



GEORGE C. KNIES, LIFE BIO

PHASE V



Compilation of life experiences: Formal Education; Maritime, Aviation, Law Training - (Life-long practice); Family, World Travel, Wars and the Perpetual Search for Reality

Many years ago I had my first taste of Sea Planes at the 1939-1940 New York Worlds Fair, Flushing Meadow, N.Y. I was seven years old and toured the Pan Am facility at the Sea Plane Terminal with my father and a friend of his from the Airline. The most impressive part of the tour was my walk inside the Port Wing "standing-up" which is standard procedure for kids, but men had to bend over. Yes they were able to service engines while airborne. ▼



As a long time member of the Treasure Island Yacht Club I still promote the Pan Am Clipper influence, i.e. Clipper Cove; our club is located next door to the two original Hangers, we have a Clipper Bar, with a Large B-314 model flying over head, as well as fine photos of the original San Francisco 1939-1940 Expedition.

A man-made island, Treasure Island was built as the site of the 1939 Golden Gate International Exposition and as a municipal airport for the San Francisco Bay area. The Island-building project was undertaken by the U.S. Army Corps of Engineers at a cost of about \$4 million and was funded by the WPA (Works Progress Administration). Pan Am would occupy a site on the Island both during and after the Exposition.

The 40-acre island is about a mile long and two-thirds of a mile wide and sits about 13 feet above sea level. Its soil was dredged up from the harbor floor. Lying just north of Yerba Buena Island in San Francisco Bay, Treasure Island is connected by causeway with San



Boeing 314 Last Clipper

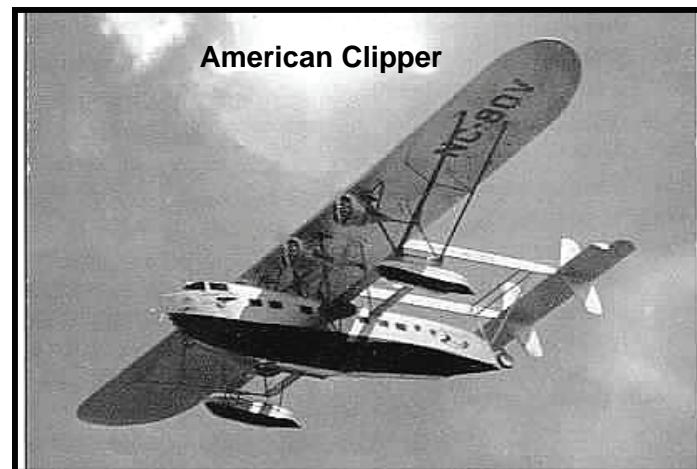


MMartin

China Clipper approaching Honolulu



Sikorsky



American Clipper

Francisco Bay. Treasure Island is connected by a causeway with the San Francisco -Oakland Bay Bridge, opened in 1936.

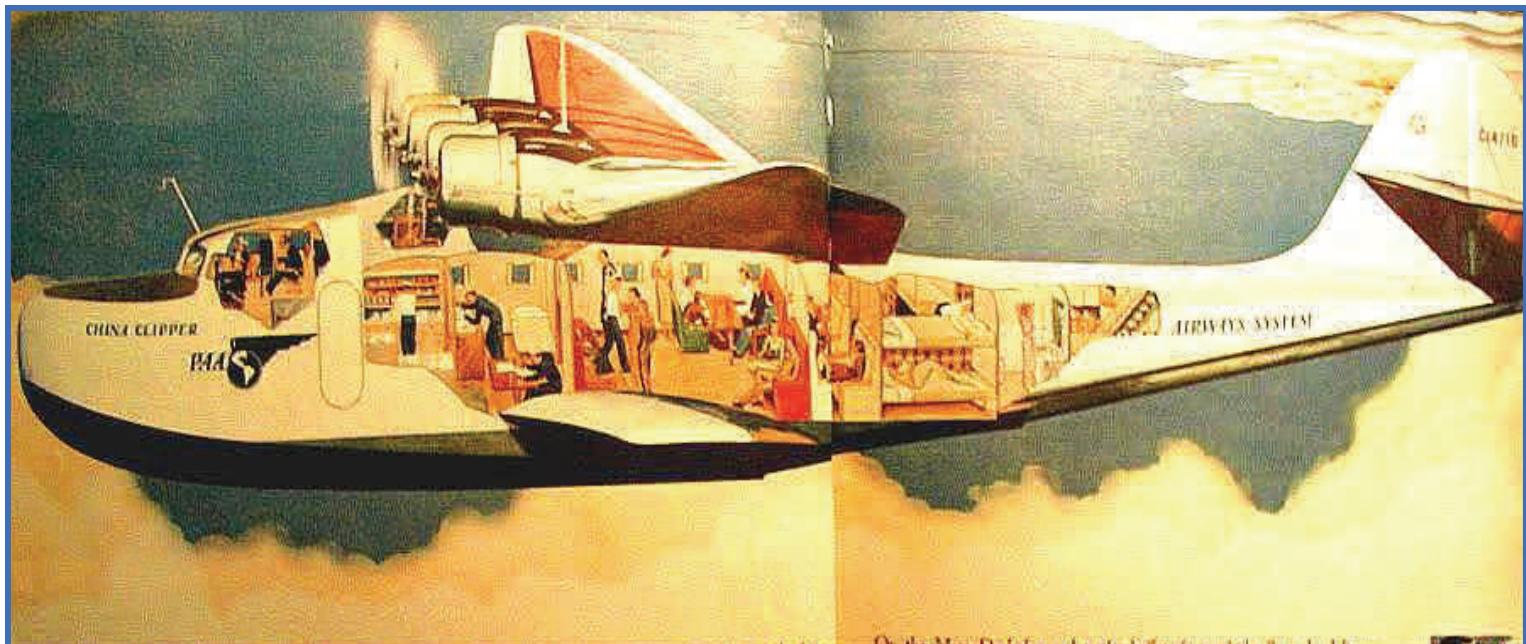
Of the 14 possible sites that were examined in the Bay area for a land -seaplane port, Treasure Island was the best. It allowed takeoffs and landings in a 270 degree radius, and had good prevailing winds and approach zones that were clear of obstructions. Air density conditions were near-perfect conditions with cool line air ensured by the surrounding water, while light, steady breezes permitted a long, low approach over Oakland tide flats. Fog was not considered much of a problem in this part of the Bay.

