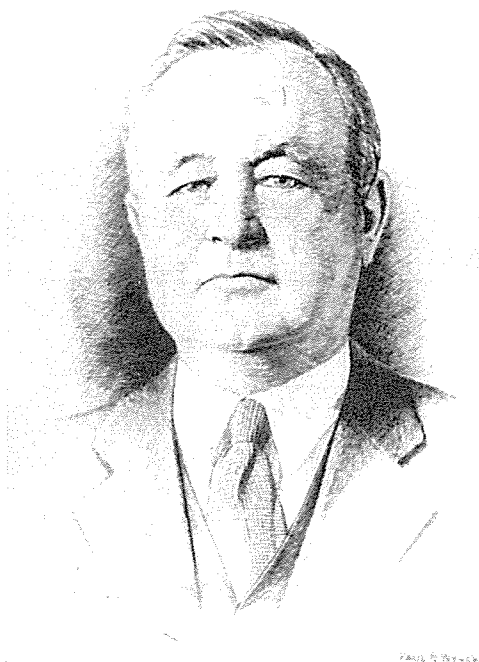




Captain George Conrad Westervelt, USN (Courtesy of Rieta Westervelt du Manoir)

GEORGE CONRAD WESTERVELT

Capt . , U.S.N.

At the Beginning of Chinese Aviation

By WILLIAM M. LEARY

The career of George Conrad Westervelt has been little noted by historians of aviation, unfortunately, because Westervelt contributed significantly to the development of aviation in the United States and abroad. Not only was he a leading figure during the early years of American naval aviation, but he also played a key role in the emergence of Chinese commercial and military aviation.

Westervelt was a graduate of the United States Naval Academy. Following three years of sea duty, the young officer was sent to the Massachusetts Institute of Technology to study naval architecture. Westervelt became interested in aviation at MIT, especially the design and construction of flying boats. Much later, in 1915, Westervelt and another graduate of MIT, a young Chinese named Wong Tsu, joined William Boeing in the construction of the very first of the long line of Boeing aircraft.¹ The B&W (Boeing and Westervelt) seaplane was a technical if not a commercial triumph. Moreover, according to one student of commercial aviation, the success of the B&W flying boat was responsible for Boeing's decision to devote his full attention to the construction of aircraft.²

America's entry into the First World War diverted Westervelt wholly to naval aviation. He supervised the construction of naval aircraft during the war and he took charge of the emergency training of some 5,000 mechanics who were to service naval aircraft on foreign stations. He travelled twice to Europe as a member of commissions whose recommendations defined the role of American naval aviation in European waters. After the war Westervelt joined with Jerome C. Hunsaker and had a hand in the

design and construction of the famous "NC" (for Navy Curtiss) flying boats. Between 1920 and 1927 Captain Westervelt commanded the Naval Aircraft Factory at Philadelphia, the largest aeronautical research and maintenance facility in the world at that time. He retired in 1927 and joined the Curtiss-Wright organization as an expert in the design, construction, and operation of aircraft factories.³

Among Curtiss-Wright's worldwide interests was the China National Aviation Corporation (CNAC). This organization, a partnership between Curtiss-Wright and the Chinese government, began in 1929 as an effort to demonstrate the economic, political, and military benefits of air transportation. China, it was hoped, would become an important market for Curtiss-Wright's line of commercial and military aircraft. Initially, the American company was prepared to accept a loss on their Chinese subsidiary, which operated a mail and passenger service along the Yangtze River between Shanghai and Hankow. The Great Depression, however, dealt a sharp blow to Curtiss-Wright. The company decided that CNAC would have to pay its own way. This meant a more economical operation and a subsidy from the Chinese government. Westervelt was sent across the Pacific in December 1930 to accomplish these objectives.

