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United States
Coast Guard

COAST GUARD AVIATION MEDICINE MANUAL

COMDTINST M6410.3

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

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Subj: COAST GUARD AVIATION MEDICINE MANUAL

Ref: (a) Medical Manual, COMDTINST M6000.1(series)
(b) Personnel Manual, COMDTINST M1000.6(series)
(c) Coast Guard Air Operations Manual, COMDTINST M3710.1(series)
(d) Immunizations and Chemoprophylaxis, COMDTINST M6230.4(series)

1. PURPOSE. This Manual establishes policy, assigns responsibilities, and provides guidelines regarding the Coast Guard Aviation Medicine Program.

2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants of directorates, Chief Counsel, and special staff officers at Headquarters shall comply with the procedures of this Manual. Internet release authorized.

3. DIRECTIVES AFFECTED. Flight Surgeons Guide, COMDTPUB P6410.2 of 12 Mar 92 is cancelled. Where this manual conflicts with references a, b and c, this Manual takes precedence. References a, b and c will be updated to reflect the policies in this manual, where applicable.

4. DISCUSSION. This Manual provides valuable guidance for health care providers who treat Coast Guard and other military aviation personnel. Guidelines for physical examination requirements, descriptions of the classifications of aviation personnel, and policies on various medical conditions, medication use and special situations as apply to the aviation community are discussed. This Manual compiles the treatment and medical administrative requirements that are unique to aviation personnel.

5. RESPONSIBILITIES. Coast Guard Flight Surgeons (FS), Flight Surgeon Trainees (FST), Aviation Medical Officers (AMO), Aeromedical Physician Assistants (APA), other CG health care professionals and Health Services (HS) Technicians shall apply the policies and

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standards within this Manual whenever providing care to CG aviation personnel. Commanders of Coast Guard Air Stations and other commanding officers overseeing CG aviation personnel shall ensure that these policies and standards are applied with regards to the health care of these aviation personnel.

5. NOTE. Unless otherwise indicated, the term "Flight Surgeon" or "FS" shall apply to "Flight Surgeon Trainee" or "FST" as well. Unless otherwise indicated, the biennial physical exam should be interpreted to mean annual physical exam for Class 1R aviation personnel.

6. INPUT. Comments and suggestions from the field are welcome. Address comments to: Commandant (G-WKH-1), US Coast Guard, 2100 Second St., SW, Washington, DC 20593.

1. FORMS AVAILABILITY. All forms listed in this Manual with the exception noted in this paragraph are available from stock points listed in the Catalog of Forms, COMDTINST 5213.6. Some forms referenced in this Manual are also available on SWSIII Jet Form Filler, and the WK Publication and Directives web page. CG Form 6020, (Medical Recommendation for Flying) is available in .pdf format on the WK Publication and Directives page; http://www.uscg.mil/hq/g-w/g-wk/g-wkh/g-wkh-1/Pubs/Pubs.Direct.htm.

/S/

JOYCE M. JOHNSON
Director, Health and Safety

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ACRONYMS

AA	Aeronautically Adapted
ACAB	Aeromedical Consultation Advisory Board
APA	Aeromedical physician Assistant
AME	Aviation Medical Examiner
AMO	Aviation Medical Officer
CAD	Coronary Artery Disease
CD	Considered Disqualifying
CGHRMS	Coast Guard Human Resource Management System
CG-6020	Medical Recommendation For Flying Duty
DD-2807	Report of Medical History
DD-2808	Report of Medical Examination
DIFOPS	Duty Involving Flight Operation
DNIF	Duties Not Including Flying
DO	Dental Officer
EAP	Employee Assistance Program
EPS	Electrophysiologic Studies
FAA	Federal Aviation Administration
FEB	Flight Examining Board
FS	Flight Surgeon
FST	Flight Surgeon Trainee
HDL	High-Density Lipoprotein
HEEDS	Egress Breathing Device
HLD	Hiperlipidema
HS	Health Service Technician
LDL	Low Density Lipoprotein
MO	Medical Officer

MRS	Medical Readiness System
NCEP	National Cholesterol Education Program
NIH	National Heart Lung and Blood Institute
NPQ	Not Physically Qualified
OTC	Over the Counter
PQ	Physically Qualified
RAT	Reading Aloud Test
RF	Radio Frequency
SF-502	Narrative Summary
SF-600	Chronological Record of Medical Care
SNA	Student Naval Aviator
SWET	Shallow Water Egress Training
TLC	Therapeutic Lifestyle Changes
UNFAV	Unfavorable
UNSAT	Unsatisfactory
USMTF	Uniformed Service Military Treatment Facility
WPW	Wolfe-Parkinson-White

CHAPTER 1. AVIATION PERSONNEL CLASSIFICATION AND PHYSICAL STANDARDS

Section A - Aviation Personnel Classification.

1. Aviation Personnel in General. The term "aviation personnel" includes all individuals who, in the performance of their present or past duty, are required to make frequent aerial flights. Aviation personnel are divided into two classes: Class 1 and Class 2.
2. Class 1. Class 1 consists of aviation personnel, under the age of 50, engaged in actual control of aircraft, which includes aviators, student aviators, and student flight surgeons that are chosen to perform solo flights. Personnel meeting these requirements may be assigned to unlimited or unrestricted flight.
3. Class 1R. Class 1R consists of aviation personnel engaged in actual control of aircraft who:
   a. meet Class 1 standards but are age 50 or over; or
   b. have a waiver (temporary or permanent) of physical standards that prohibits unrestricted flight. The flight restriction(s) to which the Class 1R pilot is subject will be defined by the waiver authority. In all cases, however, Class 1R aviators will fly as a dual pilot with a Class 1 aviator.
4. Class 2. Class 2 consists of aviation personnel not primarily designated to be in actual control of aircraft. This includes aviation observers, technical observers, flight surgeons, aviation medical officers, aeromedical physician assistants, aviation medevac specialists/mission specialists, flight officers, aircrew members, air traffic controllers, and other persons ordered to duty involving flying.
5. Changing Classes. Except for changes in class due solely to age, individuals requiring a change in their classification for more than two months must submit the following to Commander, Coast Guard Personnel Command (CGPC):
   a. SF-502, Narrative Summary, completed by a flight surgeon/aviation medical officer/aeromedical physician assistant stating the need for the class change and whether a permanent or temporary change is requested; and
   b. command endorsement.

Section B - General Instructions for Aviation Examinations.

1. Purpose of Aviation Physical Examinations.
   a. The Coast Guard physical examination for flying shall be limited to aviation personnel and authorized aviation candidates. The object of an aviation physical examination is to ensure individuals involved in aviation are physically, mentally and emotionally qualified for such duty, and to remove from aviation those who are temporarily or permanently unfit because of physical, mental or emotional defect.

(1) The main objective in examining candidates for flight training is selecting individuals who can fly safely and would be expected to continue to do so for the duration of a long-term flying career.

(2) For designated aviators, the objective is to determine if the individual can fly safely during the next 24 months (or 12 months for personnel requiring annual exams).

b. Physical exams for flight duty performed on members of other military services should be performed in accordance with the policies and procedures of that service.

2. Performance of Aviation Physical Examinations.

a. To promote safety and to provide uniformity and completeness, an aviation physical examination must be performed by a currently qualified Flight Surgeon (FS)/Flight Surgeon trainee (FST)/Aviation Medical Officer (AMO)/Aeromedical Physician Assistant (APA) designated or authorized by the Commandant.

b. Only medical officers who have successfully passed a course at a school of aviation medicine of the U. S. Armed Forces leading to the designation of "Flight Surgeon", "Aviation Medical Officer" or "Aeromedical Physician Assistant" are so authorized.

c. Aviation physical exams performed by an APA must be countersigned by a designated FS/FST/AMO. The FS/AMO reviewer at the MLCs may function in this capacity. Physician Assistants functioning as APAs must be working under the supervision of a FS/AMO. (Note: Supervisory chain does not have to be co-located: e.g. FS at Elizabeth City may supervise, for aviation medicine duties, an APA at Portsmouth clinic.)

d. Civilian physicians who were military flight surgeons and who are currently certified by the Federal Aviation Administration as aviation medical examiners may also be authorized to perform CG aviation physical exams.

3. Scope of Aviation Physical Examination.

a. In addition to meeting the accession standards in Section 3-D of reference (a), certain special requirements must be met by the various categories of individuals concerned with aviation. The extent of the examination and the physical standards vary for the several categories of aviation personnel.

b. The term "flight, biennial or aviation physical examination" is incomplete unless the character of the duty that the examinee is to perform is specified—this incomplete term shall not be used in block 14a. of DD 2808, Report of Medical Examination, for the aviation examination. In addition to the aviation member's rating, this section should specify Class 1, 1R, 2 or Student Naval Aviator (SNA) as applicable.

c. Examiners shall conduct aviation physical examinations in accordance with the general procedures specified in this chapter, Chapter 3 (when complete) and in reference (a), Section 3-C.

4. Required Aviation Physical Examinations.

a. Each individual in the Coast Guard who is assigned to duty requiring performance of frequent aerial flights, regardless of classification, must have passed an aviation physical within the preceding 24 months (12 months if annual physical is required). In some cases, more frequent examinations are required. Personnel designated as aircrew are expected to maintain a biennial exam schedule regardless of current aviation duty status. Aviation physical examinations are required as indicated in this section. They may also be ordered whenever needed to determine an individual's physical fitness for the type of aviation duty to which assigned.

(1) Entry on Active Duty. Reserve aviation personnel who perform frequent aerial flights must have passed an aviation physical examination, commensurate with the type of duty to be performed, within the 24 months (12 months if annual physical is required) preceding active duty or active duty for training.

(2) Biennial. All aviation personnel, including Reservists on inactive duty for training, who will actually control aircraft or perform frequent aerial flights, must obtain a biennial aviation physical examination commensurate with the type of duty to be performed. The examination is required every two (2) years after initial designation.

(3) Annual. Upon reaching age 50, all aviation personnel, including Reservists on inactive duty for training, who will actually control aircraft or perform frequent aerial flights, must obtain an annual aviation physical examination commensurate with the type of duty to be performed. An annual exam is also required for aviation personnel of any age that have a waiver (temporary or permanent) of physical standards that prohibits unrestricted flight.

(4) Direct Commission. An aviation physical examination is required prior to direct commissioning of aviators in the Reserve. The aviator is required to meet Class 1 standards.

(5) Candidates for Designation as Class 1. All candidates for flight training, whether or not they are already in the Coast Guard, must pass a physical examination for flight training duty. The examination date must not precede the application date by more than 12 months.

(6) Candidates for Designation as Class 2. An approved aviation physical examination less than 24 months old is required both when applying for a Class 2 aviation training program and prior to a Class 2 designation.

(7) FAA Airmen Medical Certificate. After receiving Federal Aviation Administration (FAA) Aviation Medical Examiner (AME) training, Coast Guard FS/AMOs may request authorization from Commandant (G-WKH) to perform Second and Third Class physical examinations and issue FAA Medical Certificates to all military personnel on active duty including active duty for training. The FAA Administrator furnishes AMEs with the necessary instructions, guides, and forms required for this purpose. Except in those instances where there is a military requirement for FAA certification, examination and issuance of medical certificates shall not interfere with the

FS's primary duties. Whenever possible, certificates should be obtained in conjunction with a required aviation physical examination. Any additional cost of FAA AME training will be borne by the medical officer and not by the Coast Guard.

(8) Aircraft Accidents. Any Coast Guard member involved in a Class A or B aircraft mishap in which damage to the aircraft or injury to any crewmember occurs shall undergo a complete aviation physical examination as part of the mishap investigation. Examinations after other mishaps are left to the discretion of the cognizant FS/AMO. (Note: Post-mishap examinations must be performed by an aviation medicine trained physician.)

(9) Quinquennial. The quinquennial examination of a Reserve aviation special duty officer must be an aviation physical examination.

(10) Separation. An aviation physical examination is not required of aviation personnel being separated from active duty. The requirements for examination are the same as those for the separation from active duty of non-aviation personnel.

Section C - Boards.

1. Assignment To And Continuation Of Duty Involving Flying Is An Administrative Process. Except for enlisted personnel in aviation ratings, fitness to perform aviation duties is a determination independent of the determination of fitness for continued service. A discussion of waiver procedures is described in Chapter 6.

a. Aeromedical Consultation Advisory Board (ACAB).

(1) The ACAB is established to consider unusual, complicated, or controversial cases that require additional assessment before a recommendation from the cognizant flight surgeon in CGPC-adm. By majority vote, the ACAB will make a positive or negative recommendation for waiver to the appropriate waiver authority. The opinion of dissenting member(s) may also be included.

(2) Voting members of this board include the flight surgeons assigned to Commandant (G-WK) and CGPC-adm, the airframe managers assigned to Commandant (G-OCA) and the detailing officers assigned to CGPC (opm-2/epm-2) responsible for detailing aviation personnel. When evaluating a particular case, a quorum will be considered established when there are three flight surgeons (including one from CGPC), the appropriate airframe manager and the appropriate detailing officer present.

(3) Scheduling an ACAB panel must be arranged through CGPC. Primarily this will be a complicated case reference from CGPC-adm directly to the ACAB for recommendation by CGPC or when a waiver is turned down by CGPC and appeal is made to the ACAB, through CGPC, for a case not seen by the ACAB initially.

b. Naval Aeromedical Institute (NAMI) specialists or Army Aeromedical specialty consultants may be requested as consultants without convening an ACAB. Specialty consultations may be requested and arranged by local command.

Section D - Reporting Fitness for Flying Duties.

1. Aviation personnel admitted to the sicklist (binnacle) or hospitalized shall be suspended from all duty involving flying. Upon the recommendation of a medical officer (not restricted to an FS/AMO/APA), the commanding officer may relieve from flying duty or suspend the flight training of an individual deemed unfit for such duty. In all instances a CG Form 6020, Medical Recommendation for Flying Duty, grounding the member, shall be issued. Additionally, aviation personnel presenting to a non-FS/AMO/APA for any physical or mental health complaint shall be automatically grounded until cleared by an FS/AMO/APA. (Exception: Dental treatment, which is covered in Chapter 10). This includes evaluation by a health service technician and to evaluations within the Employee Assistance Program (EAP) for personal/mental health conditions which may impact on safety of flight.
2. When aviation personnel are subsequently deemed fit to resume flying duties, they shall be examined by an FS/AMO/APA, with the exceptions as discussed in paragraph 4 below, and the clearance noted on CG Form 6020, which shall be submitted to the commanding officer. Based on this recommendation, the commanding officer may authorize resumption of such duty or training.
3. Class 1 or 2 aviation personnel, upon reporting to a new duty station or upon returning from an extended absence from flying duty for any reason or when otherwise indicated, shall be interviewed by an FS/AMO/APA in order to determine their current health, verify that a current aviation physical examination has been conducted, and to administratively review their health record. If the FS/AMO/APA deems it appropriate, a physical examination may be conducted to determine their physical fitness to continue or resume their flying duties. In all such cases, the appropriate grounding or clearance notation shall be completed on CG Form 6020 and the necessary notation made in the individual's health record on an SF-600, Chronological Record of Medical Care. Certain special circumstances that may require a physical exam include:

   a. Post-hospitalization. A post-hospitalization examination may be required.

   b. Alcohol Abuse. For further information, see Chapter 9

   c. Pregnancy. For further information, see Chapter 11
4. Areas without an FS/AMO/APA assigned or when the assigned FS/AMO/APA is on leave or TAD:

   a. The authority to issue CG Form 6020, grounding the member includes all medical officers, dental officers, and health service technicians.

   b. Flight surgeons, FSTs, AMOs and APAs are the only medical personnel authorized to issue a clearance upchit (CG Form 6020) for the resumption of flight duties. In

the absence of an assigned FS/FST/AMO/APA, a medical officer (MO), dental officer (DO) or health services technician (HS) may issue a clearance on CG Form 6020 related to the scope of the specialty of the provider after concurrence has been received from an FS, FST, AMO or APA. Concurrence can be obtained by either message or verbal communication. Clearance notices issued by an MO, DO, or HS must include the name, rank, and duty station of the authorizing FS/FST/AMO/APA as well as the time and date of communication for authorization.

c. Channels of communication between commands without FSs/FSTs/AMOs/APAs and the nearest Uniformed Service Military Treatment Facility with a flight surgeon will be established to facilitate concurrence prior to issuing a clearance notice.

5. Reporting Aviation Physical Examinations.

a. Definition of Physically Qualified (PQ).

(1) Class 1 aviation personnel have passed an aviation physical examination when a FS/AMO/APA finds that, according to the standards prescribed in this Manual and reference (a), the examinee is physically qualified and aeronautically adapted for actual control of the aircraft, and the exam has been approved by appropriate Reviewing Authority.

(2) Class 2 aviation personnel have passed an aviation physical examination when an FS/AMO/APA finds that, according to the standards prescribed in this Manual and reference (a), the examinee is physically qualified and aeronautically adapted for flying, and the exam has been approved by appropriate Reviewing Authority.

b. Aeronautical Adaptability. After the examination has been completed, the examiner shall review all the available information and make an assessment of the individual's medical qualifications for the type of flying duty to be performed. Generally, clinical syndromes except adjustment and personality disorders should lead to a finding of "not physically qualified (NPQ)." Adjustment disorders, psychological factors affecting physical condition and conditions not attributable to a mental disorder that are a focus of attention or treatment and Axis II conditions (personality traits and disorders) as a primary diagnosis, should lead to a finding of "physically qualified but not aeronautically adapted (AA)." Enter "AA UNSAT" or "AA UNFAV" in Block 73 of the DD-2808 and provide further explanation, if indicated, in Block 77. (See Chapter 5 for a complete overview of Aeronautical Adaptability and other factors that may lead to an unfavorable or unsatisfactory AA rating.)

c. Comments and Recommendations. Examiners are encouraged to use the space on the DD-2808 Block 78 entitled "Recommendations." In this space, the examiner may express an opinion on specific defects and the examinee's overall capabilities. Comments by the examinee or the examinee's immediate superior may be valuable, especially when removal from flight status is recommended. Examiners shall enclose such comments, in writing, as an addendum to the formal report whenever such information is considered relevant to making a final recommendation.

6. Restrictions Until Physically Qualified.

a. Restrictions by Reviewing Authority.

(1) Except as authorized in this section, no person shall assume initial duty/training involving the actual control of aircraft until notification has been received from CGPC that such person is physically qualified for that duty. The only exception to this is that Commandant (G-WKH-1) will be the approving authority for FS/AMO/APA candidates.

(2) Pending receipt of the endorsed copy of the DD-2808 or other communication from MLC(k) that the report of routine biennial (or annual) physical examination has been approved, designated aviation personnel are physically qualified and aeronautically adapted for flight duty if a FS/AMO/APA certifies that the individual has no physical or mental defect that is disqualifying or that all waiver requirements of disqualifying condition(s) have been met.

(3) When any member on flight status has been restricted by the Commander (CGPC) or MLC(k), such restriction remains technically in effect until it is changed by the same authority. However, in order to avoid delay in the return to flight status of those clearly qualified to perform such duties, commanding officers are authorized, after consideration of a favorable recommendation made to Commander (CGPC) by a flight surgeon, to waive this technical restriction pending the action of the Commander (CGPC).

b. Restriction by Commanding Officer (CO).

(1) Upon recommendation by any medical officer or other health services department personnel, the CO may relieve from flying duty any individual reported physically incapacitated for such duty or suspend the flight training of any individual reported physically incapacitated for such duty. When the individual is subsequently reported physically fit by an FS/FST/AMO/APA, the CO may authorize resumption of such duty or training. This recommendation for grounding or clearance is generally made to the CO by medical personnel on CG Form 6020 (See Chapter 4 of this Manual for guidance on the use of this form).