Three premium buildings-a main terminal and two hangars-were constructed on Treasure Island for use by Pan Am and other airlines. The main terminal was built with a dual purpose-during the exposition, it served as an administration building for the festivities and later it would serve as an airline terminal. A huge semicircle of concrete, it is three stories high and measures 380 feet across. The 220-foot-long passenger concourse occupied the main floor of the terminal, while upper floor and wings of the building housed restaurants, dormitories, offices, a weather station, and public observation galleries. Facilities for freight, mail, and customer services were located in the basement, which also provided access to five ramps used to load sea planes as well as other aircraft. The building was topped by the control tower.

Pan Am used T. I. as their first permanent base and was also an exhibitor at the fair, being the exposition's first tenant and one of the primo attractions. The exhibition showed the inner workings of the world's largest transoceanic airliner. As part of the Pan Am exhibition, seen by more than 2.5 million visitors, plate glass windows were installed in one of the hangar's, known as the Hall of Air Transportation. The exhibition area in the hangar could house two Clippers, and one of the flying boats was kept on display at all times. Visitors could watch the complete overhaul of the world's largest commercial aircraft, as well as the etching of propellers and the checking of instruments.

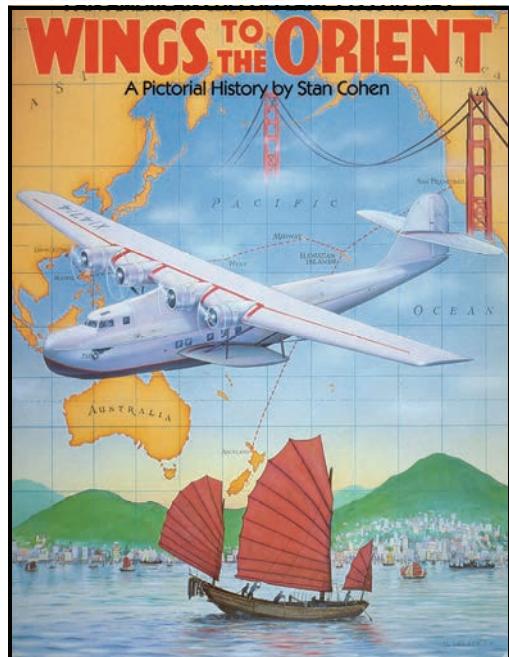
Not long after Pan Am moved to T. I. war broke out in Europe, and Japan was threatening in the Pacific. Then came Pearl Harbor, and plans for a civilian airport at T. I. were shelved. Soon Pan Am was sharing the airport facilities with the Navy

By 1944, the Navy's facilities on the island had become large that Pan Am was forced to move to the new San Francisco Airport (Mills Field), located south of the city and now the site of San Francisco International Airport. Flying-boat service was suspended shortly after the end of the war.





