## "Charles Lockwood, Architect of Attack" by Paul Crozier

On January 19, 1943, a Pan Am Clipper on loan to the U.S. Navy encountered dense fog during its approach to San Francisco and crashed blindly into the surrounding mountains. All aboard were killed, including Admiral Robert English, Commander Submarines Pacific. English left behind a force brooding over internal disputes and poor combat performance. Faced with naming a replacement, Admiral Ernest J. King searched for a candidate possessing specific qualities: an accessible, dynamic personality; a willingness to innovate; an aggressive spirit. He chose an old friend, a contemporary from the primitive early days of the submarine force, who proved to be the perfect man for the job: Rear Admiral Charles Andrews Lockwood, Jr.

Born on May 16, 1890 in Midland, Virginia, Charles

Lockwood was raised in Missouri. It was from this state

that he was appointed to the U.S. Naval Academy, graduating
in 1912. Short, thin lipped, with large, penetrating eyes,
the gregarious Ensign Lockwood soon found himself serving
aboard craft almost as new and untried as his commission;
submarines. Initially unimpressed with the tiny,
temperamental boats, he nicknamed their batteries "Fiery

Devil and Green Death" for their propensity to burst into flame and emit toxic gas.

In 1914, Lockwood was given command of A-2, the third submarine to serve in the U.S. Navy. During his qualification trials, the boat gave a lurch upon diving and calls of "Flooding!" and "Chlorine!" rang out among the six man crew. Plunged into darkness, Lockwood coolly brought the boat to the surface. With lights restored, Lockwood found the bilges dry and his men grinning. Angered at what he initially perceived as a foolish prank, he soon realized the Division C.O. and crew had executed a well-rehearsed drill. Having earned their respect, Lockwood quickly grew to love the highly technical, highly spirited environment of the boats.

Lockwood spent World War I in the Philippines

commanding A-2, B-1 and the first Asiatic Submarine

Division, escorting ships around Manila Bay. Designated a

"Fleet in being", in actuality their ability to deter an

aggressive threat was minimal.

Following the armistice, Lockwood served as assistant naval attaché in the U.S. Embassy, Tokyo before returning to the states to command the ex-German submarine UC-97.

While testing the capabilities of German design, Lockwood began to see the potential for extended offensive submarine

operations and the advancement in American technology it would require to provide "a new all-purpose fleet submarine".

Turning down further schooling for continued sea duty, Lockwood successively commanded Seal (G-1), N-5, R-25, S-14 and Bonita (V-3) before taking command of Submarine Division 13 in 1936. While the Division's new P-class boats were a step in the right direction, Lockwood found them lacking in speed, reliability and firepower. Promotion to chair the Submarine Officer's Conference in Washington in the fall of 1937 put him in position to see his ideas on submarine design come to fruition.

Newly installed in the Navy Department as "Mr. Submarine", Lockwood began assembling a coalition of like minded officers to propose a true fleet submarine: the T or Tambor class. It was to be large, 1,500 tons, carry the latest diesel engines, have ten torpedo tubes, a 5-inch gun and a new TDC. Habitability would be increased by the addition of fresh water distillation units and air conditioning. But the Tambor faced opposition from Admiral Thomas Hart. Chairman of the General Board, Hart stubbornly defended the building of small, coastal defense boats (without "luxuries" like air conditioning). Through determination and skilled political maneuvering, Lockwood's

design prevailed (though Hart would only consent to a 3-inch gun). The *Tambor* design, subtly refined in the following *Gato* and *Balao* classes, would form the backbone of the wartime submarine fleet.

The Japanese bombing of Pearl Harbor found Lockwood in London, planning the expected participation of U.S. submarines in the Battle of the Atlantic. Longing for operational command, opportunity knocked in May 1942.

Orders directed him to Fremantle, Australia to take over as Commander Submarines, Southwest Pacific. Shortly after his arrival he was promoted to Rear Admiral.

The task before him was daunting. Undersupplied and surrounded by poor morale, his complement of boats was few, successful patrols fewer. A man who thrived on personal interaction, Lockwood began visiting every boat, poring over their patrol reports. The common refrain was suspect torpedoes. When his command's lone successful skipper, James Coe in Skipjack, experienced his own troubles, Lockwood pledged to get to the bottom of things.

Everyone suspected that the Mark 14 torpedoes were running much deeper than set. But both Admiral English at Pearl and the Bureau of Ordinance blamed poor maintenance and marksmanship for the continued waste of war shots. To settle the matter, Lockwood ordered a fishing net strung

across an end of Albany Bay and had Skipjack fire three torpedoes at it. Each cut the net eleven feet deeper than set. Lockwood immediately forwarded his proof to BuOrd. They decried the tests as "unscientific". Righteously indignant, Lockwood had the test run again. The results were the same. In the face of Lockwood's evidence, English reported that his commanders also suspected their torpedoes of running deep. With Nimitz adding his weight to the protests, Newport reluctantly ran their own depth tests (the first conducted on the design). The Mark 14's did indeed run, on average, ten feet deeper than set. BuOrd issued compensating instructions for the Mark 14. The faulty torpedoes had been in combat use for nine months. Lockwood had corrected the problem in nine weeks.

