## Air and Space this Week

## Item of the Week

# Pearl Harbor and Its Aftermath

#### Originally appeared December 6, 2021

KEY WORDS: Pearl Harbor Colin Kelly High Flight John Magee, Jr. Henry Elrod Jesus Villamor Jimmy Doolittle Buzz Wagner

The 80<sup>th</sup> anniversary of the attack on Pearl Harbor is this week, as are a number of other 80<sup>th</sup>s for events in the U.S. involvement's first ten days. Combine that with the 125<sup>th</sup> birthday of Jimmy Doolittle on 12/14 makes this week the perfect time to touch on all of the events: December 7: Attack on Pearl Harbor; December 10: Colin Kelly wins a DFC; December 11: The loss of John "High Flight" Magee; December 12: Hank Elrod's heroics at Wake Island and Philippine pilot Jesus Villamor scoring with a "Peashooter;" and December 16 (OK, that's next week): "Buzz" Wagner becomes the first U.S. "Ace."

### PEARL HARBOR

The attack on Pearl Harbor was a major event in U.S. history, and I am sure you will see a large amount of information on the events of that fateful day. Rather than add to that deluge of coverage, I'd like to focus on some of the other issues and events associated with the start of the Pacific War. You can find information about the attack itself from the references at the bottom of this Item's <u>web version</u>. Don't miss the <u>NASM program</u> on December 7 either!

Japan had been growing in importance on the world stage throughout the interwar years, both economically and militarily. But Japan is an island nation, with limited domestic sources of metals and fuel. They were close to resource-rich areas in Manchuria and the Dutch East Indies, however, and realized that if they were to grow, they would need those resources to succeed. But other nations, the United States in particular, were opposed to Japan's expansion. The situation was underscored when FDR cut off supplies of scrap metal and other resources in the late 30s. Japan leadership saw that the U.S. Navy was going to be a major obstacle to any expansion in the southwest Pacific.

IMHO, the attack on Pearl Harbor was poorly-planned and poorly-executed. In it were the seeds of Japan's ultimate defeat. *Bottom Line Up Front: the Japanese attacked the wrong targets!* 

The Japanese goal was to expand their dominion over the resources in their area. They believed that if our Navy could be kept away, their expansion would be a done deal and the wishy-washy Americans would not have the stomach to fight a tough battle far from home.

The people in positions of naval authority in both countries grew up with pictures of famous battleships on their wall and visions of Tsushima and Jutland dancing in their dreams. The battleship ruled the sea, and there was a race to make them bigger and better, a source of considerable national pride and public funding (you are forgiven your ribald thoughts).

But battleships could only project power as far as their naval rifles could reach. Airplanes could reach farther, but they were considered only as scouts and for observing the fall of shot from the battleships' big guns. Aircraft carriers were under development, but they were to provide support for the big boys, not be the primary projectors of power.

Those young leaders-to-be in both countries were also influenced by events of their youth. Americans played team sports, where different individuals have specific roles to play; think of football as an example. Japanese boys, on the other hand, revered one-on-one combat by highly-skilled samurai; they had no team concepts similar to their American counterparts. They produced very highly-trained pilots, in numbers so small that it would be comical if not so serious. The designers of the Zero and Oscar fighters sacrificed many important features to make those planes the most maneuverable in the sky. But the American planes were much tougher and had much heavier firepower, and the Americans learned early the importance of team tactics in the air.

Highly fragile and flammable aircraft, and very low capacity to replace lost pilots... What could go wrong?

The Japanese saw the battleships at Pearl Harbor as their primary target, and planned their raid accordingly. Sure, they would have loved to hit the carriers based at Pearl, but not present that day, but they wanted to destroy/damage the battleships so they could not complete Plan Orange, sailing across the Pacific to defend Allied holdings.

Japan was an island country, with war industries almost totally dependent on imports. One would think that her leaders would be particularly sensitive to military logistics, but no.

Hawaii is an island, too, with almost no industrial resources, and no oil at all.

Japan, unlike America, started the War with an excellent torpedo; ours would not function correctly until late 1943. Their subs were pretty effective, too.