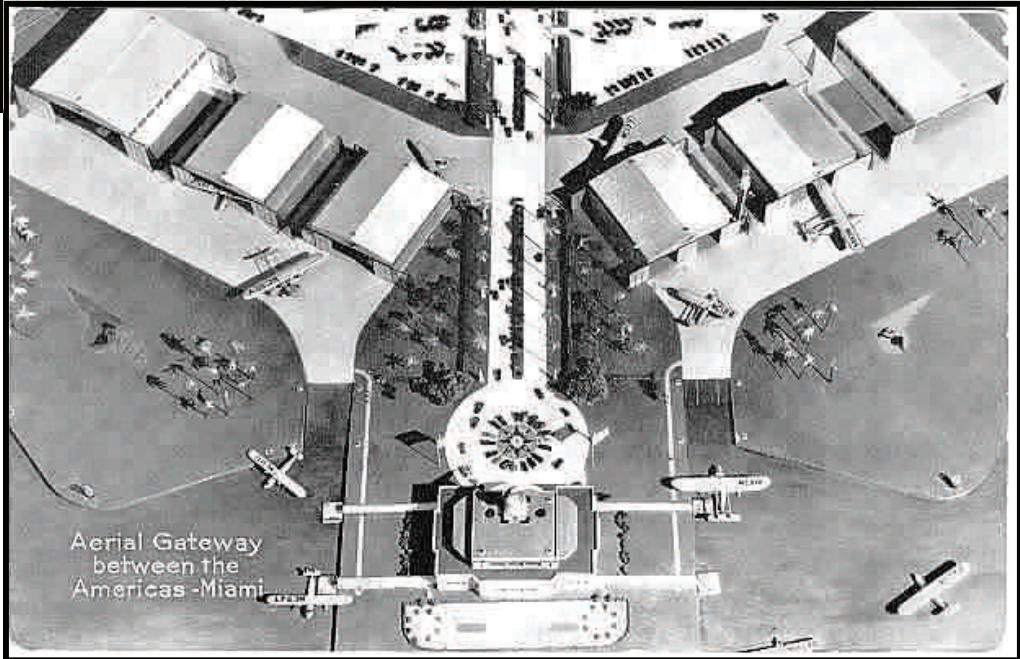
Wings Over the Spanish Main



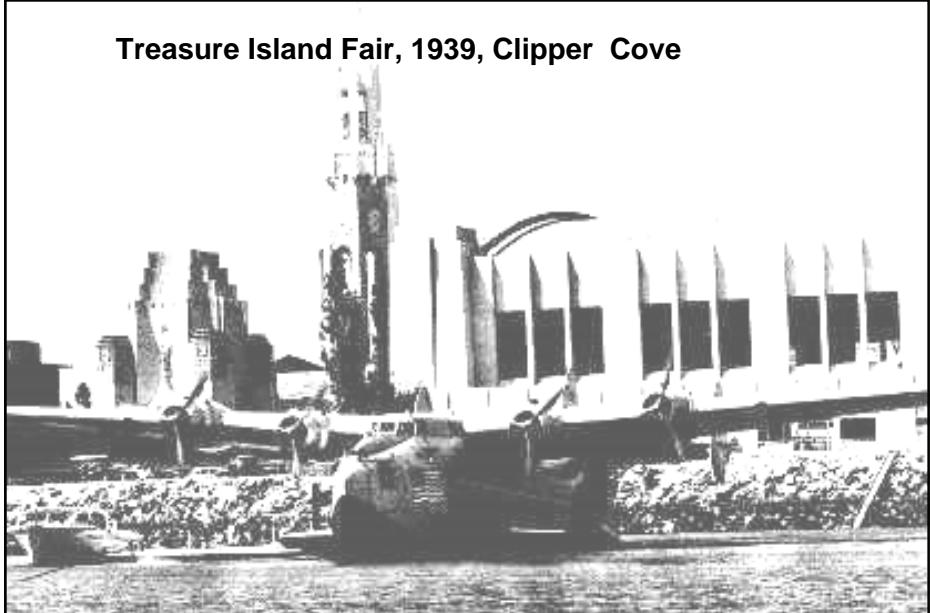
View of Pan American Airport, Miami Gotecke photo



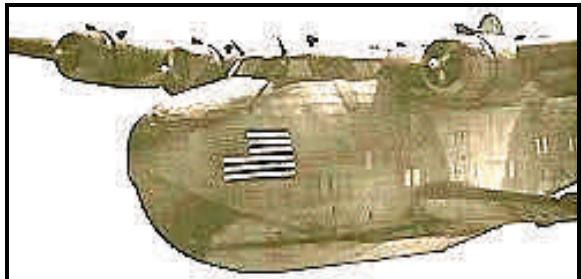
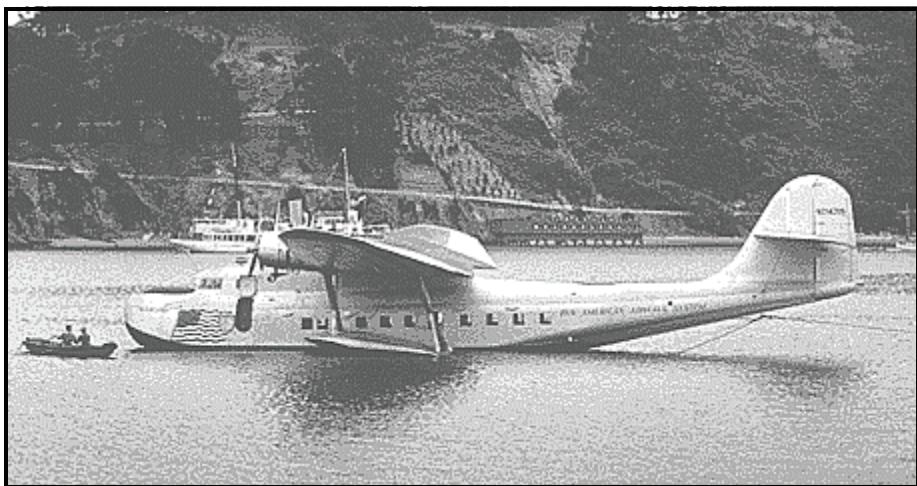
Pan American International Air Terminal, Miami Gotecke photo 33



Treasure Island Fair, 1939, Clipper Cove



The China Clipper over the Golden Gate



China Clipper Passing Golden Gate Bridge

The Boeing clipper is widely regarded at the summit of flying boat technology. It inaugurated the world's first transatlantic heavier-than-air service, and carried passengers and cargo around the globe in the 1930's and 1940's.

