of emergency, allowing the activation of the National Guard for federal service. With the National Guard federalized, Congress amended the National Defense Act in October 1940 allowing each state to establish an armed force to meet their internal security needs.

In November 1940, the 4,000-man Florida National Guard was called into federal service. Governor–Elect Spessard L. Holland established the State Defense Council to organize civilians to defend Florida. During Holland’s inaugural speech, he pointed out that because of Florida’s strategic position between the Atlantic Ocean and Gulf of Mexico, the state had to make preparations for its own defense.

After the last of Florida’s National Guard units entered active federal service in January 1941, Holland ordered the creation of a state guard. he state legislature passed Chapter 20314 creating the “Florida Defense Force, a state guard, to operate while the National Guard is in federal service.” The creation of the defense force was one of the earliest civilian defense forces organized in the United States. A total force of 2,105 men and women comprised of 34 infantry companies of 62 men each would be called for to take over the duties of the National Guard. Once the National Guard returned to state control, the FDF would be discharged from state service.
Once the FDF was established, Company E, 7th Battalion (later re-designated as the 8th Battalion) was formed in West Palm Beach in July 1941. Under the command of Captain Richard D. Hill, the unit established its company headquarters at the National Guard Armory building in West Palm Beach, now the Armory Art Center, left vacant by the federalization of Company C, 124th Infantry.

Florida’s vast coastline presented a serious defense problem for the state. Though land units could provide patrols, there were large uninhabited areas along the coast. An answer to this problem was a civilian aviation corps to patrol the coastal areas from the air. By mid-May 1941, Adjutant General Vivian Collins had given his approval for the formation of an air squadron at Morrison Field in West Palm Beach and appointed Wright “Ike” Vermilya, Jr., president of Palm Beach Aero Corporation, as commander. Vermilya was an experienced aviator, aircraft dealer, World War I pilot, and former National Guard officer. In January 1929, Vermilya had become the head of Embry-Riddle Flight School in Daytona Beach, Florida. Nine years later, Vermilya managed Palm Beach Aero Corporation at Morrison Field in West Palm Beach. In May 1941, he was chosen to head the 1st Air Squadron, Florida Defense Force. Then in December, Vermilya was selected to command the Florida Wing of the Civil Air Patrol with his headquarters in West Palm Beach. Vermilya rose to the rank of colonel and received the military’s Air Medal for his service flying anti-submarine patrols during World War II.

The squadron’s missions included patrolling Florida’s coastline, search and rescue, and guarding civilian centers from the air. During local emergencies, it would assist troops and transport equipment from the state arsenal in St. Augustine to various locations throughout Florida. However, the civilian air unit could not be called on to engage in hostilities.

On 28 May 1941, Collins mustered in the 1st Air Squadron, Florida Defense Force. The squadron included technical, headquarters, communications, engineering, and photographic sections, plus three flights of five pilots each. Vermilya’s staff included Cecil “Zeke” Cornelius, executive officer; Ed Forbes, adjutant; Dr. H.A. Wakefield, flight surgeon; Jake Boyd, engineer; Thorne Donnelly, communications officer; John “Art” Keil, photographic officer; John Prince, supply officer; Wally Maier, operations officer; and flight commanders J. Roy Hime, Flight A; Marshall E. “Doc” Rinker, Flight B; and Ted Keys, Flight C. The enlisted ranks included one first sergeant, two master sergeants, five staff sergeants, thirteen sergeants, and twenty privates.

Civil Air Patrol

After Fiorello La Guardia, former mayor of New York City, was appointed to head the new federal Office of Civil Defense, established by presidential order in May 1941, he worked with Gill Robb Wilson; Guy P. Gannett, owner of a chain of Maine newspapers; Thomas Beck, Chairman of Crowell-Collier Publishing Company; and later Reed Landis, to develop a plan for a national civil air patrol. The plan was to form a “minute man force” to gain valuable time for the military to prepare for the defense of the nation. Wilson used New Jersey’s Civil Air Defense Services as the model for the national plan. In late 1941 the team presented the plan to La Guardia, who reviewed and sent it to General Henry H. “Hap” Arnold, commander of the Army Air Corps. Arnold liked the idea and appointed a board of army air corps officers to review the plan. After a thorough examination, the board endorsed the plan. Perhaps from the beginning, Arnold foresaw the valuable contributions the CAP could make towards the defense of the country and the assistance it could offer to the military.

Just six short days before the Japanese attack on Pearl Harbor, under presidential executive order, La Guardia signed Administrative Order No. 9 establishing the Civil Air Patrol. The CAP would bolster the nation’s coastal defenses and perform a wide range of duties including searching for enemy submarines, border patrols, and rescue missions. With the establishment of
the CAP, civilian pilots and aviation enthusiasts could put their aviation skills and private, light planes to use for civil defense efforts. The opportunity to use the approximately 100,000 civilian aviators and their 23,000 private aircraft for national defense was an advantage for both the civilian pilots and the military. Essentially, the use of civilian planes would allow military aircraft to perform more immediate military missions. For many civilian pilots, this was the only way they could fly because the government grounded all civilian flights except commercial airlines after the attack on Pearl Harbor. Many of the small civilian planes, such as the Stinson Voyager, were affectionately nicknamed, “puddle jumpers” because they were small planes with low horsepower engines. Other nicknames for these planes were “flying jeep,” “grasshopper,” or “aerial egg-beater.”

On Sunday morning, 7 December 1941, the Japanese attacked Pearl Harbor, Hawaii, thrusting the U.S. into war. Not until that evening did the Germans learn of the sneak attack on the American naval base. German officials knew nothing of the Japanese plan to attack U.S. territory. Had the Germans known what was going to happen, they may have been able to participate by unleashing a surprise attack on the American east coast.

After the U.S. declared war on Japan, the German government in turn declared war on the United States. Hitler then ordered U-boats to attack shipping on the U.S. east coast. As the New Year began, the Germans launched Operation Paukenschlag (drumbeat) in January 1942 against the vulnerable U.S. east coast, and then later carried the campaign into the Caribbean and Gulf of Mexico. The first victim was the British freighter SS Cyclops torpedoed by U-123 which was commanded by Kapitanleutnant Reinhard Hardegen on 12 January 1942 off Cape Cod, Massachusetts. In the early months of Operation Paukenschlag, U-boat commanders found virtually no effective anti-submarine measures along the east coast during the first months of the U-boat campaign. German U-boat men, who crossed the Atlantic to attack allied shipping along the U.S. east coast, referred to this period as the “happy times.”

In January 1942, a dozen tankers and freighters were sunk or damaged by U-boats operating along the east coast; within two months, the number increased to forty-two sunk or damaged ships. By June 1942, ninety-seven ships and approximately 5,000 people had been lost to U-boat attacks. After April, the U.S. military was finally able to launch effective counter measures to combat U-boat attacks which eventually stopped by 1943. Part of the counter-measures was the use of the Civil Air Patrol which flew anti-submarine patrols from the last day of February 1942 to August 1943.

A U.S. Naval report later stated “The Axis submarine campaign was well planned. Nowhere else in the world could (Germany) find such a concentration of ships in such a small area.” Northbound ships cruised the Gulf Stream while southbound ships were funneled between the Gulf Stream and the east coast of Florida. The United States shipping lanes off Florida were the second busiest in the U.S. and rated sixth in the world. One out of every twelve ships sunk by U-boats occurred in Florida waters.

