

Medical Services

**Temporary  
Flying  
Restrictions  
Due to  
Exogenous  
Factors  
Affecting  
Aircrew  
Efficiency**

Headquarters  
Department of the Army  
Washington, DC  
16 May 2007

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# ***SUMMARY of CHANGE***

AR 40-8

Temporary Flying Restrictions Due to Exogenous Factors Affecting Aircrew Efficiency

This major revision dated 16 May 2007-

- o Implements NATO STANAG 3474 AMD (edition 4) (para 1).
- o Defines the responsibilities of the flight surgeon and expands the role of the aeromedical physician assistant (para 2).
- o Defines the responsibilities of aircrew members (para 2).
- o Defines specific exogenous factors that preclude aircrew members from flying duties (para 2).

Medical Services

Temporary Flying Restrictions Due to Exogenous Factors Affecting Aircrew Efficiency

By Order of the Secretary of the Army:

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*General, United States Army*  
*Chief of Staff*

Official:

  
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*Administrative Assistant to the*  
*Secretary of the Army*

**History.** This is a major revision.

**Summary.** This regulation provides implementation guidance for NATO STANAG 3474 AMD (edition 4).

**Applicability.** This regulation applies to the Active Army, members of the Reserve Components, and to all Department of the Army civilian or contractor personnel unless otherwise stated.

**Proponent and exception authority.**

The proponent of this regulation is The Surgeon General. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulation. Proponents may delegate the approval authority, in writing, to a division chief within the proponent agency or a direct reporting unit or field operating agency of the proponent agency in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

**Army management control process.** This regulation contains management control provisions, but does not identify key management controls that must be evaluated.

**Supplementation.** Supplementation of

this regulation and establishment of command and local forms are prohibited without prior approval from HQDA (DASG–HCH–O) Washington DC 20310.

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to HQDA (DASG–HCH–O) Washington, DC 20310.

**Distribution.** This publication is available in electronic media only and is intended for command levels B, C, D, and E for the Active Army; C, D, and E for the Army National Guard/Army National Guard of the United States; and B, C, D, and E for the United States Army Reserve.

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\*This regulation supersedes AR 40–8, dated 17 August 1976.



## 1. Purpose

This regulation implements NATO STANAG 3474 AMD (edition 4), Temporary Flying Restrictions Due to Exogenous Factors Affecting Aircrew Efficiency. It stipulates the minimum self-imposed temporary restrictions to be placed upon aircrew following exposure to certain physiological conditions in order to ensure optimal physiologic and psychological fitness in aircrew.

## 2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

## 3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

## 4. Responsibilities

The Surgeon General has the overall responsibility for temporary flying restrictions due to exogenous factors affecting aircrew efficiency.

*a.* A flight surgeon or aeromedical physician assistant (APA) is aware of the exogenous factors affecting flying and the appropriate preventive measures to mitigate the potential aeromedical risk associated with said exogenous factors. They will supervise and coordinate all medical treatment of all aircrew members for reasons of flight safety.

*b.* Aircrew members will immediately inform their flight surgeon or APA when they have participated in activities or received treatment for which flying restrictions may be appropriate. This includes exposure to any exogenous factors listed in this regulation as well as any treatment or procedure performed by a non-flight surgeon or APA and includes, but is not limited to, the following:

- (1) Any medical or dental procedure requiring use of medication after the treatment.
- (2) Any medical or dental procedure requiring use of any type of anesthesia or sedation.
- (3) Treatment by mental health professionals, including but not limited to psychological, social, psychiatric, alcohol, or substance abuse counseling.
- (4) Any chiropractic or osteopathic manipulative treatment.
- (5) Any treatment given by a homeopath, naturopath, herbalist, or practitioner of other types of alternative medicine.
- (6) Any emergency room or urgent care visits.