Large, luxurious, and reliable — and with an astounding range of 3,500 statute miles — the B-314 made intercontinental passenger airline service a practical reality.

Boeing B-314 "Dixie Clipper" (click photos to enlarge)

The development of the B-314

Early in 1936, Pan American solicited proposals for the next generation airliner for Atlantic service, and to stimulate interest among aircraft manufacturers, Pan Am offered a \$50,000 cash prize for the winning design.

Sikorsky responded with a design that would eventually be developed as the S-44, which met Pan Am's requirements for speed and range but was rejected because it carried too few passengers. (Three S-44's would later be used by American Export Airlines, which competed with Pan Am across the Atlantic from 1945-1950.) Consolidated Aircraft proposed a four-engine ship based on its PB-Y Catalina flying boat (which would later gain fame as an anti-submarine and search-and-rescue aircraft during World War II), but the Consolidated design was also rejected as too small.

Martin, which made the M-130 China Clipper, proposed a model known as the M-156, but it was also rejected by Pam Am, leaving Glenn Martin furious; despite owing much of its success to the China Clipper. Pan Am had purchased only three of the M-130 aircraft. Martin had taken a loss on such a small production run, which he expected to make up with future business for the airline.

The winner of Pan Am's competition was the Boeing Aircraft Company of Seattle, Washington, which was initially reluctant even to submit a proposal. But under the leadership of a relatively young engineer named Wellwood Beall, Boeing eventually constructed a ship widely recognized as the apex of flying boat design.

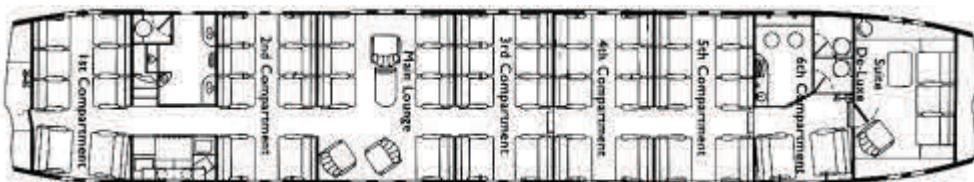
On June 31, 1936, Pan Am signed a contract for six of the Boeing 314 clippers, with an option for six more.

Boeing B-314 Passenger Accommodations

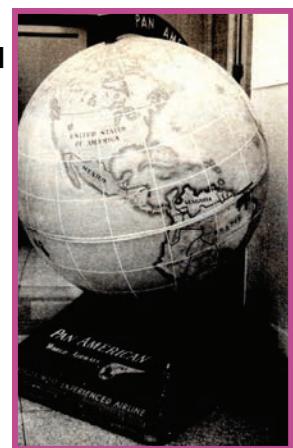
The B-314 could carry 74 passengers and 10 crew, although in overnight sleeper configuration, the ship accommodated 40 passengers in seven luxurious compartments, including a 14-seat dining room and a private "honeymoon suite" at the tail end of the plane.

