U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
National Policy

ORDER 3900.66A

Effective Date:
9/1/21

SUBJ: Flight Standards Service Hearing Conservation Program

The Flight Standards Service (FS) Hearing Conservation Program (HCP) is established to prevent occupational hearing loss in FS employees. Hearing loss is a pervasive occupational health issue. However, occupational noise-induced hearing loss can be reduced, or often eliminated, through the successful application of an effective HCP.

This order specifies the actions necessary to protect the health and safety of all FS employees and provides the requirements for the development, implementation, and maintenance of an effective HCP.

Compliance with this order implements the Occupational Safety and Health Administration's (OSHA) General Industry Standards and applicable consensus standards published by consensus organizations related to the FS HCP.

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Executive Director, Flight Standards Service

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Chapter 1. General Information

1. Purpose of This Order. The Flight Standards Service (FS) Hearing Conservation Program (HCP) is established to prevent occupational hearing loss in FS employees. This program specifies the actions necessary to protect the health and safety of all FS employees and provides the requirements for the development, implementation, and maintenance of an effective HCP. The FS HCP is a program under the overall FS Occupational Safety and Health (OSH) Program.

a. The HCP Requirements. The elements of the HCP are designed to meet or exceed the requirements of Occupational Safety and Health Administration (OSHA) Standards: Title 29 of the Code of Federal Regulations (29 CFR) part 1904, § 1904.10; part 1910, § 1910.95; part 1960, §§ 1960.8 and 1960.59; and Federal Aviation Administration (FAA) Order 3900.19, Federal Aviation Administration (FAA) Occupational Safety and Health Policy, Chapter 7, Paragraph 7-2, Hearing Conservation Policy.

b. The Hearing Conservation Program Manager (HCPM). The FS HCP is administered by the FS-Designated HCPM. The FS HCPM is a member of the FS OSH Team and is an OSH professional. The FS HCPM oversees the audiometric medical surveillance, HCP training, and recordkeeping support provided by the U.S. Department of Health and Human Services (HHS).

c. The HCP Office Responsibilities. Office responsibility of the HCP's execution is with the manager in the Office of General Aviation Safety Assurance (GASA), the Office of Air Carrier Safety Assurance (ACSA), the Office of Safety Standards (AFS), and OSH personnel in the Office of Foundational Business (AFB). FS must provide the necessary funding to implement this HCP, including Hearing Protective Devices (HPD) for use by employees.

2. Audience. This order applies to all FS employees who are involved with work in high-noise areas.

3. Where You Can Find This Order. You can find this order on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices, the Flight Standards Information Management System (FSIMS) at https://fsims.avs.faa.gov, and the Dynamic Regulatory System (DRS) at https://drs.faa.gov. Operators and the public can find this order on the FAA's website at https://www.faa.gov/regulations_policies/orders_notices, FSIMS at https://fsims.faa.gov, and the DRS.

4. What This Order Cancels. FAA Order 3900.66, Flight Standards Service Hearing Conservation Program, dated August 13, 2014, is canceled.

5. Policy. It is an FS policy that employees comply with the FS HCP to prevent occupational hearing loss. This guidance represents the minimum requirements for the HCP. Site-specific requirements may be more stringent based upon local risk assessments.

6. Scope and Application. This HCP applies to FAA FS personnel performing work in hazardous noise areas.

7. Directive Feedback Information. Direct questions or comments to the OSH Office at 9-NATL-AVS-AFS-OSH@faa.gov. For your convenience, FAA Form 1320-19, Directive Feedback Information, is the last page of this order. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this order on FAA Form 1320-19.

Chapter 2. Roles and Responsibilities

1. Executive Director, Flight Standards Service (AFX-1). AFX-1 shall:

a. Ensure that resources (funding and personnel) are available to effectively implement this HCP throughout the FS organization.

b. Oversee the overall implementation and life-cycle management of the HCP in FS.

2. FS Division Managers. FS Division Managers shall:

a. Provide oversight of the HCP for their division.

b. Keep informed of potentially hazardous noise work areas, tasks, and equipment within his or her jurisdiction.

c. Ensure employee participation in the HCP.

d. Review incidence rates of recordable hearing loss and standard threshold shift (STS) in employees.

3. Managers and Front Line Managers (FLM). Managers and FLMs shall:

a. Manage and implement the HCP requirements locally and ensure their employees comply with the HCP requirements.

b. Evaluate the completeness and quality of the HCP elements for their jurisdiction.

c. Identify individuals whose job function exposures equal or exceed 85 decibels in the A-weighted scale (dBA) as identified in the sound exposure database or determined through review of FAA Form 3900-22, AFS Hearing Conservation Program (HCP) Determination Form (HCPDF).

d. Confirm the answers provided on the HCPDF and the job tasks of their employee are accurate and correspond to the job assignments of that employee.

e. Furnish and maintain an adequate supply of approved HPDs.

f. Ensure that employees receive baseline and annual audiometric tests and their initial and annual HCP training within 6 months of the employee's enrollment in the HCP.

g. Review reports of recordable hearing loss and STS with affected employees.

h. Ensure that employees that have a potential STS are retested within 30 days of the annual audiogram.

i. Ensure that employees that have a confirmed STS receive the STS training.

j. Notify employees of potentially hazardous noise associated with work areas, tasks, and equipment through signs, notices, and other written communication, where applicable.

k. Enforce the use of HPDs where required and counsel employees where appropriate.

4. FS-Designated Hearing Conservation Program Manager (HCPM). The HCPM shall:

a. Serve as the hearing conservation subject matter expert (SME) and function as a technical resource to FS offices' managers/FLMs, assisting them with overall HCP management.

b. Provide appropriate and periodic noise exposure monitoring to identify employees or work activities above the Action Level (AL).

c. Maintain and use the FS noise exposure database for identification of noise exposure by job function, hazardous noise work areas, and tasks.

d. Assist managers and FLMs with the identification of affected employees, hazardous noise work areas, tasks, and equipment.

e. Specify and issue a list of the approved HPDs and assist managers/FLMs with the identification and use of appropriate HPDs to be worn by employees.

f. Coordinate with Federal Occupational Health (FOH) to develop an Audiometric Testing and Evaluation Program (ATEP).

g. Evaluate new operations/activities that may introduce new or additional noise exposures.

h. Provide updated noise exposure reports by posting to the FS OSH web page.

i. Ensure that HCP training related to HCP requirements is provided to division managers, management, and FLMs.

