[redacted] [redacted] [redacted]
Coral Gables, Florida [redacted]
3 December 1968

Doctor Warren Roberts,
Director, Humanities Research Center,
University of Texas,
Box 7219,
Austin, Texas 78712

Dear Doctor Roberts:

Mrs. Viola Gentry, Consultant, has asked me for several months to put down on paper some recollections of early Coast Guard Aviation and send them to you. I have been out of Coast Guard Aviation for about forty six years. This, combined with the fact that I am 82 years young, doesn't refresh my memory of those early days.

Coast Guard's early years of Aviation were hard struggling ones. It was a struggle to get money from Congress to start the new branch. Finally, planes, a station, equipment, trained personnel were obtained. In 1920, Coast Guard's first Air Station was in operation - all on a "shoestring." In 1922, this station had to be placed out of commission because funds were not obtainable from Congress for its continuance. Four or five years later, Coast Guard Aviation was restarted with not even a shoestring.

There were men of broad vision in the Coast Guard in those days (as indeed in these days). They saw the potentials of aviation for more efficient Coast Guard work. They did all within their power to start an air arm for the Service.

But why did the Coast Guard need an air arm? It has always been essentially a surface sea-going service. One of its most important duties has been assistance to vessels in distress.

For generations, a large proportion of U. S. Atlantic coastal trade and trade with Caribbean areas was carried in three and four masted wooden schooners. They were designed and strongly built in New England shipyards, manned by experienced sailormen from "Down East", born and bred to the sea. This trade had been developed years before the advent of the steamship. As the eastern seaboard and the Caribbean area developed, trade expanded. In spite of steam freighters becoming a factor in freight carrying business, the sailing schooner was still important in economical freight transportation. Of course, schooners were at the mercy of wind, sea and current. Radio was not yet developed for general maritime use. There

were little or no marine weather broadcasts or hurricane warnings. Celestial navigation was not used much by the grand old skippers of those sailing ships. It was said of them: "They sailed by guess and by God", and they could smell their way in a fog. If a storm or hurricane "occurred", well, they just rode it out: many were sunk; some were dismasted or became derelicts; some were driven onto beaches or, mostly, onto treacherous shoals from Florida to New York. Because of this, the Coast Guard was constantly busy searching for and hauling-in derelicts, assisting vessels in distress, or ashore on shoals and beaches, blowing up menaces to navigation. A schooner ashore on a shoal with heavy waves pounding it and breaking it, is a most difficult thing to save by pulling off. Cutters I've been attached to have tried to haul off dozens without success. Heavy waves would smash into and break up a vessel. Being of wood, large pieces of the ship's side or its masts or other heavy parts would float off and be carried by wind and wave into ships' lanes, serious menaces. Most of these tragedies occurred in winter. So, "Winter Cruising Orders" became a yearly routine. Starting about the middle of November, cutters based at Atlantic and Gulf ports and with assigned cruising districts were ordered to proceed to sea, each one covering its district in search of vessels in trouble or for any menaces. They would leave port full-up with fuel, fresh water and provisions. Their orders were not to come back to port except to replentish supplies when they began to run low, or for some emergency. It was tough duty, this "Winter Cruising". When radio became more dependable and was carried on vessels, it became more practicable to have the cutters on ready-standby, prepared to leave port without delay upon receipt of information regarding a need for aid at sea. This was more efficient and economical, saved wear and tear on engines, ship and crew.

Coast Guard assistance to vessels in distress was not limited to wooden sailing ships. Beginning in the middle 1800's, freight and passenger ships began to be steam powered. They grew in numbers. They too were caught in storms, driven ashore on coasts and shoals, caught on fire at sea, broke down, were in collision, or had other distress situations to which the Coast Guard cutters responded. There were few, if any, floating derelicts of steel, unless the cargo was of material which kept the hull afloat. But any ship in trouble at sea had to be searched for by a surface cutter, and vital time was lost searching. The sea is awfully large.

