

I. Beginnings (1898-1916)

Man has dreamed of flight since antiquity. Greek mythology describes such characters as Bellerophon, who used a golden bridle to catch the winged horse Pegasus, and Icarus, the boy who flew on man-made wings. When the latter ignored warnings not to fly too close to the sun, the heat melted the wax on his wings and he plunged to the sea. During the centuries which followed, many others would fail in this quest. But some persevered and eventually gave birth to the great new development of the 20th century called flight.

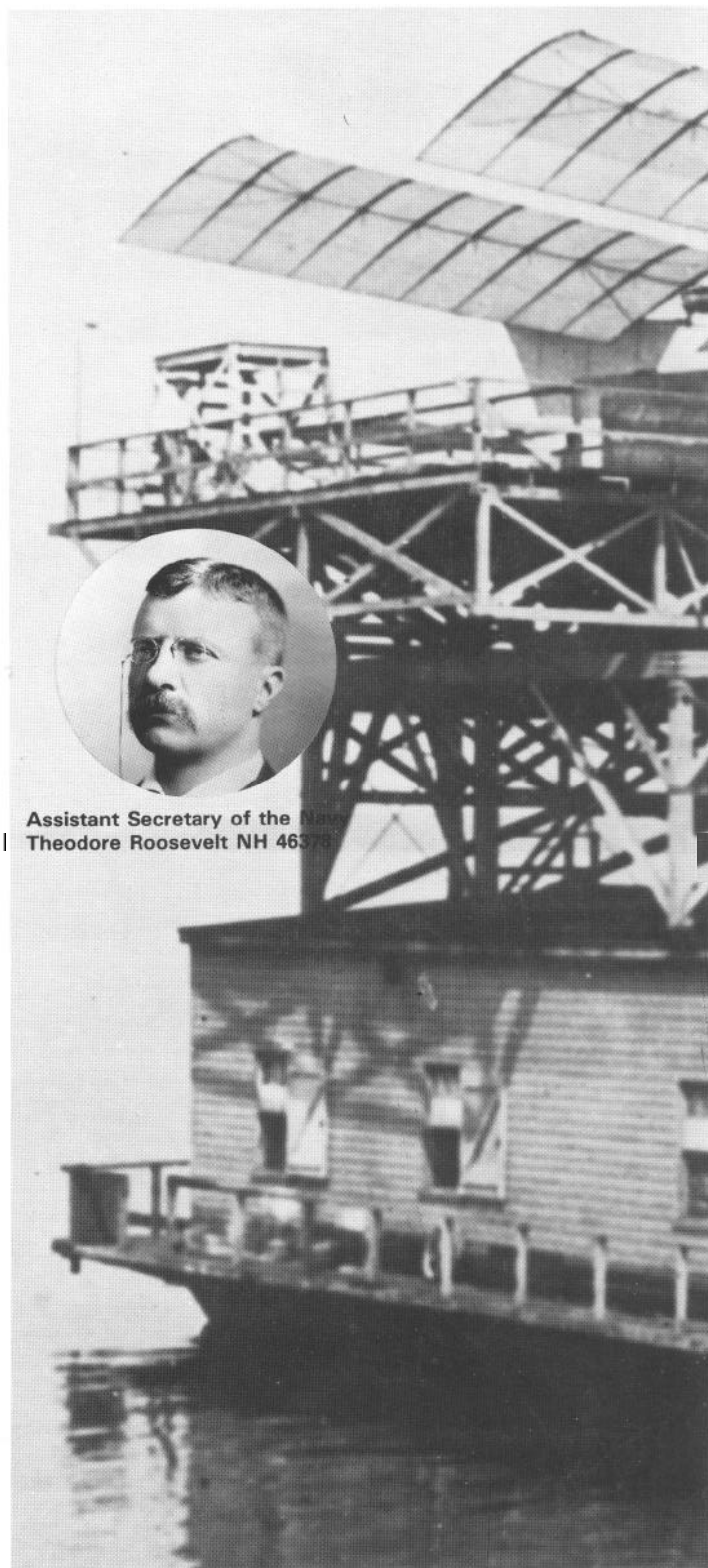
The official beginning of Naval Aviation is recorded as May 8, 1911, when the first officer in charge of aviation, Captain Washington I. Chambers, issued requisitions for two Curtiss biplanes. But, as early as 1898, Assistant Secretary of the Navy Theodore Roosevelt recommended the appointment of a board to study the military applications of Professor Samuel P. Langley's flying machine, the Aerodrome. Although the experiments ended in failure, naval observers continued to attend aviation demonstrations at home and abroad to study this new phenomenon.