If the goal was to prevent the U.S. Navy from interfering with Japanese takeovers in the Pacific, attacking battleships at their island base was not the best tactic. *The first objective of the attack should have been to destroy the huge tank farm upon which all naval ship movements out of Hawaii depended!* 

If the tank farm had been destroyed, the only way the Navy could have operated out of Hawaii would have been to run tankers there from the West Coast. A strong cordon of submarines encircling Hawaii could have countered the re-supply, and bought Japan the time they were seeking.

The two attacking waves against Pearl that day did a pretty good job of hitting ships in the harbor, and airfields around Oahu, but that damage was not too bad in the long run. Had a

third attack wave been made, the tank farm could have been hit, which would have accomplished their objectives. But the Americans were fully alerted and a third wave could suffer considerable losses of precious planes and more-precious pilots, so it was called off.

In retrospect, the demonstration of the vulnerabilities of battleships to aerial attack forced American leadership to acknowledge the primacy of the aircraft and aircraft carriers as the projectors of naval power, and they reacted accordingly. And Yamamoto had lived in the U.S. long enough to know that a sudden attack on the American Navy would unify the Americans, no matter how they were split before the attack. The notion that we, so unified, would docilely accept Japanese hegemony in the Pacific because we were afraid to fight was a fatal mistake.

### **COLIN KELLY**

Colin Purdie Kelly, Jr., was born on July 11, 1915 in Madison, Florida, and lived there through high school graduation. He was accepted into West Point, and graduated in the Class of 1937. He was assigned to a B-17 heavy bomber group; he was the first Army officer to fly a B-17 in the Far East. On **December 10, 1941**, he flew his B-17C against Japanese invasion shipping. These were dark days; his was the only bomber available, and off it went, unescorted, partially-fueled, and carrying only three bombs. Kelly's bombardier managed to drop on a target mis-identified as a battleship (a common and understandable error). The battleship *Haruna* was present, but nowhere near Kelly's attack, nor did he drop on the heavy cruiser *Ashigara*, also present. His bombs near-missed, but caused damage to, the light cruiser *IJN Natori* and its escorting destroyer, *IJN Harukaze*.

Kelly and his fellow bombers were up against the "A Team," the Tainan Air Corps starring the amazing Saburo Sakai. It was no contest. One crewman was KIA and another WIA on the fighters' first pass, a second badly damaged the bomber. Flames spread through the fuselage, as Kelly stayed put to give five of his crew their chance to bail out, which they did. The co-pilot was opening the cockpit hatch when the B-17 exploded, ejecting him from the plane. Accounts vary as to whether Kelly escaped before the crash, but in any case, he was the first B-17 pilot KIA in WWII. He was awarded the DFC posthumously. Our country needed heroes, and although his bombs only caused some damage, his bravery in holding his flaming aircraft steady while five bailed out more than justified the reward and accolades he received.

#### **HENRY ELROD**

Henry Talmage Elrod was born in Rebecca, Georgia, on September 27, 1905. He attended the University of Georgia and Yale, then enlisted in the Marine Corps in December, 1927, earning his commission in February, 1931. He pursued aviation, and earned his wings in February, 1935, serving first at Quantico then at San Diego before the War started. On December 4, 1941, Elrod was one of 12 pilots who flew their F4F-3 Wildcat fighters off the carrier *Enterprise* to re-enforce Wake Island. Japanese carrier planes hit Wake as an immediate follow-up to their attack on Pearl, destroying 7 of the precious 12 fighters on the ground. Invasion was imminent, and Elrod and his fellow Marines fought vigorously. Elrod had a big day on **December 12, 1941**; he shot down 2 of 22 attacking planes single-handedly, and then later actually sank destroyer

Copyright 2021 by Steven H. Williams Non-commercial educational use allowed <u>IJN Kisaragi</u> with 100-pound bombs, the second Japanese warship to be lost to combat in the War. The first, destroyer <u>IJN Hayate</u>, preceded it to the bottom moments earlier, sunk by shore-based artillery fire.

Japanese pressure was over-whelming, and they overran the island on December 23. Elrod died in armed combat with the invaders. He was posthumously promoted to Major and his widow received his MoH. He was reinterred in Arlington after the War.

