Hot Off the Presses! Kaiser to Build Helicopters to Combat Submarine Menace

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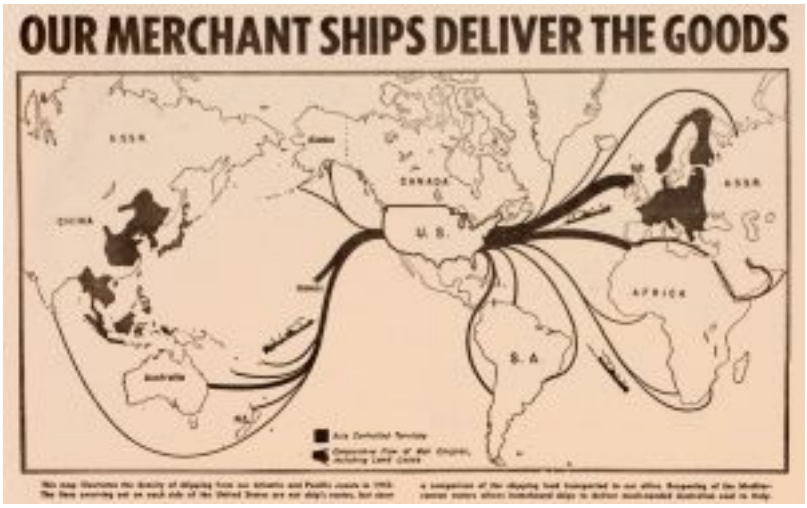

U.S. cargo routes, World War II; from Fore ?n' Aft, 5/26/1944.Headline, April 30, 1943: "Kaiser to build helicopters to combat submarine menace." By the mid-1940s, it seemed like there was almost no project that Henry J. Kaiser wasn't trying to improve. Kaiser's innovation wasn't inventing things, it was looking at an existing problem and unleashing massive human talent to solve it. That worked for dams, that worked for ships, and that worked for health care.

Reporter Blair Moody of the North American Newspaper Alliance wrote about the U.S. Navy's interest in using ship-based aircraft or helicopters to defend convoys against their number one threat: Hitler's U-boats. Moody offered some of the deal details:

While the Army termed the craft "still experimental" and the Navy's position remained confusing, Kaiser walked off with a contract to develop and build them for the lend-lease administration in response to British demand. The contract was announced by R.W. Seabury, president of Cargoes, Inc., a government corporation subsidiary to [Under Secretary of State] Edward R. Stettinius Jr.'s lend-lease administration.

The Bristol Courier in Pennsylvania blared this headline the next day: "Kaiser May Build Helicopters Here" at Bristol's Fleetwings aircraft plant.

Yet despite the best of intentions and the enormous efforts by many parties, helicopter technology was just taking off in World War II and didn't get used to the extent envisioned. The Igor I. Sikorsky Historical Archives, representing the preeminent U.S. helicopter developer, concedes "...helicopters remained largely untested and undeveloped and thus never played the role that many envisioned for them during the war. Given the declining submarine threat, those that wanted to develop the helicopter found it difficult to shift national policy."

Vought-Sikorsky VS-300, 1941. When mounted with floats it was the first practical amphibious helicopter."Experimental" is the operative phrase here. These aircraft were still in their earliest stages, and the demands of combat flying ? especially at sea ? were daunting. What's more, the expedited development of war technology caused friction between the Navy and the Army, and there were accusations that Kaiser's efforts to take on the Navy helicopter contract would "interfere with the Army's procurement program." The Army had contracted with the Vought-Sikorsky Aircraft Company, a subsidiary of the powerful United Aircraft Corporation, to develop *their* helicopter.

Henry J. Kaiser confirmed that his contract would not in any way subvert United Aircraft's work, and declared:

In line with my usual procedure, whenever I am requested by any department of the government to perform any specific task for the war effort. I gladly respond, especially when I am convinced personally that the work will contribute to victory. I have agreed with Mr. Seabury to build helicopters for him and the engineering is already under way.

And it was.

