The Invention Of The Aircraft Carrier Essay, Research Paper

The Invention of Aircraft Carrier

The Invention of the Aircraft Carrier was a great event in U.S.

Maritime history. The Aircraft Carrier battle group has become a critical

element of United States foreign policy and acts as the central force in the

nation’s forward deployed presence around the globe. The Aircraft Carrier is

of great strategical importance around the world. Aircraft Carriers provide a

wide range of possible response for the National Command Authority. The

Carrier’s mission is to provide a credible , sustainable, independent forward

presence and conventional deterrence in peacetime, To operate as the

cornerstone of joint/allied maritime expeditionary forces in times of crisis,

and to operate and support aircraft attacks on enemies, protect friendly forces

and engage in sustained independent operations in war.

Aircraft Carriers are deployed worldwide in support of U.S. interests

and commitments. They can respond to global crises in ways ranging from

peacetime presence to full-scale war. Together with their on-board air wings,

the carriers have vital roles across the full spectrum of conflict. Since the

Earth is covered by 70% water, the Aircraft Carrier does not need to make a

base in foreign countries. All it needs is one land base, this is true because

when the Carrier is out to sea and needs fuel, a fuel-ship will come along and

refuel it. This is a huge advantage over air fields.

The Aircraft Carrier is a ship with a long, unobstructed flight deck that

permits takeoffs and landings by high-performance airplanes. A carrier is in

effect a mobile air base. Planes are stored below deck and brought up and

down on elevators. They take off under their own power or may be launched

by catapults, which are explained in the next paragraph. Decks are angled so

that pilots missing the arresting gear will be able to go around again without

hitting other aircraft. Carriers, equipped with or capable of carrying missiles,

are the heart of modern striking forces, accompanied by a variety of support

vessels: destroyers and cruisers for protection and supply ships bearing fuel,

ammunition, and food. The following few paragraphs will be telling you

about the parts of the Aircraft Carrier and its uses.

Each carrier-based aircraft has a tailhook, a hook bolted to an 8-foot

bar extending from the after part of the aircraft. It is with the tailhook that the

pilot catches one of the four steel cables stretched across the deck, bringing

the plane, traveling at 150 miles per hour, to a complete stop in about 320

feet. The cables are set to stop each aircraft at the same place on the deck,

regardless of the size or weight of the plane. There are also the Catapults that

launch the planes off of the ship. The four steam-powered catapults thrust a

48,000 Pound aircraft 300 feet, from zero to 165 miles per hour in 2 seconds!

On each plane’s nose gear is a T-bar which locks into the catapult’s shuttle

which pulls the plane down the catapult. The flight deck crew can launch 2

aircraft and land one every 37 seconds in daylight, and one per minute at

night.

The Bridge is the Primary control position for every ship when the ship

is underway, and the place where all orders and commands affecting the ship,

her movements, and routine originate.

The earliest flight from a ship was made off an improvised platform on

the U.S. cruiser Birmingham in 1910. The first true carrier designed to permit

takeoffs and landings was the British merchant ship HMS Argus, completed

in 1918. The first U.S. carrier, the Langley, a converted collier, joined the

fleet in 1922, and in 1927 the Lexington and Saratoga were converted from

battle cruisers.

After World War I, major carrier fleets were built by the United States,

Japan, and Britain; in the 1930s tactical exercises were held by the U.S. Navy

to study and improve efficiency of its carrier operations. By World War II,

however, Japan’s carrier fleet was numerically and qualitatively superior to

the American and British fleets in the Pacific. The use of six aircraft carriers

by Japan to attack Pearl Harbor on December 7, 1941, opened the war in the

Pacific. No American carriers were present during the attack. The major

carrier battle of Midway of June 3-6, 1942, cost the Japanese four carriers;

America lost one, the Yorktown. This victory gained the U.S. mastery of the

skies and of the seas and turned the tide of the war. By 1944 the Japanese

navy had been destroyed primarily by carrier-based aircraft assault, in

addition to submarine action. In the European theater, England used carriers

in support of operations in Norway and for convoy support in the Atlantic

and Mediterranean. Carriers were also part of the British Eastern Fleet.

Since World War II, carriers have been designated by size and mission

and grouped by class?that is, by similarity of construction and capabilities.