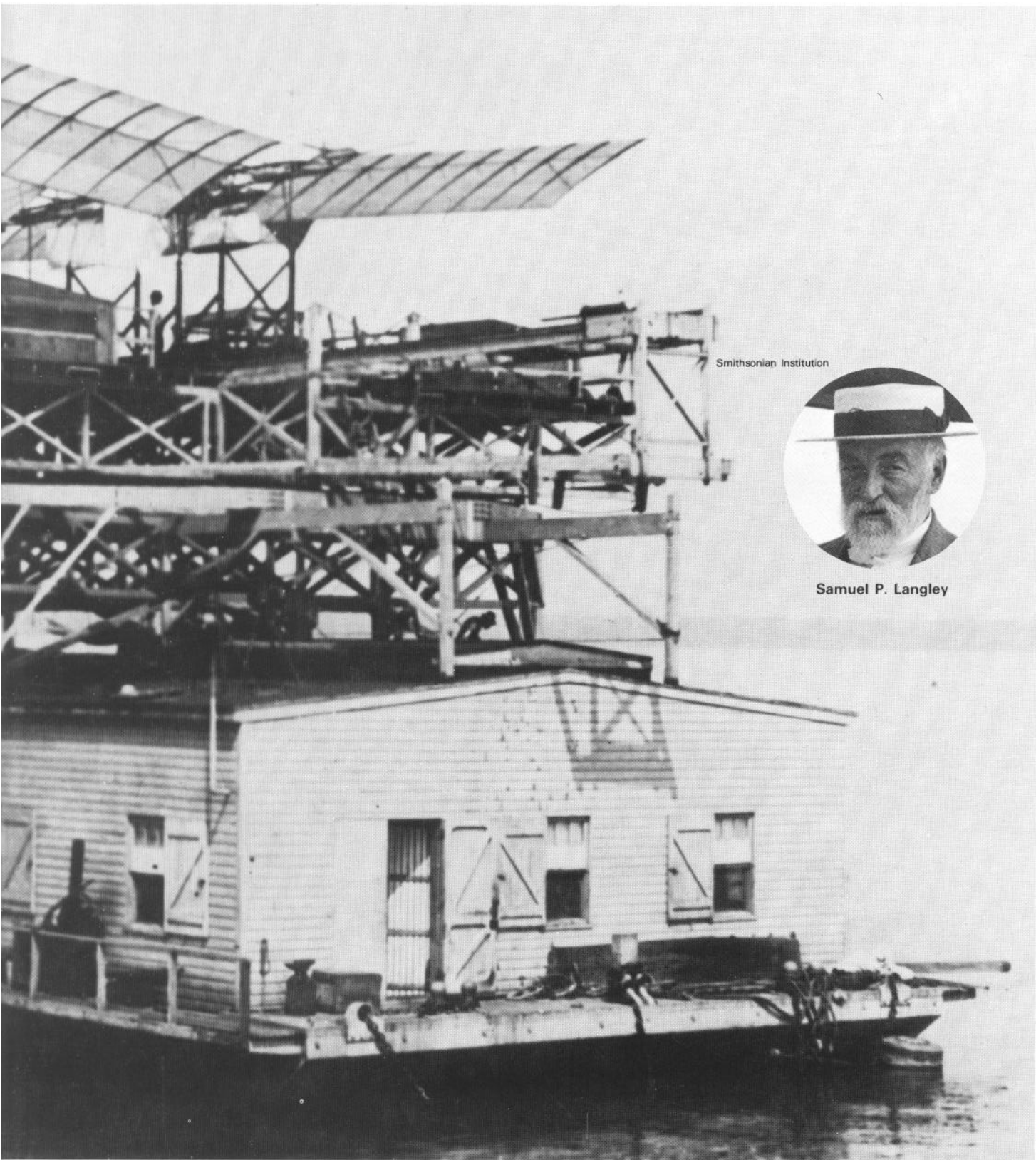
By 1909, six years after the world's first sustained flights in a 16-horsepower machine flown by the Wright brothers, a group of officers was urging the purchase of aeroplanes by the Navy. In 1910, civilian airplane builder Glenn Curtiss and civilian pilot Eugene Ely proved to the Navy and the world that aviation could go to sea. On November 14, Ely flew a Curtiss biplane from a specially built platform on the cruiser *Birmingham*. He topped this feat on January 18, 1911, by landing a Curtiss pusher aboard the armored cruiser *Pennsylvania* in San Francisco Bay and flying back to shore.