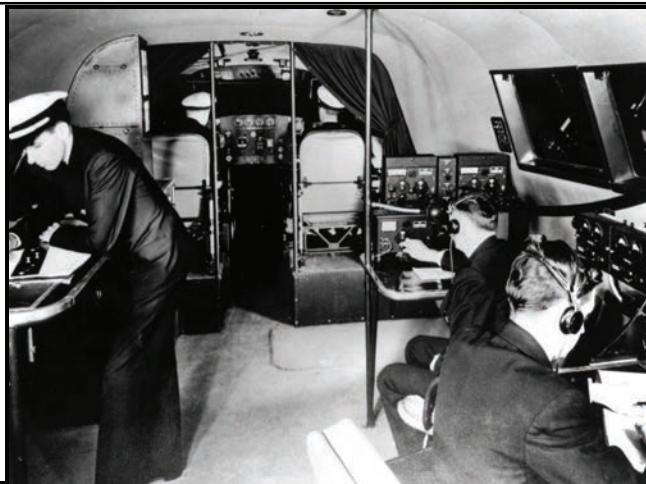
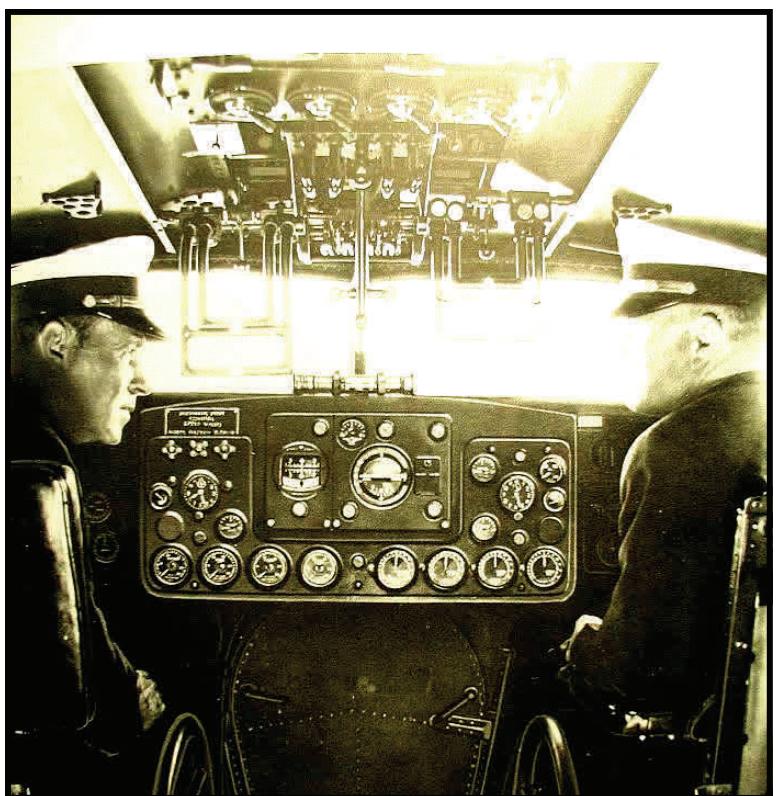
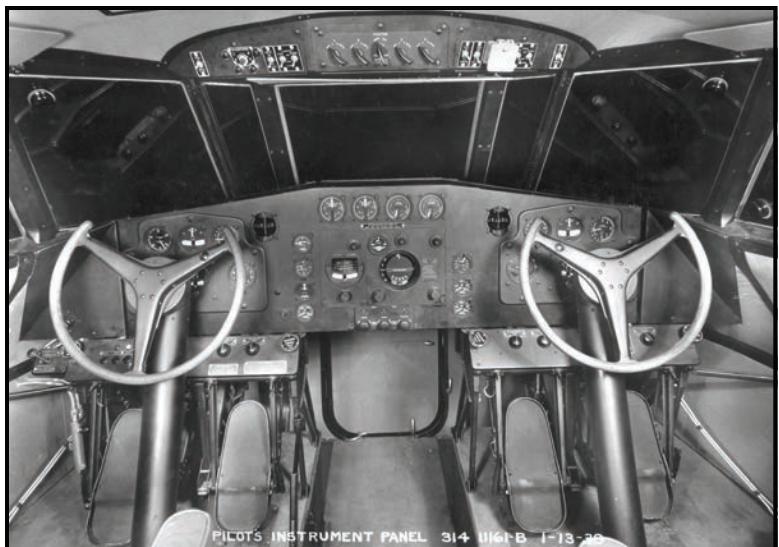
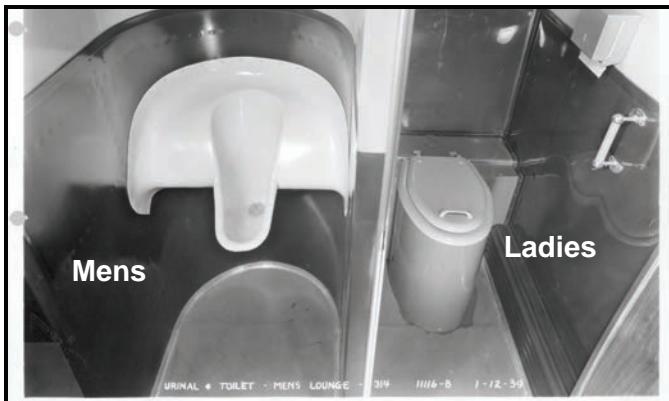
Pan Am World Globe in Miami and San Francisco Terminals►►►