Slowly, SoWesPac patrols began to improve. Lockwood sent his boats to interdict shipping lanes, rather than set up station off enemy harbors. Skippers who did not prove their aggressiveness were relieved. Morale began to rise. Yet even with its growing importance to the war effort, it was not the main submarine command.

Then the tragic news of January '43 was announced.

When the shock of English's death subsided, Lockwood inquired about his replacement. In a studied bit of reverse psychology, Lockwood wrote Admiral Edwards, "I hope no one

will think of... sending me to Pearl Harbor. By all means, let someone else have Pearl Harbor." Following King's appointment of Lockwood as ComSubPac, Edwards wrote back, "You were selected on the platform that the officer best qualified to determine submarine policy throughout the Pacific should be at Pearl Harbor."

1943 proved to be a long, challenging year for Lockwood. Though standouts such as Morton, Dornin and Whitaker emerged, commanders who lacked aggressiveness were relieved. Torpedo failures continued to plague the force, both prematures and duds. In frustration, Lockwood said, "If the Bureau of Ordinance can't provide us with torpedoes that will hit and explode... then get the Bureau of Ships to design a boat hook with which we can rip the plates off a target's sides." Bucking bureaucratic hesitancy yet again, Lockwood ordered torpedoes tested against submerged cliffs off Kahoolawe. The tin fish failed to explode. Upon examination, the design of the contact exploder was found to be defective. A new, lighter firing pin of aluminum was created to solve the problem. Faced with overwhelming patrol evidence of its failure to function properly, the magnetic feature of the Mark 6 exploder was ordered deactivated as well.

Armed at last with reliable torpedoes, Lockwood instigated important changes in tactics. New patrol areas were opened up and patrol assignments were rotated allowing boats shared access to productive hunting grounds. Intelligence was cultivated and put to immediate use. Ultra dispatches, using information gleaned through deciphered Japanese messages, vectored boats to favorable attack positions. When Admiral Charles Pownall inquired about the possibility of submarines performing lifeguard duty during the upcoming Gilbert Island air strikes, Lockwood immediately put his Operations Officer, Commander Richard Voge, to work on the problem. Embracing this unconventional opportunity, countless lives of downed airmen were spared through rescue by submarine. In recognition of his tenacious, innovative work, Lockwood was promoted to Vice Admiral, the youngest man to hold that rank.

While victories began to rise in '43, the following year saw sinkings reach a precipitous peak. Throughout 1944, patrol reports recorded the daringly successful actions of commanders such as O'Kane, Cutter and Fluckey. As the Japanese merchant fleet suffered staggering losses, her ships fled to ever shallower water. Lockwood's boats pursued them until their hulls scraped bottom.

As confirmed sinkings grew, Lockwood's interest in more efficient ways to achieve them never faded. He personally nurtured, shepherded, and begged for such new technologies as electric torpedoes, homing torpedoes, a 5-inch deck gun, evasion countermeasures and improved periscopes, radar and mine detecting FM sonar.

A particular favorite, Lockwood cared deeply about FM sonar because he felt it would increase the safety of his men as they probed the heavily mined shores of the Japanese home islands. And nobody cared more for the men who rode the boats than Lockwood. Wherever submariners were stationed, recreation and comfort were high priorities. He felt the loss of his boats personally as well. Lockwood closed the Sea of Japan as a patrol area following Wahoo's disappearance in October 1943. It wasn't that targets couldn't be found there. For Lockwood the high probability of further sub losses outweighed the value of their sinking. Throughout the war Lockwood continuously met his boats as they returned from patrol, sat down in their wardrooms and talked to his men. Most importantly, he listened to them.

By the summer of 1945, the Japanese naval and merchant fleets had been swept from the seas. Sub sinkings slowed from the simple fact there were no more targets left. By

war's end more than 5.6 million tons of enemy shipping had been sunk. Under Lockwood's command, the U.S. submarine force's casualty rate was the lowest of any combatant submarine service on either side.

Following the cessation of hostilities, Lockwood proposed the creation of the office of Deputy Chief of Naval Operations for Submarines with himself as its first holder. Instead, he was given the office of Inspector General, a posting he detested. A man who thrived on personal relationships, Lockwood couldn't stomach the role of watchdog and retired in 1947. He spent the remaining years of his life in Los Gatos, California, writing well received books on submarines, advising Hollywood on submarine movies, and encouraging former submariners to write their memoirs. Lockwood died in June 1967 and was interred at Golden Gate National Cemetery in San Bruno, California. His former boss, and fellow submariner, Chester Nimitz, lies nearby.

The names of fish, Tautog, Wahoo, Tang, Barb, Flasher, are no longer given to today's fast attack submarines. Yet with the recent naming of SSN-23 as Jimmy Carter, perhaps it is a good time to name another boat after a man: a fighting leader whose ability to get things done, and the spirit of his command, was the embodiment of the words fast

and attack - a man affectionately called "Uncle Charlie" by his troops - Vice Admiral Charles A. Lockwood, Jr.