*c.* The flight surgeon or APA will—

- (1) Keep the aviation unit commander informed of the health of the command, recommend flight restrictions, when applicable, and ensure that aviation unit personnel are familiar with the physiological limitations of flying.
- (2) Participate in the unit safety program including the steering committee and instruction of aircrew on aeromedical and flight environmental topics.
- (3) Make the provisions of this regulation known and readily available to all supported flight personnel.

## 5. General

*a.* Army aircrew members must have optimal physiological and psychological fitness in order to perform their duties safely and efficiently. The term, aircrew or aircrew members, applies here to any individual involved in the flight operation of aircraft, to include all non-rated crewmembers, air traffic controllers, unmanned aerial system operators, and to include Department of the Army civilian personnel and contractors. The provisions of this regulation will apply regardless of flight activity code or readiness level.

*b.* Apart from pathological conditions, fitness may be adversely affected by a variety of exogenous factors, the effects of which may be hardly perceptible and, therefore, negligible in everyday activities; however, these same factors may have a considerable effect on aircrew efficiency.

*c.* In those instances where a flight surgeon or APA is not assigned to a unit or installation, or is otherwise not immediately available, a physician may return aircrew members to flight duty after remote consultation with a flight surgeon or APA. This clearance will be recorded in the medical record and on DA Form 4186 (Medical Recommendation for Flying Duty).

*d.* Flight surgeons and APAs on flight status will not provide self-care or aeromedically clear themselves for flying duty. Should another flight surgeon or APA not be available for this purpose, clearance may be performed remotely, as described in paragraph c above.

## 6. Exogenous factors

Factors to consider and appropriate medical restrictions to flying activities include, but are not limited to—

*a. Administration of medications.*

(1) *Medication use.* Use of all medications will be with the knowledge of a flight surgeon or APA. Aircrew members taking any medications will be restricted from flying duties until convalescence and/or rehabilitation is completed unless cleared for flying duties by a flight surgeon or APA. Self-medication is permitted only in accordance

with the over-the-counter medication aeromedical policy letter (APL). The most recent APL is available at <https://aamaweb.usaama.rucker.amedd.army.mil/index.html.en>.

(2) *Anesthesia*. Aircrew will be restricted from flying duty for 48 hours after general, spinal, or epidural anesthesia and for a minimum of 12 hours after local or regional anesthesia, to include dental.

*b. Use of dietary supplements, herbal and dietary aids, and performance enhancers*. All supplements, herbal and dietary aids and preparations, and performance enhancers are prohibited unless cleared by the flight surgeon or APA in consultation with applicable APLs.

*c. Alcohol*. Aircrew will not perform aviation duties for a minimum of 12 hours after the last drink consumed and until no residual effects remain.

*d. Immunizations*. Medical restriction from flying duty will be for a minimum period of 12 hours following any immunization. If any type of reaction occurs, local or systemic, the aviator remains restricted from flying duties until cleared by a flight surgeon or APA.

*e. O-chlorobenzylmalononitrile (CS)/tear gas exposure*. Aircrew will not be restricted from flying duty after CS exposure as long as there are no residual systemic effects (for example, coughing, wheezing, or shortness of breath), and all local effects (for example, tearing, eye pain, skin discomfort) have resolved and any contaminated clothing or aviation life support equipment has either been exchanged or decontaminated. Exposure to any other nuclear, biologic, or chemical agent or simulant will require clearance from a flight surgeon or APA before flight duties can be resumed.

*f. Blood or plasma donation*. Aircrew members will not be regular (more than two times per year) blood or plasma donors. Following blood donation (200 cc or more), aircrew members will be restricted from flying duty for a period of 72 hours. Following plasma donation, aircrew members will be restricted from flying duty for a period of 24 hours. Bone marrow donors will be cleared by a flight surgeon or APA prior to returning to flying duties.

*g. Decompression experience/hypobaric chamber runs*.

(1) Any adverse reaction, barotraumas or decompression sickness resulting from a decompression experience, requires restriction from flying duties until cleared by a flight surgeon or APA.