5. Federal Occupational Health (FOH). FOH shall:

a. Administer the audiometric testing program to include conducting, evaluating, and documenting audiometric tests according to the requirements stated in OSHA's Occupational Noise Exposure Standards (29 CFR § 1910.95); and OSHA's Occupational Injury and Illness Recording and Reporting Requirements (29 CFR § 1904.10). FOH maintains all audiometric test results and other required records.

b. Within 6 months, conduct baseline audiometric tests for all new FS employees who will be included in the HCP (at or above the 8-hour time-weighted average (TWA) of 85 dBA).

c. Conduct annual audiometric tests for all employees whose noise exposures equal or exceed 85 dBA (employees included in the HCP).

d. Evaluate audiograms to determine the presence of a recordable hearing loss or STS.

e. Research the working relationship of hearing loss cases. Refer employees for a professional consultation to assist in making a work relationship determination, when necessary.

f. Conduct followup audiometric examinations within 30 days for tests indicating the presence of a potential STS.

g. Assess and recommend treatment for medical pathology that is suspected to be caused or aggravated by hearing protectors. Refer employees to a personal physician if medical pathology unrelated to the use of hearing protectors is detected.

h. Notify the employee and their FLM when an employee is due for an audiogram.

i. Notify the employee and the employee's FLM of a recordable hearing loss, STS, or any other medical pathology identified during audiometric testing. Written notification is to be made within 21 days of the examination.

6. Employees. Employees shall:

a. Understand and comply with this HCP, applicable OSHA standards, and HCP training.

b. Complete the HCPDF using the editable PDF file found online, electronically sign, and send to the FLM/manager for their electronic signature. After the form is signed, email it to the OSH mailbox at 9-NATL-AVS-AFS-OSH@faa.gov for processing.

c. Participate in the audiometric testing program as required.

d. Employees enrolled in the FS HCP will schedule an audiometric appointment once they have been notified by FAA Occupational Medicine (OccMed).

> **Note:** Do not schedule an audiogram if you are experiencing an earache, or have a cold, sinus issue, or head congestion, since these often adversely affect your results. You can reschedule if symptoms appear prior to your appointment.

e. If notified of a potential STS, it is the responsibility of the employee to be retested within 30 days of their annual audiogram.

f. Understand the need to correlate high noise exposure with certain procedures, work areas, tasks, and equipment.

g. Report potential hazardous noise work areas, work tasks, and equipment to their FLM.

h. Wear approved HPDs where elevated noise exists.

i. Properly use and maintain approved HPDs and notify manager/FLM if HPD supply is insufficient or needs to be ordered.

j. Inform their FLM of any personal health problems that could be aggravated by the use of HPDs.

Chapter 3. Hearing Conservation Program (HCP) Requirements

1. Objectives. The primary objectives of the FS HCP include the following focus areas:

a. Preventing hearing-related injuries through the implementation of safety and health requirements.

b. Administering an audiometric testing program for employees enrolled in the FS HCP.

c. Providing HPDs for applicable employees.

d. Administering effective training for identified employees and maintaining the required recordkeeping.

2. Noise Reduction and Controls.

a. Excessive noise must be reduced or eliminated via the implementation of engineering and/or administrative controls, when feasible. When engineering and administrative controls are not feasible, HPDs shall be used as needed to protect employees from excessive noise exposure.

b. Since the majority of noise sources for FS employees are external to the FAA, HPDs are needed to prevent noise exposure and noise-induced hearing loss.

3. Permissible Exposures. Permissible noise exposure levels for FS employees and their conditions for inclusion in the HCP are defined below. These conditions and levels are referred to as the FS noise exposure limits.

a. Occupational Exposure Limit. The occupational exposure limit for noise, the criterion sound level, is 85 dBA, expressed as an 8-hour TWA. Exposure to this level for any one day in a year requires inclusion in the HCP.

b. The AL or TWA Exposure. The AL or the TWA exposure which requires program inclusion is 82 dBA. FS employees exposed to this level for 30 days or more per year must be included in the HCP.

c. Recordable Hearing Loss or STS. For employees who have experienced a recordable hearing loss or STS, the noise exposure limit is 82 dBA, expressed as an 8-hour TWA exposure for any one day.

d. Second Recordable Hearing Loss or STS. For employees who have experienced a second (subsequent) recordable hearing loss or STS, the exposure limit is 79 dBA, expressed as an 8-hour TWA exposure for any one day. See Table 3-1, Allowable Exposures and Times, for noise exposure limits based on noise level and exposure time.

Table 3-1. Allowable Exposures and Times

Exposure Level (dBA)	Allowable Exposure Time (hours)	
	Action Level	Permissible Level
82	8	16
85	4	8
88	2	4
91	1	2
94	0.5	1
97	0.25	0.5
100	0.13	0.25

4. Affected Personnel. Employees whose work specialty or job function meet the criteria listed below *must* be included in the HCP. However, employees may request specific job tasks to be evaluated for possible inclusion in the HCP.

a. The employee's assigned job function has an associated 8-hour TWA sound exposure level of 85 dBA or greater on any one day in a year.

b. The employee's assigned job function has an associated 8-hour TWA sound exposure level of 82 dBA or greater for 30 days or more per year.

c. The employee's regular job function has an associated sound exposure level of less than 85 dBA, but infrequently works a job function with an associated 8-hour TWA sound exposure level of 82 dBA or greater.

d. The employee's regular job function has an associated sound exposure level of less than 85 dBA, but works in specific areas, or is engaged in trigger tasks and activities identified as hazardous noise through the HCPDF.

5. TWA Access to Information. FS must make available to affected employees or their representatives copies of OSHA's Occupational Noise Exposure Standards (29 CFR § 1910.95) and must post a copy in the workplace. A copy of this HCP will be distributed to all FS offices and will be made available to all affected employees.

6. Program Elements. The HCP consists of the following elements that are covered in separate chapters in this HCP: engineering and administrative controls, sound exposure monitoring, audiometric evaluation, personal hearing protection, education and training, recordkeeping, and program evaluation.

Chapter 4. Engineering and Administrative Controls

1. Engineering Controls. The optimal means of reducing or eliminating employee exposure to elevated noise is through the application of engineering controls. Engineering controls are defined as any modification or replacement of equipment, or any related physical change, at the noise source or along the transmission path that reduces the noise level to which the employee is exposed. Engineering controls are unlikely for the FS workforce since the noise sources are usually owned by the host employer.

2. Administrative Controls. If engineering controls fail to reduce sound levels within the requirements specified in this chapter, administrative controls must be utilized if possible. Administrative controls are defined as changes in the work schedule, procedures, or operations that reduce noise exposure, such as access restrictions and time limitations in the hazardous noise area. Requirements for administrative controls include:

a. Maximizing Distance. Maximizing the distance between the employee and the hazardous noise source to the extent practical; and

b. Identifying Hazardous Noise Areas. Since FS employees work in a variety of host work environments, special attention must be given to identifying areas of potentially hazardous noise.

(1) In the United States, host employers with noise issues are required to post signage where hearing protection is required.

(2) Hazardous noise environments overseas have not been evaluated fully, so the employee must use HPDs if they are in a high-noise area.

3. Personal Protective Equipment (PPE). If both engineering and administrative controls are unavailable or fail to reduce sound levels to 85 dBA, 8-hour TWA or below, personal hearing protection shall be used to bring exposures to acceptable levels in accordance with the following:

a. Employees' Exposure to Noise. Employees who enter areas or who perform tasks where noise exposure is greater than or equal to 82 dBA must be provided with HPDs. Where noise exposure is equal to or greater than 85 dBA or a 140 decibel (dB) peak, regardless of the duration of exposure, employees must be provided with hearing protection and required to wear it.

b. HPDs. The requirements for HPDs and their use are discussed in detail in Chapter 7.

