

**-- WELCOME ABOARD --**

**U.S.S. WRIGHT CC-2**

**Command Ship**



## THE COMMAND SHIP CONCEPT

What makes WRIGHT radically different from the rest of America's fighting ships, and what is the role she plays in preserving the security and strength of our nation?

The *Command Ship Concept* is a relatively new idea emerging from the Second World War as a quite significant innovation in naval strategy. The concept was first utilized by the British when, in 1942, HMS BULOLO was converted from a merchant vessel into a 'headquarters ship'. The new mission of BULOLO was to coordinate Navy, Army, and Air Force operations from a unified command center in order to accomplish the ultimate objective of victory.

Aside from the unusual mission of this new ship an even more startling departure from then existing naval philosophy was the fact that her main armament did not consist of guns, but a far more efficient and subtle weapon — extensive communications equipment. Up until this time naval theory had been to make the flagship the most heavily armed vessel in the fleet, the idea being that the fleet commander embarked in the most powerful man-o-war could best lead other supporting ships. However, the whole picture of naval warfare had been rapidly changing. The emphasis had shifted from battles at sea, where lines of mighty dreadnaughts slugged it out, to amphibious assaults on heavily armed beaches, where a high degree of control over ship-to-shore movements was required.

In this new type of warfare the commander in the flagship had to maintain constant communications with not only other ships, but with his air support, his forces already on the beach, and his supply lines. In general, he had to be able to communicate with all the forces engaged in the landing. This necessitated the innovation of the new type of command ship, as such communication equipment could not easily be built into a ship primarily designed as a man-o-war.

The success of the British with this new concept prompted the United States to follow suit, and in April, 1943, USS ANCON was converted from an amphibious flagship into a highly complicated communications ship. By the end of the war, in November, 1945, there were 17 ships like ANCON in the United States Fleet.

The idea has been improved upon and today it has been expanded and refined into the 'Command Ship', based upon the less sophisticated communications ship. WRIGHT is the second Navy ship specifically designed as a Command Ship. The forerunner of WRIGHT was USS NORTHAMPTON (CC-1), which is presently homeported in Norfolk, Virginia, as is WRIGHT. NORTHAMPTON was the natural outgrowth of the communications ships of the Second World War.

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WRIGHT -- vastly different both in appearance and operational concept from NORTHAMPTON -- is the first ship of the fleet specifically designed to provide the most extensive and powerful mobile communications for command and control of our country's fighting forces of today, as well as those of the future. In order to provide top echelon commands and staffs with the equipment and facilities needed to command and control complex and detailed operations of modern warfare, WRIGHT puts to sea with the most extensive communications center ever installed in a ship.

More than 200 officers and men are assigned to operate the extensive equipment for transmitting and receiving radio communications. The equipment itself -- radio, teletype and facsimile transmitters and receivers -- can send voice, written text, and pictorial data from the ship as well as receive the same. A large space is given to the ship's teletype printers, each of which can record incoming messages at the rate of 100 words per minute. Another large room contains the many radio transmitters -- the heart of WRIGHT's communications system.

Her command spaces have facilities for war-room presentations similar to those of large command posts ashore, including projection equipment and motion picture screens. Entire walls are used to display large status boards and maps which are mounted on tracks so that they can easily be rolled into view. Called the 'Operational Command Center', the ship's command spaces also include rooms for planning and preparing illustrations, photographs, and other intelligence items which are necessary for accurate command and control.

WRIGHT is in fact a floating city. Her population -- the sailors and officers who keep the machinery of the city running -- live and work in an air conditioned environment. Electric power, enough to supply a city of 10,000 persons, is supplied by the ship's own generators. She has a dial telephone system containing over 275 phones which are constantly in use. The switchboard operator can handle four ship-to-shore calls at one time.

The Supply Department prepares and serves three meals a day to over 1100 persons who consume an average of 2,900 pounds of food daily.

An extensive educational organization allows all hands, through USAFI (United States Armed Forces Institute), to take practically any course available in an accredited high school or college.

This city in which we live has its own barber shops, library, stores, cobbler shop, soda fountain and motion pictures. While at sea the ship's entertainment system provides music and news to the entire crew, and a daily newspaper is published. Protestant, Catholic, and Jewish services are held weekly.

WRIGHT's crew is divided into nine departments: Administrative, Operations, Deck, Engineering, Communications, Supply, Medical, Dental and Navigation. Each of them is equally important in the proper operation of the ship. Without these men WRIGHT would be just an inanimate hunk of steel; with them she becomes a living ship -- in the finest Navy in the world.