(2) During the physical exam process, aviation personnel may be continued in a flying status pending correction of minor defects such as obtaining new eyewear prescriptions (provided they are correctable to 20/20 in one eye prior to the prescription change) or dental restorations with the concurrence of a flight surgeon. When corrective action is completed, an entry shall be made in Block 78 of the DD-2808 and the physical then forwarded for review. (Note: A new CG Form 6020 may need to be issued pending correction of the identified medical defect.)

Section E – Physical Standards for Aviation Personnel.

1. Standards for Class 1.

a. General. The physical examination and physical standards for Class 1 are the same as those prescribed in reference (a), Sections 3-C and 3-D, as modified by the following subparagraphs.

b. Age. Less than or equal to 50 years.

c. History.

(1) History of any of the following is disqualifying: seizures, isolated or repetitive (grand mal, petit mal, psychomotor, or Jacksonian); head injury complicated by unconsciousness and/or post-traumatic amnesia, impaired judgment, post-traumatic epilepsy, permanent motor or sensory deficits, impairment of intellectual function, alteration of personality, central nervous system shunts, depressed skull fracture, laceration or contusion of the dura mater or the brain, epidural, subdural, subarachnoid or intracerebral hematoma, associated abscess or meningitis, cerebrospinal fluid rhinorrhea or otorrhea persisting more than 7 days, focal neurologic signs, radiographic evidence of retained metallic or bony fragments, leptomeningeal cysts or arteriovenous fistula. (See also reference (a), Chapter 3-D); malaria, until adequate therapy has been completed and there are no symptoms while off all medication for 3 months.

(2) For persons already in the Coast Guard a complete review of their health record is most important. FS/AMO/APAs are authorized to postpone the examination of persons who fail to present their health record at the time of examination. In exercising this prerogative, due consideration must be made in cases where access to the individual's health record is administratively impracticable.

d. Therapeutics and General Fitness. Note on the DD-2808 if the individual received medication or other therapeutic procedures within 24 hours of the examination. In general, individuals requiring therapeutics or who have observed lowering of general fitness (dietary, rest, emotional, etc.,) which might affect their flying proficiency shall not be found qualified for duty involving flying.

e. Each aviation physical will have a Valsalva, SBT (Self Balancing Test), and AA (Aeronautical Adaptability) performed and noted.

f. Height. Minimum 157.5 cm (62 inches). Maximum 198 cm (78 inches).

g. Chest. Any condition that serves to impair respiratory function may be disqualifying. Pulmonary function tests are recommended to evaluate individuals with a history of significant respiratory system problems.

h. Cardiovascular System. Cardiac arrhythmia, heart murmur, or other evidence of cardiovascular abnormalities shall be carefully studied. Evidence of organic heart disease, rhythm disturbances or vascular diseases, if considered to impair the performance of flying duties, is disqualifying.

i. Teeth. The following are disqualifying:

(1) Any dental defect that would react adversely to sudden changes in barometric pressure or produce indistinct speech by direct voice or radio transmission.

(2) Fixed active orthodontic appliances. A waiver is required from CGPC (opm or epm). (Fixed retainers are exempted).

(3) Routine prosthodontic (crown) and temporary dental treatment is not disqualifying for aviation missions. Recommend that temporary crowns, bridges or fixed partial dentures be cemented with permanent cement like polycarboxylate or zinc oxyphosphate cement until the permanent crown, bridge or fixed partial denture is delivered. Personnel are temporarily grounded for 12 hours after such procedures (see Chapter 10). Such treatment may be disqualifying for deployment until completed.

j. Distant Visual Acuity. Distant visual acuity shall be not worse than 20/200 in either eye and if worse than 20/20 must be correctable to 20/20 with spectacle lenses. When the visual acuity of either eye is worse than 20/20 correction shall be worn at all times while flying.

k. Oculomotor Balance. The following are disqualifying:

(1) esophoria greater than 10 prism diopters;

(2) exophoria greater than 10 prism diopters;

(3) hyperphoria greater than 1.5 prism diopters;

(4) prism divergence at 20 feet and 13 inches is optional. These tests shall be accomplished only on designated aviators who have sustained significant head injury, central nervous system disease, or who have demonstrated a change in their phorias.

l. Eyes. Any pathologic condition that may become worse or interfere with proper eye function under the environmental and operational conditions of flying is disqualifying. History of radial keratotomy, PRK, LASIK or other refractive surgery is disqualifying.

m. Near Visual Acuity. Uncorrected near vision (both eyes) shall be not worse than 20/200 correctable to 20/20, with correction worn in multivision lenses while flying if uncorrected near vision is worse than 20/40 in either eye.

n. Color Vision. Normal color perception is required. (If shown to be normal on previous exam, may be so noted.)

o. Depth Perception. Normal depth perception is required. When any correction is required for normal depth perception it must be worn at all times.

p. Field of Vision. The field of vision for each eye shall be normal as determined by the finger fixation test. When there is evidence of abnormal contraction of the field of vision in either eye, the examinee shall be subjected to perimetric study for form. Any contraction of the form field of 15° or more in any meridian is disqualifying.

q. Refraction. There are no refractive limits.

r. Ophthalmoscopic Examination. Any abnormality disclosed on ophthalmoscopic examination that materially interferes with normal ocular function is disqualifying. Other abnormal disclosures indicative of disease, other than those directly affecting the eyes, shall be considered with regard to the importance of those conditions.

s. Ear. The examination shall relate primarily to equilibrium and the patency of eustachian tubes. A perforation or evidence of present inflammation is disqualifying. The presence of a small scar with no hearing deficiency and no evidence of inflammation is not disqualifying. Perforation or marked retraction of a drum membrane associated with chronic ear disease is disqualifying.

t. Sickle Cell Preparation Test. Quantitative hemoglobin electrophoresis greater than 40% HgbS is disqualifying. (A normal sickle cell test on a prior exam may be transcribed from official records.)

2. Standards for Class 1R. Physical requirements for service are the same as for Class 1, except:

a. Age 50 or older, or

b. Have a waiver (temporary or permanent) of physical standards that prohibits unrestricted flight, and

c. Meets requirements defined in waiver guidance.

3. Candidates for Flight Training.

a. Standards. Candidates for flight training shall meet all the requirements of Class 1, with the following additions or limitations:

(1) Cardiovascular.

(a) Candidates with accessory conduction pathways (Wolff-Parkinson-White (WPW), other ventricular pre-excitation patterns) are considered disqualifying (CD). No waiver is recommended for candidates with this condition.

(b) Candidates with WPW Syndrome who have had definitive treatment via Radio Frequency (RF) ablation with demonstrable non-conduction on follow-up Electrophysiologic Studies (EPS) are considered for waiver on a case-by-case basis.

(c) Asymptomatic candidates who have incidentally noted accessory bypass tracts that have been proven incapable of sustained rapid conduction as demonstrated by EPS will be found not physically qualified (NPQ) but potentially waiverable. In general, EPS is not recommended in asymptomatic individuals.

(2) Height. Candidates for Class 1 training must also satisfy the following requirements:

(a) sitting height not less than 33 inches nor more than 40.9 inches. Record in block 73, of the DD-2808 (see figure 1-1 for proper measurement technique);

(b) sitting eye height (SEH) must be 28.5 inches or greater (see figure 1-2 for proper measurement technique);

(c) thumb tip reach (TTR) must be 28.5 inches or greater (see figure 1-3 for proper measurement technique);

(d) sitting eye height + thumb tip reach (SEH +TTR) must be greater than 57.0 inches;

(e) buttock-knee length (BKL) not less 21 inches nor more than 27.9 inches (see figure 1-4 for proper measurement technique).

(f) Record to the nearest ¼ inch in block 73, of the DD-2808 as, "BKL_____, SEH_____, etc."

(g) Note: Candidates who meet above standards yet have a TTR of less than 29 inches and/or BKL of less than 22.5 inches may be restricted from assignment to some Coast Guard fleet aircraft.

(3) Uncorrected distant visual acuity must be not worse than 20/50 each eye and correctable to 20/20 each eye. Uncorrected near visual acuity must be not worse than 20/20 each eye (may be waiverable).

(4) While under the effects of a cycloplegic, the candidate must read 20/20 each eye. The following are disqualifying:

(a) total myopia greater than (minus) -2.00 diopters in any meridian;

(b) total hyperopia greater than (plus) +3.00 diopters in any meridian;

(c) astigmatism greater than (minus) -0.75 diopters; (Reporting of the astigmatic correction in terms of the negative cylinder required.)

(d) the purpose of this cycloplegic examination is to detect large latent refractive errors that could result in a change of classes during an aviation career. Therefore, the maximum correction tolerated at an acuity of 20/20 shall be reported. Cycloplegics reported as any other acuity, e.g., 20/15 will be returned.

(5) The Coast Guard will consider sending candidates to Navy Flight School who have had photorefractive keratectomy, (anterior corneal stromal surface laser ablation with no stromal flap), and meet all of the enrollment criteria. Candidates must have demonstrated refractive stability as confirmed by clinical records. Neither the spherical or cylindrical portion of the refraction may have changed more than 0.50 diopters during the two most recent postoperative manifest refractions separated by at least one month. The final manifest shall be performed no sooner than the end of the minimum waiting period (3 or 6 months depending on the degree of preoperative refractive error). The member must have postoperative uncorrected visual acuity of at least 20/50 correctable with

spectacles to at least 20/20 for near and distance vision. Detailed enrollment criteria may be obtained by contacting CGPC-opm-2.

(6) Hearing. Audiometric loss in excess of the limits set forth in the following table is disqualifying:

FREQUENCY	500	1000	2000	3000	4000
EITHER EAR	30	25	25	45	55

(7) Personality. Must demonstrate, in an interview with the flight surgeon, a personality make-up of such traits and reaction that will indicate that the candidate will successfully survive the rigors of the flight training program and give satisfactory performance under the stress of flying. (See Chapter 5, Aeronautical Adaptability).

(8) Reading Aloud Test.

(a) Required if speech impediment exists or if any history of speech therapy, or maxillofacial surgery. If indicated, administer the reading aloud test (RAT) to aviation training applicants as a standardized assessment of an individual's ability to communicate clearly in the English language, in a manner compatible with safe and effective aviation operations. Current communication systems degrade speech intelligibility. The radio environment separates the speaker and the listener from the benefits of watching lips and body language cues. Those with marginal English skills have problems communicating effectively in the operational aviation environment.

(b) The RAT appears to be a nonsense story, but was designed as a phonetic exercise. Assessment by the flight surgeon is subjective. If indicated, applicants should read the RAT clearly, deliberately, without hesitation, error, or stuttering. The test is scored as "RAT-SAT" or "RAT-UNSAT" in block 72a. of the DD-2808.

(c) Instruct the applicant to stand erect and read:

1 "You wished to know all about my grandfather. Well, he is nearly 93 years old; he dresses himself in an ancient black frock coat, usually minus several buttons; yet he still thinks as swiftly as ever. A long flowing beard clings to his chin giving those who observe him a pronounced feeling of the utmost respect. When he speaks, his voice is just a bit cracked and quivers a trifle. Twice each day he plays skillfully and with zest upon our small organ. Except in winter when the ooze of snow or ice is present, he slowly takes a short walk each day. We have often urged him to walk more and smoke less, but he always answers, 'Banana oil!' Grandfather likes to be modern in his language."

(9) Chest x-ray. Aviation trainees must have had a chest x-ray within the past three years.

(10) Report of Medical History (DD-2807-1). In addition to the normal completion of the DD-2807-1, the following statement shall be typed in Block 29 and signed by the applicant: "I certify that I do not now use, nor have I ever used, contact lenses for any purpose, and that I am not aware that my uncorrected vision has ever been less than 20/50." If the applicant cannot sign this statement, include a full explanation by the examining flight surgeon, and an ophthalmology consultation.

b. Reporting.

(1) The importance of the physical examination of a candidate should be recognized not only by the examining flight surgeon but also by health services personnel assisting in the procedure and preparing the report. Candidates often come from a great distance and/or from isolated duty stations. If the examination cannot be completed in one working day, seek the commanding officer's help in making it possible for the candidate to remain available for a second working day. Careful planning should keep such cases to a minimum. If a report, upon reaching Commander (CGPC), is found to be incomplete and must be returned, the candidate will suffer undue delay in receiving orders and in some cases will be completely lost to the Coast Guard as a candidate. The preparation of the DD-2808 in the case of a candidate requires extreme care by all concerned.

(2) In a report of the examination of a candidate, rigid adherence to set standards is expected. The examining officers are encouraged to use freely that portion of the report that provides for "recommendations" and/or "notes". Comments made under "recommendations" are the examiner's opinion. Information from any source may be molded into an expression of professional opinion. A final recommendation of the examiner must be made. When such recommendation is not consistent with standards set by Commandant (G-WK) the examiner shall note that fact on the form under "recommendations" and a reasonable explanation made. When space on a DD-2808 is inadequate, utilize the SF-507, Continuation Sheet.

4. Requirements for Class 2 Flight Officers.

a. Flight Officer Candidates. Flight officer candidates shall meet the standards for Class 1 except that depth perception is not required.

b. Designated Flight Officers. Flight officers shall meet the standards for flight officer candidate except that uncorrected distant visual acuity must be not worse than 20/400 in either eye and shall be correctable to 20/20.

5. Requirements for Class 2 Aircrew.

a. Aircrew Candidates. Unless otherwise directed by Commander (CGPC-epm) personnel will not be permitted to undergo training leading to the designation of aircrewmen unless an FS/AMO/APA has found them physically qualified for such training. Should it be desirable, for exceptional reasons, to place in training a

candidate who does not meet the prescribed physical standards, the commanding officer may submit a request for a waiver, with the DD-2808 and DD-2807-1, to Commander (CGPC), justifying the request. Aircrew candidates shall meet the standards for Class 1, except that minimum height is 152.5 cm/60 inches and uncorrected distant visual acuity must be not worse than 20/100 each eye, correctable to 20/20 each eye. Cycloplegic refraction and anthropometric measurements are not indicated. A chest x-ray is required within the previous 3 years.

b. Designated Aircrew. Aircrew shall meet the standards for Class 1, except the minimum height is 152.5 cm/60 inches.

6. Requirements for Class 2 Medical Personnel.

a. Flight Surgeon (FS)/Flight Surgeon-in-Training (FST)/Aviation Medical Officer (AMO)/Aeromedical Physician Assistant (APA)/FS Candidates/APA Candidates. While assigned to a Duty Involving Flight Operations billet and for candidate training, FS/FST/AMO/APAs shall meet the standards for Designated Flight Officer, except that minimum height is 152.5 cm (60 inches). Approval authority for candidate physical exams in this category is Commandant (G-WKH-1). Waiver for disqualifying conditions must be granted by Commander (CGPC-opm).

b. Aviation MEDEVAC Specialists (AMS)/AMS Candidates. Aviation MEDEVAC Specialists (Health Services technicians (HS) who are assigned to flight orders), shall meet the standards for Designated Flight Officer, except that minimum height is 152.5 cm (60 inches).

7. Requirements for Class 2 Technical Observers. The term “Technical Observer” is applied to personnel who do not possess an aviation designation but who are detailed to duty involving flying. The examination shall relate primarily to equilibrium and the patency of eustachian tubes. They shall meet the standards prescribed for general duty. These personnel are not required to undergo a physical examination for flying provided a complete physical examination, for any purpose, has been passed within the preceding 60 months and intervening medical history is not significant. The physical examination need not be conducted by an FS/AMO/APA. Technical Observers who are required to undergo egress training must have a current (general purpose) physical examination and a CG Form 6020 up chit indicating “OK DIF/Dunker/Chamber.”

8. Requirements for Class 2 Air Traffic Controllers. Air traffic controllers, tower controllers, and ground control approach operators shall meet the general physical standards for Class 1, except:

a. Articulation. Must speak clearly and distinctly without accent or impediment of speech that would interfere with radio communication. Voice must be well-modulated and pitched in medium range. Stammering, poor diction, or other evidence of speech impediments, that become manifest or aggravated under excitement are disqualifying.

b. Height. Same as for non-aviation Coast Guard duty.

c. Visual Acuity.

(1) Candidate's near and distant visual acuity shall be no worse than 20/100 for each eye correctable to 20/20 each eye and the correction shall be worn while on duty.

(2) Personnel already designated shall have near and distant visual acuity no worse than 20/200 each eye correctable to 20/20 each eye and the correction shall be worn while on duty.

(3) Air traffic controllers whose vision becomes worse than 20/200 either eye may not engage in the control of air traffic in a control tower but may be otherwise employed in the duties of their rating.

d. Depth Perception. Normal depth perception is required.

e. Heterophoria. The following are disqualifying:

(1) esophoria or exophoria greater than 6 prism diopters; and

(2) hyperphoria greater than 1 prism diopter.

9. Requirements for Landing Signal Officer (LSO).

a. Physical Examinations for Landing Signal Officer (LSO).

(1) Candidates. Officer and enlisted candidates for training as LSO's shall have a physical examination prior to the training leading to qualification. LSO duties for flight deck require stricter visual acuity standards than those for non-aviation duty in the Coast Guard. Examination by a FS/AMO/APA is not required.

(2) Reexamination. Biennial reexamination is required of all currently qualified LSO's.

b. Physical Standards for LSO's. In addition to the physical standards required for officer and enlisted personnel, the following standards apply:

(1) Distant Visual Acuity. The uncorrected distant visual acuity shall be no worse than 20/200 in each eye and must be correctable to 20/20 in each eye. If the uncorrected distant visual acuity is worse than 20/20 in either eye, corrective lenses must be worn while performing LSO duties.

(2) Depth Perception. Normal depth perception is required.

(3) Color Vision. Normal color perception is required.

Section F - Contact Lenses.

1. Class 1 personnel may be authorized by their local flight surgeon to wear contact lenses while flying, provided the following conditions are met:

a. Only gas permeable disposable soft lenses may be used.

b. The lenses are to be removed during the hours of sleep.

c. The lenses are disposed of after 2 weeks of use.

d. All prescribed optometry follow-up visits are adhered to. After routine safe use has been established and documented by the prescribing optometric authority, an annual optometric recheck is the minimum required. A copy of the record of any visit to an eye care professional will be furnished by the member to the local flight surgeon for review and placement in the member's health record.

e. Following any change in the refractive power of the contact lens, the member must be checked on the Armed Forces Vision Tester (AFVT) to ensure that Coast Guard Class 1 standards for acuity and depth perception are met. In addition, the flight surgeon shall document that there is no lens displacement, when user moves his/her eyes through all 8 extreme ranges of gaze.

f. Contact lens case, saline for eye use, and an appropriate pair of eyeglasses are readily accessible (within reach) to the lens wearer while in-flight.

g. Contact lens candidate submits request to the command agreeing to abide the above conditions.

h. The flight surgeon authorizes use of contact lenses after ensuring that such use is safe and the user fully understands the conditions of use. This authorization expires after one year. Initial and any annual re-authorizations shall be documented by an entry in the health record.

i. Contact lens use is not a requirement for aviation operations. The decision to apply for authorization is an individual option. Accordingly, lens procurement and routine optometric care related to contact lens use at government expense are not authorized.

2. The optional wearing of contact lenses by Class 2 personnel performing duty involving flying and by air control personnel in the actual performance of their duties is authorized under the following circumstances:

a. Individuals are fully acclimated to wearing contact lenses and visual acuity is fully corrected by such lenses;

b. Individuals wearing contact lenses while performing flight or air control duties have on their person, at all times, an appropriate pair of eyeglasses;

c. A flight surgeon has specifically authorized the wearing of contact lenses while performing flight or air control duties (an entry shall be made on SF-600 in the individual's health record authorizing wearing of contact lenses); and

d. Wearing contact lenses while performing aviation duties is an individual option. Accordingly, procuring contact lenses at government expense is not authorized.

