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AEROMEDICAL TRAINING FOR FLIGHT PERSONNEL

HEADQUARTERS, DEPARTMENT OF THE ARMY

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Preface

Lessons learned from previous military conflicts and recent contingency operations have caused changes in Army aviation doctrine and the development of more sophisticated aircraft and weapons systems. Army aircrew members must be capable of operating these systems around the clock, in austere environments, and under adverse conditions. They must be capable of employing these systems and avoid enemy air defense and air-to-air weapons systems. The hazards of stress and fatigue imposed by operating more sophisticated systems in combat operations and CONOPS will eventually take a toll in aircrew performance and could jeopardize mission accomplishment. Aircrew members must be trained to recognize and understand these hazards. Training can prepare aircrew members and prevent stress and fatigue from reducing their mission effectiveness and increase their chances of survival.

This manual gives aircrew members an understanding of their physiological responses to the aviation environment; it also describes the effects of the flight environment on individual mission accomplishment. In addition, it outlines the essential aeromedical training requirements (in Chapter 1) that assist the commander and flight surgeon in conducting aeromedical education for Army aircrew members. The subject areas addressed in the training are by no means all inclusive but are presented to assist aircrew members in increasing their performance and efficiency through knowing human limitations. This manual is intended for use by all Army aircrew members in meeting requirements set forth in AR 95-1, TC 1-210, and other appropriate aircrew training manuals.

The proponent of this publication is Headquarters, TRADOC. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Dean, US Army School of Aviation Medicine, ATTN: MCCS-HA, Fort Rucker, Alabama 36362-5377.

The provisions of this publication are the subject of the following international agreement: STANAG 3114 (Edition Six).

The use of trade names in this manual is for clarity only and does not constitute endorsement by the Department of Defense.

This publication has been reviewed for operations security considerations.

Unless this publication states otherwise, masculine nouns or pronouns do not refer exclusively to men.

Chapter 1

Training Programs

Aircrews must be trained and ready in peacetime to perform their missions in combat or other contingency operations. Therefore, leaders at all levels must understand, sustain, and enforce high standards of combat readiness. Tough, realistic training should be designed to challenge and develop soldiers, leaders, and units. This chapter outlines the essential aeromedical training requirements needed for all aircrew members.

TRAINING REQUIREMENTS

1-1. All U.S. Army flight students receive aeromedical training during initial flight training and during designated courses given at the United States Army Aviation Center, Fort Rucker, Alabama. Aeromedical training is also provided for specific aviators during refresher training courses. In addition, unit commanders are responsible for aeromedical training at the unit level.

AEROMEDICAL TRAINING IN SPECIFIC COURSES

1-2. Initial aeromedical training is conducted for all U.S. Army students in the Initial Entry Rotary Wing Course. Their initial physiological training is performed according to the provisions of STANAG 3114 and TRADOC programs of instruction at USAAVNC. Aeromedical training is conducted for aviators receiving transition or advanced training at USAAVNC in the following courses:

- Fixed-Wing Multiengine Qualification Course.
- Fixed-Wing Multiengine Instructor Pilot Course.
- Aviation Safety Officer Course.

HYPOBARIC REFRESHER TRAINING

1-3. Crew members and Department of the Army civilians who fly in pressurized aircraft or in aircraft that routinely exceed 10,000 feet MSL receive hypobaric training. Refresher training is conducted once every three years. The aviators trained are those who fly in pressurized aircraft or in aircraft that routinely exceed 10,000 feet MSL.

1-4. Refresher training consists of classroom instruction to review the essential materials presented in the initial training. After completing classroom instruction, aviators participate in a hypobaric (low-pressure/high-altitude) chamber exercise using the appropriate profile for the aircraft flown (see the appendix).