Admiral Ernest King, Commander in Chief, U.S. Fleet, did not particularly like the idea of using civil aviators to carry out anti-submarine patrols. On the other hand, the Army Air Corps had no objections. A few days after the CAP began its patrol duties, Admiral Adolphus Andrews, Commander, North Atlantic Naval Coastal Frontier, tried to persuade the Navy to use the CAP. Andrews thought this “scarecrow force” would be able to restrict German naval operations along the U.S. east coast. King’s reply was simple “the scarecrow patrol was rejected on grounds of operational difficulties.” However, after a few months in operation, the Navy grudgingly recognized the success of CAP coastal patrols.

With Army Air Corps approval, three bases were authorized to operate for a three-month trial period to evaluate CAP performance. The experimental bases were organized at Atlantic City,
New Jersey; Rehoboth, Delaware (both established on 28 February 1942); and West Palm Beach, Florida, on 30 March 1942. A factor in the selection of West Palm Beach as one of the experimental bases may be because Palm Beach County is closer to the Gulf Stream than anywhere else on the east coast. This shipping lane became a prime target for enemy naval attacks. The first three bases proved such a success that eighteen additional bases quickly organized along the eastern seaboard and Gulf coast stretching from Maine to Texas. Altogether, five bases were located in Florida: Lantana (CP 3), Flagler Beach (CP 5), Miami (CP 7), Sarasota (CP 13), and Panama City (CP 14).

Coastal Patrol Base No. 3
On 30 March 1942, CAP’s Coastal Patrol 3 was officially established absorbing the members of the 1st Air Squadron. From April 1942 to May 1943, the unit would fly fourteen missions a day. The first patrols consisted of only one plane per patrol. However, in mid-May 1942, this practice changed to two aircraft per patrol after CAP Coastal Patrol aircraft were armed with bombs.

Throughout the unit’s seventeen months of anti-submarine patrols, CP 3 was involved with searching for enemy submarines, locating sinking ships and assisting in the rescue of the survivors, searching for downed aircraft, and saving ships from U-boat attacks. Their patrol area, from the Palm Beach area north to Melbourne and back, comprised approximately 120 miles of coastline and up to 60 miles out to sea. The pilots and observers would scan the water and beaches for floating wreckage, debris, oil slicks, rafts and lifeboats of survivors, periscopes, and U-boats. The last flight would spend the night at the Banana River Naval Air Station (now Patrick Air Force Base) then return the following morning. The two patrol planes flew at different altitudes, one at five hundred feet and the other at one thousand feet. Two pairs of planes would take off for patrol, one heading north from the Lantana area and the other heading south from Banana River NAS.

Deadly Encounters
Ten days after Coastal Patrol 3 began flying anti-submarine patrols, the U.S. freighter SS Leslie fell victim to U-123 on 12 April 1942, hours before an attack on the Swedish freighter SS Korsholm. Off the coast of Melbourne, pilot E.V. Quinn and observer E.C. Loy of CP 3 assisted Coast Guard units in locating survivors of the SS Korsholm, which had been attacked by U-123 at about 2:00 am on 13 April 1942. In this attack, the German commander Kapitanleutnant Reinhard Hardegen used the U-boat’s cannon and machine guns because the last of the torpedoes had been expended during the attack on the Leslie. The Leslie lost four crewmen and the Korsholm lost nine.

The month of May proved to be an extremely deadly month for merchant ships off the coast of Florida. On 3 May 1942, CP 3 pilot Sam Belcher and observer Tom Manning, reported the location of survivors of the British freighter Ocean Venus which had been torpedoed and sunk by U-564 commanded by Korvettenkapitan Reinhard Suhren off Cape Canaveral. Five British sailors were lost in the attack. Other patrols were involved in finding the debris of the Laertes, a Dutch freighter sunk by U-109 under the command of Kapitanleutnant Heinrich Bleichridt, on the same day as the Ocean Venus. On 4 May 1942, off Boynton Beach, U-564 torpedoed the British freighter Eclipse. On the same day as the attack on the Eclipse, near Hobe Sound, the SS Delisle, a Canadian ship was found damaged from a U-boat attack. The gaping hole in her side was repaired enough to be towed to Port Everglades for an extensive overhaul. Two crewmen from the Delisle were lost in the attack. Korvettenkapitan Reinhard Suhren, commander of U-564 was responsible for the attack on the Delisle and the Eclipse.

Between 5–6 May 1942, CAP planes found the remains of three ships, the Dutch freighter SS
Amazone, which sank minutes after the attack, and the SS Halsey, a U.S. tanker, both attributed to U-333, and the U.S. tanker Java Arrow which had been sunk by another U-boat. Two days later, off Fort Pierce, U-564 sank the U.S. freighter SS Ohioan with the loss of seventeen seamen. On the heels of these attacks, the Potrero del Llano, a Mexican tanker, was attacked by U-564 near Sand Key off Miami on the night of 14 May 1942. Thirteen crewmen were lost in that attack. This attack and a second on another Mexican ship, led Mexico to declare war on Germany.

Wiley Reynolds, Jr. remembered that every time he went out on patrol in May 1942, he saw a ship burning from U-boat attacks. He said the U-boats “were just knocking off these ships.” Reynolds stated many of the ships he saw in flames were carrying fuel. The sailors on those ships “didn’t have a chance.” On one patrol the only remains of a ship he saw was just a raft floating with only a sailor’s hat, nothing else.

To emphasize just how horrendous an attack on a tanker could be, John Walsh, survivor of the attack on the tanker Cities Services Empire by U-128, explained his story to the press.

I saw our captain [William J. Jerman] on the raft. He and some of the other men were on it and the current was sucking them into the burning oil around the tanker. I last saw the captain going into a sheet of flame. Some of the fellows said he screamed. I didn’t hear him. Munroe Reynolds was with me for a while. He was screaming that he was going blind...Gus, the quartermaster, was with us. He had a piece of steel in his head and he said ‘I won’t last long.’ He didn’t.

Lantana

Because of increased Army Air Corps at Morrison Field, CP 3 moved its operations to Lantana Airport in May 1942. Another reason for the re-location may have been military officials did not want small civilian aircraft carrying bombs to use the same airport the air corps was using. Bombing practice was staged on 17 May two days before they changed airfields.

The service facilities at Lantana were spartan at first. There were three landing strips of 3,500 feet long at the new airport and eight portable canvas hangers and six individual workshops. The large wooden hanger was used for CAP operations was built after the unit had moved to their new location. There was a smaller concrete building just west of the hanger where CP 3’s headquarters were established. Often, work on the planes was done outside or with the nose just inside a portable hanger.

The Red Cross Motor Corps operated a canteen for the men and women serving at Lantana Airport. Several women, including Mrs. Margaret Emerson, her daughter Gloria Baker Topping Alexander, and Mrs. Edward Swenson, contributed to a fund to construct a proper building for the canteen to support Coastal Patrol 3. Materials were donated by Doc Rinker at cost, the design of the structure was completed by Jake Boyd, Jack Willson built it, and Mrs. Jessie Donahue provided necessary equipment for it. The interior decoration was provided by Gloria Baker Topping Alexander. The clubhouse was east of the hanger. When completed it had sleeping quarters with four double decker-bunks, a kitchen, and recreational facilities. To entertain themselves, the men and women enjoyed a tennis court, basketball court, and a ping-pong table. Charles Munn, Sr. donated a radio and there was a diving board and float at the lake (Lake Osborne) to the east of the runway.