CHAPTER 2. TIMING OF AVIATION PHYSICAL EXAMS

Section A - Required Physical Examinations and Their Time Limitations:

1. Biennial. Biennial physical examination is required every 2 years after initial designation, through age 49, for the following:

   a. All aviation personnel (except air traffic controllers); and

   b. All qualified Landing Signal Officers (LSO).

   c. The biennial exam will be performed within 90 days before the end of the birth month. The period of validity of the biennial physical will be aligned with the last day of the service member's birth month. (Example: someone born on 3 October would have August, September, and October in which to accomplish his/her physical. No matter when accomplished in that time frame, the period of validity of that exam is until 31 October two years later.)

   d. This process of aligning the biennial exam with the birth month is a process that became effective in FY00. In order to phase in this process the valid period of future biennial exams may be extended up to a total of thirty months (6 months from the current valid date) to align the valid date with the birth month. (See Table 2-1).

      (1) Example 1: A member with an October birth month accomplishes biennial exam in May 2000 (previously valid until May 2002). Biennial exam is now valid until October 2002 (29 months total) to allow the member to align biennial exam with birth month.

      (2) Example 2: A member with a June birth month accomplishes a biennial exam in October of 1999 (previously valid until October 2001). Biennial exam is now valid until June 2001 (20 months total) to allow the member to align biennial exam with birth month.

   e. The requirement to perform a biennial exam will not be suspended in the event of training exercises or deployment. Aircrew with scheduled deployment during their 90-day window to accomplish their biennial exam may accomplish their biennial exam an additional 90 days prior and continue with the same valid end date. This may result in a member having a valid biennial for 30 months. Members unable to accomplish a biennial exam prior to being deployed will be granted an additional 60 days upon return in which to accomplish their physical. Align subsequent biennial exam with the aircrew member's birth month using Table 2-1.

   f. Additionally, a comprehensive physical may be required during a post-mishap investigation, Flight Evaluation Board (FEB), or as part of a work-up for a medical disqualification.

g. Once designated in an aviation category, personnel are expected to maintain a biennial or annual aviation exam schedule regardless of current aviation duty status.

Table 2-1

Number Of Months For Which A Biennial Exam Is Valid

	Month in which last biennial exam was given											
Birth Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
JAN	24	23	22	21	20	19	30	29	28	27	26	25
FEB	25	24	23	22	21	20	19	30	29	28	27	26
MAR	26	25	24	23	22	21	20	19	30	29	28	27
APR	27	26	25	24	23	22	21	20	19	30	29	28
MAY	28	27	26	25	24	23	22	21	20	19	30	29
JUN	29	28	27	26	25	24	23	22	21	20	19	30
JUL	30	29	28	27	26	25	24	23	22	21	20	19
AUG	19	30	29	28	27	26	25	24	23	22	21	20
SEP	20	19	30	29	28	27	26	25	24	23	22	21
OCT	21	20	19	30	29	28	27	26	25	24	23	22
NOV	22	21	20	19	30	29	28	27	26	25	24	23
DEC	23	22	21	20	19	30	29	28	27	26	25	24

Notes:

Read down the left column to the examinee's birth month; read across to month of last biennial exam; intersection number is the maximum validity period. When last biennial exam was within the 3-month period preceding the end of the birth month, the validity period will normally not exceed 27 months. When the last biennial exam was for entry into aviation training, for FEB, post-accident, post-hospitalization, etc., the validity period will range from 19 to 30 months. Validity periods may be extended by 1 month only for completion of an examination begun before the end of the birth month.

2. Annual. An annual aviation physical examination is required on all active duty aviation personnel who are 50 years of age or older, (note: Aviation physicals performed at age 49 are only valid for 1 year) all air traffic controllers and those personnel with a waiver requirement for an annual physical. (note: Table 2-1 above may be used to determine the due date for annual physicals (subtract 12 months from the numbers in Table 2-1) with the difference being the physical may be valid for up to 18 months, rather than 30 months for biennial physicals during the phase-in period of this exam dating process).

CHAPTER 3. PERFORMING THE AVIATION PHYSICAL EXAM

(To be developed - refer to reference (a), Chapter 3B and 3C for further guidance on the use of DD forms 2808 and 2807-1)

CHAPTER 4. USE OF CG FORM 6020, MEDICAL RECOMMENDATION FOR FLYING

Section A - Utilization of CG Form 6020.

1. CG Form 6020 (Medical Recommendation for Flying Duty), (Figure 4-1) is the official document used to notify the aviation commander of the certification of medical fitness for all classes of military and civilian aircrew. (see enclosure) This form replaces the requirement to use NAVMED 6410/1 Grounding Notice and NAVMED 6410/2 Clearance Notice currently outlined in reference (a).

2. The CG Form 6020 applies to all aviation personnel. It is required for all personnel who must meet CG Class 1, 1R or 2 medical fitness standards. Aviators in nonoperational positions must complete their biennial or annual flight physical and a CG Form 6020 issued as appropriate. Aviators in "simulator duty only" positions are required to maintain a current CG Form 6020.

3. Any medical or dental officer who must inform a commander of the status of aviation personnel, may prepare and sign a CG Form 6020 recommending temporary medical suspension (DNIF-Duties Not Including Flying). A recommendation returning the aircrew member to flying duties (FFD-Fit for Full Duty) must be signed by a FS/AMO/APA except as outlined in paragraph 4-A-12 below.

4. The following events will require that a CG Form 6020 be completed. However, aviation personnel involved in events e. and f. below are required to self-report the occurrence of such an event to their FS/AMO/APA when evaluated or treated by a non-FS/AMO/APA for any condition that could be potentially grounding.

   a. After the completion of a biannual or annual flight physical.

   b. After an aircraft mishap.

   c. After a Flight Evaluation Board.

   d. When reporting to a new duty station or upon being assigned to operational flying duty.

   e. When admitted to and discharged from any medical or dental treatment facility (inpatient or outpatient, military or civilian), sick in quarters, interviewed for or entered into a drug/alcohol treatment program, evaluated for a potentially grounding condition within the Employee Assistance Program (EAP) or when treated by a health care professional who is not a military FS/AMO/APA.

   f. When treated as an outpatient for conditions or with drugs which are disqualifying for aviation duties and upon return to flight duties after such treatment and recovery.

g. Upon return to flight status after termination of temporary medical suspension, issuance of waiver for aviation service, or requalification after medical or nonmedical termination of aviation service.

h. To indicate medical clearance for Dunker training.

i. Other occasions as required by the FS/AMO/APA.

5. Aviation personnel not performing operational flying duties are required to complete a biennial or annual flight physical with issuance of CG Form 6020.

6. Each item of the CG Form 6020 will be completed as directed in section B below. Three copies of the CG Form 6020 will be completed. Copy 1 is placed in the outpatient medical record in chronological order above the physical exams. Copy 2 is forwarded to the examinee's unit commander who signs and forwards it to the flight operations officer for inclusion in the flight records (note: copy 2 applies only to personnel currently on flight status). Copy 3 is given to the examinee.

7. If the examinee is found qualified for flying duty by the local FS/AMO/APA issuance of the CG Form 6020 will constitute an aeromedical clearance for flying duty pending final review of the flight physical by the reviewing authority (MLC(k)). The aeromedical clearance will expire when the current flight physical is no longer valid. (See Chapter 2)

8. If a disqualifying medical condition (DQ) is found, a waiver must be granted by the appropriate authority before further flying duties are performed. (See Chapter 6 for waiver request procedures) For minor defects that will not preclude safe and efficient performance of flying duties and will not be aggravated by aviation duty or military mission, the local commander may permit an individual to continue performance of aviation duties pending completion of the formal waiver process and upon favorable recommendation for temporary FFD by the local FS/AMO (note: recommendation for clearance for temporary FFD pending receipt of a waiver may only be made by a FS/AMO).

9. When used to recommend temporary flying duties, the Remarks section of CG Form 6020 will be completed to reflect a limited length of time for which the clearance is issued; example "Temporary FFD, 90 days, pending receipt of waiver." This is the procedure even if the waiver is being requested at the time of the flight physical. If and when the waiver is granted, a CG Form 6020 is then annotated for both "flight physical" and " issue of waiver for DQ" and the valid date is the appropriate date per Chapter 2 for an aviation physical exam.

10. The FS/AMO/APA will consult the flight surgeon in CGPC-adm before issuance of an "FFD" CG Form 6020 for cases which do not clearly meet the standards and/or waiver specifications outlined in this Manual.

11. The validity period of the current flight physical (see Chapter 2) may be extended for a period not to exceed 30 days on CG Form 6020. After expiration

of this extension, aviation personnel must complete the flight physical and be medically qualified or be:

a. Administratively restricted from flying duties if no medical DQ exists and be considered for a nonmedical (administrative) DQ and Flight Examining Board (FEB).

b. Medically restricted from flying duties if an aeromedical DQ exists. In some cases temporary flying duties may be recommended on CG Form 6020. (See paragraph 4-A-8 above)

12. Personnel authorized to sign the CG Form 6020 are as follows:

a. Any physician or health care provider may sign CG Form 6020 for the purpose of restricting aviation personnel from aviation duties when an aeromedical DQ exists.

b. Only an FS or AMO may sign the CG Form 6020 to return aviation personnel to FFD. Recommended restrictions, if any, will be annotated in the Remarks block of CG Form 6020.

c. A non-FS/AMO physician, an APA or Health Service Technician (HS) under the supervision of an FS may sign the CG Form 6020 to recommend returning aviation personnel to FFD when an FS/AMO is not locally available by either:

(1) Obtaining case-by-case telephonic guidance from an FS/AMO. The name of the consulted FS/AMO will be annotated on CG Form 6020, and on an SF-600 in the patient health record.

(2) Alternatively, an APA may grant an upchit without the telephonic guidance of an FS/AMO provided that an FS/AMO reviews the medical record of the encounter and co-signs the CG Form 6020 within 72 hours (may occur using fax copies).

13. Forms similar to CG Form 6020 of the other branches of the U.S. Armed Services and Host Allied Nations will be accepted by the Coast Guard when aeromedical support is provided by those services/nations and CG Form 6020 is not available.

Section B - Filling out CG Form 6020.

1. Preparing the CG Form 6020: The CG Form 6020 is prepared in three copies and distributed as in paragraph 4-A-6 above. The top portion of the form contains a “TO” and “FROM” block. These blocks contain the address/unit designator of the individual’s commander that the CG Form 6020 is being sent to, and the address/unit designator of the FS/AMO/APA the CG Form 6020 is from.

a. Blocks 1-4: The next line contains blocks one through four that contain identifying data about the examinee. Enter the examinee's name in the format: last name, first name and middle initial in Block 1. Enter the examinee's social security number in Block 2, the examinee's grade or rank in Block 3, and the examinee's date of birth in Block 4.

b. Blocks 5-6: Enter the examinee's unit in Block 5. Enter the type of flying duty performed in Block 6. For example: Aviator, flight surgeon, APA, flight mechanic, rescue swimmer.

c. Block 7-10 (Section A- Qualifying Action Recommendation By Medical Authority): Is completed by the FS/AMO/APA. If the examinee is qualified to perform flying duties in accordance with this Manual and references (a) and (c). Enter the reason(s) for the medical clearance recommendations in Blocks 7a. thru 7h. (more than one may be checked).

(1) Check 7a. (Termination of Temporary Medical Suspension) if clearance is for return to duty after a temporary disqualifying condition. The "Date Clearance Expires" Block 10, will generally be the expiration date that existed prior to the temporary grounding (usually the date the current flight physical expires).

(2) Check 7b. (Medical Examination) if the reason is for completion of a flight physical. The expiration date generally will be determined as outlined in Chapter 2 of this Manual.

(3) Check 7c. (Reporting to New Duty Station) if the reason for the upchit is reporting to a new duty station. The "Date Clearance Expires" Block 10, will generally be the expiration date that existed at the previous duty station (usually the date the current flight physical expires).

(4) Check 7d.(After Aircraft Mishap) if the member has been in an aviation mishap and is now cleared to resume aviation duties. The "Date Clearance Expires" Block 10, will generally be the expiration date that existed prior to the temporary grounding (usually the date the current flight physical expires).

(5) Check 7e. (Termination of Medical Disqualification) has had a medical disqualification that has now resolved. The "Date Clearance Expires" will generally be the expiration date that existed prior to the temporary grounding (usually the date the current flight physical expires).

(6) Check 7f. (Pending Issue of Waiver for Medical Disqualification) if the member has been noted to have a medical disqualification but is determined to be safe to continue/resume flight duties while awaiting waiver determination from CGPC. Generally the expiration date will be short term (1-3 months), giving a reasonable amount of time for waiver issuance from CGPC.

(a) Note that this category is only used when it is reasonably certain (may require consultation with CGPC) that a waiver will be granted.

(b) If the medical disqualification is noted during the flight physical, 7b. may also be checked, but a more restrictive expiration is given as outlined above.

(7) Check 7g. (Issue of Waiver for Medical Disqualification) when CGPC has issued a waiver for a medical disqualification. The expiration date reverts to expiration of the most recent flight physical unless otherwise determined by the waiver criteria. (E.g. if the waiver requires blood pressure checks every 6-month, then the expiration should be in 6 months). If the waiver request was generated at the time of a flight physical, then the expiration date is determined per Chapter 2 of this Manual (unless restricted by the waiver criteria)

(8) Check 7h. (Other) when the reason is not listed in 7a.-7g. and explain the reasoning in Block 14. "Remarks".

(9) Blocks 8-10: Regulations require the examinee's vision to be 20/20 both near and far or corrected to 20/20 by spectacles that are worn when performing flying duties. Check the "No" block in Block 8 if the examinee's vision is 20/20 uncorrected and they do not wear spectacles. Check the "Yes" in Block 8 if the examinee is required to wear spectacles. Enter the effective date of the medical recommendation in Block 9 (usually the date the upchit is being given). Enter the date the medical clearance expires in Block 10 as determined by clearance reason from Block 7.

d. Blocks 11-13 (Section B - Disqualifying Action Recommended by Medical Authority): Is completed when the examinee is found medically unfit for flying duties in accordance with this Manual and references (a) and (c), or is medically disqualified because of a temporary medical problem or medication.

(1) Check 11a. (Temporary Medical Suspension) if the member has a "Temporary Medical Suspension".

(2) Check 11b. (Temporary Medical Suspension Following A/C Mishap) if this "Temporary Medical Suspension" is due to an aircraft mishap.

(3) Check 11c. (Permanent Medical Disqualification) if the medical incapacitation is expected to last more than 365 days and the condition cannot be waivered. Termination from aviation service (permanent medical suspension) is required.

(4) Check 11d. (Permanent Medical Disqualification following A/C Mishap) if the permanent medical disqualification is the result of an aircraft mishap.

(5) The estimated time the examinee will be grounded is entered in Block 12, and the effective date of medical incapacitation is entered in Block 13. The date of medical incapacitation is the date the disqualifying medical condition was diagnosed by history, examination, tests, or consultation. It may precede the date the CG Form 6020 was actually completed by the flight surgeon. (E.g. member broke leg on 18 August and you are seeing him on 28 August. The effective date of incapacitation is 18 August, not 28 August).

e. Block 14: Use the "Remarks" section to communicate to the commander about special requirements of the medical recommendations. Use Block 14 for comments such as "FFD, biennial PE completed", or if arriving at a new duty station remarks such as "FFD, current biennial PE on file", or "Temporary FFD 30 days pending completion of biennial physical" or "Temporary FFD 90 days pending eval of diet control of cholesterol" for those being followed for high cholesterol. It is appropriate to indicate temporary "DNIF" (Duties Not Including Flying) explanation (Temporary Medical Disqualification) reasons here also. (E.g. "member DNIF; can't clear ears; on medications which will cause drowsiness").

f. Block 15: Specify whether the examinee may perform simulator duties and/or ground run up duties if otherwise grounded for a medical condition. Note: if you place the member "Sick-in-quarters", ground run up and simulator duties would not be allowed. Examples:

(1) If your examinee has a cast, ground run-up duties might not be allowed, but simulator duties might be authorized.

(2) Generally speaking, simulator duties can be authorized anyone who can safely get into the simulator, such as uncomplicated pregnancy.

(3) Ground run-up duty is specifically authorized when controls can be safely managed despite medical restriction from flying duty.

(4) An aircrew member with a URI on a medication that causes drowsiness: He/she is authorized simulator duties, but because of the effects of the medication, he/she cannot safely control the aircraft in ground run-up duties.

g. Type, print or stamp the name of the FS/AMO/APA signing the CG Form 6020 and making the medical recommendation in Block 16. This person then signs in Block 17 and prints the date the CG Form 6020 was signed by the FS/AMO/APA in Block 18. This date can be different than the effective date in Block 9 or Block 13, or in Section C.

(1) If the CG Form 6020 is completed by a medical or dental officer or HS who is not a FS/AMO/APA, the wording "FS/AMO/APA" is to be lined out in Blocks 16 and 17.

(2) Note: non-FS/AMO/APA personnel may only issue grounding chits (i.e., only may DNIF aviation personnel) except as noted in 4-A-12.c. of this Chapter.

h. Block 19 (Section C - Certification By Aircrew Member): The examinee completes Section C when informed of the recommendations contained in Sections A or B of the CG Form 6020. The examinee will check the "may" or "may not" block as appropriate, sign and date the form. If the aircrew member is not available, these blocks may be left blank. If the aircrew member refuses to sign, a notation to that effect should be made in Block 14, "Remarks", and his commander notified immediately.

i. The top copy of the CG Form 6020 is then filed in the outpatient medical record in chronological order above the physical exams and constitutes the medical recommendation. The individual copy is given to the individual for his/her personal records. If on flight status, the commander's copy is sent to the aircrew member's commander by a distribution system agreed upon by the flight surgeon and commander(s). The most expedient means is usually hand carried by the individual.

j. The examinee's unit commander or official designee will complete (Section D-Action Taken by Commander) by checking either the "Approved" or "Disapproved" in Block 20, typing, printing or stamping name in Block 21 and signing and dating the form in Blocks 22 and 23. The completed form is then forwarded to the flight records officer for inclusion in the member's official flight records for aviation personnel currently on flight status.

k. Extensions. The CG Form 6020 may be used by the FS/AMO/APA to extend a currently valid medical examination clearance for a period not to exceed 30 days beyond the end of the birth month for the purpose of completing an examination begun before the end of the birth month. In this case Block 7h., "Other" in Section A will be checked and in Block 14, "Remarks" will appear the statement "FFD, Extended 30 days to complete biennial PE." Block 10 will be dated 30 days later.

l. Exception to the Extension Rule. Medically disqualified aircrew members have 365 days to complete their aviation physical exam and request a waiver to continue flying duties despite the disqualification. Medical termination from aviation service is mandatory if the condition is not waiverable within 365 days or is found to be nonwaiverable by CGPC.

FIGURE 4 - 1
MEDICAL RECOMMENDATION FOR FLYING DUTY

This form is subject to the Privacy Act Statement of 1974

To:	From:

1. Name: *(Last, First, Middle Initial)*	2. SSN:	3. Grade:	4. DOB:
5. Unit:	6. Type of Flying Duty Performed:		

SECTION A - A QUALIFYING ACTION RECOMMENDATION BY MEDICAL AUTHORITY

7. Medical clearance is recommended for the following reason(s): *(Check one or more)*

a. ☐ Termination of Temporary Medical Suspension
b. ☐ Medical Examination
c. ☐ Reporting to New Duty Station
d. ☐ After Aircraft Mishap
e. ☐ Termination of Medical Disqualification
f. ☐ Pending Issues of Waiver for Medical Disqualification
g. ☐ Issue of Waiver for Medical Disqualification
h. ☐ Other *(Explain under remarks)*

8. Required to wear glasses while flying or other duties requiring corrective visual acuity. *(Contact lenses are prohibited unless specifically authorized).* ☐ Yes ☐ No	9. Effective Date:	10. Date Clearance Expires:

SECTION B - DISQUALIFYING ACTION RECOMMENDATION BY MEDICAL AUTHORITY

11. The following action is recommended:

a. ☐ TEMPORARY MEDICAL SUSPENSION
b. ☐ TEMPORARY MEDICAL SUSPENSION FOLLOWING A/C MISHAP
c. ☐ PERMANENT MEDICAL DISQUALIFICATION
d. ☐ PERMANENT MEDICAL DISQUALIFICATION FOLLOWING A/C MISHAP
e. ☐ OTHER *(Explain under remarks)*

12. Estimated duration of incapacity to fly:	13. Effective Date:

14. Remarks:

15. While in a duty not involving flying status:

Simulator Duties Allowed: ☐ Yes ☐ No Ground Runup Duties Allowed: ☐ Yes ☐ No

16. Typed Name and Grade of Flight Surgeon:	17. Flight Surgeon Signature:	18: Date

SECTION C - CERTIFIED BY AIRCREW MEMBER

19. I certify that I have been notified of the recommendation(s) above and understand that I ☐ may or ☐ may not perform aviation duties as of this date: _____

Members Signature: _____

SECTION D - ACTION TAKEN BY COMMANDER

20. The Medical Recommendation is: ☐ Approved ☐ Disapproved

21: Typed Name and Title of Commander:	22. Commander's Signature:	23. Date:

Department of Homeland Security (CG Form-6020/May03) Copy 1 (Health Record), Copy 2 (Commanding Officer), Copy 3 (Aircrew Member)

CHAPTER 5. AERONAUTICAL ADAPTABILITY

Section A - Explanation of Aeronautical Adaptability.

