

by sign language he let them know he wished a ride. When Nate agreed, he eagerly climbed in, and strangely showed no fear on takeoff, but rather, he chortled with delight and over his village he waved and shouted to those below who recognized him with open mouths. The balance of the day was passed in rampant friendliness, although the girl showed a growing impatience. She finally wandered off; the Aucan called after her, then followed. It was not until sometime later that the Aucan woman left.

Understandably, the missionaries were overjoyed. Months of preparation and years of dreaming had finally brought them face to face with the savages; they were the first white men to ever do so on friendly terms. In high spirits Nate and Peter Fleming flew back to Arajuno that night, and informed the waiting wives of the details of the miraculous achievement.

Although the missionaries waited hopefully through Saturday, no Aucas made an appearance. On a Sunday flight to the village, ten men were seen heading for the sandbar. Nate Saint radioed Marj, "Looks like they'll be here for an early-afternoon service. Pray for us. This is the day! Will contact you next at 4:35."

The contact was never made. All five missionaries had been slain with hardwood lances. The leader of the war party was no other than the Indian man the missionaries had befriended and given a plane ride. This information came two years later, to Betty Elliot and Marj Saint who remained on in missionary work. Mostly, the world accepted the deaths of the five missionaries as an enormous waste of life, however, it was Ed McCully's father who put a different perspective on the tragedies. He said, "God makes no mistakes." And so it would seem today, for Nate Saint's "Operation Aucan" is living on with Aucas becoming Christianized.

Living on also is the ingenious handiwork of Nate Saint. At this writing the United States Air Force is experimenting further with the Nate Saint bucket drop, to extend its use to that of air-to-ground rescue. The USAF technique is referred officially as LLLRS.²

In the long run, it is likely that the Nate Saint alternate-fuel-system for airplanes will have the most significant value. All pilots who fly hazardous missions know what it is like to sit constantly with ears straining for that first slight decibel interruption, knowing any malfunction will likely be in the fuel system rather than in the dual ignition system. Pilot Saint was no exception. "I sit above the jungle listening for systems of trouble that I never want to hear," he wrote before he devised a crude, yet workable alternate fuel system.

Experimenting with the engine running, he lifted the cowl of the Piper, removed the temperature-gauge fitting from the intake manifold, and squirted in gasoline. Each squeeze of the gas-loaded tube produced a burst of power. Encouraged, Nate borrowed one of Marj's cooking-oil cans for use as an auxiliary tank, and fixed it to the struts of the left wing, and to provide a streamline fairing, a piece of balsa wood whittled into proper shape, was attached. Salvaged fittings, strainers, and a screw-type valve made up the

assembly. The valve was mounted on the fire wall, with an extended control rod to the instrument panel. When completed Nate took the Piper up for a test.

"Two thousand feet above the landing strip I pulled the mixture control to idle-cut-off," he wrote, "It was quite a novel experience for a fellow who had listened so long, hoping never to hear it happen. But a turn of the new little T-handle on the instrument panel brought with it a wonderful feeling as the engine wound back up to smooth full-power. It picked up from the windmilling condition without a cough."

After further refinement and many trips "back to the drawing board," an "Emergency Fuel System" as it was subsequently labeled was approved for use on a 260 HP Cessna 185 aircraft. The system was given full approval by the FAA. Currently the MAF Technical Department has an application filed with the FAA seeking approval for use of this emergency fuel system on all MAF aircraft.

Time, the measurer of all things, will surely accord Nate Saint with lasting greatness. Certainly, his 'nitch' will be remembered for the Christian work accelerated with his death, for his jungle-flying techniques, and the bringing of greater reliability to aircraft engines. And measuring up all things in his life, did he not abundantly fulfill the promise he made as a boy of 13 and live an ennoblement of life few men attain? It would seem his own name, at least, will stand as a monument to greatness.

NOTES AND REFERENCES:

1. This story was largely developed from the files of Missionary Aviation Fellowship, Fullerton, California, with some assist from two informative books, *Through Gates of Splendor*, by Elizabeth Elliott, Harper & Brothers, 1957; and *Jungle Pilot*, by Russell T. Hitt, Harper & Row, 1960.
2. Author Cole wrote the Department of the Air Force, Washington, D.C. for further information on LLLRS system, and from the lengthy reply has selected pertinent portions giving a concise review of the experimentation.
 "Air Force engineers are testing a system which will use the principles of free-fall and circling lines to retrieve either men or equipment by using a Cessna U-206, C-130, C-7 or C-123 aircraft. The system, called Long-Line Loiter Retrieval System, (LLLRS) has applications for rescuing men and retrieving equipment. It uses the circling line principle which has been used by pilots for the past thirty years.
 "(One innovation is) the looped line deployment, designed to give more accurate delivery. It uses a small cone in the middle of the line to eliminate the tangling problem usually associated with whipping or lashing lines. A winch in the aircraft feeds the line out behind the plane. The cone in the middle of the line helps maintain the tension and loop formation.
 "Tests are currently underway at the Naval Air Facility, El Centro, California. Current and future tests use about 1,700 to 1,800 feet of line, and the airplane orbits in a quarter-to-one-half mile circle at an altitude of about 1000 feet and an airspeed of 70 to 85 miles per hour.
 "The Navy also is working on a similar system called the Ground Anchor Delivery System (GADS) which would employ longer lines and high speed jet aircraft. The Navy and Air Force are cooperating in the ventures, and the test data at El Centro will be utilized by both."

FIRST WAVES KILLED IN SERVICE (?)

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Reading about the women pilots who lost their lives in WWII rang a bell. (See J-AAHS, Vol. 16, Fall, 1971, page 222.) I located a memorial service with the names of, I believe, of the first three WAVES killed on active duty in the Navy. The eleven people named here were killed in the crash of a PV-1 at Fairfax Field, Fairfax, Kans. on 26 Feb. 1944. Cause of the crash ... failure to remove ballast bags in the rear of the airplane from a previous flight.

All were attached to the staff of RAdm Elliot Buckmaster, Chief, Naval Air Primary Training, as I was. (He had been C.O. of the

YORKTOWN at the Battle of Midway). The three girls are identified in the list by "B-10":

Richard Provost Wilson, LCdr, M.C., USN
 Clint Campbell, Y3/c, V-10, USNR
 Mary Kathryn Carr, S1/c, V-10, USNR
 John William Gregg, AMM2/c, V-6, USNR
 Donovan Henderson, AMM3/c, V-6, USNR
 James Phillip Hodges, AMM2/c, USN
 Herman Eugene Rodgers, PR3/c, V-6, USNR
 Gene Francis Salisbury, S1/c, V-6, USNR
 Burlon Wilson, S2/c, V-6, USNR
 Margaret Irene Vajda, PhM3/c, V-10, USNR
 George Edward Young, Jr., SK2/c, V-6, USNR