Civilian Planes Armed

One of the most notable incidents occurred on 5 May 1942 that finally led to the arming of CAP planes with bombs and depth charges. During a patrol late in the day off the coast of Cape Canaveral, Marshall E. Rinker and Tom Manning of CP 3, spotted a U-boat cruising near the coast.
The U-boat attempted to dive to evade the CAP plane but instead got stuck on a sand bar in shallow water. Rinker and Manning circled for almost an hour calling for assistance; however, help did not arrive in time. During that long, aggravating hour, the U-boat dislodged itself and escaped to deep water. When help finally arrived on the scene the U-boat was gone.

Greatly disturbed by the lost opportunity to bag a U-boat, Vermilya notified CAP headquarters, “That’s one that we could have chalked up for a sure kill if we’d had bombs.” Since Vermilya knew General Henry H. “Hap” Arnold, Commanding General of the U.S. Army Air Corps, Vermilya called him at the Pentagon about the “one that got away.” After hearing about the incident, Arnold ordered all coastal patrol aircraft armed with bombs.

Once the order to arm coastal patrol planes was given, CP 3 flew their planes to Morrison Field to be fitted with bomb racks. These were attached to the underside of the fuselage on the right side under the observer’s seat; the observer would now act as the bombardier. A crude homemade bombsight was made from pieces of handy metal. The bombsight was mounted to the left side of the plane for the pilot to sight in on his target. Surprisingly, the bombsight was very accurate at an altitude of a thousand feet.

The air crew would begin their bombing run at about a thousand feet. The pilot would stick his head out the window which was protected by the air deflector and look through the bombsight adjusting it with the handle in the plane and/or by pushing the rudder pedals until the target was found. The pilot kept doing this as the plane closed in. The sight was mounted in such a way that as you adjusted it, the sight would come into contact with a switch when the aircraft was at the bomb release point. The switch then activated a red light inside the cabin signaling the observer to release the bomb. Another way the pilot communicated to the observer to drop the bomb was by patting the observer’s left knee. In less than a week, most of CP 3’s aircraft had been fitted with sights and bomb racks. To release the bomb during an attack, the observer had two wires to pull both leading to the bomb or depth charge through the floor. One wire with the red handle armed the bomb. The wire with the yellow handle released the bomb.

The type of armament depended on the type of aircraft flown. Smaller planes like the Stinson Voyagers and Rearwins were fitted with one 100 pound bomb. The larger Fairchilds carried two 100 pound bombs and Stinson Reliants were armed with one 325 pound depth charge. The bottom fin of the depth charge had to be sawed off in order to clear the ground during take off. There was a scant seven inches of clearance between the bottom of the modified depth charge and the ground.

Following the arming of the CAP planes, on 19 May 1942, pilot Wiley Reynolds and observer Earl Adams made the first attack on what they thought was a U-boat dropping the 100 pound bomb they were carrying. Reynolds knew he was taking a chance because it was large and was either a submerged U-boat or a whale. He hoped it was not a whale but he wanted to be safe.

Wallace R. King got his opportunity to bomb a U-boat when he thought he saw the bubbles from a diving submarine. King dropped his bomb on the spot where the U-boat had submerged and then continued with his patrol. A nearby Coast Guard boat came to investigate the bombing. Shortly after the attack, the Lantana base received a message stating pilots should stop bombing sunken ships. According to the Coast Guard, King apparently attacked a shipwreck. The bubbles were from a wreck which had moved because of the underwater currents of the ocean.

One day on patrol, Charles Weeks and his observer decided to practice sighting on a target. Weeks chose the Fort Pierce buoy to practice sighting for a bombing run. During the practice run, Week’s observer accidentally released the bomb. They knew they would likely get into some trouble for dropping their bomb so they conjured up a story to cover themselves. When they returned to base, they told the intelligence officer that the bomb rack was loose causing the
bomb to drop while on patrol.

Trouble in the Air
The aviators flying anti-submarine patrols knew the risks that came from flying such missions and that a malfunction could happen at anytime whether it was over land or the ocean far from land. They ran the risk of crashing into the water if they could not make it an airstrip or some deserted beach. Some members of Coastal Patrol 3 would experience such circumstances and land safely but a couple of air crews would have to land on the water.

On 9 July 1942, just before noon, Ted Keys and Tom Manning had to crash land because of a mechanical malfunction four to five hundred feet offshore of Palm Beach near Bethesda-By-The-Sea Episcopal Church. The malfunction caused a fire in the engine. It was put out when Keys put the plane into a dive. The men were not hurt and when the plane was later recovered the bomb was found to be still in its rack. Keys and Manning forgot to drop the bomb before ditching the plane. Keys and Manning received the Duck Club award for their landing in the ocean.

Lieutenant Wiley R. Reynolds was described as a good, cautious pilot and was ready for anything that might happen. The safety equipment he carried in his airplane on patrol included shark repellent, flare pistols, knives, and floats. On 11 July 1943, Reynolds and his observer Ralph Cohn took off on what should have been an uneventful patrol. But at 2 pm when they were at about 1,500 feet, they encountered engine problems off Jensen Beach which caused them to crash land in the Atlantic Ocean. Both escaped unharmed and were rescued from the water a short time later by a nearby boat and taken to Fort Pierce. Cohn was lucky because he did not know how to swim. Once down, he inflated his one-man life raft and got in. Reynolds’s cousin Harry Bassett and Alex Thomson observed the incident and circled overhead until help arrived.

The guys in the small boat made it to the two downed fliers in about five minutes. Once the men were safely on board, the rescuers took them to Fort Pierce. After the twelve-mile trip to Fort Pierce, Reynolds called his wife to tell her he was fine. Mrs. Reynolds replied “so then you had a chance to try out your equipment...now that I am talking to you, I am not worried about you.”

Those pilots and observers who had to ditch their aircraft at sea had the honor of receiving membership in the “Duck Club.” Only those who were forced to land in water earned membership into this exclusive club. Reynolds and Cohn were awarded membership into the “Duck Club.”

The idea of the Duck Club came from Lieutenant Colonel K.A. Vilas, CAP executive officer and pioneer aviator. The originator got the idea from the Army Air Corps’ Caterpillar Club (those forced to parachute from a plane). The Duck Club patch was designed using the blue background from the CAP insignia with a red duck floating on water and was worn on the left shirt pocket. Only those CAP members who survived ditching at sea received membership into the club. By coincidence, one of the first CAP members to receive the award was Vilas’ nephew, Lieutenant Ward Vilas, who had to land on water while out hunting German submarines.