1. Aeronautically Adaptable (aviation candidates).

   a. "Having the potential to adapt to the rigors of the aviation environment by possessing the temperament, flexibility, and appropriate defense mechanisms necessary to suppress anxiety, maintain a compatible mood and devote full attention to flight and successful completion of a mission."

2. Aeronautically Adapted (designated aviation personnel).

   a. "Those having demonstrated the ability to utilize long term appropriate defense mechanisms, and displaying the temperament and personality traits necessary to maintain a compatible mood, suppress anxiety and devote full attention to flight safety and mission completion."

3. Determination of Aeronautical Adaptability.

   a. A determination of aeronautical adaptability (AA) is required for all flying duty examinations. An unsatisfactory AA as the cause of medical unfitness for flying duty for any flight class (1, 1R, and 2), is due to an assessment of unsatisfactory aptitude or psychological factors, or otherwise being considered not adaptable for military aeronautics.

   b. An unsatisfactory AA is mandatory if any of the following conditions are present:

      (1) adjustment disorders, psychological factors affecting physical condition and conditions not attributable to a mental disorder that are a focus of attention or treatment and Axis II conditions (personality traits and disorders) as a primary diagnosis;

      (2) concealment of significant and/or disqualifying medical conditions on the history form or during interviews;

      (3) presence of any psychiatric condition which in itself is disqualifying;

      (4) an attitude toward military flying that is clearly less than optimal: e.g., the person appears to be motivated overwhelmingly by the prestige, pay, or other secondary gains rather than the flying itself;

      (5) clearly noticeable personality traits such as immaturity, self-isolation, difficulty with authority, poor interpersonal relationships, impaired impulse control, or other traits which are likely to interfere with group functioning as a team member in a military setting, even though there are insufficient criteria for a personality disorder diagnosis;

      (6) review of the history or medical records reveal multiple or recurring physical complaints that strongly suggest either a somatization disorder or a propensity for physical symptoms during times of psychological stress;

(7) history of arrests, illicit drug use or social “acting out” which indicates immaturity, impulsiveness, or antisocial traits. Experimental use of drugs during adolescence, minor traffic violations, or clearly provoked isolated impulsive episodes may be acceptable but should receive thorough psychiatric and psychological evaluation;

(8) significant, prolonged and/or currently unresolved interpersonal or family problems (for example, marital dysfunction, significant family opposition or conflict concerning the member’s aviation career), as revealed through record review, interview, or other sources, which would be a potential hazard to flight safety or would interfere with flight training or flying duty.

c. An unsatisfactory AA may be given for lower levels (signs and symptoms) than those mentioned above if, in the opinion of the FS/AMO/APA, the mental or physical factors might be exacerbated under the stresses of military aviation or the person might not be able to carry out his or her duties in a mature and responsible fashion. Additionally, a person may be disqualified for any of a combination of factors listed above and/or due to personal habits or appearance indicative of attitudes of carelessness, poor motivation, or other characteristics that are unsafe or undesirable in the aviation environment.

CHAPTER 6. AEROMEDICAL WAIVER PROCEDURES

Section A - Waivers.

1. Definition of Waiver. A waiver is an authorization to change a physical standard when an individual does not meet the prescribed standards for the purpose of the examination.
2. Authority for Waivers. Commander CGPC-epm (enlisted), CGPC-opm (officers), and CGPC-rpm (reserve) have the sole authority to grant aeromedical waivers. The decision to authorize an aeromedical waiver is based on many factors, including the policy developed by Chief, Operational Medicine Division (G-WKH-1); the recommendation of the flight surgeon(s) in CGPC-adm; the recommendation, if any, of the ACAB (see Chapter 1); the best interest of the Coast Guard; and the individual's training, experience, and duty performance. (Note that waivers are not normally authorized, but shall be reviewed by Commander (CGPC), for training in any aviation or diving category specialty.)

Section B - Types of Waivers.

1. Temporary. A temporary waiver may be authorized when a physical defect or condition has not stabilized and may either progressively increase or decrease in severity. These waivers are authorized for a specific period of time and require medical re-evaluation prior to being extended.
2. Permanent. A permanent waiver may be authorized when a defect or condition is not normally subject to change or progressive deterioration, and it has been clearly demonstrated that the condition does not impair the individual's ability to perform general duty, or the requirements of a particular specialty, grade, or rate.

Section C - Waiver Guidelines.

1. This Manual contains specific waiver guidelines for many conditions/medications that may be seen in aviation personnel. Prior to requesting a waiver, the requesting medical officer shall consider and should make comment on:

    a. the individual's medical condition;

    b. the treatment with regard to the unforgiving nature of the aviation environment;

    c. the ability of the individual to perform the aviation duties required;

    d. the potential of sudden incapacitation negatively affecting safe flight or mission completion;

    e. the detrimental effects or side effects of treatment medications;

    f. the individual's ability to respond to an emergency event, including the rapid and safe evacuation of the aircraft.

2. Medical conditions or treatments that could make a survivable mishap into a potentially unsurvivable mishap are unlikely to be considered favorably for a waiver. (e.g. following a traumatic mishap, an aviator using Beta-blockers for hypertension may be unable to generate the cardiac output necessary to keep him/her alive until rescue/medical care is provided.) Further information on waiver requirements may be obtained by contacting CGPC-adm.

3. Normally, a waiver will be granted when it is reasonably expected that the individual will remain fit for duty and the waiver is in the best interests of the Coast Guard. A service member will not be granted a waiver for a physical disability determined to be not fit for duty by a physical evaluation board approved by the Commandant. In these cases, the provisions for retention on active duty contained in Physical Disability Evaluation System, COMDTINST M1850.2 (series), and the Personnel Manual, COMDTINST M1000.6 (series) apply.

4. If a member is under consideration by the physical disability evaluation system, no medical waiver request shall be submitted for physical defects or conditions described in the medical board. All waiver requests received for conditions described in the medical board will be returned to the member's unit without action.

Section D - Procedures for Recommending Waivers.

1. Medical Officer. A medical officer (FS/AMO/APA) who considers a defect disqualifying by the standards, but not a disability for the purpose for which the physical examination is required, shall:

    a. enter a detailed description of the defect in Block 77 of the DD Form 2808;

    b. indicate that either a temporary or permanent waiver is recommended;

    c. prepare a recommendation on an SF-502 (Narrative Summary) as to the medical appropriateness of a waiver based on the member's ability to perform his/her duties (see paragraph 6-D-2 below). Note that a waiver recommendation from an APA must be countersigned by an FS/FST/AMO.

2. Command/Unit Level. When the command receives a Report of Medical Examination (DD 2808) indicating that an individual is not physically qualified, the command shall inform the individual that he/she is not physically qualified. The individual shall inform the command via letter of his/her intentions to pursue a waiver. The medical officer is required to give a recommendation on whether the waiver is appropriate and if the individual may perform his/her duties with this physical defect. This recommendation shall be completed on an (SF-502). A cover letter stating the command's opinion as to the appropriateness of a waiver, the individual's previous performance of duty, special skills, and any other pertinent information, shall accompany the medical officer's report. The waiver request package shall be forwarded directly from the member's unit to Commander CGPC-epm/opm/rpm, as appropriate.

3. CGPC Level.

   a. Flight surgeon in CGPC-adm will review the medical waiver request, considering the guidelines in paragraph 6-C above, the current aeromedical knowledge for the condition/medication, any consultation with appropriate sources and written CG policy, and make a recommendation for or against the waiver to the requisite CGPC office (opm/epm/rpm). Recommendation for waiver will include any ongoing follow-up, lab tests, etc that are required and define the reporting period and means (e.g. Member will have liver function tests done every three months with results reported on the biennial physical). The CGPC aeromedical waiver recommendation must be made by a CG-designated Flight Surgeon. FSTs/AMOs/APAs are not eligible to make aeromedical waiver recommendations at the CGPC level. Unusual or otherwise complicated cases should be referred for review and recommendation to the Commandant's Aeromedical Consultative Advisory Board as described in Chapter 1-C-1.a.

   b. Upon granting an aeromedical waiver, in addition to notifying the unit/member, CGPC (opm/epm/epm) will enter the waiver information into the CGHRMS Medical Readiness System (MRS). Information will be entered identifying the waiver condition; the waiver requirements will be entered in the comments section.

Section E - Action on Receipt of a Waiver Authorization.

1. A command receiving authorization from the Commander CGPC-epm/opm/rpm for the waiver of a physical standard shall carefully review the information provided to determine any duty limitation imposed and specific instructions for future medical evaluations.
2. Unless otherwise indicated in the authorization, a waiver applies only to the specific category or purpose for which the physical examination is required.
3. A copy of the waiver authorization shall be retained in both the service and health records for the period for which the waiver is authorized.
4. Copies of future "DD Forms 2808" for the same purpose shall be endorsed to indicate a waiver is or was in effect and shall include any updated information per waiver requirements.

CHAPTER 7 MEDICAL OFFICER TRAINING/ASSIGNMENT TO AVIATION DUTIES

Section A- Medical Officer Training/Duties.

1. Definitions and Designations.

   a. Flight Surgeon (FS).

      (1) A Flight Surgeon Trainee (FST) (see 7-A-1.b) who has completed the requisite number of hours of flight time and other requirements. Commander, Coast Guard Personnel Command (CGPC-opm) designates an officer as a FS upon receipt of certification of completion of the required flight time and other requirements in Coast Guard aircraft subsequent to the FST designation, with endorsement by local command and Commandant (G-WKH-1); or

      (2) A physician graduate of the Navy or Air Force Residency in Aerospace Medicine, a graduate of the 6-month course at the Naval Aerospace Medical Institute or an officer previously designated as an FS by another Armed Service. Commandant (G-WKH-1) will verify the flight hours and past experience and training of such an officer. If felt to be qualified, the officer may request, with endorsement from the local command and Commandant (G-WKH-1), to be designated as a Coast Guard FS by Commander, Coast Guard Personnel Command (CGPC-opm). Commandant (G-WK) will provide the initial set of FS insignia to officers so designated by Commander, Coast Guard Personnel Command (CGPC-opm).

      (3) All candidates for designation as an FS must provide documentation of successful completion of underwater egress training (Dunker), Egress Breathing Device (HEEDS) and Shallow Water Egress Training (SWET).

      (4) While in a Duty Involving Flight Operations (DIFOPS) billet, a FS is expected to complete the semiannual and annual requirements as outlined in Chapter 8-D-3 (Table 8-2) of reference (c).

      (5) The medical representative from Commandant (G-WKH) to the Commandant's Aviation Safety Board, the Commandant's Vessel Safety Board and the Commandant's Shore Safety Board must be a designated Coast Guard Flight Surgeon. All aviation medicine decisions/recommendations from CGPC-adm must be made by a designated Coast Guard Flight Surgeon.

   b. Flight Surgeon Trainee (FST).

      (1) A physician assigned to a DIFOPS billet and who is a graduate of either the U. S. Air Force Aerospace Medicine Primary Course or the U. S. Army Flight Surgeon Primary Course. Upon an individual's request and submission of a copy of the certificate of successful completion of such training, endorsed by the local command and Commandant (G-WKH-1), the Commander, Coast Guard Personnel Command (CGPC-opm) designates an officer as an FST.

(2) A FST can become eligible for designation as Flight Surgeon after 1 year in a DIFOPS billet provided the following requirements are met:

(a) The FST must complete 48 hours of flight time in Coast Guard aircraft.

(b) The FST should develop an appreciation for the mental sharpness and physical stamina required of aviation personnel in their hanger deck duties. To this end the FST will observe at least a portion of each of the following aircraft maintenance procedures (these observations should be noted in the FST's flight logbook):

1 engine removal;

2 QA check after engine installation;

3 generator change;

4 radar maintenance or repair;

5 corrosion control activities;

6 refueling;

7 crew preflight and postflight routines.

(c) The FST should be encouraged to learn the missions, SAR role, crew designations, and endurance of each type of Coast Guard aircraft. Flight time in aircraft not normally located at the Air Station to which the FST is assigned is desirable (within the constraints of cost and time) to round out the FST's familiarity with the Coast Guard aviation community.

(d) The FST must also complete the same semiannual and annual requirements imposed on Flight Surgeons as outlined in Chapter 8-D-3 (Table 8-2) of reference (c).

(e) Per the Uniform Regulations, COMDTINST M1020.6(series), Chap 5.B.1, FSTs are authorized to wear the flight surgeon insignia they were awarded from the Army, Air Force or Navy.

c. Aviation Medical Officer (AMO).

(1) A physician graduate of the U.S. Air Force Aerospace Medicine Primary Course or the U. S. Army Flight Surgeon Primary Course who has not yet been assigned to a DIFOPS billet. Upon an individual's request and submission of a copy of the certificate of successful completion of such training, endorsed by the local command and Commandant (G-WKH-1), the Commander, Coast Guard Personnel Command (CGPC-opm) designates an officer as an AMO or;

(2) A former FST who, while assigned to a DIFOPS billet, either failed to acquire the requisite number of flight hours specified in 7-A-b.(2)(a) above or who failed underwater egress training or HEEDS/SWET training. In these cases, Commander, Coast Guard Personnel Command (CGPC-opm) redesignates the FST as an AMO.

(3) An AMO who is assigned to a DIFOPS billet may apply to Commander, Coast Guard Personnel Command (CGPC-opm) for designation as an FST. This officer may then be eligible for subsequent designation as FS in accordance with the requirements of 7-A-b.(2) above.

(4) Per the Uniform Regulations, COMDTINST M1020.6(series), Chapter 5-B-1, AMOs are authorized to wear the flight surgeon insignia they were awarded from the Army, Air Force or Navy.

d. Aeromedical Physician Assistant (APA).

(1) A physician assistant graduate of the U. S. Army Flight Surgeon Primary Course, or other military flight surgeon courses as authorized.

(2) Upon an individual's request and submission of a copy of the certificate of successful completion of such training, endorsed by the local command and Commandant (G-WKH-1), the Commander, Coast Guard Personnel Command (CGPC-opm) designates an officer as an APA.

(3) There exists no specific billet category for a Physician Assistant designated as an APA. APAs assigned to CG Air Stations, ISCs, Groups and afloat assets provide significant support to the flight surgeon, the command and the assigned aviation personnel. PAs' assignments are based solely on their clinical/primary care capabilities and not the additional qualification of aviation medicine training. Training leading to the designation of APA is entirely voluntary and contingent on meeting Class 2 aviation physical standards. Commands that desire an assigned APA to maintain regular flight hours/function as a crewmember are recommended to provide Hazardous Duty Incentive Pay equivalent to other crew members of the unit. An APA that functions as a crewmember shall receive the same training and meet the same qualifications as other crewmembers, to include 9D5 Dunker Egress training, HEEDS/SWET training, other periodic training, as outlined in reference (c), Chapter 8-D and winter survival training, if appropriate.

(4) Officers shall request and receive clinical privileges to function as an APA prior to functioning in this capacity.

(5) A designated APA is eligible to wear the insignia awarded by their Primary Flight Surgeon Training course. Coast Guard Flight Surgeon and Air Crew insignia are not authorized.

(6) Aviation Candidate (Student Naval Aviator (SNA)) physical exams and physical disqualification waiver requests performed by an APA must be countersigned by the local FS/AMO supervising the APA.

(7) APAs are not authorized to serve as the designated medical representative on an aviation mishap investigation board.

2. Aviation Career Incentive Pay.

a. Aviation Career Incentive Pay (ACIP), (Figure 7-1) is made for physicians contingent on the frequent and regular performance of operational flying duty within a specified billet (DIFOPS), in accordance with Public Health Service Commissioned Corps Personnel Manual CC22.3, Instruction 3. The steps to follow are summarized below:

(1) CG designation letter as a FS or FST (see 1.a (1) or 1.b (1) above) is forwarded to Division of Commissioned Personnel (DCP) Compensation Branch (CB) by PHS Liaison (note: member should ensure that PHS Liaison has designation letter and forwards this to PHS). Also a billet description showing DIFOPS status must be furnished to DCP/CB if billet was not previously a DIFOPS billet.

(2) CB will review designation and billet and issue orders designating officer as an FS or FST and establishing the Aviation Service Date (ASD). (Note: Until PHS has processed these orders, the member is not entitled to ACIP. The member should ensure that this paperwork is properly filed or entitlement to ACIP will be delayed.)

(3) CB will process an order to authorize payment of ACIP effective as of the date of designation on PHS orders.

(4) ACIP is not continuous or automatic. Flight hour reports must be submitted monthly, even if no hours are flown, to the Public Health Service (DCP/CB). The hours must be certified by the command. A sample format for this report is included as Figure 7-1. All correspondence to DCP/CB should go to the address listed in Figure 7-1.

b. Aeromedical Physician Assistants (APA) are not eligible for ACIP. However, APAs are eligible to receive hazardous duty incentive pay (HDIP) as an aircrew member at the discretion of the unit commander.

3. Attendance at Professional Meetings, Short-Term Courses and Long Term Training.

a. PHS and CG medical officers serving full-time with the Coast Guard may attend short-term and refresher courses, conferences, seminars, workshops, and similar sessions of a technical, scientific, or professional nature. Such training may be authorized at government expense where it is applicable and beneficial to the Coast Guard and the individual.

b. Training requests for professional development shall be submitted in accordance with the standard Coast Guard procedure to local commands for funding. PHS and CG medical officers may also apply for attendance at required training courses by submitting Short Term Training Requests (CG-5223) to Commandant (G-WKH-1) via the chain of command.

c. In conjunction with references (a) and (c), FS/FST/AMO/APA medical officers will participate in a program of continuing education in aviation and operational medicine including training for flight surgeons/APAs by other branches of the Armed Forces.

4. Training Requirements. Per reference (c), Chapter 8: minimum requirements for all designations engaged in frequent aerial flight:

- Emergency Ground Egress Training
- Training in Installed Survival Gear
- Training in Use of Intercom System and Terminology
- Water Survival Training and Swim Test
- Low Pressure Chamber Training (Pressurized Aircraft)
- 9D5/9U44 (Helicopters)
- Training in Search and Scanning
- Training in Operating the Flare Launch Panel (C-130)
- Egress Breathing Device/Shallow Water Egress Training (R/W only)
- First Aid and CPR Training
- Local Initial OPSEC/COMSEC Training
- Training in the Use of SAR Equipment and Pyrotechnics

a. Each member reporting to a unit shall receive, as a minimum, training on unit-unique equipment, operating area survival demands and equipment, area familiarization, hospital sites within operating area, and local policy and procedures prior to any operational flying.

b. Each member shall attend a land survival briefing, or view a locally produced audio-visual presentation tailored to the problems unique to the unit's operating environment.

