DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

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MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: AFMOA/CC
110 Luke Avenue, Room 405
Bolling AFB, DC 20332-7050

SUBJECT: AFI 48-20, Interim Guidance

Air Force Regulation 161-20 has been rewritten as Air Force Instruction 48-20 and is pending publication. AFI 48-20 was intended to coincide with the release of the Defense Occupational Health Readiness System Hearing Conservation (DOHRS-HC) module. The protocols contained in the DOHRS-HC module are adverse to the guidance in AFR 161-20, but compliant with the unfielded AFI 48-20. Interim guidance will assist the field in accomplishing mission-critical screening until final publication of AFI 48-20. Attached to this policy letter is interim technical guidance regarding the use of DOHRS-HC. Additional guidance is also available in DoDI 6055.12, which supersedes AFR 161-20.

If there are any questions regarding this guidance, please contact Lt Col John R. Allen, USAF SG Consultant, Audiology/Speech Pathology, 1609 Brookley Avenue, Suite 112, Andrews AFB, MD 20762-6418, DSN 857-3097, (240) 857-3097, *allen.john@andrews.af.mil.* The SG point of contact for this policy is Lt Col (Dr) Thomas Neal, AFMOA/SGOE, 110 Luke Avenue, Room 405, Bolling AFB, DC 20332-7050, (202) 767-4318, *thomas.neal@usafsg.bolling.af.mil.*

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Attachment:
AFI 48-20 Interim Guidance

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Integration Guidance (Interim) between DOHRS-HC and AFR 161-20
Pending AFI 48-20 Publication

From Attachment 1 - GLOSSARY OF REFERENCES, ABBREVIATIONS, ACRONYMS, AND TERMS:

Standard Threshold Shift (STS). A change for the worse in hearing thresholds relative to the reference audiogram of an average of 10 dB at 2000, 3000, and 4000 Hz, either ear, according to CFR 1910.95. That is, if the sum of the shifts at 2000, 3000, and 4000 Hz equals or exceeds 30 dB in either ear, a STS has occurred. Also any single 15 dB or greater shift at 1000, 2000, 3000, or 4000 Hz in either ear constitutes a STS, per DoDI 6055.12. The NIOSH age corrections shall NOT be applied when determining STS.

OSHA Reportable (Shift) Hearing Loss. A shift in hearing thresholds for the **worse** relative to the original reference audiogram of an average of 25 dB at 2000, 3000, and 4000 Hz, either ear. That is, if the sum of the shifts at 2000, 3000, and 4000 Hz equals to or exceeds 75 dB in either ear, an OSHA Reportable Hearing Loss has occurred and must be reported on an OSHA Form 200 (or equivalent). (DOHRS-HC) will calculate this based on the identification of the "original baseline" by the user.

From Attachment 2 - **AUDIOMETRIC MONITORING:**

A2.1.1. All civilian individuals being considered for jobs routinely in hazardous noise must have a preplacement exam to determine qualifications. All military personnel shall receive a reference audiogram prior to duties in hazardous noise. Air Force Handbook 41-114, *Military Health Services Matrix*, governs physicals for the reserve or guard applicant. The preplacement and initial reference hearing conservation examination requires completion of:

A2.1.1.1. Audiometric Case History (AF Form 1753 - Section I).

A2.1.1.2. Clinical Examination (AF Form 1753 -Section II).

A2.1.1.3. Audiogram (DD Form 2215)

A.2.2.2. Per 29 CFR 1910.95, Section (g)(7)(ii), "If the annual audiogram shows that an employee has suffered a STS, the employer may obtain a retest within 30 days and consider the results of the retest as the annual audiogram." **Therefore, all follow-ups must be completed within 30 days of the annual audiogram**. If follow-ups are incomplete, the last audiogram within that 30 day period is considered to be the annual audiogram and if a STS is present, appropriate action must be taken (i.e. notification of employee and supervisor, and record keeping per paragraph A.2.6.).

A.2.2.3. Personnel who have a STS on an annual audiogram will be given a 14-hour NFA.

A2.2.3.1. If the STS is still present, a second 14-hour NFA will be performed. This may be performed the same day as the first 14-hour NFA.

A2.2.3.2. The follow-up audiograms may not be performed on the same day as the annual audiogram. If the STS persists on follow-up #2, the STS is considered a PTS.