"There was never any lukewarm attitude toward Captain Westervelt," his wife later recalled. "He was either not liked at all, or very much liked and respected." Ralph S. Barnaby, then a young Ensign and later a close friend, recalled his first encounter with Westervelt in 1918: "He was a short plump man with a very stern demeanor. While his face was round, his slightly aggressive chin and protruding lower lip gave him a rather forbidding aspect. It was easy to understand why he had acquired the nickname of 'Scrappy' at the Naval Academy. He just looked belligerent!" Later, when Westervelt and Barnaby came to know one another better, the Captain explained, perhaps with tongue-in-cheek: "'Barnaby, people as short as you and I are, have to act tough or people will walk all over us!'"⁴

There was a gentler side of George Conrad Westervelt. He had a droll sense of humor. He wrote seventeen plays, at least one of which was produced on Broadway (it flopped), and several unpublished novels. He authored a book of children's stories, based on tales he used to tell his two daughters. He loved the land and was an active conservationist. He designed farm machinery, conducted agricultural experiments, and bred cattle. He was instrumental, later, in saving the Sandhill cranes from extinction in Highland County, Florida. But it was the Westervelt to whom people feared to say, "Good morning," lest they be expected to prove it, who was sent to China in 1930.⁵

Westervelt's arrival in Shanghai coincided with a nasty incident involving Chiang Kai-shek. In the late afternoon of December 24, 1930, an aide to the Generalissimo called CNAC's local agent at Hankow and reserved the entire capacity of the next morning's flight to take Chiang Kai-shek and his party to Nanking. Although the flight was scheduled to depart at 8 a.m., the aide requested that the plane be held until 9 a.m. The agent, a young Chinese, notified the American field manager of the situation in the morning but the manager refused to hold the plane beyond its scheduled departure. Chiang and his party arrived a half-hour later. The Generalissimo, it was reported, was "greatly angered by the slight which had been offered him." He jailed the agent and the field manager. By this time, CNAC's head office had learned of the situation and had ordered the plane to return to Hankow. When it arrived, Chiang had the pilot taken into custody, refused to use the aircraft, and proceeded to Nanking via a Chinese gunboat.⁶

To Westervelt, the incident seemed characteristic of CNAC's operations. The airline lacked leadership. The operations manager was from the Old School and was not about to listen to a retired naval officer, and the pilots were indifferent to the fate of the company and treated the Chinese with disdain. The conduct of

the aviators reminded Westervelt of experiences in the naval service. He wrote:

"I ran across this attitude first many years ago in the engine rooms of the naval service. Chief engineers at that time attempted to throw a mysterious atmosphere about all reciprocation of their machinery, and I have known of cases where chief engineers would not get under way, if it did not happen to suit their convenience to do so, and would calmly bluff the captain of the ship with assertions regarding the incapacity of the machinery. This situation, however, after much difficulty and exercise of the administrative big stick, was cured.

"Next came the young officers of the destroyer flotilla. They looked upon themselves as a specially qualified and elite class, and it was almost impossible, for a considerable length of time, to get any teamwork out of them. This, also, was eventually corrected, but many heads had to be broken in the process.

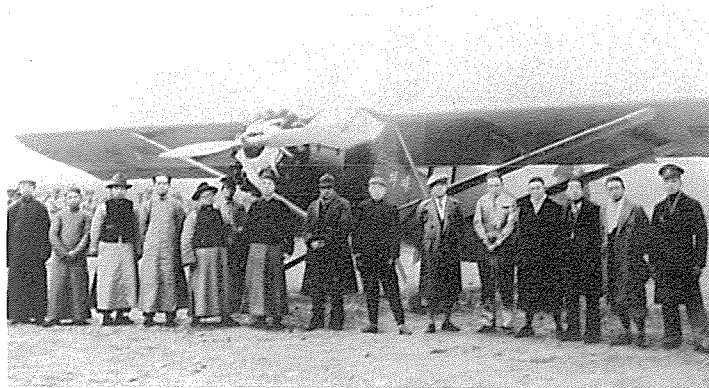
Next came the submarine lads. They were worse than anything that had been encountered up to that time, as they looked upon themselves as the pioneers in an extra hazardous profession, and one regarding which no one except a submarine man should be allowed to have any say. Much blood was eventually spilled, but the situation was corrected.