B-314. Life Magazine, August 23, 1937▼

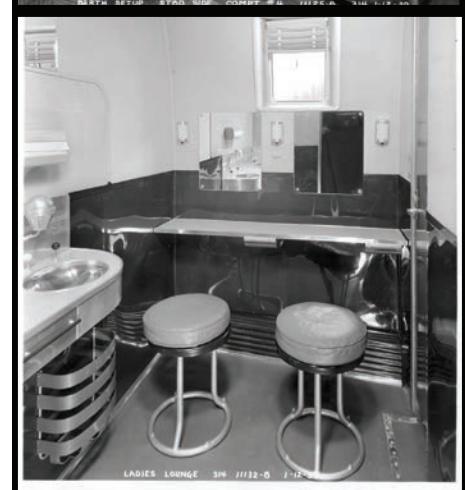


B-214 Passenger Deck Plan



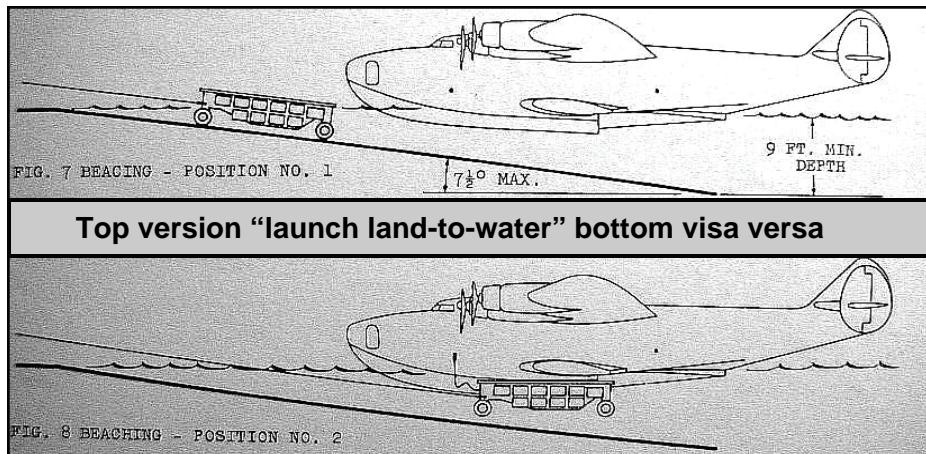
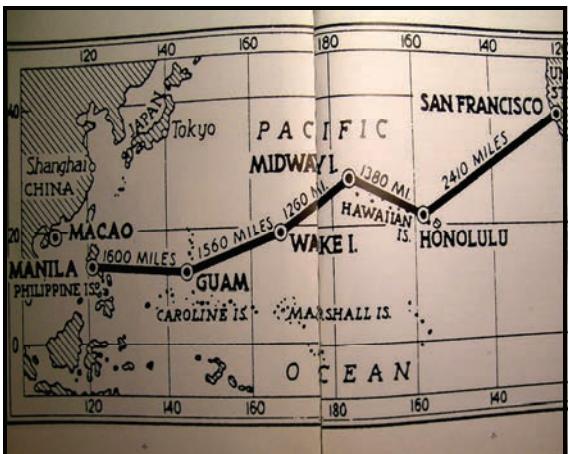
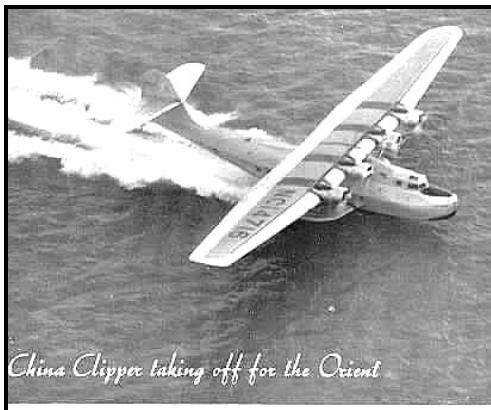
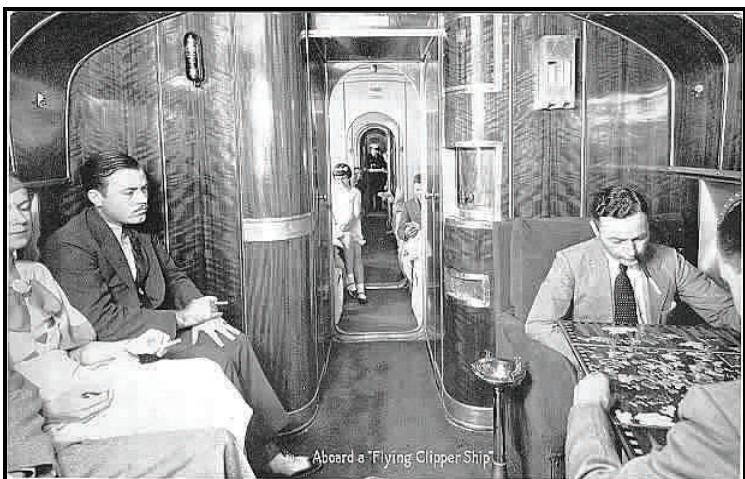


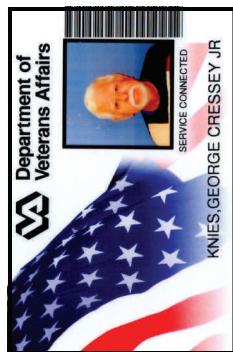
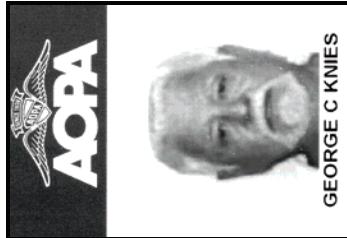
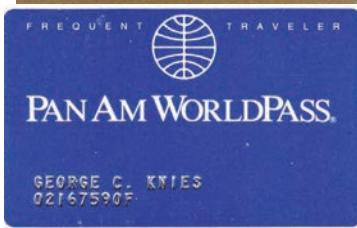
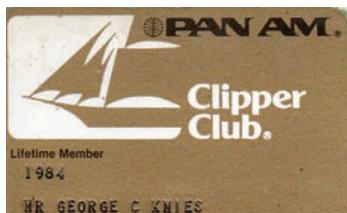
Some of the creature comforts available in the Boeing 314 and the Sikorsky 72. Several sites with facilities, Sleeping Berths (Long Flights) Restaurant style food service. The equation; prompting these elegant services- Money. Check other Pages for more examples.



