

Bk 1

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



This magazine is intended
for 10 readers. All should
see it as soon as possible.
PASS THIS COPY ALONG

NAVPERS-O

SEPTEMBER 1952

Pulse-Jet Engine

A pulse-jet engine with an operating life of 200 hours, which works at a 165 cycle-per-second frequency, has been developed in the thermodynamics branch of the Naval Research Laboratory.

Development of this engine goes back to 1945 when NRL engineers began investigation of the German V-1 guided missile (the "flying stovepipe"), which was driven by an early type pulse-jet engine. The German engine, however, had only a 40-minute operating life.

The new engine is expected to find military use in subsonic (less-than-sound speed) expendable applications. One of these would be in the guided missile field. Another would be in its use for helicopter propulsion—lightweight jets being mounted on rotor tips.

Its operating life of 200 hours compares favorably with the normal flight time (between overhauls) of conventional reciprocating aircraft engines now used in 'copters. This, plus the fact that its static thrust is several times as great as its own weight, (and it requires no lubrication or cooling system) points to a bright future in 'copter propulsion.

Basically a pulse jet engine consists of a cylindrical sheet-metal combustion chamber and tailpipe connected by a conical section. At the forward end, a series of vanes or valves control the admission of air to the combustion chamber. Air and fuel are



HOLLYWOOD STARLET Lori Nelson joins sailors in mess line before appearing in show at Kodiak.

admitted together to the combustion chamber.

When this mixture is ignited, a rapid increase of pressure occurs in the chamber, closing the valves and forcing the hot gases out through the tailpipe to produce a high-velocity jet. During this expansion process, the pressure in the combustion chamber drops below the outside pressure and the valves re-open, admitting a fresh charge. This operation is self sustaining, ignition occurring automatically.

DDE Saves Boys Lost at Sea

Five Korean boys were rescued far out at sea from the east coast of Korea by *uss Taylor* (DDE 468) after ten days of battling stormy waters, hunger and thirst in a small fishing boat.

Patrolling 150 miles off the Korean coast, *Taylor* spotted the little single-sail fishing boat bobbing aimlessly on the waves. Closer inspection revealed a group of Korean lads crowded together with heads raised and hands clasped as they offered prayers. The destroyer took them aboard and after quick treatment, rest and a hot meal, they were ready to tell of their ordeal.

At Pohang the would-be sailors had rigged a small sail on a boat and headed out to sea to fish. On their fourth day they encountered a storm and became hopelessly lost. Wind and current continued to carry them farther out to sea and their food supplies were soon exhausted. They told of eating raw fish and drinking rain water, but with clearing skies and torturing heat, temptation led them to drinking from the sea. All but one of them had given up hope of rescue when *Taylor* spotted them. That one was Chun Soong Duk, who kept the boat from sinking by constant bailing with a tin cup.

Three-Time Soldier Goes USN

A veteran of plenty of fighting in World War II and Korea with the British Army, Canadian Army and U.S. Army, John E. DeWitt has decided to see how things are in the U.S. Navy.

DeWitt, a real United Nations fighting man, is now a seaman apprentice undergoing training for the sea at the Great Lakes Naval Training Center, Great Lakes, Ill. But he has to chuckle about the whole thing. "In seven years as a foot soldier, I never had a blister," he says. "But I got one in one week marching around this grinder."

At the beginning of World War II, DeWitt hopped aboard a cattle boat, leaving his native Nova Scotia to head for England where he joined the British Army and fought the Nazis for 20 months on the hot sands in Libya. Later he joined the British commandos but transferred to the U.S. Army in time to make the invasion at Omaha Beach.

With this war out of the way, he returned to the U.S. and tried college for a while but things weren't exciting enough for an old combat man.



WORDS—John J. Koval, YNC, USN, examines 75 reams of paper containing each word uttered by both sides since Korean talks began on 10 July 1951.