This then was the background of the need for Coast Guard aviation. An airplane, in weather that would allow it to fly and search, could cover enormously greater areas at sea than a cutter could. In times of unfavorable weather, of course, they could not fly. But, the value of an aviation arm for the Coast

Guard was recognized. The problem was to overcome the inertia of government to get it started. But it was started, was eliminated, was restarted, and has proved its value to our Country. Hundreds of lives have been saved; seriously injured persons at sea flown to hospitals in time to save their lives; vessels saved by dropping to them equipment, supplies, pumps; vessels in distress located for surface vessels to bring them assistance or tow them into port, and many other beneficial acts possible by air.

Commander Benjamin M. Chiswell and Lieutenant Elmer F. Stone, with the backing of the Commandant of the Coast Guard, E. P. Bertholf, were the officers whose foresight and efforts initiated Coast Guard Aviation. Chiswell had passed the age acceptable for flight training. Stone was sent to U. S. Naval Air Station, Pensacola, Florida, for flight training and qualified as a heavier-than-air pilot. He became Coast Guard Aviator No. 1. Some years later, Stone was chosen as 1st Pilot of Navy's flying-boat NC-4, with a co-pilot; Lieutenant Commander Albert C. Read, U. S. Navy, commanded and was navigator of the NC-4. This plane made the first trans-atlantic flight of a heavier-than-air craft, flying from Newfoundland to Lisbon, Portugal, in May, 1919. Also, Stone, who had been loaned to the Navy as test pilot, pioneered in the design and flight testing of power-catapults to launch planes into the air from the deck of a ship. Stone was a great flyer!

You will have to write to the Commandant, U. S. Coast Guard, Washington, D. U. , to obtain the dates and official Coast Guard Aviator numbers of the first dozen C. G. flyers. As I recall them, (and this is not in accurate C. G. Aviator sequence), they were: Lieutenant Elmer F. Stone, Lieutenant Commander Stanley Parker, Lieutenants Robert Donohue, P. B. Eaton, C. E. Sugden, E. A. Coffin, (another Lieutenant, I think, whose name I don't recall), Lieutenant Commander Wm. Wishar, Lieutenant Carl C. von Paulsen, Warrant Gunner C. T. Thrun, Warrant Machinist W. S. Anderson, and Chief Petty Officer Leonard Melka.

Lieutenant Commander Stanley Parker had obtained his Lighter-Than-Air pilot "wings" at Pensacola. He made what was then an outstanding record non-stop flight of a dirigible, (called "Blimp" for short), from New Jersey to Naval Air Station, Pensacola. He later headed Coast Guard Aviation at Headquarters, Washington, D. C., and initiated the first C. G. Air Station. While I was completing my torpedo-plane training, after heavier-than-air, free balloon and Blimp training, Parker, then handling matters connected with C. G. Aviation, contacted me and informed me I was to command this first Coast Guard Air Station. He asked my views as to which of two available surplus Navy Air Stations would be better for our Coast Guard aviation work: the

one at Moorehead City, North Carolina, or Key West, Florida. I gave him my ideas: that Key West would be a better-weather, less rugged Station; Coast Guard had to prove the worth of aviation as an adjunct to its duties. The rougher-weather Moorehead City Station was closer to "the graveyard of the Atlantic" (Cape Hatteras). We would have more opportunities to locate vessels in distress, derelicts, menaces to navigation, and vessels ashore on Diamond Shoals, Lookout Shoals and Frying Pan Shoals. Parker was in accord, and informed the Navy the Coast Guard would take the Navy's Moorehead City Air Station.