Chapter 5. Sound Exposure Monitoring

1. Background.

a. Sound Exposure Monitoring. Sound exposure monitoring is an essential component of an HCP. The sound exposure monitoring procedure provides a uniform and repeatable method to assess the level of hazard from occupational noise.

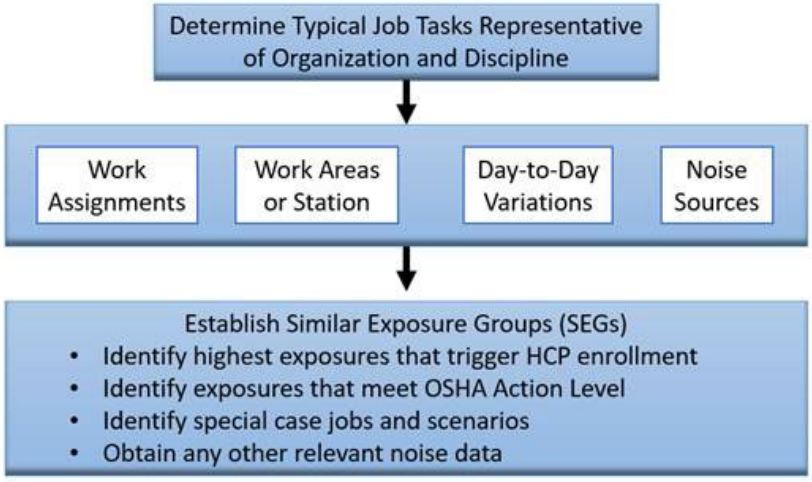
b. Sound Exposure Sampling Strategy. The sound exposure sampling strategy utilizes representative personal monitoring designed to:

(1) Identify employees for inclusion in the HCP utilizing the HCPDF, and

(2) Support the proper selection of HPDs.

2. Establishment of a Monitoring Program.

a. Development and Implementation. Whenever information indicates that any employee's exposure may equal or exceed an 8-hour TWA of 85 dB on any one day, or equal or exceed an 8-hour TWA of 82 dB for 30 days per year, FS must develop and implement a monitoring program involving a sampling strategy. Persons designated to conduct sound exposure monitoring must be qualified in the monitoring methodology and in using the FS noise exposure database application.



b. Factors of Noise Exposures in the Workplace. Factors that suggest noise exposures in the workplace may be at or above this level include (1) employee complaints about the loudness of noise, (2) indications that employees are losing their hearing, and/or (3) noisy conditions that make normal conversation difficult. Employees likely to be exposed to noises exceeding 85 dB over an 8-hour TWA include personnel who work on airport ramps or near operational aircraft engines or auxiliary power units (APU), or who meet any of the other noise sources/scenarios listed on the HCPDF.

c. Sound Exposure Monitoring. Targeted sound exposure monitoring via sound surveys will be conducted every few years to validate previous sound data, to capture new sound sources/data, and to reflect any changes related to job function sound exposures.

d. Remonitoring of Noise Exposures. Remonitoring of noise exposures must be performed whenever a change in job tasks, procedures, equipment, or controls indicates that noise levels may have increased, resulting in exposure equal to or greater than 85 dBA TWA.

3. Sound Exposure Monitoring Purpose.

a. Purpose. The purpose of the sound exposure monitoring procedure is to document the long-term, 8-hour TWA sound level relative to the Similar Exposure Group (SEG). An SEG is defined as a group of workers likely to have the same general exposure profile because of the tasks they perform, the similarity of the way tasks are performed, and the areas in which they work. Monitoring on one individual within an SEG is considered representative of the exposure expected for any member of the group. For the sampling strategy, employees will be categorized according to the following:

(1) Employees that have the potential to rotate or change jobs with no associated change in duty assignment status;

(2) Employees that are engaged in a similar kind of work; and

(3) Employees whose sound exposure profiles are expected to be similar.

b. Noise Exposure Assessment. An employee's noise exposure assessment is the 8-hour TWA sound level identified with the SEG to which the employee is assigned. When an employee's work assignment and SEG are changed, the employee's noise exposure assessment changes to the TWA associated with the new SEG to which the employee is assigned. Not all exposed employees need to be monitored. The sound exposure monitoring procedure utilizes representative monitoring.

c. SEG. Representative monitoring determines an SEG sound exposure potential for a group of employees who are engaged in a similar kind of work and whose sound exposures are expected to be similar. The SEG reasonably believed to have the highest sound exposure potential is monitored and the resulting SEG sound exposure TWA is considered representative of the sound exposure potential for the group.

4. Employee Notification. FS must notify each employee exposed at or above an 8-hour TWA of 85 dBA in writing of the results of the monitoring. The FS HCPM must maintain copies of results for all employees exposed at or above the 85 dBA TWA. This notification is provided on the HCPDF and by signing the form, the employee acknowledges they have been notified.

5. Observation of Monitoring. FS must provide affected employees and their representatives with an opportunity to observe any noise measurements conducted.

6. Instrument Care and Calibration. The FS HCPM will ensure sound level measuring instruments and calibrators are calibrated and certified per the manufacturer's instructions by a qualified laboratory, and keep calibration certificates on file.

a. Sound Level Meters (SLM) and Noise Dosimeters. Direct-reading integrating SLMs and noise dosimeters must be field calibrated before and at the end of each day of monitoring using the technique recommended by the manufacturer. This calibration should also include a visual inspection to identify any damage to the instrument that may have occurred while in use.

b. Instrument Batteries. Check instrument batteries before each field calibration, and periodically throughout the sampling period (if practical). If the calibration check or battery check indicates unreliable readings, all measurements taken since the last acceptable calibration and/or battery check must be repeated.

7. Assignment of Sound Exposure Risk to Individual Employees.

a. Employee Exposures. The existing noise exposure database identifies employee exposure based on broad assignments of representative exposure groups and exposure profiles.

b. Assignments. The assignments are made to ensure that no employee with noise exposure is excluded from the HCP, and potentially includes personnel who may not have significant noise exposure.

c. Responsibilities. It is the responsibility of management and supervision at each office to annually confirm individual employee noise exposures by:

(1) Verifying the answers on the HCPDF are still valid by conferring with the employee; and

(2) Reviewing the typical day assignments of the employee and identifying certain tasks and situations that trigger noise exposure risk (included in the HCPDF).

d. FAA Form 3900-22, AFS Hearing Conservation Program (HCP) Determination Form (HCPDF). The HCPDF is completed by the employee and reviewed by the employee's FLM to document potential exposure conditions. This includes identifying noise conditions previously not identified. If a potential exposure to hazardous noise levels is identified (by selecting paragraphs A, B, C, D, E, and/or H), the employee is advised that he or she is enrolled in the HCP, and the employee must agree to follow procedures to use and maintain HPDs.