The Navy's growing interest in aviation was apparent in early 1911 when Lieutenant T. G. Ellyson was ordered to Curtiss' aviation camp at North Island, San Diego, Calif., as the first naval officer to undergo flight training. He qualified for his Aero Club of America license on July 6, 1911, in the A-1 *Triad*, the Navy's first aircraft, and subsequently became Naval Aviator No. 1 on March 4, 1913.

The Curtiss A-1 *Triad* was used in the Navy's first attempt to launch an aircraft from a compressed air catapult, at Annapolis in 1912. The launching failed as a crosswind blew the A-1 into the water. However, a subsequent attempt on November 12 was successful when an A-3 piloted by Ellyson was launched at the Washington Navy Yard.

The same year, the Marine Corps entered the world of flight and, from that time on, Marine Aviation developed side by side with its Navy counterpart. On May 22, 1912, Lieutenant Alfred A. Cunningham, USMC, reported to the aviation camp at Annapolis for "duty in connection with aviation." This date is recognized as the birth date of Marine Corps Aviation. He took his flight training at the Burgess aircraft factory in Marblehead, Mass., and was later designated Naval Aviator No. 5.





Smithsonian Institution



Samuel P. Langley

In 1898, Assistant Secretary of the Navy Theodore Roosevelt recommended that a board be appointed to study the military applications of Professor Langley's flying machine, the Aerodrome. It is shown here atop a houseboat in the Potomac River, 40 miles below Washington, D.C., on October 7, 1903, just before a trial launch. Note the track on which the machine was propelled by springs and shot into the air. This attempt failed, as did another in December. NH 00247

Deployment of a small group of flyers, the entire aviation element of the Navy, on fleet maneuvers at Guantanamo Bay, Cuba, in January 1913, demonstrated the operational capabilities of aircraft and stimulated interest in aviation among fleet personnel. The first test of the adaptation of aviation to warfare at sea revealed some deficiencies in existing aircraft when two aviation detachments took their planes to Veracruz in the spring of 1914 during the Mexican crisis. On one occasion, Lieutenant P. N. L. Bellinger returned to base with holes from hostile bullets in his plane, the first combat damage received by a Navy aircraft.

When hostilities began in Europe in July 1914, Naval Aviators were sent there as observers to report aviation developments from posts in London, Paris and Berlin. The importance of aviation in the Navy was officially recognized in November with the appointment of a Director of Naval Aeronautics. Throughout 1915 and 1916, advances in technology, experimentation and new administrative procedures pointed to an increased role for aviation in the Navy's mission. During this period, the first contract was let for a lighter-than-air (LTA) craft, the Aeronautical Engine Laboratory was set up at the Washington Navy Yard and the Naval Appropriations Act provided for a Naval Flying Corps, backed by a Naval Reserve Flying Corps.

In 1915, three imaginative Coast Guard officers at Hampton Roads, Va., conceived a plan for air patrols to search for disabled schooners along the Atlantic seaboard. Captain R. M. Chiswell, commander of the Coast Guard cutter *Onondaga*, enlisted the support of two of his junior officers, Lieutenants Norman B. Hall and Elmer F. Stone. Their experiments with a Curtiss plane were so successful that the two younger men obtained permission to pursue their interest in flying. Lt. Hall was assigned to the Curtiss plant at Hammondsport, N.Y., where he learned how to build aircraft.