"Then came the aviators. Everything which had proceeded along the lines I have discussed was child's play compared with the struggle which set in. This struggle has not yet entirely ended, but is in a way being solved."⁷

Westervelt quickly let it be known that the airline would be run his way or heads would roll. Within a few months he replaced a vice-president, the operations manager, the chief mechanic, and several pilots.

Westervelt ruthlessly reduced operating expenses and established facilities for the renovation of aircraft. He increased revenues by expanding service further up river from Hankow to Chungking. Despite these efforts the airline continued to lose money. Subsidy was the answer, but the Chinese government refused to consider such an arrangement. Although Curtiss-Wright was loath to tolerate this drain on its depleted assets, Westervelt counselled patience. The extent of Nationalist control over the country impressed him and he had the "definite feeling" that the present government "is working in the interests of the people of China, and in the attempt to build a great unified nation with pride in its own existence and nationality." If these impressions were correct, Westervelt concluded, then "the opportunities which exist in China are probably beyond those which exist in any other portion of the world at the present time."⁸

The Chinese appeared to grasp the significance of aviation and even seemed prepared to adopt a major developmental program.



In April 1931 a National Aviation Conference met at Nanking. Chiang Kai-shek emphasized the advantages of air transportation. "China," he said, "is one of the largest countries in the world in point of area, but owing in no small degree to the lack of communication facilities, she is not yet thoroughly unified and constructive work is at a standstill." General Tsao Hao-sen, vice-minister of war, stressed the military role of aviation. Remarkable advances had been made in Europe, America, and Japan, while China lagged behind. "We should therefore," he concluded, "strive to develop this line of activity as it is a much more potent force than either the army or the navy in national defence." The conference issued a manifesto calling for the expansion of the air force, development of an aircraft industry, training of aviators, and related activities.⁹

Westervelt was ready to respond with concrete proposals. He sought contracts for Curtiss-Wright military aircraft, drew up plans for an aircraft factory, and stressed the military advantages that accrue from operation of commercial air services. He even advanced a scheme for a national lottery to underwrite the costs of aeronautical development.¹⁰

But this all came to nothing. The Chinese, he observed, were more prepared to talk about the need for aviation, than to do anything about it. Just as Curtiss-Wright prepared to abandon China as a market for its products, the international situation gave the Chinese government cause for urgency. In September 1931 fighting broke out in Manchuria between the Japanese Kwantung army and the forces of Chang Hsueh-liang. Westervelt, who had returned to the United States, hurried back to China for further negotiations with the Nationalist regime. Conversations proceeded in the midst of increasingly chaotic conditions. A powerful Japanese naval squadron lay at anchor in Shanghai's Whangpoo River. An active Chinese boycott was proving hurtful to Japanese trade, and Japan demanded that it end. Serious clashes between Chinese and Japanese residents of Shanghai occurred on January 18 and 20, 1932, prompting threats of retaliation by the Japanese naval commander.

During the critical days of late January and early February, Westervelt wrote daily to his wife, describing the situation and offering comments. While many passages in these letters do not make for pleasant reading today, they depict vividly the attitude of many thoughtful Americans during the 1930's. And unless one understands the passion of men on both sides of the Pacific, the growing crisis between Japan and the United States does not make much sense. The following quotations are from letters by Westervelt to his wife.¹¹

"January 27: It is still absolutely uncertain as to what is going to happen between the Chinese and Japanese. The Japanese have issued certain ultimata with which the Chinese claim they are unable to comply in full, but are willing to comply with as far as possible. The Japs say they must comply in full or they will occupy strategic elements of Shanghai. The Chinese say they will resist if they try it, and are actually digging trenches and mounting guns just outside the International Settlement. Our air line problems may be solved by the Japanese destroying the whole works. They are worse than the Prussians ever were and capable of anything — and to think that our politicians, led by the whiskered gentleman now Chief Justice of the Supreme Court [Charles Evans Hughes] scrapped a navy which would have made it possible for us to speak with authority, and that the present failure in the White House [Herbert Hoover] is opposing building even the ships we are required to have by the Naval limitation treaty. The only thing more dangerous to a country than its politicians is its uncontrolled militarists.

