

MIL-H-27856D
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 SUPERSEDING
 MIL-H-27856C
 2 August 1966

MILITARY SPECIFICATION

HELMET, FLYING HGU-7/P

This specification is approved for use by HQ AFLC CASO/LODS, Federal Center, Battle Creek MI 49016, Department of the Air Force, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 This specification covers one type of flyer's helmet with a removable sunshade and headset-microphone H-256/AIC. The helmet is designated HGU-7/P and is furnished in small, medium, and large sizes as specified (see 6.2).

2. APPLICABLE DOCUMENTS

- * 2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

| | |
|-----------|--|
| L-P-378 | Plastic Sheet and Strip, Thin Gauge, Polyolefin |
| PPP-B-636 | Box, Shipping, Fiberboard |

MILITARY

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|-------------|---|
| MIL-B-17757 | Box, Shipping, Fiberboard (Modular Sizes) |
|-------------|---|

STANDARDS

MILITARY

| | |
|-------------|---|
| MIL-STD-105 | Sampling Procedures and Table for Inspection by Attributes |
| MIL-STD-129 | Marking for Shipment and Storage |

- * Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: HQ AFLC CASO/LODS, Federal Center, Battle Creek MI 49016 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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MIL-STD-130

Identification Marking of US Military
Property

MIL-STD-143

Specifications and Standards, Order of
Precedence for the Selection of

DRAWINGS

AIR FORCE

62J4050

Helmet, Flying HGU-7/P

62D4051

Shade, Sun - Flying Helmet

62D4052

Pads - Flying Helmet, Miscellaneous

- * (Copies of specifications, standards, and drawings required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

3. REQUIREMENTS

3.1 Preproduction testing. This specification makes provision for preproduction testing.

3.2 Selection of specifications and standards. Specifications and standards for necessary commodities and services not specifically designated herein shall be selected in accordance with MIL-STD-143.

3.3 Materials. All materials employed in the fabrication and assembly of the helmet components shall conform to the requirements of applicable specifications referenced in the detail drawings, shall be suitable for the purpose intended, and shall be identified by the contractor.

3.4 Design. The helmet assembly shall be a molded plastic shell that covers the crown of the head; a suspension system of semi-resilient padding; and a headset retainer system to which the chin strap, the nape strap, and the oxygen mask are attached. Each helmet shall have a detachable sunshade. The helmet assembly shall be in accordance with Drawing 62J4050.

3.5 Construction. The construction of the helmet shall be in accordance with Drawing 62J4050, applicable details, and as specified herein.

3.6 Sunshade. Each helmet assembly shall be furnished with one universally sized sunshade conforming to Drawing 62D4051.

3.7 Helmet fitting accessories. The helmet fitting accessories shall consist of one complete set of miscellaneous pads in accordance with Drawing 62D4052.

3.8 Performance.

3.8.1 Operation of headset. The headset installed in each helmet shall be in proper working order when tested as specified in 4.5.1.

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3.9 Identification of product

3.9.1 Identification marking. Each helmet shall be permanently marked or labeled within an area not exceeding 1 inch by 2 inches. The marking shall be on the front interior portion of the shell, 2 inches above the edge of the shell, and shall be in accordance with MIL-STD-130.

3.10 Government-furnished property. When specified by the procuring activity (see 6.2), the contractor will be furnished one complete headset-microphone assembly conforming to Type H-256/AIC (see 6.3) for installation in each helmet assembly.

3.11 Workmanship. The helmet shall be manufactured in a thoroughly workmanlike manner and shall be free of any defects that might adversely affect appearance or serviceability. All components shall be within specified, dimensional tolerances and shall be correctly and securely assembled.

3.12 Reclaimed materials. The use of reclaimed materials shall be encouraged to the maximum extent possible.

4. QUALITY ASSURANCE PROVISIONS

- * 4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of tests. The inspection and testing of helmets shall be classified as follows:

- a. Preproduction tests
- b. Acceptance tests

4.3 Preproduction testing

- * 4.3.1 Preproduction test sample tested by the contractor. The contractor shall subject two complete helmet assemblies of each size on the contract to the preproduction tests specified in 4.3.3.
- * 4.3.2 Preproduction test samples for the procuring activity. The contractor shall submit the following to the procuring activity:
 - a. One complete helmet assembly of each size on the contract.
 - b. One helmet of each size, disassembled for inspection of components.

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4.3.3 Preproduction tests. Preproduction tests shall consist of visual and dimensional examinations and any other examinations or tests prescribed in this specification or subsidiary specifications.