NOTE: From the navymemorial reference: "Parts of MAJ Elrod's F4F-3, including the cowling nose ring, tailhook and propeller were believed to have been used in a memorial constructed on Wake Island. When the memorial was dismantled in 1965 the aircraft parts were sent to the Marine Corps Museum. When the National Air and Space Museum in Washington, DC, restored its FM-1 Wildcat the only cowling nose ring that could be located was the one taken from the Wake Island memorial. This part, still bearing battle damage, was incorporated into the restored FM-1 on display in Washington, DC." Those parts are now at the U.S. Marine Corps Museum outside Quantico. PERSONAL NOTE: I recall that cowl ring well. I liked to make sure our NASM Docents knew about it and its pedigree so they could share that insight on their tours, but I made the mistake of once referring to it as a "nose ring," which earned me a sharp but good-natured rebuke from WWII curator Dik Daso!

## JOHN MAGEE, Jr.

John Magee, Jr., was born on June 9, 1922 in Shanghai, China. His father was from a wealthy family in Pittsburgh, and his mother was English; both were missionaries. He was the oldest of their four sons. He began his education in Nanking and continued it in England, where he became a noted poet. An American citizen, he visited the U.S. in 1939 and got hung up here by war hostilities. He earned a scholarship to Yale, but chose instead to fight for England before U.S. involvement in the War by enlisting in the Royal Canadian Air Force. He earned his wings in June, 1941. He was assigned to a Spitfire squadron and began intensive combat training.

Ever the poet, Magee was struck by the sheer beauty of flight, particularly among the clouds. On one training flight, his seventh in a Spitfire, he was moved to compose what would become "High Flight" and had most of it in his head by the time he landed. He fleshed it out and mailed it home.

On **December 11, 1941**, Magee collided with a training aircraft, and was trapped in his Spitfire until just before it crashed. His parachute did not have time to open. Both he and the pilot of the other plane were killed. Magee was only 19...

Magee's parents lived in the D.C. area at the time, and his death was one of the first to touch the area. Local media wanted more info about the fallen hero, and when they saw the poem he had sent home, it quickly became very famous, and was featured prominently in a number of works, including a major one by the Library of Congress.

Magee is buried in Scopwick, Lincolnshire, but his poem made Arlington – it's on their website and many of the tombstones there contain passages from it (as does Magee's).

[Personal note: I recently had the opportunity to experience free-fall, and I must admit that the first thought that crossed my mind as the sensation of weight came off was Magee's line about slipping "the surly bonds of Earth."]

## JESUS VILLAMOR

Jesus Antonio Villamor was born in Manila in 1914. He initially sought education for a career in business, but like many young people, he became intensely interested in aviation. He learned how to fly as a civilian. He joined the Philippine Air Corps in 1936, and was sent to the U.S. for training. Three years later, he was flying B-17s. As war clouds built up on the horizon, Villamor went back to the Philippines to lead the 6<sup>th</sup> Pursuit Squadron, flying the obsolete P-26 "Peashooter" fighter. He was able to shoot down two Japanese planes on **December 12, 1941**, and his squadron got two more, in the early fighting over Luzon. He received a DFC and an Oak Leaf Cluster for his bravery and his leadership in those trying days. Any Peashooter pilot that could best a Zero definitely had the "right stuff!"

After the conquest of the Philippines, Villamor continued his brave defense of his home islands by leading an espionage team inserted into position by a U.S. submarine. He coordinated the movements of guerilla forces and reported ship movements and other valuable data to General McArthur in Australia, for which he was presented the Philippine Medal of Valor, their highest decoration, in 1954. The former AAF air base in Manila, Nichols Field, was renamed in his honor.

## JIMMY DOOLITTLE

Pearl Harbor was a stinging blow, and everyone was looking for a way to retaliate as quickly as feasible. The result was a daring bombing raid on the Japanese home islands, using the Army's B-25 medium bomber, launched (amazingly!) from two aircraft carriers. The leader of mission was an already-famous aviator, Jimmy Doolittle. The reason he's in this piece is that his 125<sup>th</sup> birthday is **December 14, 2021**.

Admiral Yamamoto had said before Pearl Harbor that his ships would run wild over the Americans for six months, then the industrial might of our country could well overwhelm them.

He was right.

The Doolittle mission was the first step. The damage it caused was negligible, but the psychological and propaganda damage was severe. Further, a LOT of Japanese radio traffic, mostly uncoded, was broadcast during the attack, which proved to be a big boon to our codebreakers and had an important effect on the upcoming Midway battle. Doolittle would win the Medal of Honor for his role in planning and leading the attack.