## THE HISTORY OF WRIGHT

The first USS WRIGHT, named in honor of Wilber Wright while his brother, Orville, was still living, was the Navy's first aircraft tender. She was commissioned in New York on 16 December 1921 as USS WRIGHT (AZ-1).

In late 1944, WRIGHT became the flagship to Commander, Service Force, Seventh Fleet and was redesignated a 'headquarters ship'. Her hull number was changed to (AG-79).

On 1 February 1945 she was renamed USS SAN CLEMENTE and decommissioned on 29 May 1946 in New York.

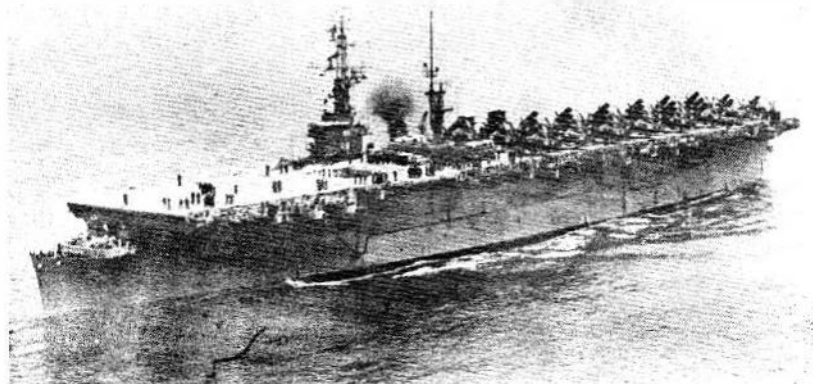
Construction of the present WRIGHT was authorized by Congress in March 1934, however her keel was not laid until 21 August 1944. She was launched at Camden, New Jersey on 1 September 1945, and commissioned USS WRIGHT (CVL-49) at the Philadelphia Naval Shipyard on 9 February 1947.

During the next eight years WRIGHT saw service in both the Atlantic and Pacific Fleets, earning three service ribbons -- the Navy Occupation Service Medal, the Korean Service Medal, and the United Nations Service Medal.

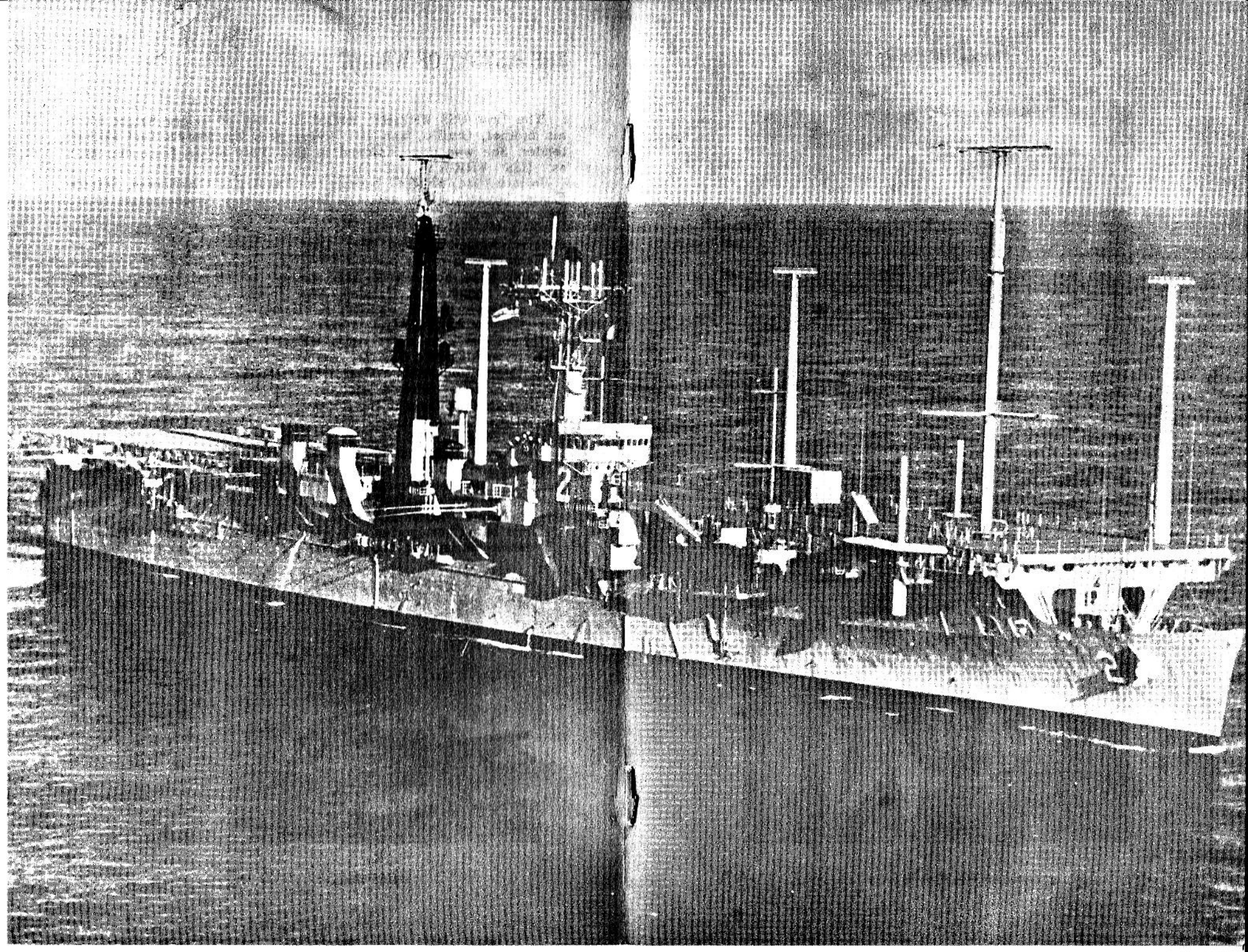
After several years in the Reserve Fleet work was begun to convert WRIGHT to a Command Ship, and on 11 May 1963 she was recommissioned as USS WRIGHT (CC-2) in ceremonies at the Puget Sound Naval Shipyard in Bremerton, Washington.