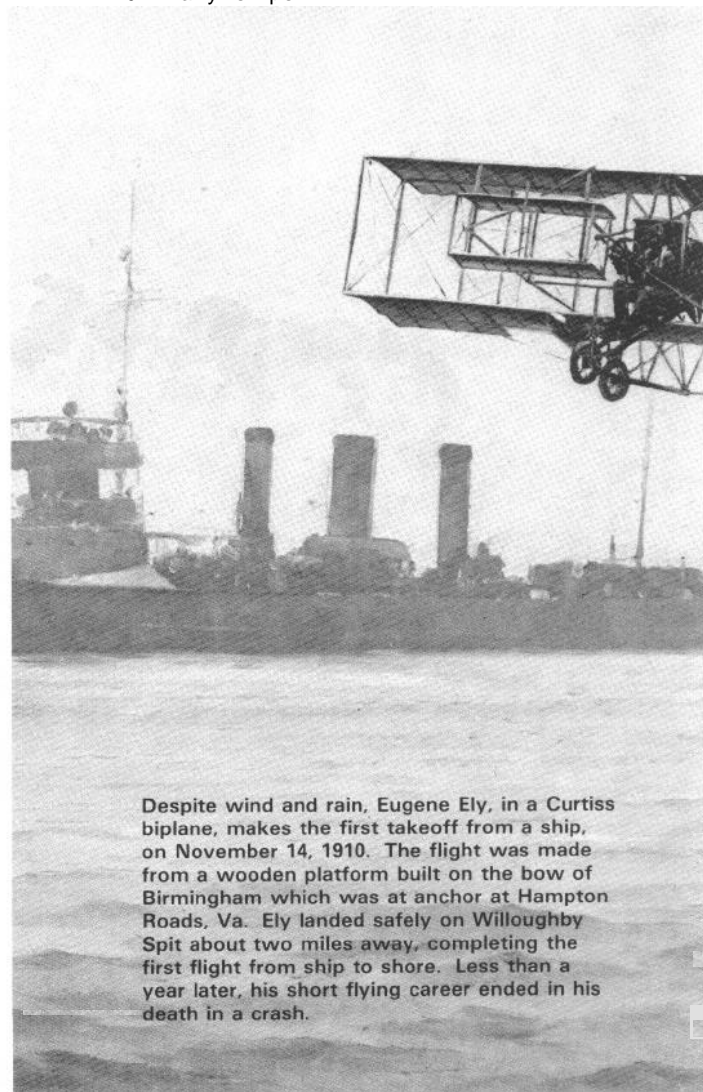
Lt. Stone was sent to the Naval Training School at Pensacola, Fla., along with other Coast Guard personnel. There he earned his Navy Wings of Gold and later became Coast Guard Aviator No. 1. Coast Guard Aviation was born.

During the period from the purchase of the A-1 *Triad* in 1911 to 1917, the Navy concentrated on airplanes capable of operating from the water, and on the devices necessary to launch them from existing ships. On July 12, 1916, Lieutenant G. deC. Chevalier and his AB-3 were launched from the first catapult designed for shipboard use, aboard *North Carolina*, establishing the armored cruiser as the first U.S. Navy ship equipped to carry and operate aircraft.

These beginnings were characterized by unsuccessful starts and unfulfilled hopes, as well as great advances and achievements. The pioneers who contributed the determination and undaunted spirit that were necessary in these early days of "flying by the seat of the pants" can surely take much of the credit for the existence of Naval Aviation today.