The Doolittle mission has had many books, articles, and other pieces created about it. It was part of the Item of the Week for <u>April 12, 2021</u>, and I won't cover that part of Doolittle's life here further. But I thought you might like to know more about this remarkable leader.

James Harold Doolittle was born on December 14, 1896, in Alameda, California. He spent his boyhood years in Nome, Alaska, as part of the gold rush there at that time. He was small for his age, and he quickly learned how to defend himself with his fists. He became adept at both boxing and gymnastics, but his mother felt Alaska was no place for Jimmy (or her), so she packed up and returned with Jimmy to California in 1909. His interest in aviation was soon sparked when he saw airplanes for the first time, at the 1910 LA International Air Meet. He finished high school and enrolled at LA City College and later was admitted to UC Berkeley's School of Mines.

Doolittle's studies were interrupted by WWI, and the sky was calling. He took a leave of absence from school and enlisted in the Signal Corps Reserve as a flying cadet. He was commissioned as a second lieutenant in the Signal Officers Reserve Corps in March, 1918. He would spend the war as a flight instructor in several stations. When hostilities ended, he was selected for retention in the Air Service, receiving a commission as a first lieutenant on July 1, 1920.

Doolittle's flying and leadership skills were honed during this period, and he gained some notice when he led an expedition to recover a plane that had crash-landed in Mexico during a transcontinental flight attempt earlier. Finding the plane, he saw it was flyable if a new engine was installed and other repairs made. He returned with four mechanics and the necessary parts, they fixed the plane, hacked out a runway in the desert, and Doolittle flew it out.

Doolittle was able to continue his education and training, both in the Army and out, finally finishing his BA degree from UC Berkeley in 1922. His flying exploits soon became well known to the public. After the plane retrieval from Mexico, he began making noteworthy flights and setting records. In September, 1922, he made a cross-country flight between Jacksonville and San Diego, stopping only once for fuel, a feat that set a speed record and earned him a DFC. He became an important bridge between the engineers who designed aircraft and the pilots who flew them, especially when the Army sent him to MIT. There he conducted tests that would earn him both a Master's degree and a second DFC. He'd finished the MS in one year, so he had time to continue piling up schooling, earning a doctorate in aeronautics from MIT in 1925, the first such degree granted in the US.

Doctorate in hand, Doolittle turned to high-speed flight. He won the Schneider Cup race in 1925, with an average speed of 232 MPH, and was recognized for the feat with the prestigious 1926 Mackay Trophy.

Curtiss Aircraft Company was building a new fighter, the P-1 Hawk, and they asked the Army for Doolittle's services in helping them sell the new plane to the Chilean Air Force in 1926. Doolittle went to Santiago, and found that the Chileans wanted to see the fighters of the day in competition for their business. Before the flying began, the Chilean Air Force pilots threw a big party for the foreign counterparts.

Let's just say that there was alcohol present, in the form of a sneakily-potent local drink called a "pisco sour." Douglas Fairbanks and his athletic exploits were all the rage, and Doolittle decided to show off his own gymnastic skills. His handstands, hand-walking, backflips, etc.

impressed the others, but when he did a plank on the balcony, the rock edge gave way, and he plunged to the patio twenty feet below, breaking both ankles. Doctors put his legs in casts and ordered him to take a few weeks of bed rest.

Doolittle would have none of that noise. The only thing he feared was being laughed at for getting hurt so foolishly. He had his mechanics install clips on his casts that would allow him to work the rudder pedals of his plane.

The Chilean President and hundreds of spectators were on hand when the flying contest began. A flamboyant German pilot was favored to win the flying contest. He was a skilled pilot, and his Dornier airplane had a powerful engine. He was first to fly, and he gave a great demonstration of aerobatics. While that was going on, Doolittle painfully manned his Hawk and took off. He climbed quickly and blew by the Dornier. The German accepted the challenge and the mock dogfight was on.

The Dornier climbed after the Hawk, but Doolittle was able to turn-tables and get on the Dornier's tail repeatedly. The Dornier was being driven very hard and was beginning to come apart from the aerodynamic pressures. As the German landed, Doolittle roared down the runway, right on the deck, inverted. The crowd went wild, and did so again when Doolittle dismounted and they could see he outflew the competition with both legs in knee-length casts!