5. Mishap Investigation. A Flight Surgeon, Flight Surgeon Trainee or an Aviation Medical Officer may participate as the designated medical representative on an aviation mishap investigation board. Information on participating on such a board, including recommended procedures, may be found in the Safety and Environmental Health Manual, COMDTINST M5100.47, Chapter 2.

Figure 7-1

FLIGHT SURGEON INCENTIVE PAY

FROM: Commanding Officer Date: _____

_____

_____

SUBJECT: Certification of Flight Hours for the Month of _____

TO: PCS/DCP/CB
Compensation Branch
Room 4-50, Parklawn Building
5600 Fishers Lane
Rockville, MD 20857

This is to certify That _____, _____, participated
(Name of Officer) (Officer's SSN)

in aerial flight as indicated below:

DATE	AIRCRAFT/MISSION NUMBER	HOURS FLOWN

TOTAL HOURS FLOWN: _____

_____
(Signature)
Commanding Officer

Note: 1. Data submitted will be for the full month, i.e., 1 thru 31 May 20xx

2. Hours flown will be reported to the nearest 1/10th of an hour, i.e., 1 hour 36 minutes will be reflected as 1.6 hours.

CHAPTER 8. EXOGENOUS FACTORS

Section A - Exogenous Factors. Aviation personnel must have operational physiological and psychological fitness in order to perform their duties. This fitness may be affected by a variety of exogenous factors. These factors may be hardly perceptible and have a negligible effect in everyday life but may have a considerable impact on aircrew efficiency and safety.

1. Administration of medications/supplements. Aviation personnel are restricted from the self-administration of medications/supplements. All substances should be dispensed by or with the knowledge of the Flight Surgeon/Aviation Medical Officer/Aeromedical Physician Assistant. Chapter 12, Medication Use in Aviation Personnel, of this Manual shall guide the use of medications/supplements.

2. Immunizations. Restrictions following immunizations shall be as directed in Chapter 13, Immunizations.

3. Alcohol use. Aviation personnel are restricted from aerial flight for 12 hours after last alcohol use and must have no residual effects. This includes the use of “low” and “no” alcohol beer. Residual effects include fatigue, lightheadedness, weakness, nausea, diarrhea and headache.

4. Blood donation. Aviation personnel:

   a. shall obtain permission from the commanding officer before donating blood;

   b. shall be grounded for a period of 3 days (72 hours) after a donation of 200 cc or more of blood;

   c. shall be grounded for a period of 7 days after a donation of 500 cc or more of blood (note: the standard unit of donated blood is less than 500 cc);

   d. shall not donate blood more often than every 120 days.

   e. aircrew personnel should not be permitted to engage in flights above 35,000 feet, night flying, or other demanding flights for a period of one week after blood donation.

   f. examination by a flight surgeon is not required for return to full flight status.

5. Bone Marrow donation. Aviation personnel selected for and undergoing bone marrow donation are grounded for a minimum of 7 days. Upon reevaluation, the medical officer may determine that an additional grounding period and/or further sick leave is necessary. Return to full flight status must include a satisfactory medical examination and repeat CBC evaluation and clearance by a flight surgeon.

6. Decompression experience. Aviation personnel are restricted from flight duty until fully evaluated and released for flight duty by a flight surgeon when symptoms or reactions occur during or after decompression.

7. Diving. The incidence of decompression sickness during aerial flight is significantly enhanced after exposure to an environment above atmospheric pressure such as SCUBA diving.

   a. Aviation personnel will not fly or perform low-pressure chamber "runs" within 24 hours following SCUBA diving, compressed air dives or hyperbaric chamber dives. If an urgent operational requirement dictates, aviation personnel may fly within 24 hours of SCUBA diving only after the examination by and clearance of a FS/AMO/APA and the authorization of the commanding officer.

   b. Aviation personnel are restricted from flying following any decompression symptoms during or following a dive until examined and cleared by a FS/AMO/APA.

8. Tobacco abuse. Aviation personnel are discouraged from smoking tobacco at all times. Carbon monoxide has a deleterious effect on night vision as well as a detrimental effect on the physiologic effects at any altitude of flight. Use of any tobacco products is prohibited during the performance of flight duties and aboard any military aircraft.

9. Vision. Aviation personnel are required to have at least 20/20 vision while performing flight duties. Personnel using contact lenses during flight duties shall maintain a set of corrective eyeglasses on their person in the event of loss of a contact lens.

CHAPTER 9. ALCOHOL USE DISORDERS

Section A - Aviation Personnel.

1. Members under Aviation class 1 or 2 retention standards involved in alcohol-related incidents or who are referred for alcohol screening shall be recommended to the command for immediate grounding. If, after alcohol screening, a specific medical diagnosis of Alcohol Abuse (305.00 DSM-IV) or Alcohol Dependence (303.90 DSM-IV) cannot be made, the individual can be recommended to the command to be returned to aviation duties without a formal waiver. Those aviation personnel who are diagnosed with Alcohol Abuse or Alcohol Dependence can return to duties involving flight only after favorable action by the appropriate waiver authority. In addition, class 2 aviation personnel with either of these diagnoses must be cleared by the FS/AMO before returning to flight-line duties or activities involving aircraft maintenance. (Candidates for Student Naval Aviator or Aircrew Candidates: see below)

   a. The waiver request must include:

      (1) The flight surgeon's Narrative Summary (SF 502);

      (2) How the problem was identified;

      (3) Drinking history: When subject member first drank, history of DUIs, blackouts, frequent sick-call visits, withdrawal symptoms, morning drinking, domestic difficulties, impaired job performance, etc.;

      (4) Lab data (LFTs, red cell indices, etc.,);

      (5) All Narrative Summaries from rehabilitation authority, including the most recent;

      (6) Commanding officer's endorsement in accordance with ref (a), Chapter 3-A-8.d.(2). This must include details of any mandated aftercare plan.

   b. The waiver process should not be initiated until the aviation member:

      (1) Completes Level II or III rehabilitation program or the civilian equivalent;

      (2) Demonstrates compliance with their aftercare program for at least three months.

   c. Waiver contingencies will usually incorporate the recommendations of the rehabilitation authority and may include one or more of the following:

      (1) Total abstinence;

      (2) Active participation in a sobriety program (which includes AA);

      (3) Follow-up by the flight surgeon at least quarterly for a year then at least annually thereafter.

Section B - Candidate Qualification.

1. Persons who have a history of alcohol dependence are not physically qualified as candidates for Student Naval Aviator, Coast Guard Flight Officer and Aircrew. Waivers will be considered on a case-by-case basis after rehabilitation and 2 years of recovery. Persons with a diagnosis of alcohol abuse are disqualified for at least one year after successful treatment (successful rehabilitation and normal after-care program). However, it is rare that a waiver is ever given for a potential SNA candidate with one of these diagnoses.

CHAPTER 10. DENTAL CONDITIONS

Section A - Dental Conditions in Aviation Personnel.

1. Annual dental exams are required for all aviation personnel. Due to the effects that barometric pressure may have on teeth and adjacent tissues, all aviation personnel should strive to maintain themselves in Dental Class I status (no restorations required). Personnel who have dental work done under local anesthesia shall be self-grounded for six hours to allow the effects of the anesthetic to subside (numbness, slurred speech, etc.). Personnel undergoing more extensive dental procedures (extractions, root canal, crown prep etc.) should be self-grounded for a minimum of twelve hours. Flight surgeons and dental officers should advise personnel that even some "routine" dental procedures can be traumatic (physically and emotionally) and that personnel who have "lost their edge" should make use of temporary self grounding. Dental officers shall take note of the aviation status of their patients and advise self-grounding based on these guidelines.

   a. The following are disqualifying until treated:

      (1) Any dental condition that may potentially react adversely to sudden changes in barometric pressure or produce indistinct speech by direct voice or radio transmission;

      (2) Fixed active orthodontic appliances (e.g. braces) are disqualifying. A waiver is required from CGPC-opm/epm/rpm. (fixed retainers are exempt/not disqualifying);

      (3) Routine prosthetic (crown) and temporary dental treatment is not disqualifying for aviation missions. Recommend that temporary crowns, bridges or fixed partial dentures be cemented with permanent cement like polycarboxylate or zinc oxyphosphate cement until the permanent crown, bridge or fixed partial denture is delivered. Personnel are temporarily self-grounded for 12 hours after such procedures (see above). Such treament may be disqualifying for deployment until completed but is not necessarily disqualifying for routine aviation duties.

CHAPTER 11. PREGNANCY

Section A- Pregnancy in Aviation Personnel.

1. Because of the medical hazards of flight, pregnant flight personnel shall consult with their flight surgeon when they first suspect they are pregnant. Flight personnel are grounded during pregnancy unless a clearance to continue in flight status is granted by the aviation unit commanding officer. Consideration for such clearance should be based on desire of the pregnant aircrew member to continue flying; the formal recommendation and concurrence of her obstetrician; and the recommendation and concurrence of the local or unit flight surgeon. The member shall submit her request to her commanding officer with these endorsements. Her request should acknowledge an understanding of the potential risks of continued flying during pregnancy. Nausea, decreased appetite, easy fatigability, dizziness, and vaginal bleeding are some of the potential problems that may cause the FS/AMO/APA to recommend temporary grounding for pregnant aviation personnel. Close monitoring is required by the FS/AMO/APA to ensure early identification of problems associated with pregnancy that could be hazardous to the pregnant member or others.
2. In addition, the FS/AMO/APA will assess the ergonomic and toxic hazards, including noise exposure, toxins, radar/electronics, etc, to which the pregnant member and her fetus may be exposed in her particular aviation environment. Potential occupational health problems will be brought to the attention of the patient and the command.
3. No member will perform duties as a rescue swimmer upon confirmation of pregnancy. No pregnant member shall perform duties involving flying after the end of the second trimester nor shall a pregnant member undergo physiologic training (chamber, dunker, SWET, etc) or training involving swimming. Refer to the reference (c) for waiver of physiologic training. Due to concerns of the effect on fetal hearing of noise frequencies associated with rotary wing aircraft, it is recommended that pregnant women refrain from participating in rotary wing flight.

CHAPTER 12. MEDICATION USE IN AVIATION PERSONNEL

Section A - Introduction: Aeromedical Concerns and Waivers.

1. Aeromedical Concerns. Aviation personnel should be evaluated for restriction from flying duties when initiating any medication and also be advised of potential side effects. When using a medication, the following should be considered:

   a. Medication and/or the underlying medical condition is compatible with aviation duty (i.e. The medication may be Not Considered Disqualifying (NCD) but the medical condition may be Considered Disqualifying (CD)).

   b. Medication is effective and essential to treatment.

   c. Aircrew member is free of aeromedically significant side effects after a reasonable observation period.

2. Waivers. The Director, Health and Safety, U.S. Coast Guard, has reviewed and classified a wide range of medications for use in the aviation environment. Medications are designated Class 1, 2, 3 and 4 (see section 6 below). The class defines any restrictions/waivers needed in aviation personnel using this medication (Class description below). Medications not on this list are currently incompatible with the aviation environment or little information of its safe use in the aviation environment exists. Therefore, medications/nutritional supplements not on this list are restricted for use in aviation personnel without prior approval. New medications will be reviewed and waiver requests are considered on a case-by-case basis but often take a great deal of time. FS/AMO/APAs are encouraged to use the medications on this list to avoid lengthy delays in the waiver action process. Note that the crew duty position may have some impact on a favorable waiver.

3. Waiver Authority. Commander CGPC-epm (enlisted), CGPC-opm (officers) or CGPC-rpm (reservists) have the sole authority to grant waivers. The decision to authorize an aeromedical waiver is based on many factors, including the policy developed by Chief, Operational Medicine Division (G-WKH-1); the recommendation of the flight surgeon(s) in CGPC-adm; the recommendation, if any, of the ACAB (See Chapter 1 of this Manual); the best interest of the Coast Guard; and the individual's training, experience, and duty performance. Procedures and other information for recommending a waiver are found in Chapter 6 of this Manual.

4. Information Required. Waiver requests should contain dosage, frequency of use, any side effects, and a complete summary of the service member's medical condition. If a new/unlisted drug/supplement is being recommended, forward a complete justification of the medication, i.e., rationale for use, safety considerations, availability of the drug during mobilization of the unit, and any studies supporting its use in the aviation environment as well as a complete summary of the service member's medical condition.

5. Follow-Up. Appropriate follow-up is predicated upon the specific medication and the underlying medical condition. These requirements are given under specific reference to the applicable medication or medical condition.

6. Medication Classes:

   a. Class 1. Over-the-counter medications that may be used without a waiver. Occasional and infrequent use of these over-the-counter medications does not pose a risk to aviation safety; however, these medications should be used under the guidance of a FS/AMO/APA. In the event a FS/AMO/APA is unavailable, self-use with these medications does not violate the intent of reference (c), Appendix D, Section A-3-c-(7). Class 1 medications are approved for acute non-disqualifying conditions and do not require a waiver. Additionally, the medical condition being treated must not be disqualifying. Use in accordance with standard prescribing practices. Note that the underlying disease process may require a waiver. Self-medication with any other drug, nutritional or herbal supplement except as outlined above is prohibited.

   b. Class 2. These medications usually require a prescription and may be used for short-term (acute) or chronic use under the supervision of a flight surgeon without a waiver. CAUTION: The underlying condition may require a waiver. These medications must be noted on the Flight Physical as "Information Only" and the FS/AMO/APA must comment on usage and dosage. First time use requires a 24-hour grounding period to ensure the member is free of significant side effects. Subsequent use does not require grounding if the medication is known to be free of significant side effects.

   c. Class 3. These medications require a prescription and may receive favorable waiver recommendation for long-term use only on an individual basis for treatment or control of certain chronic conditions. Note that the underlying disease process may also require a waiver.

   d. Class 4. Use of these medications is CD, necessitates grounding aviation personnel and is not waiverable for flying duty. Certain medications may be prohibited from use at any time. Included as Class 4 are any medications or nutritional/dietary/herbal supplements that are not listed elsewhere in this policy. In other words, any medication and/or supplement not listed in this policy are considered Class 4 and prohibited.

7. Discussion. Medication side effects are very hard to predict. They occur with irregularity and often differently in any given population group. The side effects relating to central nervous, cardiogenic, ophthalmologic, and labyrinthine systems are understandably the most troubling in aviation personnel. One must also consider the unique environmental considerations present in the aviation environment, i.e., G-forces, hypoxia, pressure changes, noise, heat, cold, acute and chronic fatigue; and how these

effect the medication or the underlying medical condition. Additionally, medications and/or herbal/nutritional/dietary supplements often have interactions that may make the combination unacceptable when each may be otherwise NCD in isolation. It is imperative that the FS/AMO/APA become familiar with the interactions of any multiple medications/supplements that aviation personnel may be using.

Section B - Class 1: Over-The-Counter Medications.

1. Aeromedical Concerns. Self-medication by anyone on flight status is prohibited. Over-the-counter (OTC) medications frequently are combination medications, with one or more components contraindicated for safety of flight. Many OTC products, including herbal/nutritional supplements, do not provide a complete listing of ingredients on the package and often give only sketchy information on side effects.

2. Waiver. The OTC medications listed below are Class 1 medications and do not need a waiver. However, self-use by flight status personnel is only for short-term and only when a flight surgeon is not available to dispense or approve the medication. The medical condition being treated must not be disqualifying (e.g. A respiratory infection may treated with Sudafed, however the respiratory infection itself may well be CD temporarily). Combination medications are acceptable only when each component in the combination is separately acceptable. Any prohibited component makes the combination a prohibited medication.

3. Class 1 Medications:

   a. Antacids. (Tums®, Rolaids®, Mylanta®, Maalox®, Gaviscon®, etc.) When used occasionally or infrequently. Chronic use is Class 3. OTC H-2 blockers (Tagamet®, Zantac®, Pepcid®, etc) are Class 3.

   b. Artificial Tears. Saline or other lubricating solution only. Visine® or other vasoconstrictor agents are prohibited for aviation duty.

   c. Aspirin/Acetaminophen. When used infrequently or in low dosage. Note: A single aspirin or baby aspirin daily is considered Class 2 and may be acceptable, without waiver, for aviation personnel over the age of forty but must be coordinated with the FS/AMO/APA.

   d. Cough Syrup or Cough Lozenges. [Guaifenesin (Robitussin® plain)]. Many OTC cough syrups contain a sedating antihistamine or Dextromethorphan (DM) and are prohibited for aviation duty.

   e. Decongestant. [Pseudoephedrine (Sudafed®)]. When used, as directed, for mild nasal congestion in the presence of normal ventilation of the sinuses, and middle ears (normal valsalva). Note: Use of phenylpropanolamine (Entex) has been restricted by the FDA and shall not be used in the aviation population.

f. Pepto-Bismal® or Kaolin and Pectate. If used for minor diarrhea conditions and free of side effects for 24 hours after first use.

g. Multiple Vitamins/Minerals. A single daily multi-vitamin/mineral tablet is allowed. Individual vitamin/mineral preparations and mega-dose prescriptions/formulations are prohibited except as indicated below. Preparations containing herbal ingredients are prohibited.

(1) The following are allowed:

(a) Vitamin C: No more than 1000 mg/day

(b) Vitamin E: No more than 800 mg/day or 1200 IU/day

(c) Vitamin B6: No more than 100 mg/day

(d) Folate (Folic Acid): No more than 400 mcg (0.4 mg)/day

(e) Calcium: No more than 1200 mg/day

(f) Vitamin B12 (oral): See Class 3 for parenteral use

(g) Prohibited as an additional supplement except under the direct care and advice of a flight surgeon as a Class 2 agent:

1 Vitamin A; Vitamin K; Vitamin D; Niacin (Nicotinic Acid); Riboflavin; Thiamin (Thiamine); Biotin; Pantothenic acid; Magnesium; Copper; Chromium; Zinc; Selenium; Vanadium.

(h) Additionally, other vitamins/minerals not listed here or as Class 2 substances are considered Class 4 and prohibited.

h. Nutritional/Herbal/Dietary Supplements/Medications and Performance Enhancing Substances. None of these products are considered Class 1 except as listed above. Scientific information regarding nutritional, dietary and herbal medicines/supplements and performance enhancing substances is often times scanty. The FS/AMO/APA must be informed whenever an aircrewmember is using one or more of these products and is expected to solicit this information from aviation personnel during medical encounters. Often these products interact with each other and with more traditional medications in unexpected ways. The FS/AMO/APA can help safely guide the use of these products. The FS/AMO/APA shall consider the aeromedical implications of the supplement/medication as well as the probability that the supplement will actually enhance performance/health. Certain products are to be used only under the guidance of a physician (Class 2 or 4) or are banned for use by aviation personnel due to dangerous side effects (Class 4). Products not listed are

considered Class 4 and are prohibited. As further information on these products is developed, information will be published on their use or prohibition.

i. Nasal Sprays. Saline nasal sprays are acceptable without restriction. Neosynephrine may be used for a maximum of 3 days. Long-acting nasal sprays [oxymetazoline (Afrin)] are restricted to no more than 3 days. Use of neosynephrine or oxymetazoline for longer than the above time must be validated and approved by a flight surgeon. Recurrent need for nasal sprays must be evaluated by the FS/AMO/APA. Use requires aviation personnel to be free of side effects and able to Valsalva without the use of the medication. (Note: decongestant nasal spray may be used while at altitude to relieve a sinus or ear block).

j. Psyllium Mucilloid. (Metamucil®). When used to treat occasional constipation or daily (no waiver needed) as a fiber source for dietary reasons. Long-term use (over 1 week) should be coordinated with the FS/AMO/APA due to its rare association with esophageal/bowel obstructions.

k. Throat Lozenges. Acceptable provided the lozenge contains no prohibited medication. Benzocaine (or similar analgesic) containing throat spray or lozenge is acceptable. Long-term use (more than 3 days) must be approved by the local flight surgeon.

