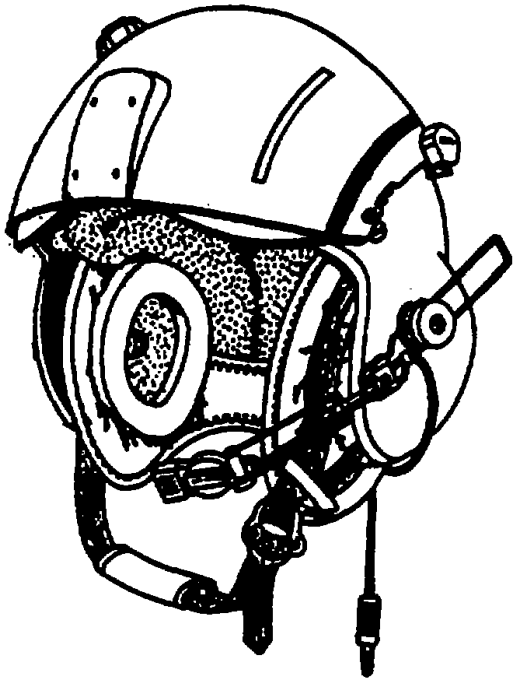
TECHNICAL MANUAL

OPERATOR'S AND AVIATION UNIT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

FOR

HELMET, FLYER'S: SPH-4B

(NSN 8415-01-308-5359) (REGULAR)
(NSN 8415-01-308-5360) (EXTRA LARGE)



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TECHNICAL MANUAL

NO. 1-8415-215-12&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 15 JANUARY 1993

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of any way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-1-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished directly to you.

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CHAPTER 1

INTRODUCTION AND GENERAL INFORMATION

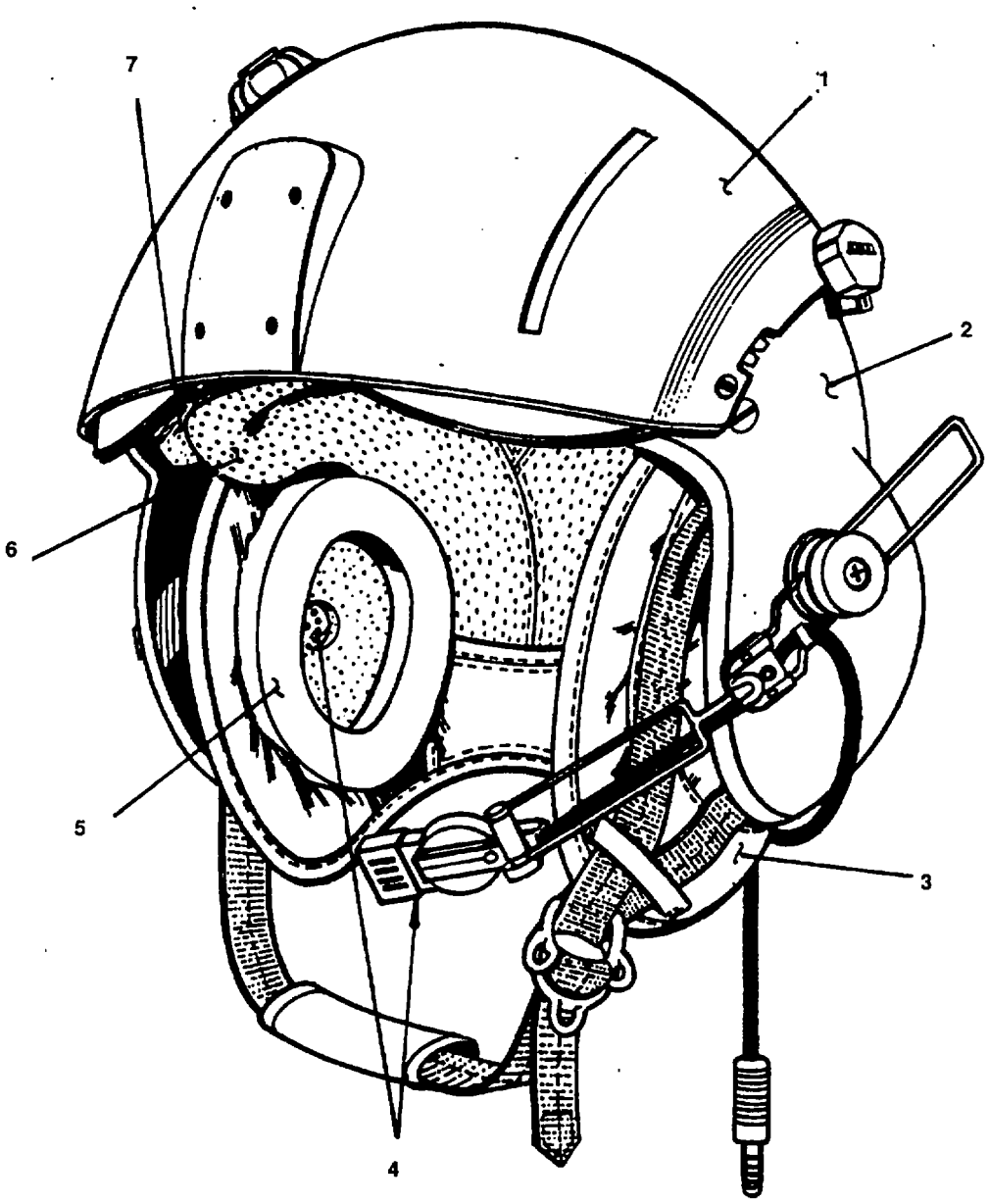
Section I. EQUIPMENT DESCRIPTION AND DATA

1-1. Equipment Characteristics, Capabilities, and Features.

a. Purpose. This manual contains the instructions required by the Operator and Aviation Unit Maintenance personnel to use and maintain the SPH-4B Regular and Extra Large, Flyer's Protective Helmet. The SPH-4B (Figure 1 -1) provides flight personnel with head, ear, and eye protection and a means for radio communication.

b. Capabilities and Features.