Defeat of the U-boats
In May 1943, the Army Air Corps assumed responsibility of directing the CAP. Two months later, CAP National Headquarters issued orders that coastal patrol operations were going to stand down at sunset Tuesday, 31 August 1943. The Navy was ready to take over this duty. Writing in August, Admiral Ernest J. King, Commander in Chief of U.S. Fleet and Chief of Naval Operations, to General George C. Marshall, Chief of Staff of the Army, stated the CAP was released from coastal patrol duties effective 31 August 1943. He asked Marshall to pass on to the CAP a “well done for their enthusiastic, loyal and constant cooperation in combating the submarine menace, patrolling
our coastline and assisting in the locating of survivors and ships in distress."

When CAP anti-submarine operations stood down, U.S. Senator Claude Pepper (D-FL) attended a sundown ceremony held at the Lantana base on 31 August 1943, marking the end of anti-
submarine patrols. As the sun set, Pepper addressed the formation and the crowd stating “I am
proud of the fact that Florida has had five of the twenty-one coastal patrol units in the U.S. and
that this one [CP 3] was the first in Florida.” He continued to praise the men and women of
Coastal Patrol 3 and how they helped save the nation from invading German U-boats and for the
sacrifices they made during a time of war.

Nationally, CAP Coastal Patrol units flew more than 24 million miles, spotted 173 enemy
submarines, attacked 57, officially credited with sinking 2, and lost 26 men and 90 planes. The
final victory over the German U-boats was the result of the combined efforts of the Army, Navy,
Coast Guard, and the Civil Air Patrol.

Coastal Patrol 3 flew 18,712 hours plus 45 hours of special missions for the Army’s Signal
School at Camp Murphy in Martin County. They flew an estimated 1,546,500 miles in seventeen
months of operation. Air crews made fourteen attacks dropping twenty-one live bombs on
suspected U-boats.

Other CAP Wartime Missions

Other CAP units also assisted in the overall war effort on the home front. CAP search and
rescue units operating from January 1942-January 1946 flew 26,000 hours of search and rescue
mission. Six members of the search and rescue units lost their lives. Cargo and courier units
were responsible for transporting hundreds of military personnel and about 3.5 million pounds of
cargo and mail for the Army Air Corps from 1942-1944. From 1942-1944, Border Patrol units
were responsible for patrolling the U.S.-Mexican border between Brownsville, Texas, and Douglas,
Arizona. These units flew 30,000 hours, reporting 7,000 unusual occurrences, about 176
suspicious aircraft, and flew a total of 500,000 miles with the loss of two CAP members. Target
towing missions were especially dangerous to fly. CAP planes pulled a target about a thousand
feet behind the plane while anti-aircraft gun units practiced firing live ammunition at the target
that was at an altitude up to 5,000 feet high. In 20,500 target towing and tracking missions,
about 46,000 hours were flown. Between 1942-1945, these units suffered the loss of seven
killed, five injured, and lost twenty-three planes.

Cadets

In 1943, a cadet program was established at Lantana airport, though a national cadet program
had been organized the previous year. The program was part of the pre-induction for enlistment
of qualified personnel into the Army Air Force. On 23 August 1943, CP 3 held the first cadet
meeting with 28 cadets. By September, the cadet squadron had enrolled fifty cadets. A year later,
the squadron, known as the Palm Beach Squadron which included cadets from West Palm Beach,
Palm Beach, Lake Worth, Lantana, Boynton Beach, and Delray Beach, had an enrollment of 100
boys and 60 girls. To join, cadets had to be seventeen years old or older and were able for
enlistment in the Army Air Corps. In October 1943, the cadet squadron began accepting girls into
the program. Over fifty girls attended a meeting of the squadron the first week of the October.

At the end of October 1943, to help promote the program and attract new cadets, Coastal
Patrol 3 “bombed” towns along the east coast between Melbourne and West Palm Beach with
leaflets. Captain Marshall Rinker led members of the unit that included captains Ed Quinn, E.W.
Jackson, and Ted Keys and Lieutenants George Kent, Burt Kruger, and Ralph Cohn on the bombing
missions which dropped 10,000 leaflets. Leaflets were dropped on the communities of
Melbourne, Eau Gallie, Vero Beach, Fort Pierce, Port Salerno, Stuart, Hobe Sound, Jupiter, and
West Palm Beach. Rinker told the Palm Beach Post the leaflets had been an effective tool to
attract new cadets.

**Praise for a Job Well Done**

The government was slow in recognizing the immense contributions made during the war by the Civil Air Patrol. Finally, in 1948, President Harry Truman authorized the presentation of the Air Medal to those who flew coastal patrol. CAP personnel with more than 200 hours flight time on coastal patrol during the period of 1942-1943 were awarded the Air Medal. On 2 May 1948, 200 Florida CAP members from Lantana, Miami, Daytona Beach, Sarasota, and Panama City received the award at a ceremony held at Lantana Airport. Major General Lucas V. Beau, USAF, presented the medal to them. This group represented almost one quarter of the total 824 medals awarded to the CAP, of which fifty-three were awarded to members of CP 3.

A year after the war ended, General Tooey Spaatz, first chief of staff, USAF, admitted at a congressional dinner that the U.S. air forces “were not prepared to meet that danger [German U-boats], not equipped for adequate defense of the country, with less for offense overseas.” Of the CAP he continued to say, “it was then, in 1941, that the Civil Air Patrol was formed somewhat as a fire bucket project,” to supplement the military until the army and navy had the resources to defend the U.S.

A fitting tribute to the CAP of World War II was a statement made by another former German U-boat commander. Sometime after the war, an American military officer interviewed the ex-U-boat commander and asked him why U-boat attacks stopped along the east coast of the United States. His answer was “because of those damned little red and yellow planes.”

**Post War CAP**

In 1943, control of the Civil Air Patrol, originally organized under the Office of Civil Defense, was transferred to the Army Air Force (also known as Army Air Corps). Following the end of the war, the future was uncertain for the CAP. Then in 1946, Public Law 476 established the CAP as a patriotic and educational organization. Two years later, the CAP became the official auxiliary of the newly created U.S. Air Force.

**Civil Air Patrol Missions**

The Civil Air Patrol performs three key missions as decreed by Congress:

- **Emergency Services**: search and rescue missions, disaster relief, humanitarian services, Air Force support, homeland security, and anti-drug-trafficking operations.

- **Aerospace Education**: programs and activities include formal courses about aviation, the space program and exploration, new aviation technologies, and courses to improve flying skills earning Federal Aviation Administration ratings.

- **Cadet Program**: CAP cadets are those members who join between ages 12 and 18. The program develops the young to become leaders and good citizens through their interest in aviation and community service. Through studies and other activities, cadets progress through achievements that include special activities, aerospace education, leadership programs, moral leadership, and physical fitness. As cadets progress they earn increased rank, awards, or certificates.
Timeline

1939  Germany invades Poland - World War II begins

1940  National Emergency declared in United States

1941  Civil Air Patrol established
       Japanese bomb Pearl Harbor

1942  German U-boats attack allied ships along U.S. east coast
       CAP Coastal Patrols established to fly anti-submarine patrols

1943  U-boats are driven from U.S. coastal waters

1945  World War II end
Activities
The following is one account written by Lt. Boyce Stradley who flew anti-submarine patrols for Coastal Patrol Base 16 at Skyco, Dare County, North Carolina. His account will give you an idea of what it was like to fly coastal patrol duty and it is similar to what other pilots and observers experienced at other coastal patrol bases.