4. Discussion. The aviator requires constant alertness with full use of all of his senses and reasoning powers. Many OTC medications as well as prescribed medications may cause sedation, blurred vision, disruptions of vestibular function, etc. Often the condition for which the medication is used is mild; however, it can produce very subtle effects that may also be detrimental in the flight environment. Just like the subtle deterioration of cognitive ability that occurs with hypoxia and alcohol intoxication, the individual taking the medicine may not appreciate the effects of medication. These effects may have disastrous results in situations requiring full alertness and rapid reflexes.

Section C - Class 2: Information Only, Short-Term or Chronic Use - No Waiver Action Required.

1. Aeromedical Concerns. Certain medications, generally available by prescription only, have proven to be quite safe in the aviation environment. These medications, when dispensed and their usage monitored by flight surgeons, have been quite effective in returning aviation personnel more rapidly to their respective flying positions. While generally safe, one still must take into consideration the underlying medical condition and the ever-present possibility of side effects. This classification of drugs may require a prescription and shall be used only under the supervision of the FS/AMO/APA. They are used short term or chronically, and it is possible that the underlying medical condition(s) requires a waiver. They also have potential for side effects, so all must have a period of observation for side effects of at least 24 hours when used for the first time in aviation personnel (unless a longer period of time is indicated in the text).

2. Waivers. Use of these drugs requires they be notated for "Information Only" on the Flight Physical. No waiver is required if the medication is used on a short-term basis (less than one month) unless the underlying medical condition necessitates it. Occasionally the underlying health condition requires a waiver; and if the medication is required on a frequent or maintenance basis, a waiver may also be needed.

3. Information Required. All drugs in this Class require comment on dosage and usage. They may also require other periodic follow-up specifically indicated for each drug (see below).

   a. Antihistamines. **Fexofenodine** (Allegra®), **Loratadine** (Claritin®).

      (1) Short-term use is permissible without waiver

      (2) If used for chronic or recurrent allergic rhinitis, a waiver is required (See Class 3).

      (3) All other anti-histamines are grounding (See Class 4). Use of **Cetirizine** (Zyrtec®) is grounding due to the mildly sedating side effect. [**Terfenadine** (Seldane®) and **Astemizole** (Hismanol®) are no longer marketed in the USA and are prohibited. Previous waivers for Zyrtec®, Seldane® and Hismanol® may be substituted with Claritin® or Allegra®. Note this on flight physical.]

   b. Anti-Hyperlipidemics. (See Hyperlipidemia/Hypercholesterolemia policy-Chapter 14.B) May be locally returned to full flight duties after 1 month of stable dosage and no side effects.

      (1) HMG CoA Reductase Inhibitors. **Lovastatin** (Mevacor®), **Pravastatin** (Pravachol®), **Atorvastatin** (Lipitor®), **Fluvastatin** (Lescol®), **Simvastatin** (Zocor®). Note: **Cervistatin** (Baycol®) is no longer approved by the FDA. Members on Baycol should be transitioned to another medication within this class.

         (a) Try diet and exercise first.

         (b) Prior to initiating treatment, at 6 months and then annually, do SGOT, SGPT, Alk Phos, CPK, CBC and complete Lipid Profile. Report all results on flight physical.

      (2) Bile-Acid Binding Resins. **Cholestyramine** (Questran®), **Colestipol** (Colestid®):

         (a) Check lipid panel, prothrombin time and serum calcium annually and report with flight physical.

         (b) These drugs may cause constipation and interact with such drugs as hydrochlorothiazide, penicillin and tetracycline.

(3) Ferric Acids. **Gemfibrozil** (Lopid®), **Fenofibrate** (Tricor®):

(a) Indicated only for very high triglyceride levels and is not a first line drug of choice. Try diet, exercise and a statin or resin first and use in combination with that drug.

(b) Prior to initiating treatment and at 3, 6, and 9 months, then annually, do SGOT, SGPT, Alk Phos, CPK, bilirubin and LDH, CBC and complete Lipid Profile. Report all results on flight physical.

(c) Hypersensitivity, hepatic dysfunction, dizziness, depression and blurred vision have been reported.

(4) Nicotinic Acid. **Niacin** - CD for all aviation personnel as a supplement over 20 mg/day.

c. Antimicrobials, Antifungals, and Antivirals.

(1) **Augmentin** (Amoxicillin®), **Sulfonamides** (Bactrim/Septra DS®), **Cephalosporins**, **Clindamycin** (remember Pseudomembranous colitis), **Metronidazole** (Flagyl®), **Macrolides**, **Nitrofurantoin** (Macrodantin®) (watch for pneumonitis or peripheral neuropathy), **Penicillins**, **Quinolones**, **Tetracyclines** (**Doxycycline** (**Vibramycin®) For Prophylaxis - Includes Malaria Or Leptospirosis), Ethambutol Hydrochloride** (Myambutol®) (monitor serum uric acid during treatment), **Rifampin** (Rifadin®)

(2) **Chloroquine** (Aralen®) or **Chloroquine/Primiquine**. See Malarial prophylaxis paragraph of this section for more information on antimalarials.

(3) **Fluconazole** (Diflucan®), **Griseofulvin** (Gris-peg®, Fulvicin®) if under close observation by local flight surgeon. Watch for bone marrow suppression. Grounded for first 4 weeks of use. **Itraconazole** (Sporanox®) has a safer profile than ketaconazole, and need not be used on a chronic basis to be effective. Recommended use in aviation personnel is to administer in weeklong pulses each month for four to six cycles. Member should be grounded for the first 48 hours of each cycle.

(4) **Acyclovir** (Zovirax®) [(**Valcyclovir** (Valtrex®), and **Famcyclovir** (Famvir®) are acceptable alternatives)]. Oral or topical administration.

(a) Short-term use (1 week or less) does not require a waiver. A minimum of 24 hours of observation to insure the lack of side effects and the overall general health of the member should be considered prior to return to flight status.

(5) Chronic use of all antibiotics requires annual reporting of AST (SGOT), ALT (SGPT), Alkaline Phosphatase, T. Bili, BUN, Creatinine, and CBC on flight physical. Abnormal values must have a FS/AMO/APA comment.

(6) **Minocycline** (Minocin®) (oral) is Class 4

d. Anti-Motion Sickness Agents. **Promethazine/Ephedrine, Scopolamine/Dextroamphetamine** (alternative to **Promethazine/Ephedrine**, monitor intraocular pressure), **Transderm Scopolamine** (alternative to **Promethazine/Ephedrine**, monitor intraocular pressure and wash hands after application).

(1) Only when used in accordance with approved Motion Sickness Protocols.

(2) Other use of this class of medications is CD. (See Class 4).

e. GI Medications.

(1) **Calcium Poylcarbophil** (FiberCon®), **Loperamide** (Imodium®) (when medical condition is not a factor and free of side effects for 24 hours), **Pepto Bismol®, Sucralfate** (Carafate®) (providing underlying condition does not require waiver.)

(2) Other medications are Class 1 or Class 3.

f. Hormonal Preparations.

(1) **Estrogen/Progesterone** preparations when used solely for contraception or replacement following menopause or hysterectomy. No other information required. Class 3 for other conditions.

(2) Other hormonal drugs are Class 3 or Class 4.

g. Non-Steroidal Anti-Inflammatory Agents. Chronic use of any NSAID requires AST, ALT, Alkaline Phosphatase, T. Bili, serum potassium, BUN, and Creatinine to be competed every 6 months and submitted with each flight physical. Additionally, stool for occult blood must be completed annually and documented on the flight physical. Persistent upper GI complaints necessitate grounding and upper GI evaluation for possible GI toxicity. Chronic NSAID use may also increase the risk of other significant side effects.

(1) Acetic Acid Derivatives: **Diclofenac** (Voltaren®), **Indomethacin** (Indocin®), **Sulindac** (Clinoril®), **Tolmetin** (Tolectin®), Anthranilic Acid Derivatives - **Mefenamic Acid** (Ponstel®), **Meclofenamate Sodium** (Meclomen®).

(2) Phenylpropionic Acid Derivatives: **Fenoprofen Calcium** (Nalfon®), **Ibuprofen** (Motrin), **Naproxen** (Naprosyn®), **Naproxen Sodium** (Anaprox®, Aleve®), **Ketoprofen** (Orudis®), **Flurbiprofen** (Ansaid®).

(3) Salicylates: **Aspirin, Buffered Aspirin, Sodium Salicylate, Choline Magnesium Trisalicylate** (Trilisate®), **Diflunisal** (Dolobid®), **Salsalate** (Disalcid®).

(a) Aspirin is Class 2 for single daily use by aviation personnel over the age of forty under the direction of a flight surgeon after an assessment of the risk/benefit for the individual. This use should be noted on the flight PE.

However, single daily use does not require the complete lab workup outlined in above.

(b) Aspirin is Class 1 for infrequent, minor use when flight surgeon is unavailable.

(4) Oxicam - **Piroxicam** (Feldene)

h. Nutritional/Herbal/Dietary Supplements/Medications And Performance Enhancing Substances. The following substances/medications are felt to be possibly beneficial when used in moderation. They are not thought to pose a risk of threat to flight safety, sudden incapacitation, threat to mission completion or physical harm when used as directed below. Note: if a combination product contains a Class 4 substance, the entire product is Class 4.

(1) Creatine Monohydrate (powder, liquid or capsule)(other forms of creatine are class 4): May only be used under the direction of a FS/AMO/APA. Allowed dosage is no more than 5gm/day. Loading doses of greater than 5gm/day are not allowed due to increased potential risks of renal damage, nausea, diarrhea, muscle cramping, fatigue, and dehydration. Aviation personnel must maintain an increased state of hydration while using creatine. Should not be used within 6 hours prior to flight. Because safety studies have been short term, creatine may be used up to 8 weeks then must defer use for 2 weeks before restarting. Contraindicated in pregnant women.

(2) Echinacea: May be used up to 3 times daily (up to 1000 mg/day) for a period not to exceed two weeks. Must remain off Echinacea for 4 weeks prior to resuming use. Note: persons allergic to the Asteraceae/Compositae family (ragweed, chrysanthemums, marigolds, and daises) are more likely to have an allergic reaction with Echinacea. Contraindicated in pregnant women and persons with autoimmune conditions.

(3) Glucosamine: May be used up to three tablets daily. (up to 1500 mg/day) Dosage should be decreased to single daily dose over 2-4 months. Contraindicated in pregnant women. (Note: Chondroitin prohibited due to lack of demonstrated effectiveness in combination with glucosamine and theoretical risk of BSE (mad cow disease) contamination due to use of bovine cartilage of unknown sources).

(4) Saw Palmetto: (Note: May block the effect of oral contraceptives and other estrogenic or androgenic compounds) Contraindicated in pregnant women.

(5) Vitamin A; Vitamin K; Vitamin D; Niacin; Riboflavin; Thiamin (Thiamine); Biotin; Pantothenic acid; Magnesium; Copper; Chromium; Zinc; Selenium; Vanadium. May be used under the care and guidance of a FS/AMO/APA.

i. Prophylaxis. Class 2 when used for prophylaxis. Must be prescribed by a FS/AMO/APA.

(1) Abstinence Assistance:

(a) Following Track II or III treatment for alcohol abuse/dependence, **Disulfiram** (Antabuse®) may be continued for up to 1 year as a Class 2 medication.

(b) All other components of an alcohol abuse/dependence waiver must also be completed.

(c) Use of **Disulfiram** requires documentation of a CBC, LFTs, serum electrolytes, BUN, and creatinine every 6 months while on therapy. Additionally, a baseline LFT must be obtained prior to initiating therapy.

(2) Diarrheal Prophylaxis:

(a) **Ciprofloxacin** (Cipro®) 500-mg qd, or **Bismuth Subsalicylate** 2 tablets qid, or **Trimethoprim/Sulfamethoxazole DS** (Bactrim/Septra DS®) 1 tablet qd are acceptable forms of prophylaxis.

(b) Local resistance to specific drug regimens may also limit the effectiveness of antibiotic prophylaxis.

(c) In general (especially when periods of risk exceed 3 weeks) early treatment is preferable to prophylaxis.

(3) Leptospirosis Prophylaxis: **Doxycycline** 200 mg weekly during and one week following exposure.

(4) Malarial Prophylaxis:

(a) **Chloroquine Phosphate** 500 mg weekly (start >1 week prior to deployment) or **Doxycycline** (Vibramycin®) (start 1-2 days prior to deployment) 100 mg daily. Continue medication for 4 weeks after leaving the endemic area.

(b) **Primaquine Phosphate** 26.3-mg daily for 14 days is required for terminal prophylaxis after leaving areas where P. Vivax and/or P. Ovale are present.

(c) **Sulfadoxine/Pyrimethamine** is a treatment medication, not prophylaxis and cannot be used without temporarily grounding the member.

(d) **Mefloquine** 250 mg weekly may be used ONLY when **Chloroquine** resistance is known and **Doxycycline** is contraindicated due to allergy and only when monitored closely by a flight surgeon. (Start >1 week prior to deployment. Continue medication for 4 weeks after leaving the endemic area).

(e) Note: Recommendations for malarial prophylaxis change frequently due to the variability of susceptibility of the organism to treatment. Prior to deployment to an endemic area the latest recommendations should be

obtained from Operational Medicine Division, G-WKH-1. Alternative sources of information are the Armed Forces Medical Intelligence Center (AFMIC), Fort Detrick at 1-301-619-7574 (DSN 343), or the Center for Disease Control (CDC) at 1-404-639-3311.

(5) Subacute Bacterial Endocarditis Prophylaxis: **Penicillin, Amoxicillin**, or **Erythromycin** may be used in appropriate doses and when indicated.

(6) Tuberculosis Prophylaxis:

(a) After documentation of skin test conversion, a course of **Pyridoxine** (Vitamin B6) 50 mg daily with **Isoniazid** (INH) is an acceptable prophylaxis, unless INH resistance is likely.

(b) The treated member must also be followed in a Tuberculosis Surveillance Program.

(c) Chronic use of INH requires annual AST (SGOT), ALT (SGPT), Alkaline Phosphatase, T. Bili, BUN, Creatinine, and CBC. Report on flight physical. Abnormal values must have a FS/AMO/APA's comments. Must refrain from alcohol use while using INH.

(7) Smoking Cessation Aids: Nicotine Gum, Nicotine Patch:

(a) Use of any tobacco with initial patch may cause nicotine toxicity.

(b) Must be enrolled in a smoking cessation program, under supervision by the program director or designated representative, and remain abstinate from any tobacco use. Effectiveness of smoking cessation aids without participation in an ongoing support program is minimal to ineffective.

(c) Requires initial grounding of 72 hours and if tolerating treatment well may be returned to flying duty.

(d) Psychotropic medication (Zyban, Wellbutrin, etc) used as a smoking cessation aid is CD (See Class 4).

(8) Topical Preparations:

(a) **Topical Minoxidil** 2%: Check blood pressure and pulse at 0, 7 and 14 days after starting treatment and every month thereafter.

(b) Other Topicals: Evaluate for systemic effects. Topical preparations are generally Class 2 due to the minimal systemic absorption of most topical treatment. Remember that the underlying condition may require a waiver. (Note: Oral ISOTRETINOIN (Accutane®) is considered Class 4. No waiver is recommended.)

Section D - Class 3: Chronic Use Requiring Waiver.

1. Aeromedical Concerns: These medications are generally given for treatment of underlying conditions that require a waiver, may have significant side effects, or require significant requirements as follow-up for safe use. Often use of these medications requires a grounding period for observation of side effects.

2. Waivers: May receive favorable waiver recommendation only on an individual basis for treatment or control of certain chronic conditions. The underlying disease process may also require a waiver. Other medications may be waiverable upon complete presentation to Coast Guard Personnel Command (CGPC) but often require extensive evaluation before approval.

3. Information Required: Complete Clinical Summary with full details of drug use and underlying condition is required. Specific requirements are given under each drug or drug category listed below. Other requirements as dictated by the underlying medical condition may also be added at the discretion of CGPC.

   a. Allergic Rhinitis Agents: (See Allergic/vasomotor Rhinitis policy-chapter 16-A) When used chronically (>30 days/year) and recurrently for allergic rhinitis, these medications are considered Class 3 and require a waiver. Complete allergic rhinitis evaluation must accompany clinical summary for a waiver for chronic use due to allergic rhinitis.

      (1) Antihistamines: **Fexofenadine** (Allegra®), and **Loratadine** (Claritin®). All other antihistamines are Class 4. **Cetirizine** (Zyrtec®) is an unacceptable medication due to potential sedation. **Astemizole** (Hismanal®) and **Terfenadine** (Seldane®) are no longer licensed by FDA and are therefore unacceptable. Previous waivers for Zyrtec®, Seldane® or Hismanal® may substituted for with Allegra® or Claritin®. If substituting for a previously waivered medication, make note of change on next flight physical exam.

      (2) Cromolyn sodium. May be used as part of an allergic rhinitis regimen, however requires QID dosing to be effective (No waiver needed if used in isolation-see Allergic/Vasomotor Rhinitis policy-chapter 16-A)

      (3) Nasal Steroid. **Dexamethasone** (Decadron®, Dexacort®), **Flunisolide** (Aerobid®, Nasarel®, Nasalide®), **Fluticasone** (Flonase®), **Mometasone** (Nasonex®), **Beclomethasone** (Beconase®, Beconase AQ®, Vancenase®, Vancenase AQ DS®), **Budesonide** (Rhinocort®) and **Triamcinolone** (Nasacort® or Nasacort AQ®). This is the recommended first line treatment for moderate disease. (No waiver needed if used in isolation-see Allergic/Vasomotor Rhinitis policy-see Chapter 16-A of this Manual.)

      (4) Intranasal Anticholinergics. **Ipatropium Bromide** (Atrovent®) 0.03% nasal spray is effective when rhinorrhea is the predominant symptom. It is not very helpful for relieving congestion, itchy watery eyes or sneezing. (No waiver needed if used in isolation-see Allergic/Vasomotor Rhinitis Policy)

(5) Immunotherapy (Allergy Desensitization). Waiver required. May be used while the aircrew member remains on flight status provided he or she remains relatively asymptomatic without the use of antihistamines. Aviation personnel should be grounded 12 hours following immunotherapy injection or for the duration of local or systemic reaction. Occasional Sudafed use is permitted.

b. Antihypertensives: (See Hypertension policy-Chapter 14-A) Waivers are recommended for medication class, not individual medications. Use of any of these drugs requires a 3 day (6 readings-morning and afternoon) blood pressure check, electrolytes, BUN, and Creatinine be submitted with each flight physical. Other requirements are listed with the individual medication classes.

(1) Ace Inhibitors: **Captopril** (Capoten®), **Enalapril** (Vasotec®), **Lisinopril** (Zestril®/Prinivil®), **Benazepril** (Lotensin®), **Fosinopril** (Monopril®), **Quinapril** (Accupril®), **Ramipril** (Altace®), **Perindopril** (Aceon®), **Trandolapril** (Mavik®), **Moexipril** (Univasc®). Chem-7 in first 7 to 10 days of therapy to evaluate effect on BUN, creatinine and Potassium levels and then every 3 months for the first year of therapy, followed by annual evaluation with reporting of these levels on flight physical. Get leukocyte count with differential at 3 months, 6 months, one year and then annually thereafter. Report counts on flight physical.

(2) Angiotensin II Receptor Blockers (ARB): **Losartan** (Cozaar®), **Valsartan** (Diovan®), **Irbesatan** (Avapro®), **Candarsartan** (Atacand®).

(3) Alpha Blockers: **Prazosin** (Minipress®), **Doxazosin** (Cardura®), **Terazosin** (Hytrin®).

(4) Beta Blockers: CD for all aviation personnel classes/Class 4 medication. Aviation personnel currently using Beta-blockers should be transitioned to a waiverable anti-hypertensive.

(5) Calcium Channel Blockers: **Amlodipine** (Norvasc®) can be used with waiver in any aviation personnel. All others are CD for aviation personnel.

(6) Clonidine: CD for all aviation personnel/Class 4 medication.

