



**"COMING LOOK" FOR PILOTS**—Comdr. R. A. Bosee, parachute test director at the El Centro, Calif., Naval Air Station, shows Hospitalman Floyd Van Dyke how this experimental nylon flying suit distributes the shock of an opening parachute over his body. Ultimately the suit may replace a complex, bothersome harness that does not protect the pilot as well in high-speed bailouts.

## AERONAUTICS

## Flight Suits of Future

➤ A THIN parachute pack hugging the backs of Navy pilots will be knocking about \$3,000 off the cost of military airplanes in the future.

Comdr. R. A. Bosee, parachute test director at the Naval Air Station, El Centro, Calif., said that the parachute requires about half the space of its predecessor.

Its reduced bulk, about two inches thick in comparison to the ordinary five-inch pack, saves enough space to account for \$3,000 in metal, engineering and construction costs.

The parachute was displayed in connection with a meeting of the Aero Medical Association in Washington.

Also on display was a "new look" flight suit for Navy pilots. It is a snug-fitting nylon garment with a revolutionary harness designed to reduce wear and tear on the pilot in high-speed bailouts.

The suit distributes the opening shock of the parachute over the pilot's feet, calves, thighs, trunk and shoulders. Conventional harnesses are strapped around the legs and under the arms. The entire impact of the opening canopy is absorbed in these small areas.

Another suit, now in the testing stage, has a built-in parachute harness to which

the pilot plugs his parachute, cockpit shoulder straps and seat belt.

This slashes by 75% the time required for him to perform these operations. The built-in harness eliminates the complex cross-straps that get in his way.

Special ejector snaps also have been developed and are going on all new Navy parachute harnesses. They can be opened with one hand. This allows the pilot to get out of the harness quickly.

Comdr. Bosee said pilots have drowned while struggling to release conventional harness clips. Ordinary clips take two hands to unfasten. They are particularly hazardous when the parachute acts as a sail to drag pilots through the water.

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## TECHNOLOGY

## Fluorescent Tube Boosts Light Output

➤ A 110-WATT fluorescent tube has been developed that gives 35% more illumination than any previous fluorescent light source, General Electric engineers report. The tube produces almost three times the illumination of the 40-watt size.

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## MEDICINE

## Inaudible Sound Cures Cancer in Mice, But Kills

➤ HIGH FREQUENCY sound vibrations caused a "complete regression" of cancer in mice, Dr. Earl H. Newcomer of the University of Connecticut announced at the meeting of the Institute of Radio Engineers in New York.

Half the mice, however, were killed by the treatment because of injury to vital organs by the high intensity vibrations.

Inaudible sound has also been used to treat mental patients, Dr. P. Lindstrom of the Veterans Administration Hospital, Pittsburgh, reported. The treatment is given instead of surgical lobotomy. Most patients improved mentally or got relief from intractable pain if the treatment was given for that purpose.

Damage to the brain was so small it could only be seen when the tissues were examined under a microscope, in contrast to the sometimes extensive damage Dr. Lindstrom said may be caused by lobotomy operations.

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## MEDICINE

## Combat Stress Hits Fighter Pilots Less

➤ COMBAT STRESS was greater among pilots and crews of reconnaissance and bomber planes than among fighter pilots during the Korean War.

This was the finding of Capt. Blair W. Sparks currently attached to the Far East Air Forces in Japan. Details of the field study, involving 111 Air Force pilots flying combat missions, were reported to the meeting of the Aero Medical Association in Washington by Col. Robert J. Benford, editor of the *Armed Forces Medical Journal*.

The 111 pilots previously had been studied by psychologists at the Air Force School of Aviation Medicine. Combat performance had been predicted at that time. The field checks showed that accurate prediction of performance was difficult. Some pilots with "poor ratings" turned in superior performances.

Combat stresses sometimes were intensified by "injudicious and ill-advised" letters from wives and parents who burdened the fliers with problems at home.

The fear of flying was seldom observed. But anxieties over possible ditchings in enemy territory were common—more so among pilots with few combat missions. When planes were damaged, the pilots used "every technique to coax (them) over the bomb line or out to sea," because they feared inhuman treatment of prisoners by the Chinese Communists.

The Air-Sea Rescue and Medical Air Evacuation Service proved to be an important morale builder. In one case, 68 fighters were assigned to fly cover during a successful effort to rescue a single downed pilot.

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