

The concept of aerial refueling between a fixed wing tanker and a helicopter was conceptualized in 1963 by Lt. Col. John H. McLeaish, HQ ARS, DCS/Plans, Long Range Plans Division. He and Lt. Col Paul E. Leske then prepared a series of studies for a three-stage (near, mid and long term) force restructuring of the Air Rescue Service (ARS). Included in the near term portion of the plan was helicopter air refueling. Sikorsky Helicopter Corporation had just completed development of there S61R. The USN was buying this helicopter and re-designated it the SH-3. The USAF Tactical Air Command had also purchased a few of these helicopters and the USAF called it the CH-3. Colonels McLeaish and Leske envisioned teaming the CH-3 up with a SAR dedicated C-130. The C-130 would serve as a SAR airborne mission commander and a refueling platform for the H-3. The helicopter would serve as a long range recovery aircraft.

A long range SAR capability was urgently required to support the National Aeronautics and Space Administration (NASA). In 1964, the United States manned space program was in it's infancy and on a fast track. The USAF was also in the process of it's first large deployment of aircraft to Vietnam in support of increased in-country US military requirements. The "C-130 & H-3 Team Concept" could provide support to both NASA and combat SAR in Vietnam.

In 1964, the "Team Concept" was briefed to and approved by the ARS Commander General Allison Brooks. He ordered that this concept be formalized in a Qualitative Operational Requirement and moved up the chain of command for action. ARS was under the operational control and command of the Military Airlift Command (MAC). The Qualitative Operational Requirement was presented to General Howell Estes (MAC/CC) who concurred and ordered the concept to move into a test and evaluation program.

Col. McLeaish now had to demonstrate his concept would work. He had the support of both the ARS and MAC staff's and private industry; so, he had a lot of help. The Helicopter Systems Program Office, Aeronautical Systems Division of AFSC was assigned the engineering development task. Major Harry Dunn was assigned as the Project engineer with Captain Don Eastman as the Project Test Pilot.

The USMC had already fielded a C-130 modified as a tanker for their A-4 Skyhawk. These KC-130's had a pod mounted under both main wings which contained a retractable refueling hose. To stabilize the hose when extended, a drogue chute was attached to its end. This drogue worked well with the A-4 jet; but, it needed to be modified if it were to work with low speed helicopters. Mr. Hal Malm of the Sergeant Fletcher Company designed the 46" drogue which would be used for helicopter refueling.

The first successful first "hook-up" was completed using a "borrowed" Marine KC-130 and a USAF TAC CH-3. The C-130 was flown by Captain Eastman and Mr. Dick Wright (a Sikorsky test pilot). Lt. Col. McLeaish watched from the ramp of the KC-130 as the CH-3 plugged it's refueling probe into the refueling hose of the airborne tanker. Major Dunn was on the flight deck that memorable 17th of December 1965.

Col. McLeasish went on to use his invention as an aircraft commander flying HH-3 Jolly Green Giants in Vietnam. He was also assigned to the 3rd ARRGp Tan Son Nhut.

If I can fill in any other 'blanks' or answer any of your questions pertaining to the hard-fought for origins of Helicopter Aerial Refueling and the reemergence of the CSAR mission from it's death in an early Air Force project known as "Wring-Out" -- Please don't hesitate -- Sincerely John H. McLeaish
LT COL US Regular Air Force Retired. Air Force Village II San Antonio, TX - 210-6770245.

I served two tours in Vietnam - one as a HH3-E Rescue Crew Commander (Jolly Green) and a second as the Plans Officer for COL Paul E. Leske, Commander 3rd ARRGp (this spanned 1962-thru 1966). With respect for your service. Sincerely LT.COL John H. McLeaish USAF (ret) Air Force Village II, San Antonio, TX 2106770245.