- Lightweight design for demanding day and night missions.
- Impact-resistant helmet shell.
- Polystyrene energy-absorbing liner reduces impact forces.
- Inner thermoplastic liner provides a close fit and optimizes comfort.
- Adjustable retention assembly provides stability and optimizes fit in the chin and nape.
- Rotatable earcups reduce noise and flex to absorb lateral impact.
- Integrated communications system.
- Visor assembly provides retractable clear and neutral lenses and supports Aviator's Night Vision Imaging System (ANVIS) Night Vision Goggles (NVGs).



1. Dual visor assembly
2. Helmet shell
3. Retention assembly
4. Communications assembly
5. Earcup assembly
6. Thermoplastic liner (TPL)
7. Energy-absorbing liner

Figure 1-1. SPH-4B Helmet

1-2. Location and Description of Major Components.

a. Helmet Shell (Figure 1-2). Finished with rubber edge beading, the lightweight composite helmet shell (1) protects the head from Impact. Chafing pads (2) prevent the earcups from chafing against the shell. Cross straps (3) regulate earcup tension, thereby controlling earseal compression for optimum fit and noise reduction.

b. Liner System (Figure 1-2). The SPH-4B liner system replaces the sling suspension systems of earlier SPH models. It consists of two liners: an energy-absorbing liner and a thermoplastic liner.

(1) Energy Absorbing Liner. The polystyrene energy-absorbing liner (5) absorbs and reduces impact forces. It is attached to the inside surface of the helmet shell with hook-and-pile fasteners.

(2) Thermoplastic Liner. The liner (4) is a lightweight comfort liner. It consists of layers of molded plastic attached to a removable, washable cloth cover. The sides of the cloth cover are made of pile fastener to attach the liner to hook fastener on the inside surface of the energy-absorbing liner. The preformed liner fits most head shapes.

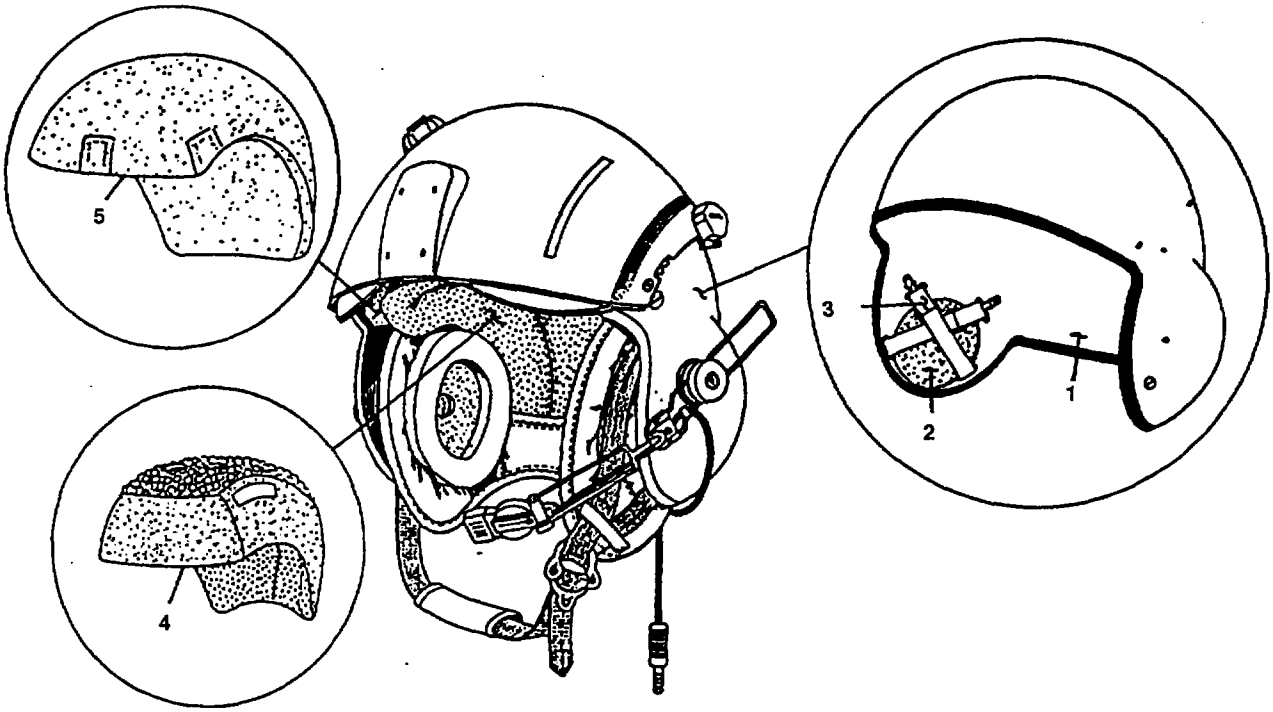


Figure 1-2. SPH-4B Helmet Shell and Liner System