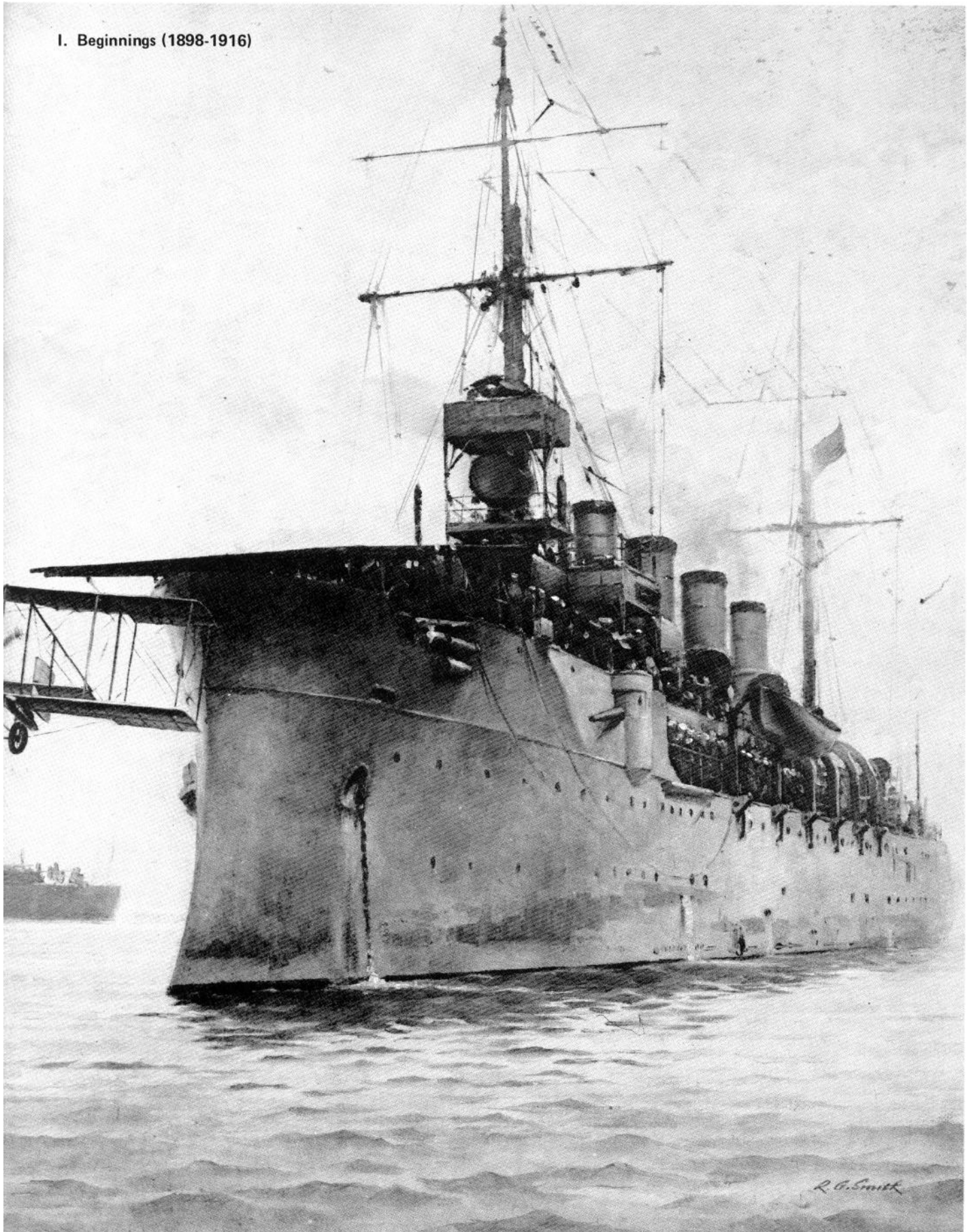


Eugene B. Ely
A pioneer civilian aviator who made a spectacular early breakthrough for Naval Aviation by flying from and to the decks of Navy ships.



Despite wind and rain, Eugene Ely, in a Curtiss biplane, makes the first takeoff from a ship, on November 14, 1910. The flight was made from a wooden platform built on the bow of Birmingham which was at anchor at Hampton Roads, Va. Ely landed safely on Willoughby Spit about two miles away, completing the first flight from ship to shore. Less than a year later, his short flying career ended in his death in a crash.

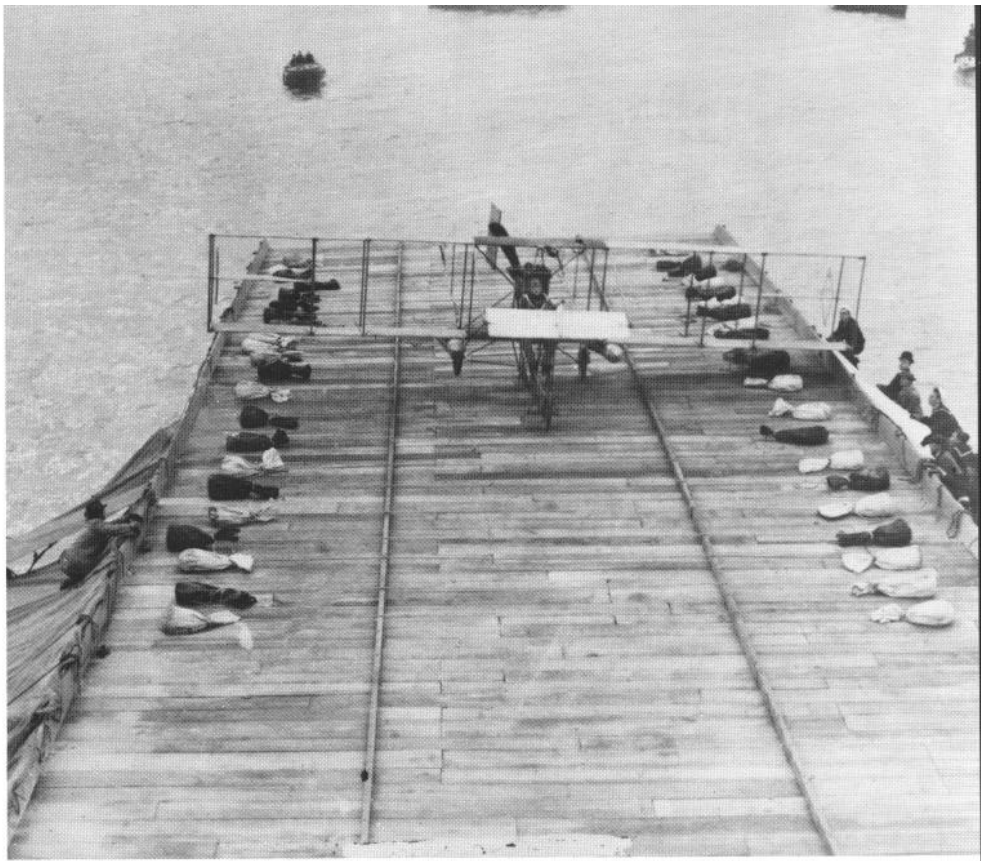
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Artist R.G. Smith. Copyright U.S. Naval Institute. Used by permission.