(1) Completed HCPDFs are to be forwarded to the FS OSH mailbox at 9-NATL-AVS-AFS-OSH@faa.gov. Copies of completed HCPDFs are sent to the OccMed office for inclusion in the employee's medical file.

(2) If new noise conditions are identified that are not on the HCPDF, notify the FS HCPM, and they will be targeted for future monitoring.

e. Annual Audiometric Examination. All employees included in the HCP must be scheduled for an annual audiometric examination and related procedures conducted by FOH.

Chapter 6. Audiometric Evaluation

1. Requirements of Audiometric Testing and Evaluation Program (ATEP). FOH, with contract and program oversight by the FS OSH Office, continues to maintain an ATEP for all FS employees enrolled in the FS HCP. The FAA must provide the ATEP at no cost to employees.

a. Audiometric Testing Requirements. Audiometric testing will be conducted and documented according to the requirements stated in OSHA's Occupational Noise Exposure Standards (29 CFR § 1910.95) and OSHA's Occupational Injury and Illness Recording and Reporting Requirements (29 CFR § 1904.10).

(1) FOH, on behalf of the FAA, will:

(a) Conduct a baseline audiogram for all new employees in the HCP within 6 months of the employee's first exposure at or above the FS noise exposure limits.

(b) Offer annual audiometric testing to all FS employees enrolled in the FS HCP whose annual noise exposure assessment equals or exceeds the FS noise exposure limits.

(c) Perform retest audiograms within 30 days when a potential STS or recordable hearing loss is detected.

(2) Any FS employee who has ever been in the HCP during their FAA career must receive an exit audiogram whenever he or she leaves the agency.

(3) When testing HCP employees, FOH will notify the employee, the employee's FLM, and the FS HCPM in writing within 21 days when an STS or a recordable hearing loss occurs. Written notification of a decrease in hearing sensitivity is not required. However, employees may request and receive a copy of the hearing examination results.

b. Audiometric Test Frequencies. Per 29 CFR § 1910.95, audiometric tests (audiograms) must be pure tone, air conduction, hearing threshold examinations, with test frequencies (including as a minimum) 500, 1000, 2000, 3000, 4000, 6000, and 8000 hertz (Hz). The examiner performs tests separately on each ear for each frequency.

c. FOH. FOH will ensure that FOH staff and contractors receive training to perform audiograms and ensure that equipment, test procedures, test interpretation, clinical followup, and documentation meet OSHA requirements. FOH staff or contractors that conduct audiograms must have certification through the Council for Accreditation in Occupational Hearing Conservation (CAOHC).

2. ATEP Responsibilities. The FS HCPM, with coordination with the FAA-wide HCP office, will ensure oversight of the ATEP, to include:

a. Oversee and administer contract agreements with any medical surveillance provider(s).

b. Ascertain and ensure ATEP procedures for audiometric examinations (testing, review, evaluation, followup, and data management) are current and comply with OSHA regulations.

c. Ascertain and ensure required HCP training is complete and compliant.

d. Regularly review reports of STS and recordable hearing loss cases.

e. Regularly review documentation and records of ATEP activity.

f. Report to FOH any complaints received from FS employees about FOH clinics, so FOH can address the issue.

Chapter 7. Personal Hearing Protection

1. Requirements.

a. Noise Prevention. Although the most effective method to prevent noise-induced hearing loss is through removing the noise from the workplace or removing the worker from the noise, in most jobs within FS, HPDs are the only feasible means to protect workers. FS requires the use of approved HPDs when an employee is working in an area of high noise (e.g., on an airport; during an air show with military aircraft, or near a runway/aircraft/engine/APU) or is engaged in a task with associated hazardous noise levels, regardless of daily exposure level.

b. HPDs.

(1) Employees must wear HPDs if they are exposed to the levels discussed in this HCP if:

- They have not yet had a baseline/initial audiogram,
- They have experienced an STS,
- In areas where HPDs are required by the host facility,
- In areas where signage requires them, or
- In areas where the noise levels cause you to raise your voice when speaking to someone 3 feet away.

(2) Earplugs and earmuffs must be for the exclusive use of each employee and not be traded or shared.

(3) Earmuffs must be made available to employees who cannot wear earplugs or who prefer earmuffs.

2. Availability of HPDs.

a. FS managers and FLMs will make HPDs available to their employees who have the potential to work in high-noise areas.

b. HPDs must be provided at no cost to employees and must be replaced as necessary.

3. Approved HPDs.

a. The FS HCPM must specify and provide a list of the approved HPDs. The FS HPD Approved List is available on the FS OSH Knowledge Services Network (KSN) site: https://avsshp.faa.gov/avs/aqs100/OSHA/AFSOSHProgram/SitePages/FS%20Hearing%20Conservation%20Program%20(HCP).aspx.

b. Several styles and types of earplugs have been selected specifically for FS employees and the variety of work tasks performed. Approved earmuffs are also included on the list.

> **Note:** All FS HPDs must have a minimum of 25 dB Noise Reduction Rating (NRR).

c. Specialized HPDs. For individuals with specific medical needs or physical characteristics that require specific types of HPDs (e.g., hearing aids that cannot be worn in earmuffs, or a person with a cochlear implant), FS will provide specialized HPDs.

d. Additional HPD Types. Individuals desiring to use additional HPD types, or brands that are not on the FS HPD Approved List, must submit a request to the HCPM in writing that includes the manufacturer's technical specifications.

4. Training. HCP training will be provided in accordance with Chapter 8 of this order.

5. Management Support. Managers need to monitor and enforce the wearing of hearing protection where required. A critical message for managers to share with employees is that even someone who has lost some hearing ability can still save what hearing they have left by using HPDs.

6. HPDs Must Be Worn While:

a. Performing inspection activities on an active ramp.

b. Involved in travel to remote sites in small aircraft and helicopters.

c. Performing check rides in small aircraft or various helicopter types.

d. Performing air show monitor activities at public air shows that include military aircraft.

e. Involved in activities near engine testing operations and in direct proximity of active aircraft (i.e., APUs and air cycle machines (ACM)).

f. Involved in activities in the direct vicinity of riveting operations, ram air turbine (RAT) testing, and construction/utility equipment.

g. Involved in activities in workplaces where noise levels require a raised voice to be heard.

7. Cockpit Communication Headsets Versus HPDs.

a. At the time of writing this order, all but one model of communication headsets for pilots and cockpit occupants are for communication only; they are not HPDs. The majority of communication headsets do not have a laboratory-tested NRR.

b. For example, the largest manufacturer of aviation headsets, David Clark, has very few headsets with an approved laboratory-tested NRR. At the time of writing this order, David Clark has one model of communication headset with the required minimum NRR of 25 dB to qualify as HPDs. This one model can be used as an HPD.

c. Headsets with an NRR less than 25 dB, or headsets without an NRR, are not HPDs and require FS employees performing check rides and cockpit activities to wear earplugs under their communication headsets.

d. See the link to the FS HPD Approved List in subparagraph 3a above.