(2) Flight personnel will not perform high altitude flight duties for 24 hours after exposure to hypobaric chamber runs in excess of 25,000 feet. They may perform flying duties during the initial 24 hours following a decompression experience in aircraft where cabin altitude does not exceed 10,000 feet. Heavy exercise or work may mimic the signs and symptoms of decompression sickness and are discouraged in the 24-hour period following a decompression experience.

*h. Diving and hyperbaric exposure*. The incidence of decompression sickness during flight is considerably increased after exposure to any environment above one atmosphere of pressure, such as self-contained underwater breathing apparatus (SCUBA) diving.

(1) Aircrew members will not fly or perform low pressure altitude chamber flights within 24 hours following SCUBA diving, compressed air dives, or hyperbaric chamber exposures. When urgent operational requirement dictates, aviation personnel may fly within 24 hours of SCUBA diving provided no symptoms of decompression sickness have developed and the aircrew members are examined and cleared to perform flying duties by a flight surgeon or APA trained in diving medicine or a diving medicine officer.

(2) Decompression sickness, resulting from diving or other hyperbaric exposure, requires a restriction from flying duties by a flight surgeon or APA.

*i. Tobacco*. Smoking and use of tobacco products degrade physical performance, including vision. Aircrew members are discouraged from smoking and use of tobacco products at all times.

*j. Strenuous physical activities*. Strenuous training events, sporting activities, or work may adversely affect the ability of aircrew members to perform their respective flight tasks safely. Flight surgeons and APAs must be able to recognize when this occurs, or is likely to occur, and be prepared to advise commanders as to any restrictions applicable either to units or individuals. Examples of strenuous training events or work are found in, but not limited to, activities listed in FM 21-10 and GTA 05-08-012, Individual Safety Card.

*k. Simulator sickness*. Under ordinary circumstances, restrictions on actual flight are not required after flight in a simulator. Simulator sickness can occur in any aircrew, regardless of experience level. Aircrew exhibiting symptoms of simulator sickness will be restricted from actual flight for 12 hours after full resolution of symptoms.

*l. Centrifuge runs*. Centrifuge runs may adversely affect aircrew due to the physical strain of high G-load and sensory disturbance. Aircrews are restricted from all flying duties for a minimum of 6 hours after centrifuge runs and until no residual effects remain.

## 7. Vision

Aircrew members requiring corrective lenses in order to achieve 20/20 vision will be restricted from flying duties unless they are wearing either spectacle or contact lenses which provide 20/20, or better, near and far vision bilaterally. Aircrew members will use contact lenses only as specified in the Contact Lens APL. Aircrew members desiring refractive surgery will consult their flight surgeon or APA and follow the guidelines in the Corneal Refractive Surgery APL. The current APL is available at <https://aamaweb.usaama.rucker.amedd.army.mil/index.html.en>.

## **Appendix A References**

### **Section I Required Publications**

This section contains no entries.

### **Section II Related Publications**

A related publication is source of additional information. The user does not have to read it to understand the publication.

**AR 40-501**  
Standards of Medical Fitness

**FM 21-10**  
Field Hygiene and Sanitation

**GTA 05-08-012**  
Individual Safety Card

**NATO STANAG 3474**  
Temporary Flying Restrictions Due to Exogenous Factors Affecting Aircrew Efficiency. (Available at <http://www.nato.int/docu/standard.htm>.)

### **Section III Prescribed Forms**

This section contains no entries.

### **Section IV Referenced Forms**

**DA Form 4186**  
Medical Recommendations for Flying Duty

## **Glossary**

### **Section I Abbreviations**

#### **APA**

aeromedical physician assistant

#### **APL**

aeromedical policy letter

#### **CS**

0-chlorobenzylmalononitrile

#### **SCUBA**

self-contained underwater breathing apparatus

### **Section II**

#### **Terms**

This section contains no entries.

### **Section III**

#### **Special Abbreviations and Terms**

This section contains no entries.

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