PAN AMERICAN CLIPPERS 1934-1945

PAN AM NUMBER	DATE DELIVERED	REMARKS
SIKORSKY S-42		
NC-822M	May 1934	Fate unknown
NC-823M	December 1934	Scrapped 1946
NC-824M	May 1935	Crashed, Cuba, 1944
NC-15373 (A)	July 1935	Crashed, Trinidad, 1935
NC-15374 (A)	December 1935	Scrapped 1946
NC-15375 (A)	February 1936	Scrapped 1946
NC-15376 (A)	April 1936	Scrapped 1946
NC-16734 (B)	September 1936	Crashed, Samoa, 1938
NC-16735 (B)	September 1936	Sunk, Hong Kong, 1941
NC-16736 (B)	1937	Crashed, Brazil, 1943
MARTIN M-130		
NC-14714 <i>Hawaii Clipper</i>	March 1936	Crashed? Pacific 1938
NC-14715 <i>Philippine Clipper</i>	November 1935	Crashed, California, 1943
NC-14716 <i>China Clipper</i>	October 1935	Crashed, Trinidad, 1945
BOEING B-314		
NC-18601 <i>Honolulu Clipper</i>	January 1939	Crashed, 1945
NC-18602 <i>California Clipper</i>	January 1939	Fate unknown
NC-18603 <i>Yankee Clipper</i>	February 1939	Crashed, 1945
NC-18604 <i>Atlantic Clipper</i>	March 1939	Fate unknown
NC-18605 <i>Dixie Clipper</i>	April 1939	Fate unknown
NC-18606 <i>American Clipper</i>	June 1939	Fate unknown
NC-18607 (A)	April 1941	Sold to BOAC; became G-AGBZ "Bristol"
NC-18608 (A)	April 1941	Sold to BOAC; became G-AGCA "Berwick"
NC-18609 (A) <i>Pacific Clipper</i>	May 1941	Fate unknown
NC-18610 (A)	April 1941	Sold to BOAC; became G-AGCB "Bangor"
NC-18611 (A) <i>Anzac Clipper</i>	June 1941	Fate unknown
NC-18612 (A) <i>Capetown Clipper</i>	July 1941	Fate unknown



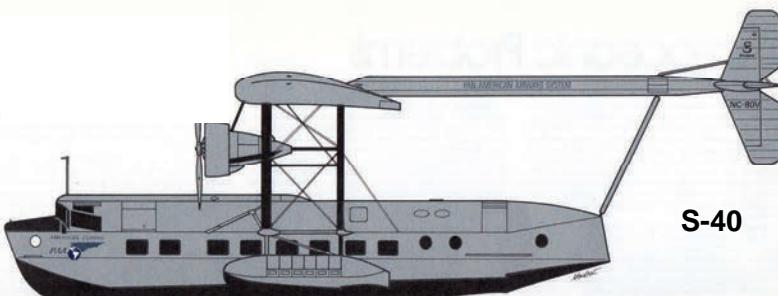
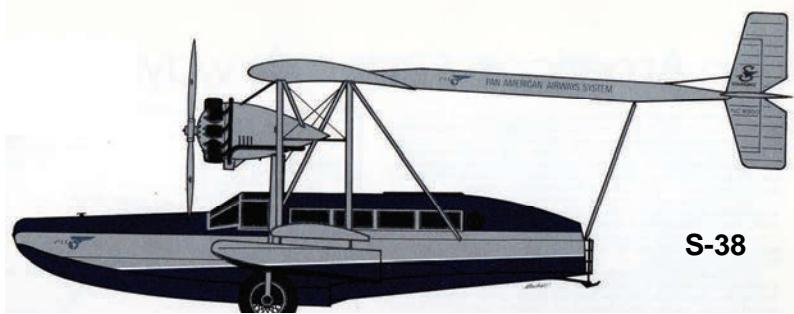


END OF AN ERA: PanAm's commercial flying-boat era came to an abrupt end on the fateful morning of Dec .7, 1941, when the Japanese attacked Pearl Harbor and bases at Midway, Wake, Guam, the Philippines and Hong Kong.