Chapter 8. Education and Training

1. Background. The success of the HCP depends largely on effective employee education and training. The specified training requirements and the focus of the training are to educate employees to identify hazardous noise areas and jobs and to use HPDs properly. Annual training must be provided to all employees who are or may be exposed to the FS noise exposure limits. Supplemental HCP training can be provided annually, covering job-specific topics.

2. Initial HCP Training Requirements.

a. Effects of Noise on Hearing. Training will cover both how the effects of noise exposure show up on the audiogram and the impact of noise-induced hearing loss on everyday life. Emphasis should be placed on protecting hearing in those employees who have already experienced hearing loss.

b. HPD Training. This training will include:

(1) The purpose of HPDs;

(2) The types of devices (advantages, disadvantages, and attenuation of various types);

(3) The selection, fitting, use, and care of HPDs;

(4) Common high-noise areas and job activities for FS employees;

(5) Methods for solving common problems associated with HPDs;

(6) The importance of saving what hearing we have left;

(7) Recordkeeping requirements; and

(8) Supervised hands-on practice in the proper fitting and donning of HPDs.

c. Audiometry. Instruction will include a discussion of the purpose of audiometric testing in preventing hearing loss, a description of the actual test procedures, interpretation, implications of the test results, and recordkeeping. Employees should be made aware that threshold shifts can be traced to inadequate protection from ineffective noise controls and inconsistent use of HPDs.

3. Annual HCP Training Requirements. All employees included in the FS HCP must be trained annually utilizing an online course with followup hands-on activities. The annual training refreshes employees on the topics listed below:

a. The selection, fitting, use, and care of HPDs;

b. The importance of saving what hearing we have left; and

c. Supervised hands-on practice in the proper fitting and donning of HPDs.

4. STS HCP Training.

a. For employees with a confirmed STS, the office HCP trainer must provide STS training that includes an online hearing conservation course followed up with instructor-led training.

b. STS action items are outlined in the STS Guide located on the KSN site: https://avssp.faa.gov/avs/aqs100/OSHA/AFSOSHProgram/SitePages/Hearing%20Conservation.aspx.

Chapter 9. Recordkeeping

1. FS Required Records. The FS organization must ensure that all required records are maintained in a manner that is readily accessible to managers in the employee's line of supervision, the FS HCPM, employees upon request, employee representatives, and OSHA representatives.

2. Employee Notification. FS must notify each employee exposed at or above an 8-hour TWA of 85 dBA in writing of the results of the monitoring. The FS HCPM must maintain copies of the results for all employees exposed at or above the 85 dBA TWA. This notification is provided on the HCPDF, and by signing the form the employee acknowledges they have been notified.

a. Availability. The location where OSHA's Occupational Noise Exposure Standards (29 CFR § 1910.95) are posted.

b. Results. The results of noise exposure assessments and the employee's most recent noise exposure assessment.

c. Audiograms.

(1) Employees must be informed of the need to avoid nonoccupational noise (e.g., riding motorcycles, concerts, shooting, etc.) for at least 14 hours prior to a baseline, initial, annual, or a retest audiogram.

(2) Audiometric test records must include the name and job classification of the employee, the date, the examiner's name, the date of the last acoustic or exhaustive calibration, measurements of the background sound pressure levels in the audiometric test room, and the employee's most recent noise exposure measurement.

d. Training. The appropriate FS office must ensure training records are maintained in the FAA electronic training records system.

3. Record Retention.

a. Noise Monitoring Results. Noise monitoring results must be retained for 30 years.

b. HCPDFs. The HCPDFs will be maintained for at least 3 years after the employee leaves the agency.

c. Audiometric Test Records. Audiometric test records must be retained as a part of the employee's medical record for at least the length of employment plus 30 years. FOH will maintain records of all audiograms.

d. Training Records. Training records will be maintained for the duration of employment of the affected employee and include the employee's name and the date of the training.

Chapter 10. Program Evaluation

1. Program Evaluation.

a. Evaluation Frequency. The effectiveness of the HCP must be evaluated annually.

b. Program Level. The program level evaluation must occur annually by office management with assistance provided by the FS HCPM. The audiometric testing and HCP training program elements must be reviewed annually by FOH for quality and effectiveness.

2. Documentation. The findings of the program evaluation must be documented and must include recommendations for program corrections, modifications, and additions. This documentation must be kept for 5 years.

3. Occupational Safety, Health, and Environmental Compliance Committee (OSHECCOM). The findings of the program evaluation will be shared with establishment level OSHECCOM members.

Appendix A. Definitions

1. Action Level (AL). The noise level (85 dBA), calculated as an 8-hour time-weighted average (TWA), at which the Occupational Safety and Health Administration (OSHA) requires exposed employees to be included in the Hearing Conservation Program (HCP).

2. Administrative Controls. When OSHA permissible exposure limit (PEL) exposure levels are exceeded, feasible administrative controls (i.e., worker-machine rotation or breaks from noise) or engineering controls must be utilized. If administrative or engineering controls fail to reduce sound levels within OSHA PEL exposure levels, personal Hearing Protective Devices (HPD) must be provided to the employee by the employer and used to reduce sound levels to within the levels of OSHA PEL exposure levels.

3. A-Weighted Sound Level in Decibels (dBA). Unit of measurement of sound level in decibels (dB) using a weighting network of the A scale on a Sound Level Meter (SLM); an expression of the relative loudness of sounds in the air as perceived by the human ear. In the A-weighted system, the dB values of sounds at low frequencies are reduced compared with unweighted dB, in which no correction is made for audio frequency.

4. Audiogram (Hearing Test). The chart, graph, or table showing hearing threshold level as a function of frequency; a method of measuring the degree of hearing loss.

5. Audiologist. A professional, specializing in the study and rehabilitation of hearing, who is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.

6. Baseline Hearing Test. An OSHA-required audiometric examination which must be administered within 6 months of an HCP employee's initial exposure to potentially elevated noise levels at or above 85 dBA TWA. This baseline test is used for comparison with future tests to determine if changes have occurred in hearing.

7. CAOHC. The Council for Accreditation in Occupational Hearing Conservation.

8. CAOHC Certification. A certificate issued following successful completion of an accredited course. This certification is renewed every 5 years.

9. Criterion Sound Level. The constant sound level in dB that, if applied for 8 hours, would accumulate a dose of 100 percent.

10. Decibel (dB). Unit of measure for sound levels. Based on a logarithmic scale.

11. Dose. A percentage of the maximum allowable noise that a worker can be exposed to per day. This is a computation that is based on the following variables: criterion level, lower threshold, and exchange rate. The dose is expressed as a percentage.

12. Dosimeter. An instrument that is worn or used by an individual to measure the accumulation of their noise exposure over a work period. Dosimeters monitor all kinds of noise sources and are used when time and mobility are issues. Dosimeters generally sample 16 times per second.

