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UNITED STATES SUBMARINE BASE,
NEW LONDON, CONNECTICUT.

Serial

*Aero-Optics
Medea
Project
under Sound*

30 March 1945.

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Dr. Leo Beranek
Craft Laboratory
Harvard University
Cambridge, Mass.

Dear Dr. Beranek:

Thank you for your telegram expressing interest in papers from this laboratory for your Acoustical Program. You will find enclosed two abstracts which we are glad to have a chance to submit, since there has recently been a great deal of interest in the subject of these papers, as you are well aware. These papers have not been released by the Navy Department but we anticipate no difficulty in obtaining their release.

It is my opinion that it would be well, if you can conveniently arrange it, for the papers to be read in succession, first that by Dr. Haines and then that by Harris.

We are looking forward with pleasure to renewing acquaintance with our Acoustical friends at the coming meeting.

Sincerely,

C. W. Shilling
Captain (MC) U.S. Navy
Medical Research Department

Instructions
The character is in
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WESTERN UNION

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A. N. WILLIAMS
PRESIDENT

The time shown in the date line on telegrams and day letters is STANFORD TIME.

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CAPT G W SHILLING

MEDICAL RESEARCH DEPT US SUB BASE NEWLONDON CONN

PRELET MARCH 9 PLEASE SUBMIT ABSTRACTS AS SOON AS POSSIBLE

REGARDS

L L BERANEK

AUDITORY ACUITY IN SEVERE AERO-OTITIS MEDIA.
J. DONALD HARRIS, Ph.D.
Sound Laboratory, Medical Research Department
U.S. Submarine Base, New London, Conn.

From personnel subjected to the Submarine Escape Training Tank at New London, a group was selected at random consisting of 90 men who were judged to have aero-otitis media of the severest, or No. 4, grade according to Dr. Teed's categories of otopathologic change. A brief description of the No. 4 category is given.

Post-pressure audiograms at octaves 256 through 8192 were compared with pre-pressure audiograms taken under almost identical conditions. Although a few cases exhibit a disabling loss, the mean drop for the whole group is surprisingly slight. It should be borne in mind that none of the cases reported here had been subjected to pressure more than once.

Acuity seems not to drop markedly with perforation of the drumskin, bleeding from the drumskin or external meatus, or separation of the layers of the drumskin. It seems to be associated less with otopathology as such than with the extent to which the bulla is filled with blood. Thus the sharp drops in acuity which do occur may perhaps, at least in their early stages, be referred in large part to damping of the ossicles.

AERO-OTITIS MEDIA IN SUBMARINE PERSONNEL
HENRY HAINES, M.D.

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U.S. Submarine Base, New London, Conn.

Careful pre- and post-examination of several thousand men passing through the Submarine Escape Training Tank at New London reveals that about 30% have aero-otitis media as a result of exposure to the high-pressure chamber. This agrees rather well with Fowler's figure of 22% among fliers in England. We believe the cause of the condition in most instances to be blockage of the Eustachian tube by hyperplastic ~~and~~ adenoid tissue.

A description of some of the effects of pressure on the ear is given from extensive data collected with the otoscope and with the nasopharyngoscope. A description is given of the effects of various types of treatment, principally radium applied to adenoids, x-ray, astringent nose drops, and psychological prescription.