4:30 a.m. We are checking in with the Flight Operations Officer for our daily duty. As we get into our flight gear, Mae West, flying suits and what have you, you can hear the hum of the motors as they are warming up on the line.

It is scarcely 5:00 a.m. and we are in the air. There is a dim glow of dawn over the Atlantic. We are off with a load of T. N. T. for Mr. Hitler’s subs. The beach goes by with nothing but water ahead. As the sun peeps out from behind the ocean we find ourselves many miles out to sea. Say, what is that speck on the horizon? We alter our course in that direction, as we draw near we see a ship. It could be an oil tanker, merchant freighter or a troop transport. Yes, your boy could be aboard. We radio the base a code and they know what is taking place. We circle around covering a wide area, searching for the periscope of that deadly tin fish, so that your boy might return home safely and that precious shipment might get through.

After searching for four or five hours, we can see our planes coming to relieve us as our gas is running low. In returning we find a large spot of oil on the water. What is it doing there? Could one of our ships have been torpedoed? There might be survivors around, or an enemy sub could have been surfaced there the night before. We make a note of that position so it might be investigated. At 10:20 we land, that being five hours and twenty minutes in the air. No, we are not off for the rest of the day. We are relief crew for the flight that took off at 9:00.

You might wonder what branch of service we are in and what type of bomber we fly. No, it is not the Army or the Navy, nor do we fly PBY’s or A-20's or B-17’s. We are the Civil Air Patrol, composed of civilians trying to do their part. The pilots are the cow pasture pilots you used to know. The airplanes are of civilian type, with horsepower ranging from 90 to 250. Our instruments are not of the best but we accomplish our missions.

Let's ask God to be with us through this hell and terror, so we can see your boy on the streets of dear old Gastonia again.

(this is also available online at http://www.co.dare.nc.us/Airport/Museum/Boyce.htm)
Answer the following questions:

1. Why do you think the first patrol of the day left so early?
   ____________________________________________________________
   ____________________________________________________________

2. Lt. Stradley uses the term “Mae West.” What is a Mae West?
   ____________________________________________________________
   ____________________________________________________________

3. The article refers to “Mr. Hitler’s subs.” What are German submarines called?
   ____________________________________________________________
   ____________________________________________________________

4. Research what type of aircraft the following is:

   PBY _______________________________________________________
    __________________________________________________________

   A-20 ______________________________________________________
    __________________________________________________________

   B-17 _______________________________________________________
    __________________________________________________________
Test Your Knowledge

Name__________________

1. When did World War II begin? When did the United States enter the war?

2. What is a U-boat?

3. Why did German U-boats attack allied shipping along the U.S. east coast?

4. Nationally, CAP Coastal Patrol units flew more than 24 million miles. There were 21 coastal patrol bases in the United States. What is the average miles flown by air patrols from these bases?

5. Coastal Patrol 3 flew 1,546,500 miles in 17 months of operation. What was the unit’s average mileage flown per month?

6. What were the CAP planes armed with?

7. What is a barracuda bucket?

8. What kind of airplane did artist Zack Mosley use for Coastal Patrol 3’s unit insignia?

9. What did the government award to Coastal Patrol members for their service during World War II?
1. When did World War II begin? When did the United States enter the war?

September 1, 1939; December 7, 1941

2. What is a U-boat?

A U-boat is a type of submarine invented by the Germans for use in World War I and II. The initial "U" in U-boat stands for "unterseeboot", or undersea boat in English.

3. Why did German U-boats attack allied shipping along the U.S. east coast?

To keep supplies and material from reaching allied forces in Europe

4. Nationally, CAP Coastal Patrol units flew more than 24 million miles. There were 21 coastal patrol bases in the United States. What is the average miles flown by air patrol from these bases?

\[
24,000,000 \div 21 \text{ bases} = 1,142,857.1 \text{ per base}
\]

5. Coastal Patrol 3 flew 1,546,500 miles in 17 months of operation. What was the unit’s average mileage flown per month?

\[
1,546,500 \div 17 = 679,205.88 \text{ miles flown per month}
\]

6. What were the CAP planes armed with?

Bombs and depth charges

7. What is a barracuda bucket?

A barracuda bucket is a homemade flotation device and is a green canvas bag attached to a large rubber inner tube. These bags may have been an invention of the Prohibition Era’s rum-runners. Stranded seamen used these bags to keep sharks and barracudas from taking a bite out of them. In some instances, the inner tube had to be inflated with a hand pump once the pilot or observer was in the water.

8. What kind of airplane did artist Zack Mosley use for Coastal Patrol 3’s unit insignia?

A Stinson Voyager

9. What did the government award to Coastal Patrol members for their service during World War II?

The military’s Air Medal
Why was the Civil Air Patrol established?

Background:

In the late 1930s, Europe prepared for and went to war. At the same time, American civilian aviators began taking a critical look at United States air power. Some aviation enthusiasts thought the military’s air forces were unprepared and ill-equipped to defend the extensive coastline of the United States should war come to America. Civilian pilots came together at local airports to discuss the situation. They wanted to be prepared to use their airplanes in case of a national emergency.

Aviation advocate Gill Robb Wilson, New York Herald Tribune aviation editor, Director of Aviation for New Jersey, and president of the National Aeronautics Association, foresaw aviation’s role in war. Wilson believed in general aviation’s potential to supplement America’s military. He convinced Fiorello La Guardia, head of the National Office of Civil Defense, of the need for a national civil air patrol to assist the military if the U.S. entered World War II.

In late 1941, Wilson and a team of aviation enthusiasts presented the plan to La Guardia, who then sent it to General Henry H. “Hap” Arnold, commander of the Army Air Corps. Arnold liked the idea and appointed a board of army air corps officers to review the plan. After a thorough examination, the board endorsed the plan. Perhaps from the beginning, Arnold foresaw the valuable contributions the CAP could make towards the defense of the country and the assistance it could offer to the military.

On December 1, 1941, just six short days before the Japanese attack on Pearl Harbor, La Guardia signed Administrative Order No. 9 establishing the Civil Air Patrol. The CAP would bolster the nation’s coastal defenses and perform a wide range of duties including searching for enemy submarines, border patrols, and rescue missions. With the establishment of the CAP, civilian pilots could put their aviation skills and private, light aircraft to use for civil defense efforts. The opportunity to use the about 100,000 civilian fliers and their 23,000 private airplanes for national defense was an advantage for both the civilian pilots and the military. The use of civilian planes would allow military aircraft to perform more immediate missions. For many civilian pilots, this was the only way they could fly because the government grounded all civilian flights except commercial airlines after the attack on Pearl Harbor.

Discussion:

- Why was a national civil air patrol needed?
- How could it help the military in time of war?

Activity:

Go online and research the Civil Air Patrol. Look for Gill Robb Wilson while researching the CAP.

- Write a page about the founding of the CAP and Gill Robb Wilson’s participation in the CAP.
- Answer this question after researching the CAP.

Do you think it was necessary to establish the Civil Air Patrol?

- Fiorello La Guardia was the head of the National Office of Civil Defense. Research who he was then write a report about him.

Gill Robb Wilson. Courtesy CAP Historical Foundation.
What was Operation Drumbeat?

