A Reprint from

PERCEPTUAL AND MOTOR SKILLS

February 1998

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Perceptual and Motor Skills, 1998, 86, 258.

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Summary.—64 commercial airline pilots (ages 35–64 yr., *Mdn*: 53) were surveyed regarding hearing loss and tinnitus. Within specific age groups, the proportions responding positively exceed the corresponding proportions in the general population reported by the National Center for Health Statistics.

In a work environment with relatively high exposure to noise, the possible occurrence of occupational hearing impairment over time is likely. Consequently, the design of an integrated audiodisplay should be tailored or even compensate for possible hearing loss amongst users. This issue became a concern for placing 3-D audiodisplays in commercial airline flight decks (1), given the relatively higher ambient sound pressure levels and consequent exposure in the environment. A starting point for assessing the extent of hearing loss was to gather questionnaire data and measure audiograms on professional pilots who were available as subjects from other studies. The 64 pilots who responded to our questionnaire had a median age of 53 yr. (ranging from 35–64 years). Below are the percentages of pilots by age group, 35–44 yr. (n = 11), 45–54 yr. (n = 23), and 55-64 yr. (n = 30) responding "yes" to yes-or-no-questions: (1) "Have you ever been told by a doctor that you may have any sort of a permanent hearing loss in one or both ears?" (27%, 48%, and 53%, respectively) and (2) "Do you personally suspect that you have a hearing loss in one or both ears?" (36%, 60%, and 56%, respectively). For comparison, the three age groups were matched with data (6%, 10%, and 15%, respectively) published by the National Center for Health Statistics (2) for general population statistics on hearing impairment in the United States, 1990-91.

The proportion of pilots responding positively to the questions was large. We also asked pilots, "Do you have a buzzing, ringing, or whistling in one or both ears (tinnitus)?", to which 18 of 61 responding pilots (29.5%) reported having tinnitus "occasionally" or "frequently," while 43 responded "rarely" or "never." These data have motivated extensive investigation of possible correlations between flight-deck sound pressure levels, noise dosage, and audiometrically verified hearing loss.

REFERENCES

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Accepted February 5, 1998.

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