A.2.2.3.3. An otoscopic examination should be performed prior to any NFA to determine if cerumen removal or other treatment may be necessary in order to obtain an accurate audiogram.

A.2.2.4. Personnel with a PTS will be referred for audiologic evaluation before the examining practitioner makes a final medical recommendation. See Attachment 3 for options for referral. Audiologic evaluation is required to validate the existence of a permanent noise-induced threshold shift and (or) to determine if further medical referral is required. A physician shall make any determination that the noise-induced STS is not work-related or has not been aggravated by occupational noise exposure.

A.2.2.7. When a negative STS (improvement in hearing threshold from the reference audiogram) is noted on the periodic audiogram, one 14-hour noise-free follow-up test is required. The results of the follow-up test may be used to create a re-established reference audiogram.

A.2.5. Calculating Hearing Threshold Shifts: Hearing tests administered after the reference audiogram (annual, 14-hour noise free follow ups, termination, and close scrutiny audiograms) are intended to identify changes in the HTLs from the most current reference audiogram.

A.2.5.1. When calculating the STS, the reference audiogram test results are entered into the Reference Audiogram spaces of DD Form 2216. The reference levels are subtracted from the current levels at 1000, 2000, 3000, and 4000 Hz. The differences in hearing levels calculated at 2000, 3000, and 4000 Hz are added together and divided by three, for each ear. A STS exists if the resulting average hearing loss in either ear is greater than or equal to ± 10 dB. In addition, any change of $\pm$ 15 dB or greater at 1000, 2000, 3000, or 4000 Hz in either ear shall constitute a STS.

A.2.5.2. Age corrections will <u>NOT</u> be applied when determining STS.

A.2.5.3. The definitions of standard threshold shift, temporary threshold shift, permanent threshold shift, OSHA reportable hearing loss, and improved hearing levels are listed in Attachment 1.

A2.5.4. A noise-free follow-up audiogram should be conducted within 30 days of the annual exam when that annual audiogram shows a STS, in either ear, relative to the current reference audiogram.

A.2.6. Record Keeping for STS Follow-up:

A.2.6.1. Personnel with a STS must be notified within 21 days. This time limit begins after the 30 days allowed for completion of follow-up testing. The recommended practice is to notify the worker immediately when a STS is noted ensuring notification even if the re-test is not completed within 30 days. Traditional Guardsmen with STS must be notified within 21 days but will be allowed 90 days for completion of follow-up testing.

A.2.6.2. Unless a physician determines that the STS is not work related or aggravated by occupational noise exposure, the employer shall ensure the following steps are taken when a STS occurs {per 29 CFR 1910.95, (g)(8)(ii)}:

A.2.6.2.1. The person shall be re-fitted and re-trained in the use and care of HPDs.

A.2.6.2.2. The person shall be referred for an audiologic or otologic examination, as appropriate.

A.2.6.3. A new reference audiogram shall replace the original reference audiogram, when the medical evaluation confirms the STS (noted during the annual and follow-up audiograms) is permanent. The original reference audiogram shall be retained in the patient's medical record on a DD Form 2215, **Reference Audiogram.**

A.2.6.4. A revised reference audiogram should also be established when the hearing threshold demonstrated on the annual and follow-up audiograms indicate significant improvement over the existing reference audiogram.

A.2.6.5. For a positive STS, the reviewing Audiologist or physician shall choose one of the following options for re-establishing the reference audiogram:

A.2.6.5.1. Use the results of Follow-up #2;

A.2.6.5.2. Use the results of the audiologic referral examination (all pertinent examiner and audiometer information must be provided for the DD Form 2215); or

A.2.6.5.3. Conduct a separate 14-hour NFA and use those results to complete a new DD Form 2215.

2.14.5.1. A examination of the ears will be performed by the examining practitioner on patients with a PTS, those undergoing a fitness and risk evaluation, and those getting a reference audiogram who have worse than H-1 hearing levels or asymmetric hearing as defined in AFI 48-123 (greater than or equal to 25 dB difference between ears at any two

consecutive frequencies). The results will be recorded on AF Form 1753 Section II. The practitioner should note:

2.14.5.1.1. Cerumen occluding the ear canals.

2.14.5.1.2. External Otitis.

2.14.5.1.3. Condition of the tympanic membranes.

2.14.5.1.4. Any middle ear disease.

2.14.5.1.5. Eustachian tube function.

2.14.5.1.6. Any condition which may interfere with the wear of hearing protection (permanently or temporarily).

2.14.5.1.7. Any abnormality diagnosable from the exam, which might adversely effect the audiogram results.

From Attachment 6:

A6.10. Test Environment Calibration:

A6.10.1. The test environment shall be re-surveyed annually using equipment conforming at least to Type 1 requirements of the latest approved ANSI Standard S1.4A to S1.4-1983 and the order 3 requirements of the latest approved ANSI Standard S1.11-1986.