During World War I, U. S. Navy's heavier-than-air and lighter-than-air training was greatly expanded and was given mostly to Naval Reserve commissioned, warrant and enlisted personnel. Regular officers of the Navy, practically all graduates of the Naval Academy, trained and educated for surface fighting-ships, could not be spared for aviation training. They were needed to man the enormously expanded fleet of seagoing vessels. Ten months after the end of World War I (in September, 1919), the Navy started its first post-war class of regular Navy, Marine and Coast Guard officers at Pensacola Air Station. Three Coast Guard officers were assigned to that flight-class: Lieutenant Carl C. von Paulsen, Lieutenant Edward F. Palmer and myself. Palmer was found to have a minor eye defect which the medical officers felt precluded flight training. However, he was retained for aviation-engineering training, and made many flights. Around the latter part of May 1920, this flight class completed its heavier-than-air training and each graduate received his coveted "wings" as "Naval Aviator". Navy and Marine officers were detached and assigned to aviation billets. Among the Navy officers in that flight class were Ralph Davis and Felix Stump: each rose to Vice Admiral with splendid battle records in World War II. In the following flight class, which arrived a few months before our class completed its training, was Arthur W. Radford, who later commanded the Pacific fleet, became Chief of Naval Operations, then Chairman of the Joint Chiefs of Staff. He finally achieved the rank of full Admiral.

Lieutenant Commander Parker's interest in lighter-than-air training lead him to believe that dirigibles could be of great value in Coast Guard searches. So, von Paulsen and I were assigned to L-T-A training, and when we completed that we took the torpedo-plane training. We finished these courses the first part of November, 1920. Von Paulsen went to the Army Air Force Field at Arcadia, Florida, for land plane flight training. I had been granted leave of absence, (to be married), so went on leave, was married 25 November.

One of the most heart-breaking episodes in World War I was that of Lieutenant P. B. Eaton, U. S. Coast Guard. He was in command of the Navy Air Station at Chatham, Massachusetts. A report came in that a German submarine was surfaced at a location to the northeastward. Eaton regularly took patrol-flights as pilot. He located the surfaced sub; many of its crew were on deck. Apparently, due to hazy weather, Eaton's plane had not been seen by the sub's men. Eaton made his approach, caught the submarine unaware, dropped two bombs: one landed on the sub but did not explode, the other landed close to the sub's hull but did not explode!!! The German crew thumbed their noses at the plane! Could this have been sabotage on bomb-mechanisms at the Air Station, known to the Germans? There was speculation to that effect; but, more probably faulty design. Who knows? I was shipmates with Eaton in 1925 on the famous old Coast Guard cutter BEAR in Bering Sea and the Arctic Ocean, and heard the story from him directly.

Lieutenant Commander C. E. Sugden, USCG, a pilot, had commanded a U. S. Navy Patrol Base in France during World War I. He was assigned to command the Moorehead City C. G. Air Station pending my return from leave of absence. I returned to the Station early in 1921. The complement of the Station was: Lieutenant Robert Donohue, Executive Officer and pilot, (he commanded a U. S. Navy Air Station in Nova Scotia during World War I); Lieutenant Carl C. von Paulsen, pilot; Lieutenant Edward F. Palmer, engineer officer; Warrant Gunner C. T. Thrun, pilot and in charge of plane assembly; Warrant Machinist Walter S. Anderson, pilot and engineering; Chief Petty Officer Leonard Melka, pilot; Warrant Carpenter Theodore Tobiason, carpenter and plane work; and about sixteen enlisted men. I was C. O. and pilot. It was a fine group of very able officers and men. I was justly proud of them.

The plane we had as our "work horse" was the Navy HS-2-L flying boat. It was a heavy plane; single engine (Liberty), pusher-type, open cockpit. It was staunchly built, could land in a fairly heavy sea when emergency demanded, and could take off in a moderate sea. It took off at a speed of 48 knots and flew at 55 knots, a leeway of 7 knots between flying speed and stalling speed. If she stalled, she went into a spin. No flyer that I've heard of ever pulled a fully manned and equipped HS-2-L out of a spin. Every one that spun crashed, killing all on board. It had to be constantly "flown" while in the air. It carried a pilot, co-pilot, and in the "bomber's" seat in the bow a combination observer and radio man. It was tiring to fly: constant pressure had to be maintained on the rudder-bar because of torque of the single propeller. I've come in from many a

flight, and, upon landing, my right instep would be so painful it was difficult to walk. To prevent this, the Navy developed a heavy rubber cord attached to the left end of the rudder bar thence to the rear for about three feet where the end was secured. It was adjusted to equal the pressure needed on the other side of the rudder bar, while flying, to keep the plane straight. It was called a "Bungee". In a way, it was dangerous because, when the engine was cut for a landing glide, prop torque ceased, the Bungee caused left rudder, the plane turned without banking, was difficult to control, and would tend to go into a spin. The pilot had to remember this and press against the Bungee's pull on the rudder when he cut his engine. Some pilots forgot. They never had a chance to forget again.