13. Employees' Compensation Operations and Management Portal (ECOMP). A website that serves as the agency's mishap reporting system and worker's compensation system. Mishaps are reported by the employee in OSHA Form 301, after which the employee has the opportunity to complete the worker's compensation forms.

14. Exchange Rate. The rate at which a noise hazard (expressed by dose) doubles. Using a dB scale, every time the sound energy doubles, the measured level increases by 3 dB. This is the 3 dB exchange rate recommended by the National Institute for Occupational Safety and Health (NIOSH) and the American Council of Governmental Hygienists. For every increase of 3 dBA in the TWA, the measured dose (or risk of hearing impairment) would double. OSHA uses an exchange rate of 5 dB. The exchange rate affects the integrated readings L_{avg}, dose, and TWA, but does not affect the instantaneous sound level.

15. Exhaustive Calibration. A calibration for audiometers. An exhaustive calibration must be performed at least every 2 years, or whenever the annual check indicates the audiometer is out of limits. The calibration process checks the audiometer's output waveform for linearity, frequency, amplitude, and distortion.

16. Flight Standards Service (FS) Noise Exposure Limits. Permissible noise exposure levels for FS employees and the conditions under which these exposures occur. These limits determine inclusion in the FS HCP and are defined as follows:

a. The occupational exposure limit for noise, the criterion sound level, is 85 dBA, expressed as an 8-hour TWA. Exposure to this level in any one day requires inclusion in the HCP.

b. The AL or the TWA exposure which requires program inclusion is 82 dBA, or a dose of 50 percent. FS employees exposed to this level for 30 days or more per year require inclusion in the HCP.

c. The noise exposure limit for employees who have experienced a recordable hearing loss or STS is 82 dBA, expressed as an 8-hour TWA exposure for any one day.

d. Employees who have experienced a second (subsequent) recordable hearing loss or STS have an exposure limit of 79 dBA, expressed as an 8-hour TWA exposure for any one day.

17. Frequency. Pitch or the number of cycles that a sound wave completes per second. Measured in hertz (Hz) or cycles per second (CPS).

18. Hazardous Noise. Noise levels that pose a danger to hearing ability and a potential cause of hearing loss. Hazardous, elevated, or high noise is caused by operating aircraft and machinery, or industrial processes that cause an individual to raise their voice when speaking. Noise levels of 85 dBA and greater constitute hazardous noise.

19. HCP (Hearing Conservation Program) Employee. An employee who is routinely exposed to workplace noise at or above 85 dBA TWA (OSHA AL) and an employee whose noise exposure is less than 85 dBA but reports occasional exposures to hazardous noise levels, as documented in the noise exposure assessment (sound survey).

20. Hearing Protective Devices (HPD). Personal protective equipment (PPE) that is designed to be worn in the ear canal or over the ear to reduce the sound level reaching the eardrum. Examples include earmuffs or earplugs.

21. Hertz (Hz). Unit of measurement of frequency, numerically equal to CPS.

22. High-Noise Area. Any area where the cumulative noise exposure to employees is above 85 dBA TWA, or a 50 percent dose.

23. Initial Hearing Test. An OSHA-required audiometric examination, which was not administered within 6 months of an HCP employee's initial exposure to potentially elevated noise levels at or above 85 dBA TWA. This will be the common hearing test until this HCP is fully implemented. This initial test is used for comparison with future tests to determine if changes have occurred in hearing.

24. Job Function. A more specific job classification title that relates to a set of job activities (work tasks) routinely performed by an employee with a certain specialty and position. It is used to distinguish between different types of jobs with different sound exposure profiles within the same specialty and position.

25. Job Function Profile. A completely developed job function and is a combination of the title and the list of activities and associated sound exposure information necessary to fully describe the sound exposure profile for a typical full shift including nonproductive periods. It includes a detailed description of the work performed routinely by an employee. Day-to-day or week-to-week variations that habitually occur would be included in the analysis of the job function.

26. L_{avg}. The average sound level, in dB, for the measurement period is based on either a 3 or 5 dB exchange rate.

27. Presbycusis. The term is used to refer to hearing loss associated with the aging process. Adjustments for presbycusis are accomplished automatically within audiometric software according to the procedures and tables contained in the OSHA Noise Standard (Title 29 of the Code of Federal Regulations (29 CFR), part 1910, § 1910.95 appendix F).

28. Recordable Hearing Loss. A hearing loss that meets both of the following conditions:

a. An 8-hour TWA noise exposure of 85 dBA or greater, per the sound survey.

b. The audiometric test findings are consistent with noise-induced hearing loss.

Note: Hearing loss is considered work-related if the exposure in the work environment either caused or contributed to the hearing loss. It is not necessary for the workplace to be the sole cause or even the predominant cause for the hearing loss to be work-related. Criteria a and b above do not apply to acute occupational acoustic trauma (e.g., head injury, explosion, etc.).

29. Sound Survey. A workplace noise exposure assessment. The sound survey is critical in determining which employees are potentially exposed to elevated noise levels and are to be enrolled in the HCP.

30. Standard Threshold Shift (STS). An average change in the hearing level of 10 dB or more at 2000, 3000, and 4000 Hz in either ear, as compared to the baseline audiogram. STS calculations are typically adjusted for presbycusis (i.e., age-adjusted) according to the procedures and tables provided in the OSHA Noise Standard (29 CFR § 1910.95 appendix F).

31. Time-Weighted Average (TWA). The sound level which, if constant over an 8-hour exposure, would result in the same noise dose as is measured.

Appendix B. Sound Exposure Monitoring Procedure

1. Methods of Measurement for Sound Exposure Monitoring.

a. Sound Exposure Measurements. Sound exposure measurements may be conducted using three methods: dosimetry, area measurement, or hearing zone measurement. All methods may be used as a component for exposure modeling and determination. The sound exposure measurements will be conducted by the Hearing Conservation Program Manager (HCPM) or designated qualified personnel.

b. Instruments. A dosimeter is a body-worn instrument that captures and stores sound level data and integrates these data over time. Time-weighted average (TWA) sound levels over a period such as an 8-hour workday are derived from this measurement. An integrating Sound Level Meter (SLM) is used for conducting area and hearing zone measurements.

c. Dosimeter Measurements. For dosimeter measurements, the measurement duration (if not full shift) must be representative of the exposure associated with all the tasks performed by the employee. The microphone should be positioned on the mid-top of the wearer's shoulder with the microphone oriented parallel to the shoulder plane.

d. Task-Based Measurement. For a task-based measurement with an integrating SLM, the measurement duration must be sufficiently long for the resulting noise exposure to be representative of the exposure associated with each of the tasks performed by the employee.

2. Developing Exposure Models.

a. Documentation of Tasks. For each job that is sampled, exposure models are constructed by developing a list of tasks, related durations, and noise level metrics. Documentation of the tasks that comprise the representative work assignment requires that the tasks must include all exposure conditions that could occur in proportion to the way they occur over the typical work shift. The list of tasks is developed based on an understanding of the job under study through observation and interview time with Front Line Managers (FLM) and workers.

b. Interview. The interview must provide information about what the job entails and the activity duration. Emphasis is placed on long-term activity, not what occurs on a specific day. Measurements are taken with an integrating SLM for durations ranging from several seconds to a few minutes to meet the requirement that the duration is sufficiently long to be representative of the exposure associated with the task.