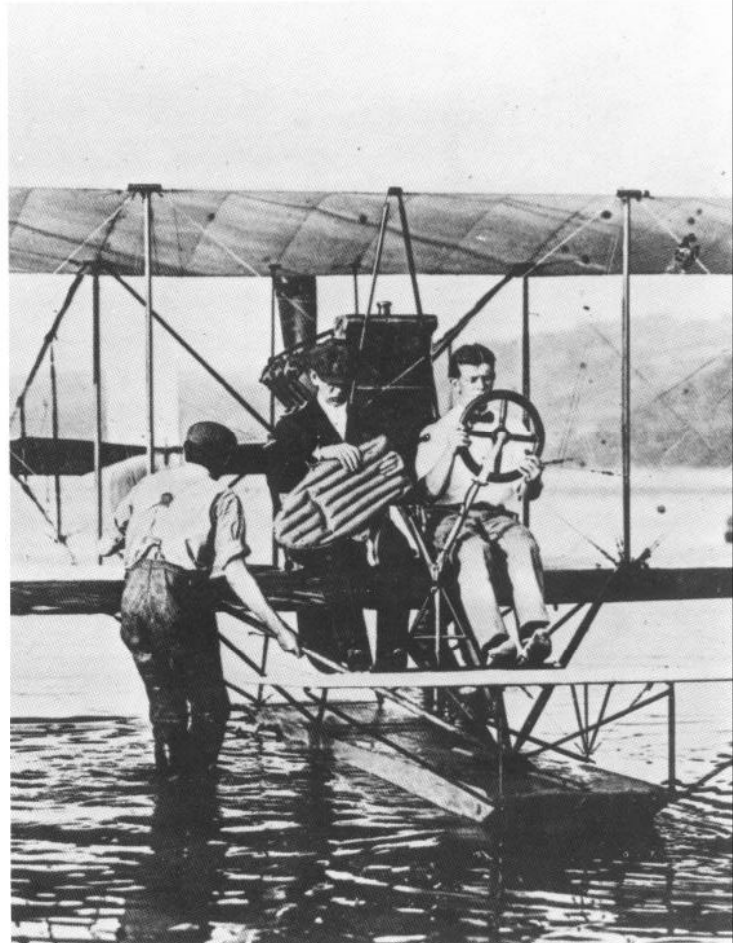
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Eugene Ely rolls up the deck of Pennsylvania in a Curtiss pusher on January 18, 1911, in the world's first landing aboard a ship. Although the special jury-rigged deck had safety rails at the edge and vertical guide strips down the center, note the special canvas nets at the sides. Since the grab hooks engaged only about half of the arresting lines, the little biplane almost ran into the superstructure.



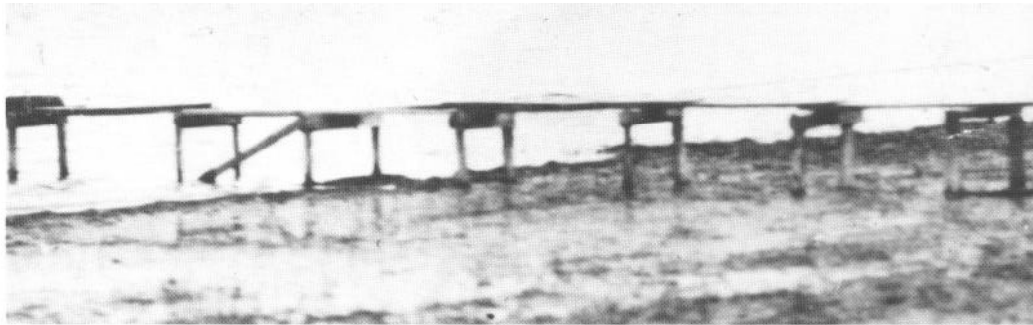
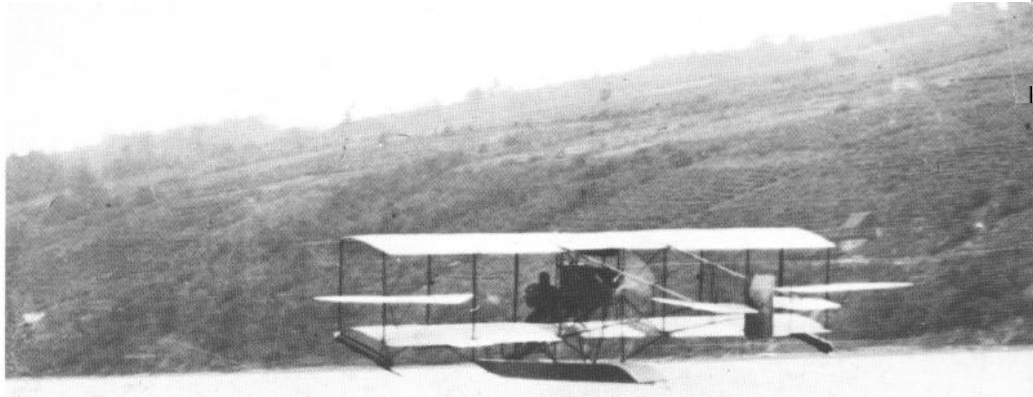
Lt. Theodore G. Ellyson
Naval Aviator #1 was trained by Glenn
Curtiss and worked closely with him in
all aspects of early Naval Aviation. AN
39094