Background:
On Sunday morning, 7 December 1941, the Japanese attacked Pearl Harbor, Hawaii, thrusting the U.S. into war. Not until that evening did the Germans learn of the sneak attack on the American naval base. German officials knew nothing of the Japanese plan to attack U.S. territory. Had the Germans known what was going to happen, they may have been able to participate by unleashing a surprise attack on the American east coast.

Because of the Japanese attack, the U.S. declared war on Japan on 8 December 1942. The Germany government in turn declared war on the U.S. three days later. Hitler then ordered U-boats to attack shipping on the U.S. east coast. As the New Year began, the Germans launched Operation Paukenschlag (drumbeat) in January 1942 against the vulnerable U.S. east coast, and then later attacking ships in the Caribbean and Gulf of Mexico.

The operation included a wave of several U-boats making a fast strike against allied shipping along the U.S. eastern seaboard. The first victim was the British freighter SS Cyclops torpedoed by U-123 which was commanded by Kapitänleutnant Reinhard Hardegen on 12 January 1942 off Cape Cod, Massachusetts.

In the early months of Operation Paukenschlag, U-boat commanders found no effective anti-submarine measures along the east coast during the first months of the U-boat campaign. German U-boat men, who crossed the Atlantic to attack allied shipping along the U.S. east coast, referred to this period as the “happy times.”

In January 1942, a dozen tankers and freighters were sunk or damaged by U-boats along the east coast. Within two months the number increased to forty-two sunk or damaged ships. By June 1942, ninety-seven ships and approximately 5,000 people had been lost to U-boat attacks. After April, the U.S. military was finally able to launch effective counter measures to combat U-boat attacks. These measures eventually stopped U-boat attacks by 1943. Part of the counter-measures included the use of the Civil Air Patrol which flew anti-submarine patrols from the end of February 1942 to August 1943.

Discussion:
- What caused the U.S. to formally enter World War II?
- What was Operation Paukenschlag?

Activities:
- Research Operation Paukenschlag. Write a page discussing the operation and its effectiveness or ineffectiveness. Visit: http://uboat.net/ops/drumbeat.htm for more information about Operation Paukenschlag.
A factor in the selection of West Palm Beach as one of the experimental bases may be because Palm Beach County is closer to the Gulf Stream than anywhere else on the east coast. This shipping lane would be a prime target for enemy submarine attacks. The Coastal Patrol Base 3 later moved from Morrison Field to Lantana because of increased activities of the Army Air Corps.

The first three bases proved such a success that eighteen additional bases quickly organized along the eastern seaboard and Gulf coast stretching from Maine to Texas. Altogether, five bases were located in Florida: Lantana (CP 3), Flagler Beach (CP 5), Miami (CP 7), Sarasota (CP 13), and Panama City (CP 14).

By the end of January 1942, the German submarines sank at least thirty-five ships (over 200,000 tons) in North American waters. In February 411,000 tons of shipping was lost to U-boats and 466,000 tons in March. But in April 1942 allied shipping losses dropped to 394,000 tons lost. U-boats would sink or damage 397 vessels and kill approximately 5,000 people in attacks along the U.S. east coast, Gulf of Mexico, and the Western Caribbean. After April, the U.S. military was finally able to launch effective counter measures to combat U-boat attacks that would eventually stop attacks by 1943. Part of the counter measures was the use of the Civil Air Patrol which flew anti-submarine patrols from the last day of February 1942 to August 1943. In March 1942 the Petroleum Industry War Council reported that if the loss rate of ships to U-boat attacks in January, February, and the beginning of March continues to the end of the year, 125 of the 320 tankers would be lost with approximately 3,000 lives. Based on their projections the Industry recommended to the government that tankers be armed for their own protection. Additionally, they suggested that the Civil Air Patrol be re-assigned to the Army Air Corps and to increase the use of the CAP.

Why was Coastal Patrol Base 3 established?

Background:

Admiral Ernest King, Commander in Chief, U.S. Fleet, did not particularly like the idea of using civil aviators to carry out anti-submarine patrols. Other senior naval commanders who were against the use of civilians in military operations against U-boats were the navy’s assistant chief of staff Rear Admiral Donald Duncan who thought the idea was “promoted by the builder[s] of pleasure aircraft,” and Rear Admiral Richard Edwards, deputy chief of staff for operations, who saw “no purpose except to give merchant ships the illusion that adequate air patrols [were] being maintained.” On the other hand, the proposal received no objections from Major General Carl “Tooey” Spaatz, Army Air Force. The army agreed to let CAP conduct anti-submarine patrols beginning on 8 March 1942. In a memorandum addressed to Brigadier General Donald H. Connelly, Military Director of Civilian Aviation, Department of Commerce, by General H.H. “Hap” Arnold, on 16 March 11942, stated “it is desired that you take the necessary steps at once to organize the civilian puddle jumper pilots into squadrons for coastal defense patrol work.”

With Army Air Force approval, three bases were authorized to operate for a three-month trial period to evaluate CAP performance. The experimental bases were organized at Atlantic City, New Jersey, commanded by Wynant Farr; Rehoboth, Delaware, commanded by Bill Sharp (both established on 28 February 1942); and West Palm Beach, Florida, on 30 March 1942.
CP 3 launched its first patrols a few days after it was established. They flew from sun up to sundown from Palm Beach to Cape Canaveral, a distance of about 120 miles one-way. From April 1942-August 1943, patrols from CP 3 spotted damaged and burning ships, directed the military to survivors and made 14 attacks on suspected U-boats dropping 21 bombs. In 17 months their aircraft flew over 1.5 million miles.

At least 90 men and women served with Coastal Patrol 3. They came from all walks of life, from the wealthy and well-known to the not-so-wealthy. Even family members joined together and served in the unit. There were two cousins, a husband and wife, and sets of brothers. It did not matter if you had money or not, they all volunteered to keep the United States safe from the enemy.

Discussion:
• Why did the CAP establish coastal patrol bases?
• What was their mission?

Answer:
• If air patrols from Coastal Patrol 3 flew six missions a day from Palm Beach to Cape Canaveral, a one-way distance of about 120 miles, how many miles were flown a day?

• Did the U.S. Navy like the idea of using the Civil Air Patrol for coastal patrol duties?
Stinson Voyager vs. U-boat

Background:
The Stinson Voyager was the workhorse of Coastal Patrol Base 3. Most of the unit’s pilots owned this type of airplane. So it saw a lot of anti-submarine patrol time between Palm Beach and Cape Canaveral. The small civilian airplane was used to seek out German U-boats attacking allied shipping along Florida’s east coast.

Coastal patrol aircrews, a pilot and observer, flew Stinsons up to 60 miles out over the ocean searching for U-boats. The planes were flown from Morrison Field in West Palm Beach, later from Lantana Airport, to Cape Canaveral and back. A distance of about 120 miles one-way. The round-trip flight took about four hours to complete. Believe it or not, German U-boat commanders were afraid of what they called “little yellow bees.” The planes were small, hard to see, and the enemy did not know if the aircraft were armed. Aviators had other affectionate names for the little Stinson Voyagers such as puddle jumpers, grasshoppers, aerial egg-beaters, and flying jeeps.