Doolittle continued his flight demonstrations in South America, but when he returned to the States, the doctors had to re-set his ankles. He'd have to be off his feet for six weeks, and this time the edict would be enforced.

During this time of quiet, Doolittle thought about flight a lot, and the areas of flight that needed testing the most. Two areas he thought about most were how much strain could the pilot take, never mind the aircraft, and how could aircraft operate effectively in weather conditions that prevented flight at present.

Flying an "inside loop" pushes the blood in a pilot's body away from their brain, but pilots could continue to operate with the g-forces the planes of the time could produce. But an "outside loop" (pilot's head on the outside of the circle) was another matter. Doolittle had though about the problem a lot, and felt his Hawk, and he, could withstand the positive g. On May 25, 1927, he proved it, performing an outside loop over McCook Field.

The all-conditions flying problem was larger and more important at the time. Philanthropist David Guggenheim established a large fund to promote aviation, and was used in part to research night and all-weather flying. Doolittle was borrowed from the Army again to take charge of experiments being conducted at Mitchel Field on Long Island.

Flight instrumentation was in its infancy at the time, and Doolittle needed instruments that would allow a pilot to fly "blind." Two were particularly critical, an artificial horizon and related instruments invented by <u>Elmer Sperry</u> and an accurate altimeter invented by <u>Pall Kollsman</u>.

Doolittle practiced long and hard with these devices, and had an aircraft with two sets of controls that would allow him to fly under a hood that prevented him from seeing out using one set of controls while the other set was manned by a pilot who could see out, acting as a

Copyright 2021 by Steven H. Williams Non-commercial educational use allowed "safety." The made many practice flights, and he found he could safely fly his plane without looking out of the cockpit. But they always had the safety pilot as backup.

September 24, 1929, was a foggy day on Long Island. Doolittle made one flight, solo, taking off and landing in the fog. Then the Guggenheim representative showed up, and it was time for a fully-blind flight, with the safety pilot in attendance. Doolittle made an entire flight under the hood without assistance. This was a very big deal, and really impressed all concerned, especially the public.

Doolittle had joined the <u>Caterpillar Club</u> earlier that year (membership required an emergency life-saving parachute (silk) bail-out), when his plane lost a wing during a warm-up flight for the Cleveland Air Race. His next big race would be the 1931 Bendix, and he would fly a plane he bought with his own money and made special modifications. It came apart in the air during a test flight, and he had to thank the caterpillars once again. He borrowed a plane, won the race, and then kept right on flying to break become the first pilot to fly coast-to-coast in under 12 hours.

Doolittle planned to fly the same aircraft in the 1932 Bendix race, but its landing gear failed on a test flight and the aircraft was damaged too severely to be repaired in time for the race. But he was so well known and respected that several airplane companies offered him a ride in one of their planes.

One of the planes offered up was the Gee Bee R-1 Racer, perhaps the most dangerous racing plane ever built. It was comical in appearance, basically a giant engine with ridiculously small wings attached. It was smoking fast, but extremely unstable, and could carry very little fuel. Doolittle loved its speed, but it couldn't fly the long Bendix course on one tank of gas, so he chose to pass on the Bendix and fly the Thompson Trophy Race instead, since it flew a much shorter closed course. He got off to a bad start with the plane due the sensitivity of its controls; he suffered two dangerous snap rolls on his first flight in the thing. He figured it out, and set a new speed record on a preliminary run with the Gee Bee, and won the main race two days later. He retired from air racing permanently soon thereafter.

Aeronautical engineers were really pushing hard for more powerful aircraft engines. One of the bigger problems they faced was "detonation," when the fuel-charged cylinder fired upon compression, before the spark plug fired. Detonation robbed the engine of power, and if too severe, wrecked the engine. One way to prevent premature firing was to add tetraethyl lead to the avgas, raising its octane level above the 91 then commonplace. Doolittle became a big proponent of higher-octane fuels. And WWII would soon prove him right. A few executives at Royal Dutch Shell (perhaps with their experience in flying in the southwest Pacific) agreed with Doolittle. Anticipating the need for high-performance engines, Shell underwrote the costs of developing high octane fuel in large quantities, even though no aircraft engines used such fuel at that time. [NOTE: The octane boost by adding lead did have its limits. One experiment in WWII with super-high-octane avgas cause a spate of engine failures; the gap in the spark plug was completely bridged by lead from the incomplete combustion of the fuel.]