Lt. T.G. "Spuds" Ellyson sits at the controls of
the A-1 with Capt. W.I. Chambers as a
passenger in a trial flight at Hammondsport,
N.Y., in 1911. The original A-1 ordered by the
Navy was an amphibian equipped with both a
large main float and landing gear. NH 1386





Glenn H. Curtiss
Pioneer aircraft designer and pilot who built the Navy's first aircraft and trained the first Naval Aviator.



Lt. T.G. Ellyson makes a successful takeoff in the A-1 using an inclined wire rigged from the beach down to the water. After he had the engine running at full speed, a signal was given to release the plane. Ellyson held the machine on the wire as long as possible and then made his takeoff, rising into the air. This was one of the first experiments in the Navy's search for a shipboard launching device but it proved to be an impractical solution. USN 427805



Capt. Washington I. Chambers
Was a driving force in establishing an aeronautical organization within the Navy.



Lt. Alfred A. Cunningham
Naval Aviator #5 was the first Marine to be designated a Naval Aviator and is known as the father of Marine Corps Aviation.



Marine Corps Lt. Alfred A. Cunningham pilots a Curtiss seaplane. He learned to fly seaplanes at the Burgess Factory in Marblehead, Mass., taught by the men who built them, and later took instruction in landplane flying at the Army Signal Corps Aviation School. USMC 5652-5

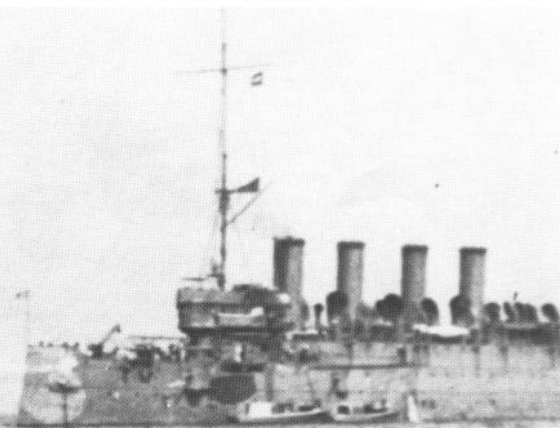
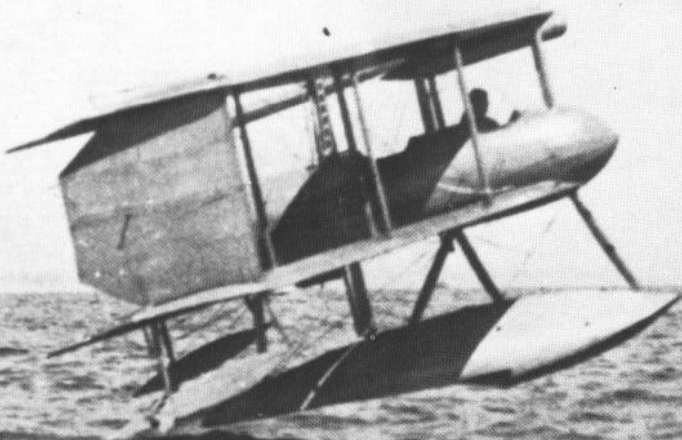
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Early aircraft are lined up in front of their canvas hangars on the flight beach at the Naval Aeronautic Station, Pensacola, in March 1914. It was the Navy's first permanent air station, established by Lt.Cdr. Henry C. Mustin in January 1914, together with a flying school. The first flight was made from the station on February 2 by Lt. J.H. Towers and Ens. G. deC. Chevalier.