Henry J. Kaiser had just purchased a controlling interest in the aircraft manufacturer Fleetwings of Bristol, Penn., a month before to become a division of Kaiser Cargo, Inc. Fleetwings had a long and proud aviation history, which included the limited edition XBTK-1 torpedo bomber as a technical response to the need for smaller aircraft that could work well on compact aircraft carriers such as Kaiser's CVE escort carriers.

But as we know, helicopters were in their infancy and . . . experimental. Sikorsky built the first production helicopter in the world; the military prototype was the XR4, and its first ferry flight was January 14, 1942.

Fleetwings plant, Bristol, Penn., November 1944Before Kaiser's acquisition of Fleetwings had gone through, he'd already been working on the helicopter project. A confidential memo dated March 26, 1943, from Frank de Ganahl [vice president and general manager of Fleetwings] reveals that Kaiser was pursuing two development tracks. One was called the "Sikorsky-type" helicopter, to be headed up and engineered by Ralph McClarren, Secretary of the Franklin Institute in Philadelphia, to design a two passenger, 2850-pound helicopter. By late May, they had transferred all of that work to Fleetwings, whose primary role was to supply 25 percent of the floor space in the hangar so that McClarren and his crew could

work.

Another highly confidential helicopter project would be headed up by Frank's brother, Carl de Ganahl [President of Fleetwings], and would consist primarily of engineering studies with minor experimental shop projects.

A memo from Carl to Frank on March 29, 1943, described a meeting Carl had with Lieutenant Colonel H. F. Gregory at Wright Field. Henry J Kaiser had asked Carl to explore obtaining a production order for helicopters. Despite his reservations that the Sikorsky XR4 [later the CR4 or R4 model] might not really be ready for production, Col. Gregory had placed an order due to the urgency of the submarine menace and sought to determine which changes would be required to make shipboard operation practical in collaboration with the British Navy. Carl wrote of the efforts to attract working prototypes beyond the Sikorsky model:

I understood from Gregory that all rotary wing aircraft made to date in the size category approaching the size of the experimental order now with Sikorsky have not been successful. Just why, nobody seems to know. Gregory does not know if there is some fundamental aerodynamic problem inherent with the size of the machine, or just what it is.

Sikorsky R4 in use during World War IIHistory proved Col. Gregory's concerns to be unwarranted; the R4 served as the most successful helicopter of the war. Production started

in the first quarter of 1943 and by the end of the war close to 130 R4s were produced and used in the Pacific theater in a variety of roles.

When Carl informed Mr. Kaiser of his meeting, Kaiser suggested that Carl go back to Col. Gregory to get an experimental order for one large Sikorsky machine and a smaller one.

"This, Col. Gregory flatly refused to consider. He said that if we wish to come to him with a proposal on a helicopter with adequate design figures and drawings that they would be very glad to consider same; and on its merits would or would not give us a contract."

Among other reasons, Col. Gregory was concerned that it would take Sikorsky valuable time to educate the Kaiser team rather than applying Sikorsky's efforts to the development of its own machines.

On June 1943, Admiral Vickery (Vice-Chairman of the U.S, Maritime Commission) announced that experiments were being made to add a helicopter flight deck to a Liberty ship being built in Baltimore, the first time that a cargo vessel would be equipped with "aerial auxiliaries." Vickery claimed that helicopters had been successfully flown off of tankers, but the effort was never completed.

Kaiser Fleetwings XH-10 helicopter, 1945By May 1944, the Kaiser team had designed and flown one of their prototypes successfully. It was called the XH-10 "Twirleybird" two-seater, with a standard configuration of three main blades and a tail rotor, and was very similar to Sikorsky's R4. But the XH-10 was never evaluated by the Army Air Force, and by then the

war was winding down. Unlike his ships and planes, Henry J. Kaiser's helicopters would not be part of the victory, and he moved on to other projects.

In the late 1950s Fleetwings had one more shot to produce a military turbine-powered observation helicopter, but the project stumbled and the company closed aircraft operations in 1962.

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