Dootlittle continued to barnstorm internationally in the mid-1930s and he was shocked to learn how far behind other countries America was in the development of high-performance aircraft. He was appalled when he visited Germany in 1937 and saw for himself the depth of Germany's disregard for the edicts of the Treaty of Versailles. Germany wasn't supposed to have any military aircraft, but Doolittle saw that they were making extensive preparations for aerial warfare. He reported his findings to General "Hap" Arnold upon his return to the States. He knew his country would need him, so he quit his high-paying job with Shell and requested active duty. He reported on July 1, 1940, and was assigned to GM's Allison engine planet in Detroit, helping GM plan to convert from civilian transports to aircraft mass production. After Pearl Harbor, he was promoted to Lieutenant Colonel and ordered to DC to take on another project, the carrier-based raid on Tokyo.

The raid's success made Doolittle a National Hero. He was promoted to Brigadier General and awarded the Medal of Honor from FDR personally.

Doolittle's next assignment was to take command of the Twelfth Air Force, based in North Africa. German defenses were tough, but the Twelfth performed well. Doolittle was then assigned (briefly) to command the Fifteenth Air Force, then was promoted and given command of the Eighth Air Force, based in England.

The Eighth's mission had been mostly escorting bombers raiding Germany. Fighter pilots always chafed at being tied to bombers, but the German Air Force was adept at knocking down bombers, so close escorting was the main tactic of the time. Until Doolittle showed up.

The very first thing Doolittle did was to publicly and pointedly change mission priorities. The wing's fighter group commander had a big sign over his office that indicated that the primary mission was to get the bombers safely to target and then safely home. Doolittle put up a replacement that clearly stated that the Wing's primary mission was to shoot down German fighters. Period, full stop. And the pilots, freed to fly aggressively, responded by kicking butt.

After the War, Doolittle returned to civilian life and his former job at Shell. But he was always in big demand to serve on boards, commissions, and other advisory groups. He quit flying in 1951, and devoted a LOT of attention to the creation of a separate air force, splitting from the Army. He would become a founding member of the Air Force Association and served as its first president.

Doolittle retired from the Air Force Reserve in 1959, with the rank of Lieutenant General. In 1985, he was given his fourth star, pinned on by President Reagan and Senator Goldwater. He continued to work productively well into his 80s, and passed away on September 27, 1993, at age 96.

## **"BUZZ" WAGNER**

Boyd David Wagner was born on October 26, 1916, in Emeigh, Pennsylvania. He grew up in Nanty-Glo (near Johnstown), and he, too, was bitten by the aviation bug at an early age. He studied aeronautical engineering at the University of Pittsburgh for three years, then enlisted in

the AAC. He completed flight training in June, 1938, and was assigned to duty in the Philippines with the 24<sup>th</sup> Pursuit Group, flying P-40s. He was a bold flyer, picking up the desirable nickname, "Buzz," for his low-flying skills, and became a squadron commander just before Pearl Harbor.

The Japanese began air attacks on the Manila area on December 8. On the 12<sup>th</sup>, Wagner took off on a solo reconnaissance flight over Aparri, where he met five defending Zeroes.

The Zero's performance was a great surprise to aviators in the PTO initially. It was built to succeed in a maneuvering dogfight, and our pilots who tried to fight that way lived (very briefly) to regret it. But the P-40 was faster in both level and diving flight, armored, and more heavily-armed than the Zero.

Wagner didn't try to turn with the Zeros jumping him over Aparri. Instead, he firewalled the throttle and forged ahead, then turned for a head-on attack, where he had the advantage. Two went down under his guns. He knocked down two more later on his "reconnaissance."

Buzz tried a different tactic on **December 17, 1941**. He and two other pilots conducted a series of strafing attacks on a Japanese airstrip near Vigan. One of his mates was shot down and killed by ground fire. A single Zero managed to get aloft to counter the attack, and managed to get behind Wagner's P-40. This time, instead of outrunning his attacker, Wagner suddenly chopped throttle, causing the Zero pilot to overshoot. Wagner was then on the Zero's "six" and his heavy machine guns made him the first U.S. "Ace" of the War. [A similar tactic was used by Pug Sutherland against Saburo Sakai over Guadalcanal in August, 1942. It worked, Sakai overshot, but Sutherland's guns jammed and Sakai shot him down, in one of the most interesting and well-documented dogfights of the Pacific War.]