During the trip to her new home port of Norfolk, Virginia WRIGHT passed through the Panama Canal on 9 December 1963 and officially changed to the operational command of the Commander-in-Chief, United States Atlantic Fleet.

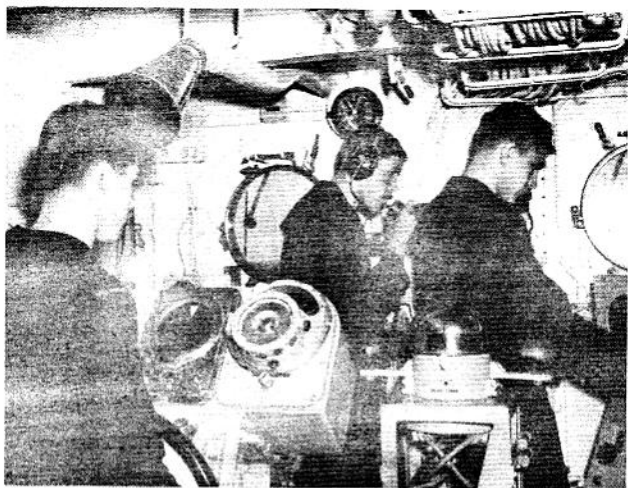
Since being homeported in Norfolk, WRIGHT has been conducting routine operations in the Western Atlantic.



USS WRIGHT (CVL-49)



*USS WRIGHT (CC-2)*



*At work...*

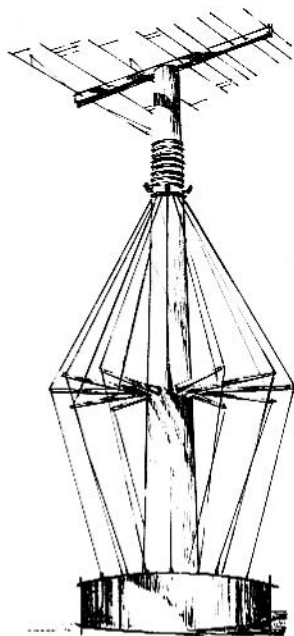


*and at play.*

## ON THE ANTENNA DECK

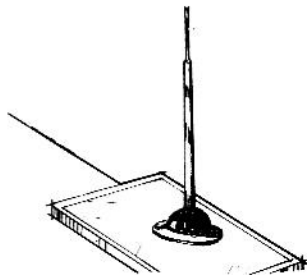
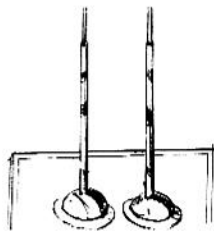
### LOG PERIODIC ANTENNA

Atop WRIGHT's two highest masts, each 114 feet above deck, are high frequency antennas. The 'LPA' section of this antenna mast, from coil to the actual top of the mast, is 39 feet high and is made entirely of fiberglass to reduce the interference caused by metal. The 'wire cage' (below coil) is an omni-directional medium range antenna. Both the 'cage' and 'LPA' are used for long to medium range ship to shore and ship to ship transmitting.



