

Lead Industries Association

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December 10, 1953

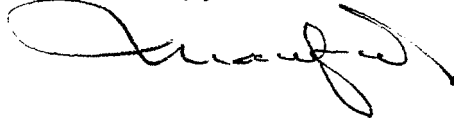
Robert A. Kehoe, M.D., Director
Kettering Laboratory
University of Cincinnati
Eden Avenue
Cincinnati 19, Ohio

Dear Bob:

The newspaper item of which a copy is herewith, believed to be from the Ft. Worth Telegram of November 16th, has just been brought to my attention.

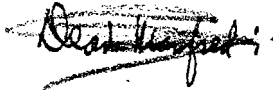
I would very much welcome your comments on the validity of the statement attributed to Commander Schoeni in the concluding paragraph.

Sincerely,

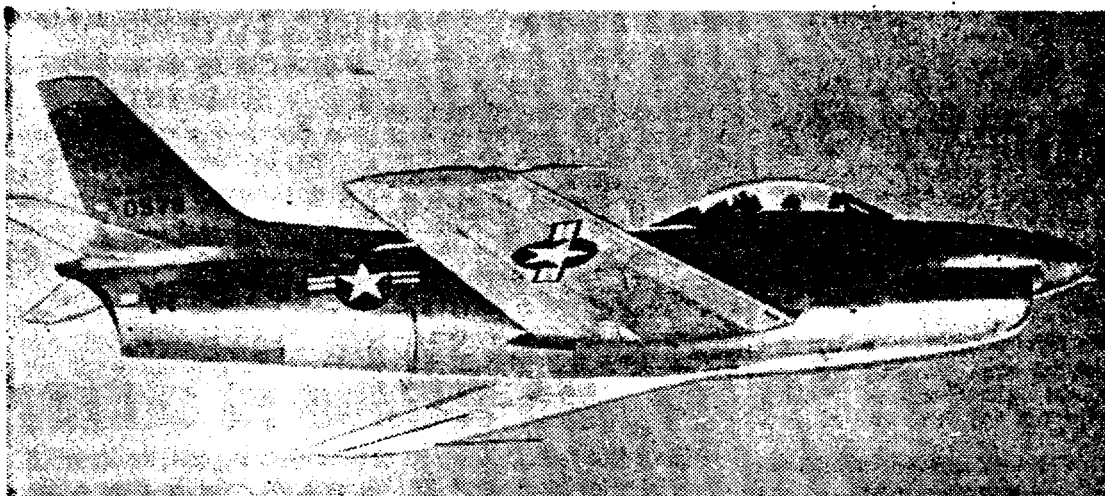


MB:JG

cc: Mr. Costello



KE 0014874



AIR FORCE'S SPEEDY F-95A.

Heat, High Intensity Sounds

New Dangers to Crews Created As Jets Develop Greater Thrust

WASHINGTON, Nov. 17 (CTS). Jet planes blowing 700-mile-an-hour hot blasts from their tailpipes and generating 10,000 pounds of thrust are creating new hazards, according to Lt. Cdr. Arthur L. Schoeni, editor of Naval Aviation News.

Writing in Pegasus, monthly magazine published by the Fairchild Engine and Airplane Corporation, Schoeni told of the new troubles that plague those who have to work and live with the powerful planes.

Aside from the usual dangers of being scorched by the jet's fiery blasts or being sucked into the air intake, airmen have to worry about the damage that can be done to their nervous systems by the high intensity sounds released by the big engines and by the high powered radar waves.

"Today's jet engines deliver 10,000 pounds of thrust compared to 3,000 for the better jets of post World War II days," Schoeni said. "Because the giant engines today produce more power to drive bigger and bigger planes, they also create vastly greater amounts of noise.

"Military flight surgeons, particularly in the Navy, say the level of noise already has reached the limit of human endurance. Any increase such as will come with greater use of afterburners, rocket or ramjet engines, will require new protections so that they will not deafen men who work near them."

He said the average person can stand noise up to a level of 130 to 140 decibels. (A decibel is a measure of sound.) A whisper or rustle of leaves creates 10 decibels, the romantic conversation of lovers 30, ordinary conversa-

tion 60, a piston engine type airplane 110.

"The new planes are expected to boost this noise to 160 or 170 decibels," Schoeni said. "Each increase of three in decibel numbers means a doubling in noise intensity—noise at 160 decibels is 1,000 times louder than at 130—and tomorrow's jets will produce noise in those more voluminous ranges."

He said the ear-bursting din of jet planes on aircraft carriers, where crews work only six feet from the tailpipes, is worrying flight surgeons. The only protection available is small rubber ear plugs, uncomfortable to wear, which provide some relief from high frequency noise but little help against the low frequency sound waves in which most jet engine noise occurs.

RADAR HAZARD, TOO.

The intense noise can cause some persons to collapse. Small animals have been killed by noise in experiments.

"Another problem which has flight surgeons of all military services worrying overtime is that of new higher powered radar which soon will be placed in night fighters and high altitude radar 'snooper' planes," Schoeni said.

"Personnel who unwittingly walk in front of such sets sending out high powered squirts of electricity may suffer physical damage. Technicians who work on radar avoid its dangers but others less wary may suffer eye or internal organ injuries without knowing it."

Powerful radar beams have been known to kill laboratory animals and might affect the eyes, gall bladder, urinary bladder, and other organs that have

and photoflash bulbs at 323 feet.

Another hazard to jet airmen is from the tetraethyl lead used in many jet fuels. Mechanics and others inhaling jet fumes could succumb to lead poisoning, Schoeni said.