3. Noise Exposure Criteria. Eight-hour TWA and related noise doses are computed using the fractional methods detailed in Title 29 of the Code of Federal Regulations (29 CFR) part 1910, § 1910.95 appendix A; and the National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limits (REL). Damage-risk criteria provide the basis for recommending noise exposure limits based on noise level and exposure time. OSHA and NIOSH criteria are shown below.

Table B-1. Exposure Level Table

Exposure Level (dBA)	85	88	90	92	94	95	100	105	110	115
Permissible Exposure - OSHA	16		8			4	2	1	0.5	0.25
Recommended Exposure - NIOSH	8	4			1		0.25			

a. OSHA Permissible Exposure Limit (PEL). OSHA permits exposures of 85 dBA for 16 hours per day, and uses a 5 dB time-intensity tradeoff, which means for every 5 dB increase in noise level, the allowable exposure time is reduced by half and for every 5 dB decrease in noise level, the allowable exposure time is doubled. All time/intensity values shown on the "Permissible Exposure – OSHA" line in the table above are assumed to have an equal risk to each other, that is, 16 hours at 85 dBA carries the same auditory risk as 8 hours at 90 dBA, 4 hours at 95 dBA, and 2 hours at 100 dBA.

b. NIOSH Recommended Exposure Limit (REL). NIOSH's REL is 85 dBA for 8 hours per day and uses a 3 dB time-intensity tradeoff, which means for every 3 dB increase in noise level, the allowable exposure time is reduced by half and for every 3 dB decrease in noise level, the allowable exposure time is doubled. The time/intensity values shown on the "Recommended Exposure – NIOSH" line in the table are assumed to have an equal risk to each other, that is, 8 hours at 85 dBA carries the same auditory risk as 4 hours at 88 dBA, and 2 hours at 91 dBA, etc.

c. NIOSH Criteria. The Flight Standards Service (FS) has adopted the NIOSH criteria for assessing noise exposures in its employees. Further, it has adopted a combination of exposure conditions and levels to determine if an employee must be included in the HCP. The conditions are as follows:

(1) The occupational exposure limit for noise, the criterion sound level, is 85 dBA, expressed as an 8-hour TWA. Exposure to this level for any one day requires inclusion in the HCP.

(2) The Action Level (AL) or TWA exposure that requires program inclusion is 82 dBA or a dose of 50 percent. FS employees exposed to this level for 30 days or more per year must be included in the HCP.

(3) For employees who have experienced a recordable hearing loss or standard threshold shift (STS), the noise exposure limit is 82 dBA, expressed as an 8-hour TWA exposure for any one day.

(4) For employees who have experienced a second (subsequent) recordable hearing loss or STS, the exposure limit is 79 dBA, expressed as an 8-hour TWA exposure for any one day.

4. Representative Sampling Strategy. Assignments within FS may require employees to perform several different activities during the course of a day, week, month, or year. In order to efficiently conduct personal monitoring and ensure that the employees are properly identified for inclusion in the HCP, the monitoring strategy assigns exposure to the risk of groups of

employees based on a representative job with the highest sound exposure level. Representative groupings are based primarily on four factors:

- Office structure. A personnel roster organized by specialty and position is utilized to select the Similar Exposure Group (SEG).
- Job rotation patterns, as identified by management and other responsible personnel. A job may be deemed representative of employees in a defined group if they rotate or change jobs with no associated change in personnel recordkeeping status.
- Similar jobs or work assignments.
- Similar exposures. Jobs where sound exposures are confirmed to be similar.

5. Personal Monitoring.

a. General. Because assignments can vary greatly, daily personal noise exposure monitoring should be conducted, focusing on identifying and characterizing individual tasks. The variability in noise levels and worker mobility makes the exclusive use of area monitoring generally inappropriate for assessing employee exposure potential. Wherever employee mobility or certain tasks make it impossible to measure with a handheld integrating SLM, the employee should wear the instrument during the performance of those job tasks.

(1) In all cases, sound level measurements are to be taken in a position that represents the worker's hearing zone, based on the conditions observed and professional judgment.

(2) Typically, the sample length may range from several seconds up to a few minutes. If the sound emissions are highly repeatable, the total test duration may encompass only several repetitions of the activity to assure a high degree of measurement accuracy. Other nonrepetitive activities could require longer observation periods to maintain reliability.

(3) The sound levels and durations of scheduled breaks and nonassignment times are obtained and compiled with the job activity data to portray typical workdays. All information should be recorded on standard data collection forms to facilitate data processing input.

b. Task-Based Exposure Assessment Modeling (T-BEAM) Methodology. Under T-BEAM Methodology, jobs are analyzed based on major task components similar to a classical time-motion study. Operations are to be broken down into major sound level sources/components. Job tasks and durations are based on interviews with personnel and observations made of various jobs during the survey. This is an ideal methodology for the FS workforce due to the diversity of job functions and specialties.

6. Background Noise Impact. The airport flight activity's influence on the carryover exposure should be considered to identify the potential acoustical impact from the background sound at any particular airport. The background noise impact is a function of the total number of airport runways, the maximum number of airport runways that can contribute sound at any gate/ramp area, the calculated percentage of active runways that can contribute sound to any particular

gate/ramp area, and the total daily activity at the airport (events). The contribution of background noise from airport activity may be a significant factor in some environments.

7. Pre-Survey Questionnaires. Prior to onsite data collection, a sound survey questionnaire may be used for completion by inspectors to describe their busy/noisy days.

Appendix C. Guidelines for Hearing Loss Cases

1. Determining Work Relationship for Hearing Conservation Program (HCP) Employees.

a. For employees who are in the HCP, the physician will evaluate audiometric examinations and make a work relationship determination when hearing loss (a standard threshold shift (STS) and/or recordable hearing loss) is detected. This determination will be in accordance with the Occupational Safety and Health Administration's (OSHA) Occupational Noise Exposure Standards (Title 29 of the Code of Federal Regulations (29 CFR) part 1910, § 1910.95), and OSHA's Occupational Injury and Illness Recording and Reporting Requirements (29 CFR part 1904, § 1904.10). A case will be considered work-related if both of the following conditions are met:

(1) An employee is exposed to workplace noise at 85 decibels (dB) time-weighted average (TWA) or more, per a documented Similar Exposure Group (SEG) exposure assessment.

(2) Findings are consistent with noise-induced hearing loss.