Wagner wasn't finished. He was WIA on December 22, and evacuated to Australia a few weeks later. He was promoted to lieutenant colonel, the youngest in the Army at that time, and assigned to a P-39 group. The P-39 was greatly inferior to the Zero, but Buzz manage to score three more Zeros on April 30, 1942.

Wagner was too valuable to risk in further combat, both since he was America's first WWII "Ace" and because his insights were needed for improving the P-40s flying/fighting characteristics. After helping a reconnaissance team assess Buna and Dobodura as future Allied airfield sites, he returned to the States.

His stint of good work on the home front was terminated abruptly on November 29, 1942, Buzz took off from Eglin Field in a P-40K Warhawk for a routine flight to Maxwell Field. He never arrived. His wrecked plane and body were found just north of Freeport, Florida. No cause for the crash was ever determined.

## REFERENCES

**Pearl Harbor** 

NOTE: Pearl Harbor has been covered by countless books, movies, and other works. However, a LOT of what is out there is poorly researched and/or contaminated by anti-FDR political foes, still smarting over the New Deal. Beware.

The best academic assessment of Pearl Harbor may well be Roberta Wohlstetter's book, "Pearl Harbor: Warning and Decision," published in 1962 by the Stanford University Press. My copy is the second edition paperback, ISBN 0-8047-0598-4.

If you want a good synopsis of Doolittle's life, check out: <u>https://www.airforcemag.com/article/1193doolittle</u>

Naval History and Heritage Command overview: <u>https://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/p/the-pearl-harbor-attack-7-december-1941.html</u>

National Park Service: <u>https://www.nps.gov/perl/index.htm</u>

The four books below are excellent resources for Pearl Harbor and the other events in this item, especially Doolitte:

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## **Colin Kelly**

Military wiki: https://military-history.fandom.com/wiki/Colin Kelly

AFA Magazine article: https://www.airforcemag.com/article/valor-colin-kelly

ThisDayinAviation: https://www.thisdayinaviation.com/10-december-1941

#### Hank Elrod

Navy Memorial: <u>http://navylog.navymemorial.org/elrod-henry</u> MoH citation: http://www.arlingtoncemetery.net/htelrod.htm

## John Magee, Jr.

*High Flight*: <u>http://www.arlingtoncemetery.net/highflig.htm</u> <u>https://military-history.fandom.com/wiki/John Gillespie Magee, Jr</u>. Library of Congress: <u>https://blogs.loc.gov/catbird/2013/09/john-gillespie-magees-high-flight</u> <u>https://www.aviationquotations.com/highflight.html</u>

## Jesus Villamor

https://military-history.fandom.com/wiki/Jes%C3%BAs A. Villamor

*Esquire Magazine* article from 2020: <u>https://www.esquiremag.ph/long-reads/features/jesus-</u>villamor-greatest-fighter-pilot-philippines-a00293-20200611-lfrm

P-26 "Peashooter" <u>https://airandspace.si.edu/collection-objects/boeing-p-26a-peashooter/nasm\_A19730273000</u>

### Jimmy Doolittle

Much has been written about JD, and much is on-line. One excellent resource is his autobiography, written with Carroll Glines, "I Could Never Be So Lucky Again," published in 1991 by Bantam Books, ISBN 0-553-07807-0

Glines also wrote a piece for the Air Force Magazine about Doolittle, "An American Hero," published on November 1, 1993 in the aftermath of Doolittle's passing: <u>https://www.airforcemag.com/article/1193doolittle</u>

Dootlittle's Tokyo Raid is covered in a previous Item of the Week (here).

## "Buzz" Wagner

National Museum of the U.S. Air Force: <u>https://www.nationalmuseum.af.mil/Visit/Museum-</u> <u>Exhibits/Fact-Sheets/Display/Article/196215/first-aaf-ace-of-wwii</u>

https://pacificwrecks.com/people/veterans/wagner/index.html

https://military-history.fandom.com/wiki/Boyd Wagner

http://acepilots.com/pto/wagner.html