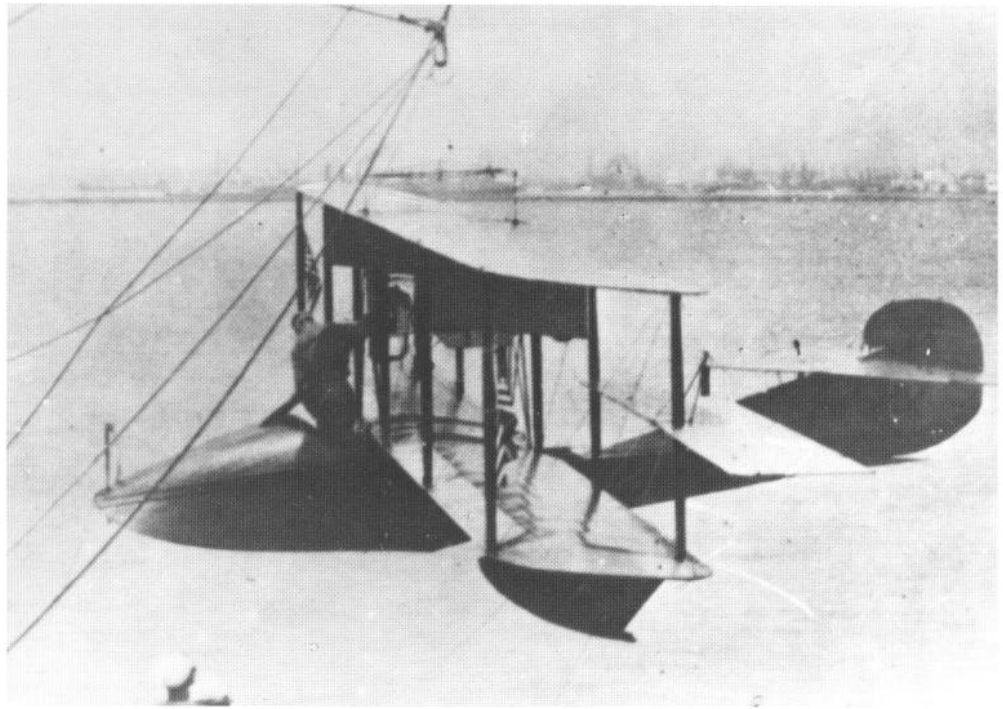


Cdr. Henry C. Mustin
Naval Aviator #11 was the first to get airborne from a catapult on a ship underway, North Carolina, on November 15, 1915. NH 47676

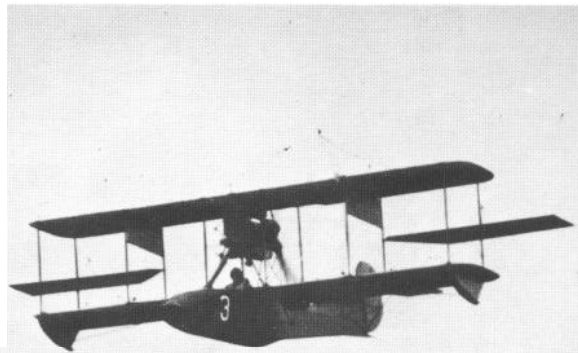
The AH-7 swept-wing Burgess-Dunne hydroaeroplane operates off Pensacola in March 1916, with USS Columbia (CA-16) in the background. In May 1914, Naval Constructor Holden C. Richardson had recommended that the Navy buy two of these planes to study the new development in aeronautical design. NH 2243



A Curtiss AB-3 flying boat with Ltjg. P.N.L. Bellinger is hoisted into the sea from USS Mississippi in April 1914 to search for mines in Vera Cruz harbor. USN 410394



This flying boat, piloted by Lt. G. deC. Chevalier, was catapulted successfully from North Carolina in Pensacola Bay on July 12, 1916. The launching device, first tested by Lt.Cdr. Henry C. Mustin the year before, was the first catapult designed for shipboard use. North Carolina became the first ship in the U.S. fleet to carry and operate aircraft. AN 15463



Lt. Patrick N.L. Bellinger
Naval Aviator #8 scored many firsts in the development of Naval Aviation and was commander of the NC-1 flying boat