All the present U.S. fleet is of the attack class, with capabilities for

conversion to use as submarine warfare, utility, and assault helicopter aircraft

carriers. They bear the classification symbols CV or CVN, the N denoting a

carrier propelled by nuclear energy.

In 1989 the U.S. was the world’s principal user of carriers, with a fleet

of 15 and 2 under construction. Two carriers were of the old Midway class,

completed shortly after World War II, and eight were built in the 1950s and

’60s. Five others were nuclear powered. One of these, the Nimitz, which are

the largest warships in the world have the following traits: a 4.5 acre deck, 2

nuclear reactors, four geared steam turbines, four shafts. The length is 1,040

feet(317 meters). The beam is 134 feet(40.34 meters) The displacement is

97,000 tons when fully loaded(87.998 metric tons). The speed is 30+

knots(34.5 miles per hour). It can hold approximately 85 aircraft. It has a

crew of 3,300 for the ship’s company and a crew of about 3,000 for the Air

Wing. The armament is four NATO Sea Sparrow missile launchers, 20 mm

Phalanx CIWS mounts, and other armaments that are classified. The ship

costs about $4.5 billion each.

The sonar system is the hull-mounted Type 2016 active/passive search

and attack sonar by Thomson Marconi Sonar. The ship’s radar systems

include: GEC-Marconi Type 909 G/H-band fire control radar, housed in the

large radomes at the forward and aft ends of the island structure.

Siemens Plessey Type 996 surface search radar antennae mounted very high

on the tower between the two funnels. HMS Ark Royal has GEC-Marconi

Type 992. Both radars operate at E and F-bands.

The GEC-Marconi Type 1022 air search radar operates in D-band.

The HMS Invincible and Ark Royal are equipped with the Kelvin Hughes

Type 1006 navigation radar and HMS Illustrious has the Type 1007, both

operating at l-band.

The first class of Invincible Aircraft Carrier was built by Vickers

Shipbuilding and Engineering at Barrow-in-Furness. The ship was launched

in may 1977 and commissioned in July 1980. The Invincible class Aircraft

Carrier is armed with three Mark 15 Phalanx (CIWS) missile systems. Each

Phalanx CIWS has one 20 mm M61A1 Vulcan Gatling-principle gun which

fires 3,000 rounds per minute at a range of 1.5 km. The HMS Invincible and

Illustrious each have three Signal Goalkeeper CIWS, one of which is installed

in the forward gun platform at the bow of the ship. The other two are on the

island and on the lower gun deck gun platform at the stern. Goalkeeper’s

Gatling principle 30 mm gun provides a maximum firing rate of 1000 rounds

per minute. The Invincible class is fitted with the type 675(2) jamming

system which is an effective form of countermeasures. The ship’s decoy

systems consist of eight 130 mm six-barrel launchers that produce the Sea

Gnat chaff and infra-red decoys.

By the late 1980s the Soviet Navy had four Kyyiv carriers, plus two

nuclear carriers under construction. The Kyyiv carriers were 274 m (899 ft.)

long, displacing 38,000 tons. This class appeared to be designed for

antisubmarine warfare and was equipped with helicopter and possible

vertical-takeoff-and-landing (VTOL) aircraft. The two nuclear-powered

carriers are 75,000-ton attack vessels. (In 1991 the Soviet Navy became part

of the armed forces of the Commonwealth of Independent States, but control

of the Black Sea fleet was in dispute between Russia and Ukraine.)

The British fleet included three carriers, designed for antisubmarine

warfare and command control missions. France had two carriers, built in the

1950s and a nuclear-powered 36,000-ton carrier under construction, all with

antisubmarine warfare, helicopter, and command control functions. Two light

carriers were maintained by the Navies of India and Spain, and one each by

Argentina and Brazil. Most of these Carriers were acquired from larger

powers.

The invention of the Aircraft Carrier has immensely influenced the

USA’s freedoms. The lasting historical impact of the Aircraft Carrier is huge.

The use of the Aircraft Carrier is so large because of the amount of sea that it

is able to use and the use that it has. It can be used a great deal especially

when considering that the Earth is covered by more than 70% water. The

invention of the Aircraft Carrier plays a major role in keeping the world safe

from democracy. The invention of the Aircraft Carrier has played a great role

in the United States of America’s freedoms.

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