(7) Diuretics: Thiazide, Potassium-sparing, and combinations. All **Loop Diuretics** (e.g. Lasix®) are CD and will not be waived. Thiazide use requires annual serum glucose, BUN, creatinine, and serum uric acid. Thiazides may alter serum cholesterol and triglycerides; therefore, monitor lipid profile after 6 months of therapy and annually. Use of any potassium sparing diuretic requires serum potassium level every 6 months. **Triamterene** (Dyrenium®) requires platelet count and CBC with differential every 6 months. All required tests must be reported on the flight physical.

(8) Note: ACE and ARB II in combination with approved diuretics may be used.

(9) Anti-Intraocular Hypertension/Glaucoma Agents: Acetazolamide (Diamox®) - Must be free of side effects for 48 hours before resuming flying duties.

Check for alterations in potassium and uric acid early in the treatment program. Must submit CBC, platelet count, and serum electrolytes with flight physical. The following topical glaucoma agents may be used with a waiver: **Betaxolol** (Betoptic S®), **Timolol Maleate** (Timoptic®), **Dorzolamide** (Trusopt®), and **Brinzolamide** (Azopt®).

c. GI Medications: All antacids (chronic use) and medications listed below are Class 3 except as noted. No additional requirements for a waiver other than the complete evaluation of the underlying condition and documentation of medication efficacy.

(1) Antacids: Chronic use is Class 3. Occasional or infrequent use is Class 1. Check electrolytes when used chronically.

(2) Calcium Polycarbophil: Class 2 as treatment of chronic constipation.

(3) H2 Blocker: **Cimetidine** (Tagamet®), **Ranitidine** (Zantac®), **Famotidine** (Pepcid®), **Nizatidine** (Axid®). This includes OTC formulations of these products. Occasional drowsiness is associated with these medications. When treatment is first initiated, a 72-hour observation while the air crewmember is grounded is required to ensure the absence of any significant side effect.

(4) Proton Pump Inhibitor: Omeprazole (Prilosec®).

(5) Kaolin and Pectin: Class 1 as treatment for infrequent diarrhea.

(6) Pepto-Bismol: Class 2 for diarrheal prophylaxis.

(7) Loperamide (Imodium®): Class 2 for treatment of minor diarrhea if medical condition is not a factor and no side effects for 24 hours.

(8) Motility Enhancing Agents: **Metoclopramide** (Reglan®), **Cisapride** (Propulsid®)-Class 4, not waiverable.

(9) Sucralfate (Carafate®): Class 2 provided underlying condition does not require waiver.

d. Hormonal and Steroid Preparations: Class 3 medications unless specified otherwise below. Chronic use of any systemic hormone or steroid requires monitoring of liver functions every 6 months for the first year and annually thereafter. Lipid profile required annually for chronic systemic hormone and steroid use. Hormonal/steroid preparations not listed here may only be used by prescription, with a waiver, if appropriate (Note: many are Class 4 medications). Report on flight physical:

(1) Clomiphene Citrate: (Clomid®) Documentation of infertility evaluation required. Must be free of side effects 24 hours before resuming any aviation duties. See requirements above.

(2) Estrogen/Progesterone Preparations: Class 2 medication when used solely for contraception or hormonal replacement following menopause or hysterectomy. Class 3 when used for any other condition. See systemic steroid requirements above.

(3) Finasteride (Proscar®): See systemic steroid requirements above. Document improvement in both objective and subjective signs for hyperplasia on flight physical. Document annual digital rectal exam on flight physical.

(4) Nasal Steroid Preparations: (See Allergic Rhinitis Agents above).

(5) Orally Inhaled Steroid Preparations: **Beclomethasone, Flunisolide, Dexamethasone,** and **Triamcinolone** inhalers may be approved. Full clinical summary with justification for use required.

(6) Testosterone: **Ditate®, Testaval**® may be approved. See systemic steroids for requirements. Full clinical summary with justification for use is required.

(7) Thyroid Preparations: **Levothyroxine** (Synthroid®, Levothroid®) is an acceptable treatment. Require annual submission of complete thyroid function and initial ophthalmology evaluation.

e. Miscellaneous Agents/Treatments: Class 3 medications unless otherwise indicated. Appropriate medical evaluation is required. Waivers may granted for each of the following agents under the appropriate circumstances and conditions.

(1) Allopurinol: Annual CBC, BUN, creatinine, serum calcium and uric acid required with flight physical.

(2) B12 Injections: Annual CBC with indices, serum folic acid, reticulocyte count required with flight physical.

(3) Beta-adrenergic inhalers: **Metaproterenol** (Alupent®), **Terbutaline** (Brethine®), **Isoetharine** (Bronkosol®), **Albuterol** (Proventil®), and **Salmeterol** (Serevent®)- Inhaled use only. Waivered only on a case-by-case basis. Monitor PFTs.

(4) Botulinim Toxin.

(5) Desensitization Therapy/Injections.

(6) Folic Acid: If used for anemia. Annual CBC with indices.

(7) Hydroxychloroquine sulfate: CBC, complete neuromuscular examination, and complete ophthalmologic exam are required on flight physical.

(8) Iron Supplements: Monitor and report serum ferritin and serum iron concentrations. Also report reticulocyte count and total iron binding capacity with flight physical.

(9) KCL Supplements: Annual ECG, serum potassium, BUN, creatinine, and serum magnesium required with flight physical.

(10) Mesalamine (Rowasa®, Asacol®, Pentasa®): CBC required every 6 months. BUN, LFTs, creatinine, and urinalysis required annually. Report with flight physical. Proctoscopy and/or sigmoidoscopy as indicated.

(11) Olsalazine (Dipentum®): CBC required every 6 months. BUN, serum creatinine, LFTs and urinalysis required annually. Report with flight physical. Proctoscopy and/or sigmoidoscopy as medically indicated.

(12) Probenecid (Probenecid®, Benemid®): Serum uric acid, 24-hour urinary uric acid, BUN, and creatinine clearance are required annually. Report with flight physical.

(13) Prophylthiouracil (Propyl-Thyracil®): CBC and thyroid function test (TFT) are required annually. Report with flight physical.

(14) Sulfasalazine (Azulfidine®): CBC required every 6 months. Proctoscopy and/or sigmoidoscopy as medically indicated.

Section E - Class 4: Mandatory Disqualifying Medications.

1. Aeromedical Concerns: Use of certain medications is strictly contraindicated in the aviation environment due to significant side effects. The underlying cause or need for use of these medications may result in a permanent disqualification or require a waiver for return to flying duty. Medications/supplements not listed elsewhere in this policy are considered to be Class 4 substances.

2. Waivers: A period of continuous grounding is mandatory from the initiation of therapy of use through cessation of these drugs plus a specified time period to rid the drug completely from the body. Continuous use of these medications is incompatible with continuation of aviation status. Waiver is not recommended for aviation personnel. Certain medications are prohibited from use at any time due to the potential of dangerous and/or long-term side effects. (Note: Some medications not listed may be considered for waiver after review by CGPC. These medications are CD until reviewed by CGPC)

   a. Alcohol: Requires 12 hours of flight restriction following termination of use with no residual effects. Residual effects include headache, nausea, weakness, dizziness, and fatigue.

   b. Non-Alcoholic Beer: Requires 12 hours of flight restriction following termination of use with no residual effects. Non-alcoholic beer contains a small amount of alcohol.

   c. Anabolic Steroids: Waiver is not recommended for aviation personnel.

   d. Anti-Arrhythmics: Waiver is not recommended for aviation personnel.

   e. Anti-Depressants: Waiver is not recommended for aviation personnel, including use as a smoking cessation aid and with Premenstrual Dysphoric Disorder (PMDD).

   f. Anti-Migraine Agents: Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

   g. Anti-Motion Sickness Agents: Temporary use of certain medications is approved when used in accordance with approved Motion Sickness Protocol (see Class 2). Chronic use is not waiverable. Other agents are Class 4 and CD for flight duty for 24 hours after last use.

h. Anti-Psychotics: Waiver is not recommended for aviation personnel.

i. Anti-Vertigo Agents: Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

j. Anti-Convulsives: Waiver is not recommended for aviation personnel.

k. Anti-Histamines: Cetirizine (Zyrtec®) is included. Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use. (Note that Terfenadine (Seldane®) and Astemizole (Hismanol® have been removed from the market and are not authorized for use) (Exception: See Class 2, 3 for Allegra® and Claritin® use).

l. Beta-Blockers: Waiver is not recommended for aviation personnel. Aviation personnel currently using Beta-blockers should be transitioned to a waiverable anti-hypertensive.

m. Barbiturates, Mood Ameliorating, Tranquilizing, or Ataraxic Drugs: Require 72 hours of flight restriction following termination of treatment. The half-life of Phenobarbital is 2-5 days; aviation personnel will be grounded for 120 hours after use. Waiver is not recommended for aviation personnel.

n. Calcium Channel Blockers: Waiver is not recommended for aviation personnel. (Exception: Norvasc-see class 3)

o. Clonidine: Waiver is not recommended for aviation personnel.

p. Cough Preparations with Dextromethoraphan, Codeine, or other Codeine-Related Analogs: Require 24 hours of flight restriction following termination of treatment.

q. Controlled Medications not otherwise listed: Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

r. Diet Aids: (e.g. Dexatrim®, Metabolife®, etc.) Waiver is not recommended for aviation personnel.

s. Hypoglycemic Agents: Chlorpropamide (Diabinese®), Glipizide (Glucotrol®), Glyburide (Glucotrol®), Tolbutamide (Tolbutamide®), Tolazimide (Tolinase®). Waiver is not recommended for aviation personnel.

t. Hypnotics and Sedatives (prescribed): (e.g. Ativan®, Nembutal®) Waiver is not recommended for aviation personnel. CD for flight duty for 72 hours after last use. Exceptions: Temazepam (Restoril®), Zolpidem (Ambien®), Triazolam (Halcion®)-May perform crew duties 12 hours after use. Note: Memory loss with associated alcohol use and night terrors have been reported.

u. Insulin: Waiver is not recommended for aviation personnel.

v. Isotretinoin (oral): (Accutane®) Waiver is not recommended for aviation personnel. [Topical forms allowed-see Class 2]

w. Minocycline (oral): (Minocin®) Waiver is not recommended for aviation personnel. [Topical forms allowed-see Class 2]

x. Motility Enhancing Agents: (Metoclopramide (Reglan®), Cisapride (Propulcid®)) Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

y. Muscle Relaxants: (Robaxin®, Flexeril®, Parafon®, Norgesic®, etc)Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

z. Narcotics: Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

aa. Nicotinic Acid (Niacin): As a supplement in doses above 20 mg/day. Waiver is not recommended for aviation personnel. (May use low-dose niacin as part of a daily multivitamin).

bb. Sleeping Aids (OTC): Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

3. Nutritional/Herbal/Dietary Medications/Supplements: The following substances/medications may or may not have some potential benefit to the human species. However, there is evidence that suggests that each substance below may pose an unacceptable risk of threat to flight safety, sudden incapacitation, threat to mission completion and/or physical harm or not enough is known about the substance to justify its use.

a. The Following Substances Are Prohibited For Use:

(1) Ephedra Species (Ma Huang, epitonin, other supplements): Prohibited for use (implicated as the causative agent in the cardiac and stroke deaths of several otherwise healthy military personnel).

(2) Chondroitin: Prohibited for use (no demonstrated effectiveness individually or in combination with glucosamine and theoretical risk of BSE contamination due to bovine cartilage use of unknown sources.)

(3) Methylsulfonylmethane (MSM): Prohibited for use (no demonstrated effectiveness and poorly understood pharmacokinetics).

(4) Gamma Hydroxybutyric acid (GHB), Gamma Butyrolactone (GBL), 1,4 Butanediol (BD) (Renewtirint, Revivarant, Blue Nitro, GH Revitalizer, Gamma G, Remforce, Longevity, Firewater, Serenity, Thunder Nectar and others): Prohibited for use. Commonly used as an industrial solvent and to clean leather weight training equipment.

(5) Piper methysticum (Kava-Kava): Prohibited for use.

(6) Teucrium spp. (Germander): Prohibited for use.

(7) DiNitroPhenol (DNP): Prohibited for use. May cause death, cataracts among other significant side effects.

(8) Testicular Extracts: Prohibited for use.

(9) Symphytum officinale, other Symphytum spp (Comfrey): Prohibited for use.

(10) Senecio spp (threaded leafed groundsel, life root): Prohibited for use.

(11) Larria tridentata (chaparral): Prohibited for use.

(12) Aortic extracts: Prohibited for use.

(13) Adrenal extracts: Prohibited for use.

(14) L-Tryptophan: Prohibited for use.

(15) Aristolochia spp (toxic to kidneys, potent carcinogen): Prohibited for use.

(16) Bragantia spp (toxic to kidneys): Prohibited for use.

(17) Asarum spp (toxic to kidneys): Prohibited for use

(18) Akebia spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(19) Clematis spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(20) Cocculus spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(21) Diploclisia spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(22) Menispernum spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(23) Saussurea spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(24) Sinomenium spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(25) Stephania spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(26) Vladimiria spp (frequently adulterated with Aristolochia spp): Prohibited for use.

(27) Lobelia spp: Prohibited for use.

(28) Wormwood: Prohibited for use.

(29) Germanium: Prohibited for use.

(30) Herbal Fen-phen: Prohibited for use.

(31) Tiratricol (Triiodothyroacetic acid (TRIAC), TRAIX Metabolic Accelerator): Prohibited for use.

(32) “Sleeping Buddha” (contains estazolam): Prohibited for use.

(33) Nutiva™ bars (Contains hemp seeds): Prohibited for use.

(34) Psilocybe semilanceata (magic mushrooms): Prohibited for use.

b. <u>The Following Substances Are CD For Flight Duty For 24 Hours After Use</u>:

(1) Aconitum napellus (wolfsbane).

(2) Adonis vernalis (Pheasant's eye).
(3) Atropa belladonna (Deadly Nightshade).
(4) Cantharanthus roseum (Periwinkle).
(5) Chelidonium majus (Celandine).
(6) Conum maculatum (Hemlock).
(7) Convallaria majalis (Lilly of the Valley).
(8) Corynanthe yohimbe (Yohimbe bark).
(9) Cystisus scoparius (Broom).
(10) Datura stramonium (Jimson weed).
(11) Datura stramonium (Thorn Apple).
(12) Digitalis lanata (Yellow foxglove).
(13) Digitalis purpura (Purple Foxglove).
(14) Exchscholzia californiica (California Poppy).
(15) Ginko biloba (Gingko).
(16) Hydrastis canadensis (Goldenseal).
(17) Humulus lupulus (Hops).
(18) Hyoscyamus niger (Henbane).
(19) Hypericum perforatum (St. John's wort).
(20) Lactuca virosa (Wild lettuce).
(21) Lycopodium serratum (Jin Bu Huan).
(22) Mandragora officinarum (Mandrake).
(23) Melatonin.
(24) Myristica fragrans (Nutmeg) in large quantities.
(25) Panax ginseng (Ginseng).
(26) Papaver somniferum (Opium poppy).
(27) Passiflora incarnata (Passion flower).
(28) Rauwolfia serpentina (Indian snakeroot).
(29) S-Adenosylmethionine (SAMe).
(30) Scilla maritima (White Squill).
(31) Scopolia carniolica (Scopolia).
(32) Scutellaria laterfoloia (Skullcap).
(33) Strophanthus kombe (Strophanthus).

(34) Urginea maritima (Squill).

(35) Valeriana officinalis (Valerian, Valerian root).

c. Prescription use of the following substances is not prohibited, but their use must be under the direct supervision of a Coast Guard physician and will be cause for Duties Not Including Flight (DNIF). A waiver may be possible but is not likely. Waiver request should contain dosage, frequency of use, any side effects, and a complete summary of the aircrewmember's medical condition, which may separately also be CD and need a waiver. These substances are prohibited except when used as described above.

(1) Zeranol.

(2) Testosterone (Malogen®, Malogex®, Delatestryl®).

(3) Stanozolol (Winstrol®, Stromba®).

(4) Oxymetholone (Anadrol®, Anapolon 50®, Adroyd®).

(5) Oxandrololone (Anavar®).

(6) Norethandrolone (Nilevar®).

(7) Nandrolone (Durabolin®, Deca-Durabolin®, Kabolin®, Nandrobolic®).

(8) Methyltestosterone (Android®, Estratest®, Metandren®, Virilon®, Oreton Methyl®, Testred®).

(9) Methandrostenolone (Dianabol®).

(10) Metenolone (Primobolan®, Primonabol-Depot®).

(11) Metandienone (Danabol®, Dianabol®).

(12) Mesterolone (Androviron®, Proviron®).

(13) Human Chorionic Gonadotrophin.

(14) Growth Hormone.

(15) Fluoxymesterone (Android F®, Halotestin®, Ora-Testryl® and Ultradren®).

(16) Dihydrotestosterone (Stanolone®).

(17) DHEA.

(18) Dehydrochlormethyl Testosterone (Turinabol®).

(19) Danocrine.

(20) Danazol.

(21) Clostebol (Steranobol®).

(22) Clenbuterol.

(23) Boldenone (Equipoise®).

(24) Bolasterone (Vebonol®).

(25) Androstendione (Androsten® and others).

d. Loop Diuretics (e.g. Lasix®): Waiver is not recommended for aviation personnel.

e. Sumatriptan (Imitrex®): Requires 12 hours of flight restriction following termination of treatment.

f. Tranquilizers: Waiver is not recommended for aviation personnel. CD for flight duty for 72 hours after last use.

g. Viagra: Waiver is not recommended for aviation personnel. CD for flight duty for 72 hours after last use.

h. Zyban (Bupropion®, Wellbutrin®, other psychotropics used as smoking cessation aids): Waiver is not recommended for aviation personnel. CD for flight duty for 72 hours after last use.

i. Yohimbine: Waiver is not recommended for aviation personnel. CD for flight duty for 24 hours after last use.

CHAPTER 13. IMMUNIZATIONS AND IMMUNOTHERAPY

Section A – Immunizations.

1. All aviation personnel shall be considered Alert Forces for the purpose of immunizations. Complete instructions concerning immunizations can be found in Immunizations and Chemoprophylaxis, COMDTINST M6230.4D, and Anthrax Vaccine Immunization Program, COMDTINST M6230.3.
2. Because of the possibility of adverse reactions (both local and systemic), aviation personnel who receive immunizations shall be grounded for 12 hours following immunization(s). For this grounding for uncomplicated immunization, no formal paperwork (i.e. downchit, upchit) is necessary. Further temporary grounding may be necessary for significant side effects until resolved.
3. Due to the recommended grounding policy, medical departments should make every effort to schedule immunizations as to have the least negative impact on flight schedules. Ideally, immunizations would be given to the off-going duty section.

Section B – Immunotherapy.

1. Allergy desensitization (immunotherapy) is permitted in aviation personnel providing the underlying condition is not disqualifying or is waivered and the member has a waiver for immunotherapy. Personnel should be grounded for 12 hours after receiving allergy immunotherapy.

CHAPTER 14. CARDIOVASCULAR WAIVERS

Section A - Hypertension (ICD9 401.9).

1. Aeromedical Concerns. Untreated hypertension is a major risk factor for the development of cardiovascular disease including coronary artery disease, congestive heart failure, cerebrovascular accidents, peripheral vascular disease, and renal failure. The relative risk of developing coronary artery disease (CAD) is compounded when untreated hypertension co-exists with hyperlipidemia, cigarette smoking, increasing age, or diabetes.

2. Waivers. Waivers for hypertension are routinely granted for Class 1 & 2 aircrew members when treatment has achieved a normotensive state (less than 140/90) and evaluation reveals no underlying pathology. Individuals controlled with diet and exercise alone also require a waiver even though control is achieved without medication.