Speaking of "spinning" an H boat: Lieutenant Robert Donohue believed the HS-2-L could be brought out of a spin. One day at the Moorehead City Air Station, he had all removeable gear and weights removed from an HS-2-L, (such as anchor and anchor line, sea-anchor, mooring lines, water casks, emergency gas can, tools, etc.), and with a moderate amount of gas and only himself in the plane, took off. I had not known of his intention. When he was in the air, someone told me he was going up to try a spin. I would not have permitted it had I known. I discovered no preparations had been made for rescue in case of a crash. I raised merry old "H", getting together wire-cutters, axes, fire-extinguishers, life-preservers, medical kit, etc., commandeering a fisherman's boat and otherwise preparing for what I feared would be a crash. Donohue climbed to about 3500 feet then deliberately put the HS-2-L into a spin as we watched breathlessly - expecting a crash. He made four complete turns in his spin, then smoothly brought her out and landed just off the Station! He had proved that an HS-2-L flying boat could be brought out of a spin. I didn't know whether he should have a court-martial for risking the plane and his life or be recommended for a medal for bravery beyond the call of duty! He retired as Rear Admiral.

A "cache" of gasoline and oil in drums was set up in a shed at Kinnikeet on Pamlico Sound approximately half a mile north of Cape Hatteras. When starting on a search at sea in the vicinity of Cape Hatteras, it was imperative to have a full fuel tank: the cruising range was only four hours. We would fly from Moorehead City Station the 75 miles to Kinnikeet and fill up with gas before taking off for the search.

HS-2-L flying boat was equipped with a "Venus" carburetor: the bowl and jets were of aluminum. There were many instances of engine stoppages without warning while flying. This necessitated overhauling the carburetor, thoroughly cleaning all

parts, particularly the jets. Donohue had a stoppage at sea one time south of Lookout Shoals. He landed safely in the rough sea. After many tries, they got the engine restarted, but Donohue could not take off in the rough sea. He finally taxied many miles into the shelter of Lookout Bight, a safe harbor for winds from north to east. I had had three engine stoppages while flying. The last occurred as I was returning to Kinnikeet from a search for a derelict reported south of Diamond Shoals Light-ship. It had been a cloudy day with strong easterly winds. The cloud layer kept lowering until, as we approached Cape Hatteras, it was perhaps around 350 keet above a rough sea. As we approached the line of breakers at the Cape, the engine stopped suddenly. Turn and land in the heavy surf with resulting smash-up? Or chance a glide with a dead stick, with a helping wind behind us, across the three-eighths of a mile of sand dunes to the smooth water of Pamlico Sound? There wasn't time for ponderous weighing of all possibilities: instant decision had to be made. We glided across the sand-dunes: the last fifty yards the hull was inches above the sand. We touched down in the shallow water - safe. I sent a sample of the wax-like substance from the carburetor, which clogged the jets, to the University of North Carolina: their analysis found it to be "Alumina", a substance formed by reaction of gasoline with aliminum. This information was sent to U. S. Navy Department, Washington. Result: Venus carburetors were changed from aluminum to another metal. There were no more engine stoppages from clogged carburetor jets.