A6.10.2. Hearing tests will be performed on audiometers calibrated to the specifications of the latest approved ANSI Standard S3.6-1989 in an environment with a background octave band sound pressure level not greater than the following:

	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SPL	27 dB	29 dB	34 dB	39 dB	41 dB

A.7.1.3.2. Local activities may request, on a fee-for-service basis, evaluation of non-approved HPDs. This evaluation will be conducted by AFRL/HEC Bldg. 441, 2610 7th Street, Wright-Patterson AFB, OH 45433-7901, DSN 785-3607.

From Attachment 8 (completely redone):

Attachment 8

FITNESS AND RISK EVALUATIONS

One of the reasons occupational examinations are performed is to identify individuals who, if they are placed in a particular job, may not be able to perform the essential functions of the job, and (or) may pose a safety risk to themselves or others.

A8.1. Who To Evaluate:

A8.1.1. Any person who, for a medical reason, is suspected of being unable to do a job, or do it safely, in a hazardous noise environment should be individually evaluated for fitness and risk. Although some specific criteria are listed below, there will be other times when sufficient reason exists to evaluate a worker's fitness for a particular job. When this occurs the practitioner should perform a fitness and risk evaluation upon the request of line management. Personnel should be considered for a fitness and risk evaluation who:

A8.1.1.1. Show a second PTS in the same ear;

A8.1.1.2. Exceed the H-1 profile on preplacement audiogram and are entering a noise hazardous area;

A8.1.1.3. Complain of being unable to correctly hear or understand routine spoken communications, auditory cues or signals;

A8.1.1.4. Exhibit behavior resulting in an invalid or unreliable audiogram. (Failure to obtain accurate audiometric test data will result in an individual being removed from all hazardous noise environments due to an inability to accurately monitor hearing); or

A8.1.1.5. Exhibit behaviors that call into direct question the ability to work in the assigned job.

A8.1.2. Flying personnel who meet the criteria above or exceed hearing standards for their particular flying class will be evaluated as directed in AFI 48-123, *Medical Examinations and Standards*.

A8.2. Performing the Evaluation: The examining practitioner and public health officer coordinate the fitness and risk evaluation. There are two areas the practitioner must address: clinical status and job safety. The practitioner may also include a job capability assessment as needed to make an informed medical recommendation.

A8.2.1. Evaluating Clinical Status:

A8.2.1.1. For all fitness and risk evaluations the examining provider will perform a clinical examination. As a minimum, the items on the routine clinical exam (AF Form 1753-Section II) will be performed. If other medical conditions exist which

impact the person's ability to perform the job capably or safely, they will also be addressed in the clinical examination.

A8.2.1.2. Clinical evaluations by either an HCC, HCDC, or ASHA certified military or civilian Audiologist are a required part of a fitness and risk evaluation when an individual has:

A8.2.1.2.1. A second PTS in the same ear;

A8.2.1.2.2. Suspected conductive pathology; or

A8.2.1.2.3. Invalid or unreliable audiometric test results.

A8.2.1.3. HCC and HCDC referrals are options that may be requested whenever the examining practitioner deems it necessary to have a specialized audiologic evaluation to determine fitness or risk.

A8.2.2. Job Fitness Survey. The job fitness survey is an integral part of a fitness and risk evaluation. This survey requires the participation of the Installation Personnel Flights appointing official and (or) shop supervisor.

A8.2.2.1. The Installation Personnel Flight must prepare a list (on AF Form 1754) of the essential tasks and auditory requirements a worker must (at a minimum) be able to perform to be qualified for the position.

A8.2.2.2. PH will interview the individual in question, visit the workplace, and (for each task identified by the appointing official) provide this information to the examining practitioner. The examining practitioner will make a recommendation as to whether the worker will be able to capably perform the task (taking into consideration any limitation imposed by the condition in question).