### WHIP ANTENNA

Along the edge of the flight deck are 29 rod-like antennas known as 'whips.' They look like automobile aeriels and function almost in the same manner. The single whips, with red insulators at the base, are transmitting whips. The double whips (blue) are receiving antennas. The whips are used in any position from vertical to horizontal. Their size range from 50 feet for low frequencies to 18 feet for higher frequencies.

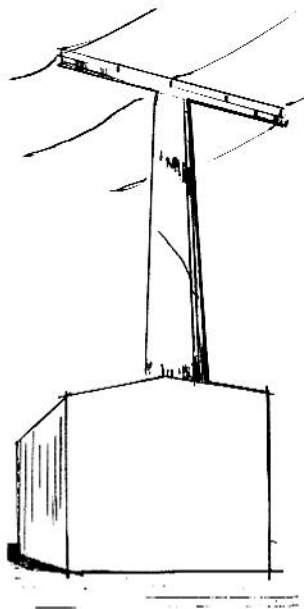


*Of the many antennas WRIGHT uses, here are a few.*



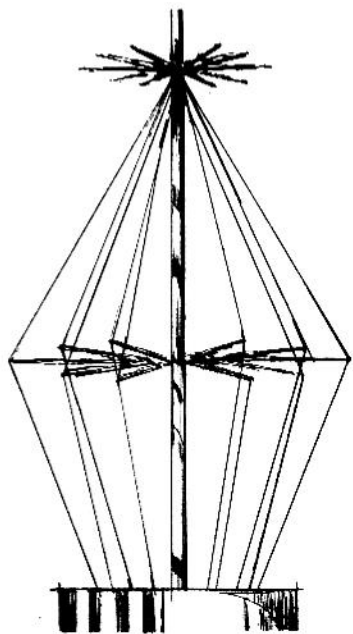
## TOP HAT ANTENNA

It is used for extremely long range communications. Its wires are stretched between three 89 foot high 'telephone pole' masts made of 100% fiberglass. The 'glass masts,' first of their size to be used on a naval vessel, are four times as strong and only one third the weight of a steel mast the same size. The 'helix house' near the center pole, contains a large tuning coil for the transmitter that feeds this antenna. The 'house' is 100% fiberglass also.



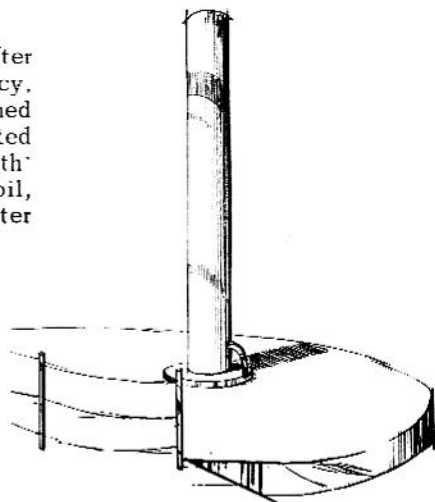
## DISCONE ANTENNA

It actually is three antennas on one mast; two high frequency (middle range) and one ultra-high frequency (short range) antenna. The top half of the 'wire cage' is a high frequency antenna. The lower half is another. The two sections of the cage are separated electrically by means of an 'insulated ground' where the spread arms touch the wires. The ultra-high frequency antenna is the small group of rods spread horizontally above the cage. All three antennas are omni-directional meaning the signal they send goes in all directions simultaneously.



## HELICAL CHU ANTENNA

The 'Chu' antenna (named after its inventor), is a higher frequency, omni-directional antenna. It is tuned by raising or lowering a coil located inside the hollow 'electrical length' of the antenna. The lower the coil, the longer the antenna -- the greater the range of the signal.



## FACTS ABOUT WRIGHT

Overall length .....	684 feet 5 inches
Extreme width at antenna deck ...	101 feet 11 inches
Beam .....	77 feet 6 inches
Full load displacement .....	19,265 tons
Highest point above waterline ...	156 feet
Draft .....	25 feet
Propulsion .....	Geared steam turbines, making 120,000 total, shaft horsepower turn four screws.
Speed .....	Over 30 knots
Command facilities .....	Worldwide Communications capabilities with associated command and control facilities.
Complement .....	60 officers; 1103 enlisted men.