U-boats, on the other hand, had to travel about 3,000 nautical miles from their home base in France to reach the U.S. east coast. The enemy submarine was a formidable foe. It could operate both on the surface and underwater attacking ships without warning. U-boats were heavily armed with deck guns and torpedoes. The Stinson Voyagers were not. At first the airplanes were unarmored and then later the Stinsons carried a hundred-pound bomb.

What was it like for Coastal Patrol Base 3 aircrews and U-boat sailors?

Coastal Patrol Base 3 aircrews flew anti-submarine patrols from sun up to sundown seven days a week from April 1942-31 August 1943. Patrols consisted of two airplanes and the first flight of the day left at sunrise. That meant that crews reported for duty by about 4:30 am. They received their briefing and prepared for take-off. Once the plane was airborne they would head north towards Cape Canaveral. The crew would fly search patterns over the ocean looking for U-boats, burning ships, and survivors. When they reached Cape Canaveral, they turned around and headed back to base.

The last flight of that day would fly along the beach. The pilots and observers looked at how the beach looked. They spent the night at Banana River Naval Air Station (now Patrick Air Force Base). The next morning, the crew took off at daylight and would look at the beach searching for signs of anyone coming ashore.

The equipment aircrews wore and carried included: uniforms, flare guns, knives, life vests, barracuda buckets, inflatable life rafts, water, and other items they may need.

Unlike U-boat sailors, the men and women
of Coastal Patrol 3 were able to return home at the end of the day. They enjoyed fresh food every meal. Sometimes aircrews experienced engine problems while in flight forcing them to land at the nearest airport or beach. Twice pilots had to crash-land in the ocean.

Other times, pilots and observers spotted burning ships and survivors of U-boat attacks. Members of Coastal Patrol 3 made 14 attacks on U-boats dropping 21 live bombs.

**Life on a U-boat**

Living aboard a U-boat during a war patrol was a lot worst than on a surface ship. Depending on the mission of the U-boat, a patrol could last from three weeks to six months. Things we take for granted like privacy, good food, fresh water, and bathing were not encountered on a U-boat.

In many cases, U-boat crews were only allowed the clothes they wore and one change of underwear and socks. If you were a crew member, you could not bath, except with saltwater, or shave. To control body odor, they did have a deodorant.

There was no privacy on board a U-boat. Quarters were cramped with sleeping bunks lining the walkway that ran the length of the submarine. The captain did have a small cabin with a curtain as a door. It was located next to the control room and radio room. Six bunks were located in the torpedo room. The crew worked 24 hours a day divided over several shifts, eight hours of duty, eight hours of other duties as needed, and eight hours of sleep.

Fresh water was limited and rationed. Food supplies were stuffed in every little nook and cranny. Food was even stored in one of the U-boats two bathrooms. This meant only one bathroom was used for 40-50 men until the food stored in the other was consumed. Fresh food was eaten first or it spoiled in the damp environment of the U-boat. If fresh bread was not eaten soon, a white fungi would grow on the bread that looked like white fuzz. U-boat men called this “rabbits.”

A typical U-boat food supply included:

- 94 lbs. fresh & cooked meats
- 480 lbs. preserved/tinned meats
- 858 lbs. potatoes
- 4,428 lbs. vegetables
- 2,058 lbs. preserved breads
- 595 lbs. fresh eggs
- 2,365 lbs. fruits
- 611 lbs. soup ingredients
- 309 lbs. fresh/preserved cheese
- 441 lbs. fruit juice
- 205 lbs. other drinks
- 132 lbs. salt
- 238 lbs sausages
- 334 lbs preserved fish
- 397 lbs dried potatoes
- 1,226 lbs bread dough
- 464 lbs rice & noodles
- 917 lbs fresh lemons
- 551 lbs Butter/margarine
- 408 lbs. marmalade/honey
- 1,728 lbs milk powder
- 154 lbs coffee
- 441 lbs sugar
- 108 lbs chocolates
The German U-boats

The German Navy used three types of U-boats during Operation Paukenschlag: Type VIIC, IXB, and IXC.

The technical information for the Type VIIC is provided below.

**Type VIIC**
- First launched 1940
- Ocean going submarine
- Crew: 44-56 officers and men
- Displacement: 769 tons (surface)
- Overall length: 66.5 meters
- Speed: 17 knots surface, 7 knots submerged
- Max. speed: 17 knots/3,250 miles
- Cruising: 10 knots/8,500 miles
- Max. diving depth: 250 meters
- Diesel engines: 2/HP 2,800-3,200
- Electric motors: 2/HP 750
- Torpedo tubes:
  - Bow: 4
  - Stern: 1 (some had two tubes)
- Armament:
  - 14 torpedoes or 26-39 mines
  - 1 88mm deck gun with 220-250 rounds
  - 1 anti-aircraft gun, 20mm with 4,380 rounds

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**Research:**
Divide the class into two groups. Have one group research what it was like on coastal patrol duty searching for U-boats and have the other group research what it was like to be on a German U-boat. Then discuss in class what each group found.

**Activities**
Compare and contrast the differences of a pilot or observer flying coastal patrols and a sailor on a U-boat.

Write a journal entry as a Coastal Patrol pilot or observer on anti-submarine duty.

Write a journal entry as a sailor on a German U-boat on a war patrol along Florida’s east coast.

Make your own paper airplane and decorate it like a Stinson Voyager used for Coastal Patrol duty. Design your own or used one of the templates provided.

---

**The Stinson Voyager**

**The Work Horse of Coastal Patrol 3**

<table>
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<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
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<tr>
<td>Maximum Speed at Sea Level</td>
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<tr>
<td>Landing Roll</td>
<td>150 feet</td>
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<tr>
<td>Take-off Run at Sea Level</td>
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<tr>
<td>Rate of Climb</td>
<td>600 feet per minute</td>
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<td>Service Ceiling</td>
<td>13,000 feet</td>
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<td>Engine</td>
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<td>Length</td>
<td>21 feet 8 inches</td>
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<td>Height</td>
<td>6 feet 6 inches</td>
</tr>
<tr>
<td>Gross Weight</td>
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</tr>
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</table>

Above: The Galley of a U-boat where food was prepared.

Left: Bunks for sleeping in the torpedo room.
What is a Barracuda Bucket?

Background:
Since coastal patrols operated over the ocean, the planes were equipped with survival gear in case they had to crash land in water. A flotation device called a barracuda bag or bucket was a green canvas bag attached to a large inner tube. These bags may have been an invention of the Prohibition Era’s rum-runners. Stranded seamen used these bags to keep sharks and barracudas from taking a bite out of them. In some instances, the inner tube had to be inflated with a hand pump once the pilot or observer was in the water. Trying to inflate an inner tube with a bag attached and keeping one’s self afloat is a difficult task. The barracuda bag was a bulky item to try to quickly remove from a sinking airplane if downed in the ocean. According to an old CAP journal, Thorne Donnelly, communication officer for CP 3, and later the Miami based Coastal Patrol 7, adapted the barracuda bag for use by the CAP in Florida. The bag included “water, chocolate bar, mirror, flashlight, first aid material, fishing line, similar items. It was sometimes called “the foxhole of the sea.” Later on, the government supplied CAP units with “Mae West” life jackets and inflatable life rafts to replace the barracuda buckets.

Discussion:
- Why do you think the CAP used this make shift survival flotation device?