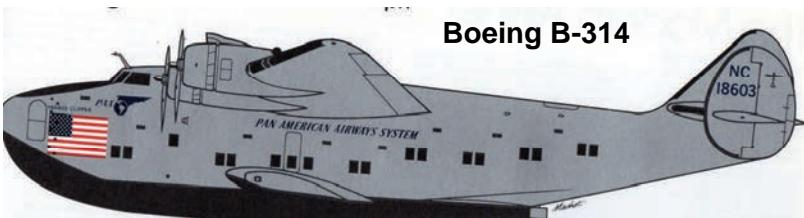
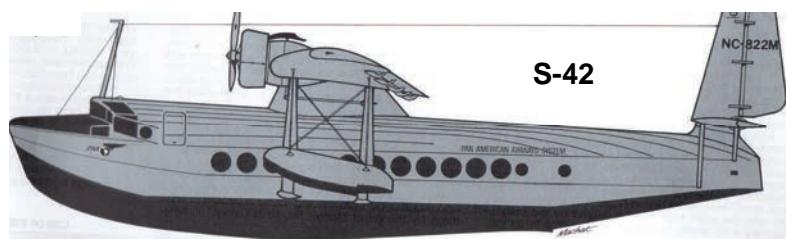
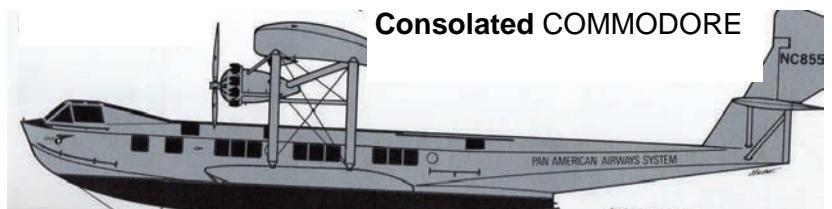
Pan Am recognized the threat inherent in the Japanese vision of a greater East-Asia Co-Prosperity Sphere. By August 1939, the airline had painted American Flags on the bows and wings of all Clippers as a precaution against inadvertent attack Jap Aircraft.

Four Clippers were in the air or on the water at Pan Am's forward bases on that now-famous day. The China Clipper had just returned from Manila and was safe in San Francisco the day of the attack. The *Hawaii Clipper* had been lost in the Pacific in 1938, or might easily have been a casualty at Pearl Harbor.

The *Anzac Clipper*, a B-314, was just an hour away from Pearl Harbor when the attack came. The *Anzac Clipper*'s Pilot carried sealed orders that were to be opened in the case of such an attack.



* Variations on the PAA "Winged Globe" included both silver and white lettering and continents.



Following these instructions the Clipper's crew was to proceed to Hilo on the big island of Hawaii hopefully avoiding any Jap interference. The *Anzac Clipper*'s crew was able to refuel and fly to San Francisco.

The *Philippine Clipper* had just left Guam carrying a military mission of Flying Tiger pilots and cargo, she was called back to Guam for an escort mission to Wake Island, she was caught in a bombing attack receiving more than 60 bullet holes, yet somehow avoided a disabling hit. She was stripped of her mail to make room for 70 Pan Am employees for evacuation to Midway, then on to Pearl Harbor. Midway was attacked again on December 7th damaging Pan Am facilities. Six months later, on June 4th, 1942 the majority of above ground facilities, including those belonging to Pan Am, were destroyed during the battle of Midway.

Guam fell to the Japs on December 8, 1941; close behind Pan Am's base in the Philippines, Cavite was occupied but not before Pan Am officials destroyed the base.

The *Hong Kong Clipper* was preparing to take-off when it was destroyed during a bombing attack, and burned to water level.

Macao, belonged to Neutral Portugal during the war and was not occupied by Jap troops, and Pan Am's facilities at Macao remained in tact, however; The Allies did not want Pan Am's supply of precious aviation fuel to fall into the hands of the enemy so on January 16, 1945, in spite of the neutrality of Macao the tanks and other airline facilities were destroyed by the U.S., they were never used again.

The *Philippine Clipper* ended service a few miles west of Ukiah, California the morning of January 21, 1943. Nine crewmen and 10 Navy passengers were killed due to bad weather and possible navigation errors, crashed into the side of a mountain.

The last Martin flying boat *China Clipper*, continued the San Francisco – Honolulu shuttle until June 1943, when she was transferred to Florida – Africa routes, hitting an unidentified object while landing in Trinidad she broke apart, killing 14 crew members and 18 passengers.

Nine B-314s entered military service following Pearl Harbor. They continued flying under Pan Am crews, transporting passengers cargo across the Atlantic to Africa and India, including among their passengers the Commander-in-Chief, President Roosevelt, and his staff.

After the war, plans to operate the flying boats over both the Atlantic and the Pacific routes were soon canceled in favor of the new, land based DC-4; January 6, 1946, marked the end of B-314s service across the Pacific. World Airways flew several B314s for charter service, Puerto Rico–New York, in the early 1950s.

Today, nothing remains of the three Martin 130s, not even a section of a broken wing on display at an aviation museum. Of twelve B314s that saw service, there are but a few pieces of NC 18602, on display at the Pacific Museum of Flight in Seattle Washington.

NOTE: During my many "Trans-Pac" Jet flights to South East Asia during the Viet Nam War I had the pleasure of landing at Midway, Wake, Guam, Philippines, etc., enjoying the Gooney Birds on Midway, visiting war remains on Wake and Guam.

Treasure Island Club, remains a Pan Am Clipper Flying Boat advocate, a distinguished memory.

PAN-AMERICAN AIRWAYS "CHINA CLIPPER" ARRIVES AT SAN FRANCISCO, FROM THE ORIENT

35



© CLYDE SUNDERLAND

SA-H613

WINGS TO THE ORIENT

A Pictorial History of the Pan American Clipper Planes 1935 to 1945

M-31 PAN AMERICAN AIRWAYS 32 PASSENGER "FLYING CLIPPER SHIP"



PHOTO BY R. B. HOIT

OFF TO WEST INDIES AND SOUTH AMERICA FROM MIAMI

SA-H743