One day, von Paulsen in one plane and I in another returned from a search off Cape Hatteras, to Kinnikeet and refueled. There were about 35 minutes of daylight remaining. So we planned to land and stay overnight at one of the Life Saving Stations. Just as we started to take off, I told von Paulsen I had changed my mind, and I would try a night flight and landing, and von Paulsen could stop overnight at the Life Saving Station, which he did. I continued and picked up the lights of Moorehead City easily, flew over it at low altitude and came down in a glide to land in Bogue Sound off the Air Station a mile west of Moorehead City. There were absolutely no lights. There were many channel day-markers on pilings, but on an absolutely pitch-black night, these were a serious hazard, not a help. There was nothing to give me an idea of my height above the water. I put her in as slow a glide as I felt would let me have control, and prayed. I hit the water at a goodly speed and bounced back into the air. After another bounce, I was down safely, not having hit anything. By the time I approached the ramp, the Air Station had turned on all lights. I vowed never again to make a night flight unless on a bit of water with sufficient lights to let me see how far the water was from the hull.

Coast Guard Air Station at Moorehead City, North Carolina, remained in commission until July, 1922. I received orders to place the Station out of commission and transfer planes and equipment elsewhere for storage. Personnel were transferred to other assignments. A few enlisted personnel under Carpenter Tobiason were left to complete shipments and clean up. I was transferred to Charleston, South Carolina, as Captain of the Port, later to a cruising cutter. Thus ended the first stage of Coast Guard Aviation.

The second and permanent stage commenced in 1925. Lieutenant Commander Carl C. von Paulsen, commanding Coast Guard Section Base #7 at Gloucester, Massachusetts, knowing the value of aviation for sea searching, initiated action to get an airplane to aid in his patrol boat searches. These were the days of prohibition and rum runners. The Coast Guard had established many Section Bases along all its coasts to stop the illegal importing of liquor by sea. From these bases, patrol boats searched at sea for rum runners carrying contraband liquors. On the Atlantic coast, these vessels loaded up with liquor in various ports, (on east coast of U. S. the French islands of St. Pierre and Miquelon, and the British islands of the Bahamas opposite Florida were the two main supply sources). "Rummies" remained outside the "twelve mile limit" from the U. S., waiting for high speed motor boats which would dash out, load up and dash back to shore. When a Coast Guard cutter located a rum runner at sea, it would remain with it, thus preventing transfers to a shore vessel. But there were so many rum runners, and the ocean is so big, and the patrol boats had to replentish fuel and supplies, that it was often a heart breaking task.
Von Paulsen as a flier knew the value of airplanes for searching at sea. He interested Lieutenant Commander Stephen S. Yeandle, aide to Rear Admiral Frederick Billard, Commandant of the Coast Guard, in the idea of getting planes for searching the ocean for rum runners. Yeandle in turn discussed the idea with Admiral Billard who favored it. But there was no money, no appropriation. In spite of this, they planned and "scummed schemes", all on a shoestring. An old O-2-U-2 single float biplane with a 200 horse-power motor had been stored in a hanger at Cape May Section Base. It was surplus. Some enlisted personnel from the first C. G. Air Station at Moorehead City were at Section Base #7. A small, unused island belonging to U. S. Fisheries near Section Base #7 was acquired for temporary use. It was called "Ten Pound Island". A large surplus tent was acquired from the Army for $1.00. It became the "hanger". Coast Guard aviation was starting again. Von Paulsen and Melka flew the old crate searching at sea for rum runners and keeping tabs on patrol boats. A year later Admiral Billard was sucessful

in obtaining from Congress an appropriation for five planes for the Coast Guard with some equipment. Three were sent to Ten Pound Island and two to Cape May. Thus the puling infant was given sustenance, was carefully nurtured, and grew to its present efficient stature. But the story of the "Rebirth of Coast Guard Aviation" should be told by Captain von Paulsen. He is now 78, has had very extensive flying experience, retired for physical disability in 1945. His home is on 50 acres of land on Chrome Avenue about six miles north of Homestead, Fla. [redacted].

This is about all I recall now. Hope it may be of some interest in your historical work.

Sincerely yours,

Wm. Wishar

WILLIAM P. WISHAR
Captain, U. S. Coast Guard (Ret.)