Activity:
- Write a paragraph landing on the ocean while on a anti-submarine patrol. Discuss about having to use the barracuda bucket.
- Make a drawing of what you think a barracuda bucket looked like.
What is Distinctive Unit Insignia?

Background:
For centuries, military units have displayed or worn special identification or insignia on their standards, uniforms, shields, horses, and machines. Each unit had their own symbol. These symbols often enhanced troop moral.

In World War II symbols were painted on aircraft and other military vehicles. The art painted the nose or fuselage of an airplane came to be known as “nose art.” The Army and Navy requested unit insignia from Walt Disney. To fill these orders, Disney assembled a small team to design nose art. The team’s designs included Disney characters such as Donald Duck, Pluto, and Mickey Mouse. Other artists copied or created their own nose art for their aircraft.

The Civil Air Patrol was no different than the military. Each CAP unit came up with their own design. The creator of the “Smilin’ Jack” comic strip, Zack Mosley, created the unit insignia of Coastal patrol 3. Mosley’s design is humorous yet serious. His depiction of the Stinson Voyager shows it with the large worried eyes of a puppy trying very hard to stay in the air over water with a huge bomb. The Stinson “pup” is sweating and below the panting plane a U-boat periscope throwing out question marks. Pilots and observers who flew Stinson Voyagers could relate to the insignia created by Mosley for CP 3. With only a 90-hp engine, the aircraft was overburdened and had to strain to get into the air with two men, equipment, and a 100-pound bomb. Mosley also designed insignia for other CAP and military units such as Coastal Patrol Base 17 and the Miami Cadet Squadron.

Other CAP units used Donald Duck, Pluto, or other figures for their unit insignia. On many of Coastal Patrol insignia, the artists included a character, bombs, and U-boats. These were shown because their mission was anti-submarine patrols.

Research
- Go online and research World War II unit insignia created by Walt Disney for the military and CAP unit insignia. You can start at these websites:
  - www.skylighters.org/disney
  - www.dunrobinycastle.com/Nose_Art/Disney/disney_art.htm
  - www.usaaaf-noseart.co.uk/theme-disney.htm
  - www.nationalmuseum.af.mil/factsheets/factsheet.asp?id=7883
  - www.army.mil/-news/2009/04/19/19340-walt-disney-goes-to-war/
  - www.incountry.us/cappatches/MN/mnwg.html

Answer
- Why do you think nose art was important to military and Civil Air Patrol units?

Activity
- Divide the class in to groups. Have each group select a mission (coastal patrol, bomber, fighter, PT boats, etc). Have each group design their own unit insignia.
Coastal Patrol Unit Designs

Coastal Patrol Base 4

Coastal Patrol Base 5
Courtesy CAP, Southeast Region

Coastal Patrol Base 7
Courtesy CAP, Southeast Region

Miami Cadet Squadron

Coastal Patrol Base 10

Coastal Patrol Base 12

Coastal Patrol Base 14

Coastal Patrol Base 15

Coastal Patrol Base 20
Coastal Patrol Base

Walt Disney Designs

Distinctive Unit Insignia

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1945 Naval Map of U-boat Attacks

Map Exercise:

Look at the attached map published in 1945 by the U.S. Navy. It shows all U-boat attacks carried out along Florida's east coast, the Gulf of Mexico, and parts of the western Caribbean.

Answer the following questions:

How many ships were sunk or damaged in 1942? 1943?

How many ships were sunk off Florida's east coast?

Research what “stream” is located between Florida and the Bahamas Islands.

Why do you think so many ship were sunk off Florida? (refer to the previous question)

Look at where New Orleans is located. Why do you think there was such a high number of ships attacked off New Orleans? (Research what was in the New Orleans area in 1942 to help answer this question.)
Who Was Zack Mosley?

Background:
Cartoonist Zack Mosley, an avid aviator from Stuart, Florida, created the syndicated “Smilin’ Jack” cartoon strip in 1933. It was about the adventures of an aviator and was based on people Mosley knew. His comic strip first appeared under the title of “On the Wing,” however a few months later the Chicago Tribune changed the title to “Smilin’ Jack.” During World War II, Mosley drew upon his experiences and the men he worked with in the CAP. He used Vermilya as the prototype for the character Long Distance Ike. Wesley Jackson, a former journalist and a pilot who ran a flight school, was another of Zack’s inspirations for a cartoon character, “Down Wind Jackson.” The comic strip ran until 1973 when Mosley retired. When CP 3 moved to Lantana, Mosley moved his art studio into a corner of the hanger to continue drawing his comic strip. During his service with the CAP, Mosley flew 300 hours of anti-submarine missions earning the U.S. military’s Air Medal. He was commander of the Florida CAP wing from 1944-1946, a CAP public affairs officer, served on the CAP executive board, and held the rank of colonel. Three years after retiring, Mosley was inducted into the U.S. Air Force’s Hall of Fame on September 18, 1976. He was the author of several books including his autobiography, Brave Coward Zack. Mosley’s cartoon strip appeared in over 300 newspapers across the country. The world-famous cartoonist was born in 1906 in Hickory, Oklahoma, and died in Stuart, Florida, in 1993. He was the oldest of the four sons and one daughter of Zack T. Mosley and his wife Irah.

Research:
- Start with these web sites. Have students research Zack Mosley. Visit these web sites to learn more about Mosley.
  - www.smilinjack.com/zack.htm
  - www.lambiek.net/artists/m/mosley_z.htm
  - www.toonopedia.com/smilin_j.htm

Write:
- After researching Zack Mosley, have students write a page about Mosley and his contributions to the Civil Air Patrol and comic strips.

Activities:
- Read the attached 1943 poster Mosley did about the Civil Air Patrol. Divide students into groups and have them draw their own poster about the Civil Air Patrol.
HEY! SMILIN' JACK,

Do those Red Shoulder Straps on Downwind mean he's in the Civil Air Patrol?

Was CAP organized before Pearl Harbor?

Yes, but many people doubted that civilian pilots could be of much use in the war program.

There were thousands of private pilots, who couldn't meet physical requirements for combat flying but... they believed they could relieve combat pilots from routine flying.

They began brushing up on code, bomb practice, military courtesy, drill, etc. Many CAP men are World War I flyers.

When the U-boats started raising havoc with our coastal shipping CAP planes and pilots went on active duty helping hunt subs...

In some cases, with the aid of local citizens, farms were turned into anti-sub patrol bases.

Months before, we could get rubber rafts and life-saving equipment an inner tube tied to a green canvas sack, "baraqueo, pocket".

Military secrecy prevents revealing how far out over the ocean CAP patrols... more than one CAP man never returned.

Official US Army "Air Forces" magazine released the fact that CAP coastal patrol planes carry bombs.

CAP also does target towing, forest fire patrol, search missions etc...

Compliments of C.A.P.

Cap courier service, rushes vital parts and personnel to war plants and air bases.

Naturally, not every man with a Red Shoulder Strap has sunk a sub but he does belong to a legion of weather beaten pilots.

That have flown 100,000 miles out over the ocean in single engine land planes helping the army and navy hunt subs.

On April 29, 1943, by Executive Order of the President, this volunteer army of CAP was placed under direct control of the War Department...

CAP pilots have proved what they can do because they have the same pioneering spirit of our forefathers who founded America.