FOR 1,700 MILES PER HOUR—Scheduled to undergo flight tests at speeds over twice that of sound is this Bell X-1A. It is slightly larger than the X-1, the first United States supersonic airplane that crashed through the sonic barrier in October, 1947. It is rocket-powered with a liquid oxygen and a special alcohol-water mixture for fuel.

AERONAUTICS

Guided Missile For Subs

Jet-propelled guided missile, known as Regulus, is capable of carrying an atomic warhead from submarine or "several" other types of Navy vessels.

See Front Cover

➤ THE NAVY has created a hard-hitting swept-wing guided missile that can strike at supersonic speeds from submarines, surface ships and shore bases.

Equipped with a deadly warhead, the missile can carry destruction to its target. However, test models of the weapon are outfitted with tricycle landing gears so they can be recovered and studied.

Called the Regulus, the 30-foot jet-powered missile, shown on the cover of this week's SCIENCE NEWS LETTER, resembles a modern fighter plane. Now in full production, it can serve as a military weapon for both the Navy and the U. S. Marine Corps.

Versatility of the device permits it to be used "in various ways." This means that the Regulus can do jobs formerly requiring missiles of specialized design.

The Navy's World War II submarine Tunny already has been modified to launch the supersonic missile. The sub also has been equipped with modern snorkel "underwater breathing" tubes, a streamlined hull, conning tower and a small crew especially trained to launch and maintain the Regulus.

Department of Defense officials said the missile can strike at appropriate land targets. It also can be brought into play in amphibious combat.

Launching equipment can be installed rather quickly on "several types" of vessels. The cost is low and modification of the ship itself is held to a minimum. In addition to the Tunny, other vessels that have launched the Regulus are the seaplane tender Norton Sound, and the aircraft carrier Princeton.

Although development began in 1947, no official information was released before now. The Navy revealed that performance has surpassed the early design goals.

The Regulus currently is being built for the Navy Bureau of Aeronautics at Dallas, Texas, by the Chance Vought Aircraft Division of United Aircraft Corporation.

Meanwhile the Army has revealed its own missile capable of estimated speeds up to 1,500 miles an hour. Called the Nike, the all-weather missile has been described as "the best anti-aircraft weapon now available." It is credited with "killing" about 65% of its targets.

Science News Letter, April 11, 1953

MEDICINE

ACTH Production Stops When Hormone Injected

➤ THE PITUITARY glands in the head may stop producing normal amounts of its hormone, ACTH, when that hormone is injected into patients, Dr. James D. Hardy of the University of Tennessee College of Medicine finds.

Dr. Hardy learned this by trying to find ways of improving the nutritional state of patients wasted by cancer and other diseases in work supported by the American Cancer Society.

Because cortisone, adrenal gland hormone, opens body cells to certain salts contained in body fluids, Dr. Hardy wondered whether the malnourished cancer patient's glands were producing too little cortisone to enable body cells to utilize food properly. ACTH stimulates production of cortisone, so he tried injections of it. When he stopped the ACTH, however, he found that it took three days before the gland resumed production of it.

Science News Letter, April 11, 1953

PUBLIC HEALTH

Safety Rules for Using Insecticides

➤ HOUSEWIVES ALL over the nation are now spraying insecticides in the annual spring house cleaning and anti-moth battle.

By the time that is over, it will be time to spray for mosquitoes, flies and other spring and summer pests. Because most insecticides are poisonous, they should be used with proper precautions. These are given on the labels of insecticide containers. They are put there for your safety, so it will pay you to read and follow them.

Some common sense rules for safe insecticide use are given by Dr. L. S. Henderson, entomologist of the U. S. Department of Agriculture, as follows: Do not get the insecticide in food or on dishes, silverware, or cooking utensils. If you spill a concentrated insecticide on yourself, wash it off immediately with soap and water. Do not expose yourself unnecessarily to dust or spray mist in the air. Provide extra ventilation by opening doors and windows when extensive spraying or dusting jobs are done.

Do not spray liquid insecticides into electrical outlets or on exposed connections where you might create a short-circuit. Do not apply oil-base insecticides near fire, flame, or sparks, and do not smoke while applying them. When you have finished applying an insecticide, dispose of the unused portion or return them to the original container. Clean the sprayer or duster, then wash with soap and water. Change your clothes if you have spilled insecticide on them.

Keep insecticides where children or pets can't get to them. Do not store them with foods or where they might be mistaken for food items.

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