A8.2.3. Job Safety Analysis. The job safety analysis is accomplished to determine if the worker might place themselves or someone else at risk if allowed to work in a particular job. This survey is accomplished with the advice of the safety officials and requires the participation of the appointing official and (or) shop supervisor and the examining practitioner.

A8.2.3.1. The safety representative must interview the individual in question, visit the workplace, and (for each task identified by the appointing official) make a judgment as to whether the worker will be able to perform the task without endangering themselves or someone else (taking into consideration any limitation imposed by the medical condition).

A8.2.3.2. The safety analysis can address any or all of, but is not limited to, the following conditions:

A8.2.3.2.1. Does the worker perform tasks alone or in groups?

A8.2.3.2.2. If group tasks are required, are visual cues available?

A8.2.3.2.3. Does the worker need to communicate to perform tasks?

A8.2.3.2.4. Do potential hazard signals exist that the worker needs to hear (forklifts, special machinery, announcements, etc.)?

A8.2.3. If at all possible, the job fitness survey and the job safety analysis should be performed at the same time.

A8.3. *Medical Determinations* and Recommendations:

A8.3.1. A medical examination alone cannot determine an individual's ability to perform the essential duties of a particular position. The responsibility for making this determination rests solely with the appointing official. Virtually all employment-related decisions involving health are fundamentally managerial, not medical, decisions.

A8.3.2. To assist managers in making employment and placement decisions, medical recommendations will be one of the following:

A8.3.2.1. Individual meets medical requirements of the position.

A8.3.2.2. Individual meets medical requirements with an accommodation or restriction. (List recommended accommodations or restrictions and the expected therapeutic or risk avoiding benefit).

A8.3.2.3. Individual is not fit to perform essential tasks, will pose an undue risk to themselves or others, or fails to meet medical requirements for the job.

A8.3.3. A determination of hearing profile might also be necessary (per AFI 48-123).

A8.4. Qualification Procedure:

A8.4.1. For the purposes of the HCP, the examining practitioner may assume an individual possesses the minimum medical qualifications needed to perform a job in a hazardous noise environment if any one of the three following conditions is true:

A8.4.1.1. The individual has an H-1 profile, can wear standard HPDs, and does not report difficulty hearing or understanding routine spoken communications, auditory cues, or signals;

A8.4.1.2. The individual has undergone a previous fitness and risk evaluation, hearing thresholds have not changed significantly (no STS compared to most current reference), and any medical condition that might impact job performance in a hazardous noise job has remained stable; or

A8.4.1.3. The individual has demonstrated the ability to perform the job without physical injury to themselves or others.

A8.4.2. If, after evaluation of fitness and risk, the medical recommendation is for placement or continuation in a noise-hazardous job, the following statement should be placed on the AF Form 422 or equivalent, "This individual meets medical standards to work as a [*insert job title and occupation code*] in [*insert shop name and number*].

A8.4.3. If restrictions or accommodations are recommended, they should be listed on AF Form 422 or equivalent along with the expected risk-reducing or therapeutic benefit.

A8.5. Disqualification Procedure:

A8.5.1. A disqualifying medical determination is warranted if:

A8.5.1.1. A medical condition prevents the worker from performing the essential functions of the job and no reasonable accommodation would enable the worker to perform the job.

A8.5.1.2. Allowing the worker to perform the job would endanger the safety of other workers or the public.

A8.5.1.3. Placing (or retaining) the individual in the job poses a risk to the individual's personal health or safety.

A8.5.1.4. The individual fails to meet a valid medical standard or physical requirement for placement in the position.

A8.5.2. Individuals determined to be medically disqualified because of reasons above must be individually evaluated.

A8.5.2.1. A summary of the fitness and risk evaluation will be prepared by the examining practitioner and will contain the following minimum information:

A8.5.2.1.1. Reason for the fitness and risk evaluation;

A8.5.2.1.2. Clinical status (determination of whether a medical condition is temporary or permanent, and has reached maximum medical benefit);

A8.5.2.1.3. Safety assessment results; and

A8.5.2.1.4. Recommendations for accommodations and (or) restrictions in the particular job.

A8.5.2.2. A copy will be forwarded to PH for inclusion in Tab F of the shop folder as a permanent record.

A8.5.2.3. Referral to an HCDC, HCC, or ASHA certified military or civilian audiology consultant is optional. However, if there is a need for audiologic consultation, a referral is appropriate.