3. Information Required. The initial work-up of a questionably hypertensive patient is to verify the diagnosis with a (3-day b.i.d.) BP reading (2 readings/day, AM and PM, for three days, in sitting position by manual method). If the average of these 6 readings is greater than 139 systolic and/or 89 diastolic, further evaluation must be done to exclude underlying pathology. Initial evaluation should include:

   a. Documentation of aircrew member and family history with regard to CAD, Hypertension, Cerebrovascular accidents, Diabetes mellitus, Hyperlipidemia, and Renal Disease.

   b. Documentation of lifestyle and habits with regard to recent weight gain, physical activity, diet, tobacco, and alcohol use.

   c. Documentation of all medications currently in use to include OTC, herbal preparations, and prescription medications.

   d. Labs: CBC, CHEM. 7 (serum electrolytes, glucose, BUN, and creatinine), uric acid, AST, ALT, Alk Phos, total serum cholesterol, HDL cholesterol, triglycerides, routine urinalysis.

   e. Fasting ECG.

   f. Direct ophthalmoscopic examination.

   g. Chest X-ray (PA and lateral).

   h. If these studies are negative, no further workup is required. Abnormalities, however, must be evaluated by internal medicine, cardiology, nephrology, or ophthalmology, as appropriate.

4. Follow-Up. Continuation of waiver requires the annual recording and submission on biennial (or annual) flight PE of a CHEM. 7, ECG, UA, and 3-day b.i.d. BP determination. Annual recording of the CHEM-7 and 3-day b.i.d. BP determinations are

also required for those individuals controlled by diet and exercise alone due to the continued desire to confirm the absence of renal pathology. Certain medications also have unique annual requirements (see below).

5. Treatment. JNC VI report (See Chapter14-A-7of this Manual) contains detailed guidance and evaluation and therapy for hypertension. Lifestyle modifications to include: exercise, weight loss, salt restriction, alcohol abstinence, smoking cessation, reduction in caffeine consumption, adequate dietary potassium, calcium, and magnesium, and a diet limited in saturated fat and cholesterol is the suggested initial treatment for hypertension. If medication is required, the aircrew member must be grounded for a sufficient period to observe for side effects and can resume flight when stable on medications and blood pressure is trending appropriately. Waiver should be requested when on a stable dosage and adequate BP control is achieved. Waivers are granted for class of medication use; therefore, if local pharmacy policy or clinical judgment requires a change to a medication within the same class, no additional waiver action is required. Although the initial medication should be a diuretic per JNC VI, operational conditions and individual response may necessitate alternative therapy. A current (within 90 days) set of laboratory results is required on physical exam submission.

   a. Ace Inhibitors. Captopril (Capoten®), Enalapril (Vasotec®), Lisinopril (Zestril®/Prinivil®), Benazepril (Lotensin®), Fosinopril (Monopril®), Quinapril (Accupril®), Ramipril (Altace®), Perindopril (Aceon®), Trandolapril (Mavik®), Moexipril (Univasc®). Chem-7 in first 7 to 10 days of therapy to evaluate effect on BUN, creatinine and Potassium levels and then every 3 months for the first year of therapy, followed by annual reporting of these levels on biennial flight physical. Get leukocyte count with differential at 3 months, 6 months, one year and then annually thereafter. Report counts on Biennial flight physical.

   b. Angiotensin II Receptor Blockers (ARB): Losartan (Cozaar®), Valsartan (Diovan®), Irbesatan (Avapro®), Candarsartan (Atacand®).

   c. Alpha Blockers. Prazosin (Minipress®), Doxazosin (Cardura®), Terazosin (Hytrin®).

   d. Beta Blockers. CD for all aircrew classes. Aviation personnel currently using Beta-blockers should be transitioned to a waiverable anti-hypertensive.

   e. Calcium Channel Blockers. Amlodipine (Norvasc®) can be used with waiver in any aircrew member. All others are CD for aviation personnel.

   f. Clonidine. CD for all aircrew classes.

   g. Diuretics. Thiazide, Potassium-sparing, and combinations. All Loop Diuretics (e.g. Lasix®) are CD and will not be waived. Thiazide use requires annual serum glucose, BUN, creatinine, and serum uric acid. Thiazides may alter serum cholesterol and triglycerides; therefore, monitor lipid profile after 6 months of

therapy and annually. Use of any potassium sparing diuretic requires serum potassium level every 6 months. Triamterene (Dyrenium®) requires platelet count and CBC with differential every 6 months. All required tests must be reported on Biennial (or annual) flight physical.

h. Note: ACE and ARB II in combination with approved diuretics may be used.

6. Discussion. Primary Prevention is key. A significant portion of cardiovascular disease occurs in people whose blood pressures are above the optimal level (120/80 mm Hg) but not so high as to be diagnosed or treated as hypertension. It is important for flight surgeons to work on primary prevention with aircrew members and to aggressively diagnose and treat hypertension to prevent long-term sequelae.

   In the Framingham study, the mortality of individuals with hypertension was more than double that of the normotensive population, with most of the deaths occurring suddenly. The risk of cardiovascular events increases with age, smoking, male gender, positive family history, excess alcohol intake, and high blood lipid levels. Several studies have demonstrated a reduction in mortality and morbidity resulting from the treatment of hypertensive patients.

7. Reference: The Sixth Report of the Joint Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. NIH: National Heart, Lung, and Blood Institute 98-4080, Nov 1997; http:www.nhlbi.nih.gov/guidelines/hypertension/jncintro.htm

Section B: Hyperlipidemia / Hypercholesterolemia (ICD9 272.0).

1. Aeromedical Concerns. CAD is a leading cause of permanent suspension from flying duties and non-accidental, premature death in aircrew members in the military services. In an effort to reduce the risk of CAD, it is necessary to reduce or prevent the identified risk factors such as hyperlipidemia (HLD). With the availability of highly efficacious statin drugs, and with newer clinical trials demonstrating a profound effect of these drugs in primary and secondary prevention of coronary artery disease, there is now widespread agreement that primary treatment of HLD is indicated. There is an increased risk of CAD with increased plasma cholesterol, an increased low-density lipoprotein (LDL), and a reduced high-density lipoprotein (HDL).

2. Waivers. Hypercholesterolemia and any drug therapy is disqualifying for initial flight applicants. Hypercholesterolemia controlled by either diet or by those drugs listed below is not disqualifying for aircrew members and no waiver is required. This information is filed Information Only on routine flight physical. It should be noted, however, that several drugs listed require submission of additional information with biennial (or annual) physical. Submitted physicals without this information will be returned for completion. Patients requiring drug therapy should be grounded for a trial period sufficient to observe for drug side effects prior to local flight clearance.

3. Information Required. Baseline levels of total plasma cholesterol and HDL should be obtained while the patient is nonfasting and on a normal diet for the previous 2 weeks, have no illness, operation or injury for the previous 4 weeks, no minor febrile episode

for 1 week and no lipid active drugs for 3 weeks. Baseline levels of LDL should be obtained following 14 hours fasting with only water or fat-free fluids allowed. Causes of secondary hyperlipidemia such as hypothyroidism, diabetes, cholestatsis, alcohol abuse, gout, renal failure, nephrotic syndrome, myeloma and systemic lupus erythematosis should be excluded.

4. Follow-Up. Follow-up for specific drug regimens is listed below. Annual evaluation of plasma cholesterol and HDL with submission of results on routine physical is required.

5. Treatment. The first line of treatment for mild cases is Therapeutic Lifestyle Changes (TLC) including dietary control, weight loss, increased exercise, and reduction in alcohol intake. Use of medication (anti-hyperlipidemics) should be determined by current standards of care as proposed by the Adult Treatment Panel III (ATP III) of the National Cholesterol Education Program (NCEP) (see Chapter 14-B-7). The drug of first choice is a statin followed by bile acid binding resins. Use of ferric acids is generally reserved for cases with significant hypertriglyceridemia. Recommended laboratory follow-up is as listed below for each medication class. Report a current (within 90 days) set of values as specified for medication class on physical exam submission. Nicotinic acids are CD.

   a. HMB CoA Reductase Inhibitors: Lovastatin (Mevacor®), Pravastatin (Pravachol®), Atorvastatin (Lipitor®), Fluvastatin (Lescol®), Simvastatin (Zocor®). Note: **Cervistatin** (Baycol®) is no longer approved by the FDA. Members on Baycol® should be transitioned to another medication within this class.

      (1) Try diet and exercise first.

      (2) Prior to initiating treatment, at 6-12 weeks, 6 months and then annually, do SGOT, SGPT, Alk Phos, CPK, CBC and complete Lipid Profile. Report all results on biennial flight physical.

      (3) May be locally returned to full flight duties after 1 month of stable dosage and no side effects.

   b. Bile-Acid Binding Resins: Cholestyramine (Questran®), Colestipol (Colestid®);

      (1) Check lipid panel, prothrombin time and serum calcium annually and report with biennial flight physical.

      (2) May be locally returned to full flight duties after 1 month of stable dosage and no side effects.

      (3) These drugs may cause constipation and interact with such drugs as penicillin, hydrochlorothiazide and tetracycline.

   c. Ferric Acids: Gemfibrozil (Lopid®), Fenofibrate (Tricor®);

      (1) Indicated only for very high triglyceride levels and is not a first line drug of choice. Try diet, exercise and a statin or resin first and use in combination with the drug.

      (2) May be locally returned to full flight duties after 1 month of stable dosage and no side effects.

(3) Prior to initiating treatment and at 3, 6, and 9 months, then annually, do SGOT, SGPT, Alk Phos, CPK, bilirubin and LDH, CBC and complete Lipid Profile. Report all results on biennial flight physical.

(4) Hypersensitivity, hepatic dysfunction, dizziness, depression and blurred vision have been reported.

d. Nicotinic Acid: Niacin - CD for all aviation personnel at supplemental doses above 20 mg/day.

6. Discussion: The incidence of heterozygous familial hypercholesterolemia in the U.S. is 1 in 500. Of male heterozygotes, 50% will have CAD by the time they reach 50 years of age. In familial hypertriglyceridemia, there is a risk of acute pancreatitis when total trigycerides are >1000 mg/dl and in severe cases, a rare incidence of peripheral neuropathy and dementia. The treatment of severe hypercholesterolemia has been shown to reduce the incidence of a first myocardial infarction. The treatment of mild/moderate cases of HLD is becoming increasingly recommended as a preventive strategy for CAD.

   ATP III guidelines (see Chapter 14-B-7) reflect a simple seven-step process to evaluate HLD, the cardiac risks associated, and recommended treatments. The primary target for therapy is the LDL with the goal for LDL cholesterol <100 mg/dl. Major risk factors that modify LDL goals include: tobacco use, hypertension, low HDL Cholesterol (<40 mg/dl), family history of premature CAD (first degree relative male < 55 y/o and female <65 y/o) and age (male> 45 y/o and female > 55 y/o).

7. Reference: Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). NIH: National Heart Lung and Blood Institute, NIH 01-3670, May 2001. http://www.nhlbi.nih.gov/guidelines/cholesterol/index.htm

CHAPTER 15. ENDOCRINOLOGY WAIVERS

Section A: Condition: Diabetes Mellitus/Glucose Intolerance (ICD9 - 250.0).

1. Aeromedical Concerns. The primary concern in any diabetic is the possibility of unexpected hypoglycemia and the associated risk of sudden loss of consciousness. This risk is greatest among those with insulin dependent diabetes mellitus (IDDM), but may also occur in diabetics controlled with oral hypoglycemics. Also of concern is the risk of renal, cardiovascular, neurological, and visual complications associated with any form of diabetes. Deployment frequently exacerbates symptoms/complications secondary to uncontrolled diet, long hours, and environmental stresses.

2. Waivers. Waivers for Class 1 and 2 aviation personnel are recommended provided the diabetes is well-controlled without medication; diet and weight loss alone result in normal fasting blood glucose and 2-hour post-prandial blood glucose; the glycosylated hemoglobin (Hgb-A1c) is less than 7%; and there are no medical sequelae. Uncomplicated asymptomatic impaired glucose tolerance and a history of impaired glucose tolerance, including gestational diabetes that has completely resolved, are considered fully qualified and reported as "Information Only" on the next biennial PE.

3. Information Required. Screening fasting blood glucose are required annually for all individuals at a higher risk for developing diabetes. These include: (1) A parent, sibling, or child with diabetes mellitus; (2) A history of gestational diabetes mellitus or impaired glucose tolerance; and/or (3) A history of previous abnormality of glucose tolerance associated with the metabolic stresses of obesity, trauma, surgery, infection, or alcohol intoxication; (4) A history of hypertension; (5) Cholesterol abnormalities with HDL <35 mg/dl and/or triglyceride level >250 mg/dl. Complete clinical summary and internal medicine consultation are required for all initial evaluations of any form of diabetes or glucose intolerance.

Category	Fasting	2-Hour Post-Prandial
Normal	<110	<140
Impaired Glucose Tolerance	110-126	140 and 200
Diabetes Mellitus	>126	>200
Gestational Diabetes Mellitus	>105	>165

4. Diagnostic Criteria. Diagnosis of these conditions can be made with confirmatory tests as listed below. All individuals with a fasting plasma glucose of >110mg/dl must have one of the three tests meeting criteria and a second confirmatory test by any of the three methods done on a subsequent day. Methods:

   a. FPG (Fasting Plasma Glucose) >126 mg/dl.

   b. OGTT 75gm glucose load with 2-hour postprandial value > 200 mg/dl.

c. Symptoms with a casual plasma glucose > 200 mg/dl:

(1) Casual is defined as any time of day without regard to time since last meal. Fasting is defined as no caloric intake for at least 8 hours.

(2) Classic symptoms of diabetes include polyuria, polydipsia, and unexplained weight loss.

5. Follow-Up. Continuation of waiver requires every 6-month evaluations with maintenance of satisfactory weight control, a fasting plasma glucose <126mg/dl, a normal 2-hour post-prandial blood glucose, and glycosylated Hgb-A1c of less than 7%. Routine follow-up should be at least every 6 months with visits including the following:

a. Interval history.

b. Blood pressure and weight.

c. Evaluation of fasting plasma glucose.

d. Every 3-6 month evaluation of Hgb-A1c:

(1) Annual follow-up should include.

(a) Interval history.

(b) Exam to include cardiovascular, fundoscopic, peripheral, pulses/vascular, neurologic to include sensory and deep tendon reflexes to include ankle jerk and skin inspection, especially of feet.

(c) Ophthalmologic examination by ophthalmologist.

(d) EKG, labs as above and also check of renal function with BUN/CR, full lipid profile, and urinalysis.

6. Treatment. For aviation personnel, the following are approved methods of treatment:

a. Diet.

b. Weight reduction.

7. Discussion. Compared to healthy aviation personnel, diabetic aviation personnel are twice as likely to have a stroke, 2 to 10 times more likely to suffer a myocardial infarct, and 5 to 10 times more likely to suffer peripheral vascular disease. The average life expectancy of IDDM diagnosed before the age of 30 has been reported as 29 years, with more than 50% failing to reach age 50. Diabetics are 25 times more likely to suffer partial or complete loss of vision compared to non-diabetics. The risk of cataracts is 4 to 6 times greater. Up to 20% of diet controlled diabetics have retinopathy at the time of diagnosis and all

are at risk for maculopathy that can seriously affect visual acuity. Non-IDDM has an 8% chance of polyneuropathy being present at diagnosis and risk of neuropathy is 4% by 5 years and 15% by 20 years. Tight control of blood glucose levels has been demonstrated to delay the onset or reduce the risk of complications; this argues for a life style that is incompatible with military aviation service.

8. Reference. American Diabetes Association, Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus, Diabetes 20-1183-1197, 1997.

CHAPTER 16. OTOLARYNGOLOGY WAIVERS

Section A - Allergic/Vasomotor Rhinitis (ICD9 477 / 477.9).

1. Aeromedical Concerns. Allergic rhinitis is a common upper respiratory condition with a potential for causing significant medical incapacitation in flight personnel. Rhinitis is not usually disabling but is a distraction possibly causing significant periods of down time and, thus, reduced operational effectiveness. The reduced sense of smell could be hazardous in the cockpit. Congestion and swelling of the nasal passages could interfere with the movement of air and result in difficulty breathing, discomfort, the use of medications with unacceptable side effects (e.g. drowsiness) and ear and sinus barotrauma with potential for in-flight incapacitation.

2. Waiver. Any history of allergic or vasomotor rhinitis after age 12 requiring the use of antihistamines for a cumulative period greater than 30 days per year; or systemic steroids, topical intranasal steroids, or mast cell stabilization therapy, or immunotherapy at any time is disqualifying.

   a. Waiver for initial flight applicants is occasionally granted for mild Seasonal Allergic Rhinitis (SAR), particularly if immunotherapy was given at < 12 years of age and a full allergy work-up is negative.

   b. Aviation personnel will require a waiver if the condition requires control by immunotherapy or requires chronic (>30 days per year) use of a non-sedating antihistamine, as long as there are no significant adverse effects. Aviation personnel whose condition is controlled by topical intranasal steroids alone do not require a waiver and will be classified as Information Only on routine flight physical.

3. Information Required. All requests for waiver should include:

   a. Brief clinical summary – to include major symptoms, duration and frequency of symptoms, medications or treatments used in the past, environmental triggers (e.g. animals, pollens, cold, altitude changes, etc.), and any smoking history.

   b. Allergy skin testing.

   c. ENT and allergy evaluations in cases of prolonged or moderate-to-severe symptoms should be included.

4. Follow-Up. None required unless symptoms worsen with significant impact on aircrew readiness.

5. Treatment. Allergic Rhinitis Agents: When used chronically (>30 days/year) and recurrently for allergic rhinitis, they are considered Class 3. Complete allergic rhinitis evaluation must accompany clinical summary for a waiver for chronic use due to allergic rhinitis.

a. Antihistamines. Fexofenadine (Allegra®), and Loratadine (Claritin®). All other antihistamines are Class 4. Cetirizine (Zyrtec®) is an unacceptable medication due to potential sedation. Astemizole (Hismanal®) and Terfenadine (Seldane®) are no longer licensed by FDA and are therefore unacceptable. Previous waivers for Zyrtec®, Seldane® or Hismanal® may substituted for with Allegra® or Claritin®. If substituting for a previously waivered medication, make note of change on next Biennial physical exam

b. Cromolyn sodium. May be used as part of an allergic rhinitis regimen, however requires QID dosing to be effective,

c. Nasal Steroid. Dexamethasone (Decadron®, Dexacort®), Flunisolide (Aerobid®, Nasarel®, Nasalide®), Fluticasone (Flonase®), Mometasone (Nasonex®), Beclomethasone (Beconase®, Beconase AQ®, Vancenase®, Vancenase AQ DS®), Budesonide (Rhinocort®) and Triamcinolone (Nasacort® or Nasacort AQ®). This is the recommended first line treatment for moderate disease.

d. Intranasal Anticholinergics. Ipatropium Bromide (Atrovent®) 0.03% nasal spray is effective when rhinorrhea is the predominant symptom. It is not very helpful for relieving congestion, itchy watery eyes or sneezing. Caution: may cause urinary retention in males with prostatic hypertrophy.

e. Immunotherapy. May be used while the aircrewmember remains on flight status provided he or she remains relatively asymptomatic without the use of antihistamines. Aviation personnel should be grounded 12 hours following immunotherapy injection or for the duration of local or systemic reaction. Occasional Sudafed use is permitted.

6. Discussion. Allergic rhinitis is manifested by any or all of the following symptoms: rhinorrhea, sneezing, lacrimation, pruritus (nasal, ocular, and palatal) and congestion. Etiology is inhaled allergens and on rare occasions, food. Seasonal allergic rhinitis tends to be seasonal or multi-seasonal; perennial allergic rhinitis may be year round. Nasal inhaled steroids and cromolyn have minimal side effects and are approved for use in aviation personnel. Vasomotor rhinitis may consist of rhinorrhea, sneezing, and congestion. The congestion is often seen as alternating, sometimes severe, nasal obstruction. Inciting factors include temperature and humidity changes, odors, irritants, recumbency, and emotion. Treatment of vasomotor rhinitis with inhaled nasal steroids can be effective; and if symptoms are not disabling, no waiver is required. Daily antihistamine use is not recommended for treatment of nonallergic (vasomotor) rhinitis.