CNAC Stinson mail-passenger plane, c. 1933. Pilot Hewitt F. Mitchell is fifth from right in coveralls. (Photo courtesy of Ralph F. Mitchell)



The CNAC Loening amphibian used on the Shanghai-Hankow route, on beaching gear at Shanghai, c.1932. (Courtesy of Mrs. Harold M. Bixby)

January 28: Barricades are up at all streets between the International Settlement and the Native City. All foreign troops are standing by for possible emergency, and all foreign nationals in outlying districts were advised to move into the International Settlement. Rumors have been flying, and no one has known what would happen . . . The world is unquestionably in for some rough times with those natives.

January 29: The war is on. About midnight last night the Japanese invasion started. Since four o'clock when I woke up there has been sporadic machine gun fire in several directions. For several hours starting around four o'clock Japanese airplanes have been patrolling overhead. There have been three loud explosions which may be the dropping of bombs. No one knows why the Japs should have taken such actions so unnecessary, and affronting to the opinion of the world. Their announcement last night that they were satisfied with the Chinese acceptance of the ultimatum was simply a cover to give their attack the full element of surprise. The international effect may be of the greatest gravity. Unless the U.S. is to totally submit to a destruction of her interests in China it may quite conceivably lead to war between U.S. and Japan. Militarism is in the saddle in Japan and will listen to nothing.

January 30: According to the morning paper an armistice between the Chinese and the Japs was agreed to at 8 last night. I presume it was the armistice I heard at frequent intervals last night. It sounded on many occasions like 100# of T.N.T.

January 31: One month of 1932 gone, and what a month. It is closing on one of the gravest situations China has ever known. One should not do too much prophesying so I'll merely state that anything which pulls China out of her present predicament and leaves her with some aspects of being a nation will be in the nature of a miracle.

February 1: It is just after midnight. The bark of a shot comes every minute or so from the near distance. A truce is supposed to be on while conferences taken place, but there are many violations of it. We do not know from hour to hour what the developments will be . . . It has been demonstrated in a few days here that the Japanese idea of war is such that hell, by comparison, must be regarded as a desirable summer retreat.

February 2: Today the Japanese turned down what is probably the last attempt to limit the difficulty between themselves and the Chinese. This was the proposal to estab-

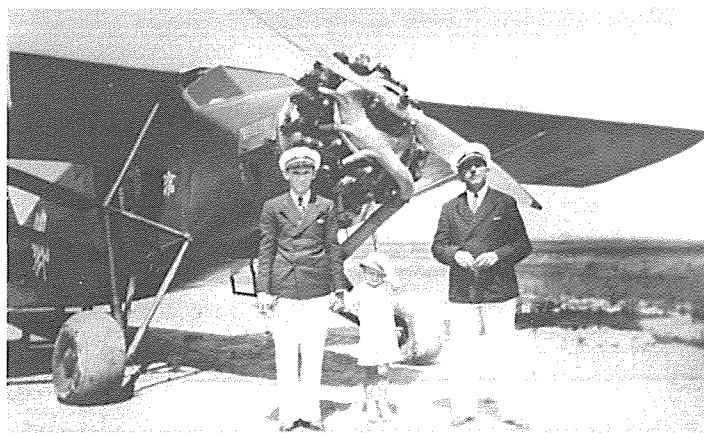
lish between the two a neutral zone held by other nationals.

February 4: Before I finished writing last night, the sputter of machine guns started a serenade they were to keep up all night. Shortly after eight a.m. when according to one of the local papers everything was to come to a dead stop due to the strong and common stand of America and Britain, France, and Italy, the big guns of various calibers began to roar. Part of the music was from the bombardment of the Woosung forts, at the entrance to the Whangpoo. Someone sneezed there, and it seemed to the nervous Japanese as the commencement of a deadly attack on their fleet.