Note: Hearing loss is considered work-related if the exposure in the work environment either caused or contributed to the hearing loss. It is not necessary for the workplace to be the sole cause, or even the predominant cause, for the hearing loss to be work-related.

b. The evaluation may include additional professional consultation when the physician is unable to make an independent determination. Most cases should not require referral for consultation.

c. Hearing loss cases and confirmed STSs will be entered in OSHA Form 301 on the Employees' Compensation Operations and Management Portal (ECOMP). Follow the action in the Flight Standards Service (FS) Job Aid for ECOMP, and for STSs follow the actions in the STS Guide. The FS Job Aid for ECOMP is located at https://avssp.faa.gov/avs/aqs100/OSHA/AFSOSHProgram/SitePages/OSH%20Program%20Job%20Aids.aspx?WikiPageMode=Edit&InitialTabId=Ribbon.EditingTools.CPEditTab&VisibilityContext=WSSWikiPage. The STS Guide is located at https://avssp.faa.gov/avs/aqs100/OSHA/AFSOSHProgram/SitePages/Hearing%20Conservation.aspx.

2. Procedure.

a. Federal Occupational Health (FOH) medical staff will refer a case to the physician when an annual audiometric test shows an STS, or when an audiometric retest shows an STS or a recordable hearing loss.

Note: When a recordable hearing loss is detected on the annual exam, the physician evaluation may be deferred until retest. If an STS or recordable hearing loss is detected on the retest, the case must be referred to the physician.

b. When evaluating audiometric cases, the FOH physician will:

(1) Review all available documentation and test results, including actual values as displayed on the audiometer's printout, the employee's audiometric test history, and the surveillance exam comments.

(2) Consider the potential effects of the testing environment by reviewing equipment calibration records, biological testing results, and background sound pressure measurements, as necessary.

c. If a referral is necessary, provide the following information to the outside consultant:

(1) Copies of the baseline, initial, annual, and/or retest audiograms (actual printouts from the audiometer);

(2) Background sound pressure levels for the audiometric testing room; and

(3) The most recent calibration records for the audiometer.

d. FOH will document the work relationship determinations.

e. Hearing loss cases will remain on the OSHA Log (in ECOMP) when an STS/recordable hearing loss is confirmed on the retest and when hearing loss is determined by a physician to be work-related.

f. Unless the physician determines the threshold shift is not occupational, the STS Guide's actions must be followed.

g. If a subsequent audiologic evaluation of an employee exposed to less than an 8-hour TWA of 90 dB indicates that the threshold shift is not persistent, the employer:

(1) Must inform the employee of the new audiometric interpretation, and

(2) May discontinue required use of hearing protectors for that employee.

h. An annual audiogram may be substituted for a baseline if the audiologist, otologist, or physician determines that the STS is persistent or the threshold indicates a significant improvement over the baseline.

Appendix D. Program Evaluation Tools and Questionnaire

1. Introduction. This questionnaire is intended for use by the responsible Flight Standards office management and supervision, the Flight Standards Service (FS) Hearing Conservation Program Manager (HCPM), or other qualified persons during the program evaluation of program effectiveness. The purpose of the evaluation is to determine the effectiveness of the program in reducing and preventing hearing loss of FS employees.

2. Program Administration.

a. Are copies of the Hearing Conservation Program (HCP) available in the offices that support the various program elements? Are those who implement the program elements aware of these policies? Do they comply?

b. Are necessary materials and supplies being ordered with a minimum of delay?

c. Safety: Has the failure to hear warning shouts or alarms been tied to any accidents or injuries? If so, have remedial steps been taken?

d. Have Front Line Managers (FLM) been provided with the knowledge required to supervise the use and care of hearing protectors by employees?

e. Do FLMs wear hearing protectors in appropriate areas?

f. Have FLMs been counseled when employees resist wearing protectors or fail to show up for hearing tests?

g. Are disciplinary actions enforced when employees repeatedly refuse to wear hearing protectors?

COMMENTS:

3. Sound Exposure Monitoring and Assessment.

a. Have sound exposure reports been reviewed?

b. Have individual employee exposures been assessed using FAA Form 3900-22, AFS Hearing Conservation Program (HCP) Determination Form (HCPDF)?

c. Have employees been notified of their exposures and apprised of auditory risks?

d. Have there been changes in areas, equipment, or processes that have altered noise exposure? Have followup noise measurements been conducted?

e. Are appropriate steps taken to include (or exclude) employees in the HCP whose exposures have changed significantly, utilizing the HCPDF?

COMMENTS:

4. Audiometric Evaluation.

a. Are audiometric trends (deterioration) being identified, both in individuals and in groups of employees? (National Institute for Occupational Safety and Health (NIOSH) recommends no more than 5 percent of workers showing 15 decibel (dB) standard threshold shift (STS), same ear, same frequency.)

b. Are the results of audiometric tests being communicated to FLMs and managers as well as to employees?

c. Has corrective action been taken to address no-shows for audiometric test appointments?

d. Are employees who show STS or have recordable hearing loss notified in writing within at least 21 days?

e. Do employees who incur noise-induced hearing loss receive counseling?

COMMENTS:

5. Personal Hearing Protective Devices (HPD).

a. Have HPDs been made available to all employees who spend any amount of time in hazardous noise work areas?

b. Are employees given the opportunity to select from a variety of approved HPDs?

c. Are the HPDs checked regularly for wear or defects, and replaced immediately if necessary?

d. Are replacement HPDs readily available?

e. Do employees understand the appropriate hygiene requirements?

f. Have any employees developed ear infections or irritations associated with the use of HPDs? Are there any employees who are unable to wear these devices because of medical conditions? Have these conditions been treated promptly and successfully?

g. Have alternative types of HPDs been considered when problems with current devices are experienced?

h. Do workers complain that HPDs interfere with their ability to do their jobs? Do they interfere with spoken instructions or warning signals? Are these complaints followed promptly with counseling, noise control, or other measures?

i. Are employees able to demonstrate that they understand how to use and care for the protector?

COMMENTS:

6. Education and Training.

a. Has it been verified that annual HCP training has been conducted during audiometric testing?

b. Was supplemental training conducted?

c. Was the supplemental training program documented?

d. Was the supplemental training program evaluated?

e. Are managers and FLMs directly involved?

f. Are posters, regulations, and handouts used as training supplements?

g. For employees having problems with HPDs or showing hearing threshold shifts/hearing loss, is time being made available to personally counsel or advise?

COMMENTS:

7. Recordkeeping.

a. Are employee noise exposure records complete?

b. Are records of employees in HCP complete?

c. Are training records complete?

COMMENTS:

Directive Feedback Information

Please submit any written comments or recommendation for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: FAA Order 3900.66A, Flight Standards Service Hearing Conservation Program

To: Flight Standards Directive Management Officer, AFB-120 Directives Mailbox (9-AWA-AFB-120-Directives@faa.gov)

(Please check all appropriate line items)

☐ An error (procedural or typographical) has been noted in paragraph _____ on page_____ .

☐ Recommend paragraph _____on page _____ be changed as follows: *(attach separate sheet if necessary)*

☐ In a future change to this order, please cover the following subject: *(briefly describe what you want added)*

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

Telephone Number: _____ Routing Symbol: _____

FAA Form 1320-19 (10-98)