

AERONAUTICS-MEDICINE

Aid for Crash Survivors

Rescue crews will be on call at all times to rush to victims of plane crashes. Food, water, plasma and other necessities will be dropped.

► CIVILIAN survivors of airplane crashes soon may have prompt and expert aid by plane and parachute. Rescue crews, organized and operated by the Army Air Forces for military purposes, will be in alert status at all times, ready to rush by air to a crash. They will be available for civilian crashes upon request.

The plans being worked out by the Army Air Forces are based in part on recent experiences in rescuing survivors of an Army plane crash in Nicaragua. Prompt action by Army officers is responsible for saving 13 lives that otherwise might have been lost, out of a total of 15 involved. More prompt arrival of medical aid might have saved one more. One man was never found.

Under the plan, it is expected that several rescue crews including paratroopers will be stationed at widely separated Army airports within the United States. There will be two in Alaska, one or two in Hawaii, two in the Caribbean area, and others elsewhere in distant lands.

Each crew will include a "paradoctor." This is an Army physician trained in parachuting. When he drops to a survivor he will carry with him the essentials for first aid. Special medical kits, each with its own parachute, will be dropped at the same time. They will contain medical supplies, plasma, water, food, vermin repellents and other essentials, including a machete to clear out brush for a helicopter landing or a pathway for carrying injured to other conveyances.

Each crew will contain two trained surgical technicians and two "survival experts." These are soldiers trained to combat the particular conditions in the area of the crash. They will be jungle troopers for jungle areas, and "Arctics" for northern Alaska.

At each station a crew will be ready at all times to take off immediately after call. Disassembled helicopters already loaded on cargo planes will be ready to follow, or the crew may travel in the plane with the helicopter. These will be landed at the nearest airstrip to the crash, and can be made ready for the air in a few hours.

In the Nicaragua mission, a Fairchild Packet (Army C-82) took off from Morrison Field, Florida, with helicopter aboard. Delay in take-off was encountered because the only Army paradoctor stationed in the United States was at Westover Field, Massachusetts. The plane landed on Managua airport, near the west coast of Nicaragua. There the helicopter was unloaded, assembled, and took off to Alimicambi, the airstrip nearest to the search area.

It was five days after the crash when Capt. Pope B. Holliday of the U. S. Medical Corps, the mission's paradoctor, reached the first survivor by parachute. Under the new plan, with rescue planes and crews always in readiness, survivors should be reached in hours, not days.

Science News Letter, July 19, 1947

ENGINEERING

Two Fastest Submarines To Be Completed in '51

► TWO NEW American submarines, scheduled to be completed in 1951, will be the world's fastest underwater combat boats, the U. S. Navy revealed today. Construction has just been authorized by Congress.

They will be named the Tang and the Trigger, being successors of famous sub-

marines of the same names, (both lost in 1945), that took a heavy toll of Japanese shipping. The Tang will be built at the naval shipyard at Portsmouth, N. H., the other at an unannounced private yard.

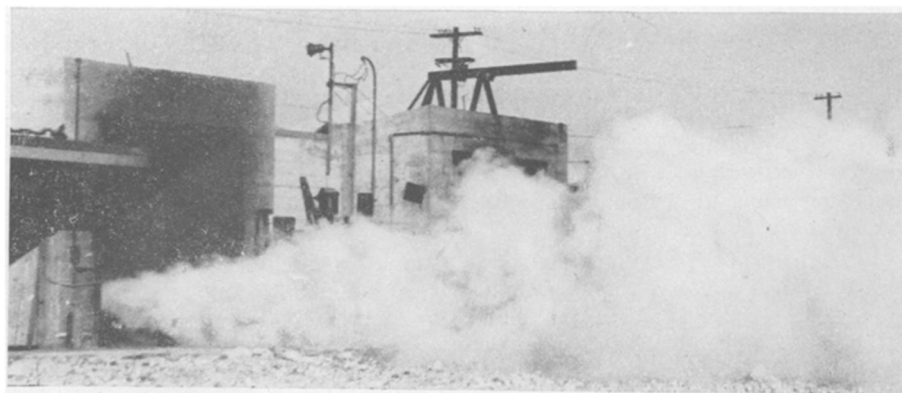
Hull, machinery and contract plans are being prepared by the Navy Bureau of Ships. All desirable enemy and Allied wartime developments will be included in their design. Final detail features, however, will not be fixed until near the end of their construction so that developments perfected during the next few years can be included.

They will be speedy and comfortable for crews and will have radical departures from conventional hull and machinery design. These are the only details announced. However, it is known that the U. S. Navy has two captured German U-boats in American waters for testing and evaluating, and much information about others.

Germany, during the war, developed submarines far superior in some respects to Allied underwater craft. The "snorkel" system was one of their most important achievements. It includes a breathing tube that can be used when the U-boat is relatively near the surface, but still well hidden under the water. Snorkel-equipped submarines are known to have remained submerged up to 70 days.

Another important German development was a streamlined hull to take full advantage of increased battery power. The Allies captured designs of a U-boat which would have an under-water speed of 24 knots, which is more than present American submarines can make on the surface. It was to be propelled with hydrogen-peroxide gas turbine engines.

Science News Letter, July 19, 1947



JATO—These rocket-like shells are attached beneath heavily loaded aircraft to provide additional thrust to get planes into the air in short spaces. The wartime secret of JATO fuel has been revealed: it is a black plastic mixture of a special type of asphalt, a light oil and a chemical oxidizing agent.