February 8: The war still continues, in an intensified degree, tho we now hear almost none of it as its immediate theatre has been transferred to Woosung . . . Reinforcements from Japan have arrived and are being landed.

February 10: The Japanese are bringing in a great many troops, and a real war is in the making. The immediate scene is now about 9 or 10 miles from Shanghai, and we must get our news from the papers . . . The effect on the spirit of the Chinese has been phenomenal. Japan may have driven them into unity. The result might conceivably be most serious for Japan eventually."

"I take it for granted," Westervelt wrote to Finance Minister T.V. Soong in early March, after large-scale hostilities had ended, "that the events of the last few weeks have sufficiently demonstrated the significance of air power as differentiated from a lack of air power." Westervelt went on to point out that had China possessed one-half the air force of Japan, the landing at Shanghai could have been prevented and considerable damage could have been inflicted upon Japanese naval vessels. Japan, he said, could one day be made to regret the indiscriminate destruction of



Pilot Hewitt F. Mitchell (l.) and Chief Pilot E.M. Allison by Stinson used by CNAC on Shanghai-Peking route, Sept. 1933. (Courtesy of Ralph F. Mitchell)

Chinese lives and property. China, if it developed air power, could retaliate in the future. He wrote of Chinese airplanes carrying incendiaries to the heart of Japan, incendiaries "to burn down the major portion of most Japanese cities, and to cause enormous economic losses which would have direct repercussion on the military efforts of that country."¹²

Westervelt proposed a five-point program to develop Chinese air power. First, an aeronautical adviser should be obtained from the United States to supervise and coordinate aviation activities. Second, arrangements should be made in the United States for the training of Chinese aviators. Third, an aircraft factory should be constructed at Shanghai to provide the nucleus for an indigenous manufacturing industry. Four, CNAC's routes should be expanded under governmental subsidy. Finally, airport construction should begin at once, starting at Shanghai.

As "a sincere friend of China" and as "a most outraged observer of the events of the last few weeks," Westervelt urged that the program be instituted without delay. These first steps "will lead naturally to the taking of other steps which will eventually, if political unity can be obtained, result in making your country impregnable. There can be no sustained invasion of China if China is protected by an air force of one-half the striking power, and of equal efficiency to that of the enemy attempting the invasion."¹³

The Chinese government was at last prepared to respond to Westervelt's entreaties, at least in part. Colonel John H. Jouett (U.S.A., ret.) was hired as aviation adviser in April. Instead of sending Chinese students to the United States for flight instruction, a training center was established in China, staffed by Americans. The beginnings of the Chinese Air Force can be traced to the arrival of this training mission.¹⁴

The factory scheme took longer. Westervelt developed this proposal in a letter to Soong in April. Curtiss-Wright offered to build, equip, and operate an aircraft factory of 75,000 square feet floor space with a production capacity of sixty aircraft annually. Before construction began, however, the Chinese would have to place orders for \$1,000,000 worth of Curtiss-Wright and Douglas products. During the first five years of operation, the Chinese must place additional orders totalling \$4,000,000. At the end of this time, the factory would become the property of the Chinese government.¹⁵

Although the Chinese were favorably disposed toward this idea, they did not wish to be limited to Curtiss-Wright and Douglas aircraft. Negotiations continued for more than a year before agreement was reached. The factory was completed in the summer of 1934, marking the birth of the Chinese aviation industry. Prior to this, the Chinese had purchased more than a million dollars' worth of Curtiss-Wright and Douglas training and fighter aircraft.¹⁶

CNAC never did receive a subsidy from the Nationalists. However, the airline survived, in part because of Westervelt's faith in

the ultimate profitability of the enterprise, and in part because Curtiss-Wright — which had at last tapped the promise of the Chinese aircraft market — did not wish to offend the government by suspending operations. Pan American Airways purchased the American interest in CNAC in April 1933, and the airline went on to play the leading role in the development of Chinese commercial aviation.

Westervelt did not remain in China to witness the culmination of his efforts. He returned to the United States in the spring of 1932 and left Curtiss-Wright the following year to develop ranching interests in Florida and coal interests in Kentucky. During the Second World War he was a partner in the New York engineering firm of Frederic R. Harris, which specialized in the design, construction and operation of shipyards under contract to the Navy and Maritime Commission. After the war he retired to his 30,000 acre ranch in Florida.¹⁷

"He was a wonderful man," a close friend later recalled, "with a brilliant mind, a sense of humor, and a tender heart under his stern appearance and demeanor."¹⁸ And, the historian might add, he deserves to be remembered. Not only did he make a significant contribution to American naval aviation, but he presided over the birth of Chinese aviation. If he wasn't the father, Westervelt surely was one of the midwives.

NOTES AND REFERENCES:

1. Westervelt was then a Commander assigned to a Seattle shipyard and the seaplane, BLUEBIRD, was designed and built under an informal partnership between him and William E. Boeing. Westervelt was transferred to the East Coast before the first flight of the B&W Model I. Ref. Bowers, Peter M. *Boeing Aircraft Since 1916*. Putnam & Co., 1966.
2. Frank J. Taylor, *High Horizons*. New York: McGraw-Hill, 1951, pp. 25-26. See also Harold Mansfield. *Vision: A Saga of the Sky*. New York: Duell, Sloan & Pearce, 1956, pp. 8-14.
3. Westervelt to T.V. Soong, March 28, 1932, in the papers of Arthur N. Young, Hoover Institute of War, Revolution & Peace, Stanford, Calif.; Ralph S. Barnaby to author, March 6, 1968; Rieta Westervelt duManoir to author, Nov. 15, 1967.
4. Barnaby to author, March 6, 1968.
5. Ibid.; Rieta Westervelt duManoir to author, Nov. 15, 1967.
6. F.P. Lockhart, Consul, Hankow, to Department of State, Jan. 6, 1931, State Dept. File 893.796, National Archives; Westervelt to C.M. Keys, Dec. 31, 1930, the papers of George Conrad Westervelt, Univ. of Virginia Library.
7. Westervelt to John Sanderson, March 17, 1931, Westervelt papers.
8. Westervelt to Keys, Dec. 31, 1930, Westervelt papers.
9. *China Weekly Review*, May 2, 1931.
10. Westervelt to Sanderson, May 19, 1931, Westervelt papers; Westervelt to Soong, Nov. 11, 1931, Young papers.
11. Westervelt papers, Univ. of Virginia Library.
12. Westervelt to Soong, March 19, 1932, Young papers.
13. Ibid.
14. William M. Leary, Jr. "Wings for China: The Jouett Mission, 1932-35," *Pacific Historical Review*, Vol. 37 (1969), pp. 447-462.
15. Westervelt to Soong, April 14, 1932, Young papers.
16. Lincoln C. Reynolds. "Aviation in China" report to State Department, May 1935, State Dept. File 8391796, National Archives.
17. Rieta Westervelt duManoir to author, Nov. 15, 1967.
18. Barnaby to author, March 6, 1968.



ABOUT THE AUTHOR

William M. Leary, Jr. is Associate Professor of History at the University of Victoria, B.C. He graduated B.A. (Highest Honors) in 1963 from Wayne State University and obtained his Master's, 1965, and Ph.D., 1966, from Princeton University. He was subsequently Research Associate at Princeton and Asst. Editor of the papers of Woodrow Wilson, a five-volume work of the Univ. of Princeton Press. Bill Leary's interest in aviation goes back to his service in U.S. Air Force in the early 1950's, after which he was in operations for Eastern Air Lines and KLM and the air transport section of General Motors. He left GM in 1963 to accept a Woodrow Wilson Fellowship for graduate study. In addition to the papers cited in the above References, Leary has written extensively for professional historical journals as well as serving as co-editor on at least four books. A current research project is his book on the China National Aviation Corp.