4.4 Acceptance tests. Acceptance tests shall consist of:

a. Individual tests

b. Sampling tests

4.4.1 Individual tests. Each completed helmet shall be subjected to the test specified in 4.5.1.

4.4.2 Sampling tests

4.4.2.1 Visual examination. The helmet shall be examined for defects, and the defects found during examination of the helmet shall be classified as specified in Table I. The sample unit for this examination shall be one finished helmet assembly. The inspection level for this examination shall be Level II of MIL-STD-105, and the acceptable quality level shall be 1.5 defects per 100 units for major defects and 15.0 defects per 100 units for minor defects.

4.5 Test method

4.5.1 Operation of headset. The headset shall be connected to an amplifier of suitable gain. During this test, the talker shall listen to his own voice while speaking into the microphone. By listening to his own voice, the talker shall ascertain whether the earphones have approximately the same output. Unequal tones in the earphones shall be cause for rejection.

* 5. PACKAGING

5.1 Preservation and packaging. Preservation and packaging shall be Level A or C, as specified (see 6.2).

5.1.1 Level A. Each helmet shall be placed in a snug-fitting bag that is made of 0.0015-inch-thick, flexible, polyethylene film conforming to Type I; Grade A, B, or C; Finish 1 or 2 of L-P-378. All seams and closures shall be heat sealed and shall conform to the heat-sealing requirements of L-P-378. Prior to or during the heat-sealing operation, excess air shall be expelled from the bag to the extent necessary to insure that the unit containers will not change in size or shape. Each unit package shall be placed in a container conforming to Type CF or SF, class weather-resistant of PPP-B-636 with inserts for protection on all sides at one time which will convert the package to a Type 1 or 2 load conforming with the appendix of PPP-B-636.

5.1.2 Level C. Helmets shall be preserved and packaged to afford adequate protection against deterioration by corrosion and physical damage during shipment for immediate use, from supply sources to the first domestic receiving activity.

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TABLE I - CLASSIFICATION OF DEFECTS

| Examine | Defect | Major | Minor |
|---------------------------|--|-------|-------|
| * Helmet shell | Length at X axis, station 0 not within tolerance | X | |
| | Breadth at Y axis, station 2 not within tolerance | X | |
| | Visible distortion or warpage of shell | X | |
| | Visible defects in the shell construction | X | |
| | Any snap fastener missing or damaged so that sunshade cannot be attached | X | |
| | Any snap fastener not securely clinched | X | |
| | Rough or sharp edges | | X |
| | Color of shell not uniform | | X |
| | Dirt or stains | | X |
| | Scratched, scuffed, or abraded areas | | X |
| * Hanger assembly | Cuts or breaks in the plastic piece or webbing | X | |
| | Any adjustment slot missing | | X |
| | Components not within dimensional tolerances | | X |
| | Grommet not securely clinched | X | |
| | Ends of webbing not seared | | X |
| * Retainer ring | Retainer ring distorted (will not fit earcup) | X | |
| | Screw missing or will not fit nut | | X |
| | Any fastener tab missing or damaged | X | |
| | Any snap fastener not securely clinched | | X |
| Chin strap and nape strap | Dimensions not within allowable tolerances | X | |
| | Snap fastener improperly installed for direction of pull to release | X | |

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TABLE I - CLASSIFICATION OF DEFECTS (CONT)

| Examine | Defect | Major | Minor |
|-----------------------|---|-------------|-------|
| * Fitting pads | Stitching missing, skipped stitches, or not backstitched | | X |
| | Webbing soiled | | X |
| | Ends of webbing not seared | | X |
| | Snap fasteners or rivet not properly clinched | X | |
| | Outer (lining) pad missing | X | |
| | Fitting pad missing | | X |
| | Lining pad soiled | | X |
| | Adhesive not uniformly applied | | X |
| | Snap fastener missing or incorrectly located (will not attach to shell) | X | |
| | Underside not finished with glare protective surface | X | |
| Sunshade | Surface defects affecting appearance | | X |
| | Snap fastener improperly clinched | | X |
| General | Any component not fabricated of specified material | X | |
| | Any characteristic not in accordance with requirements | X | |
| | Any component missing or damaged | X <u>1/</u> | |
| | Any operation omitted or improperly performed | X <u>1/</u> | |

1/ These defects shall be classed as minor defects when the serviceability of the helmet is not seriously affected.

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5.2 Packing. Packing shall be Level A, B, or C as specified (see 6.2).

5.2.1 Level A. Helmets preserved and packaged in accordance with 5.1.1 shall be packed in exterior-type shipping containers conforming to class - weather-resistant of MIL-B-17757.

5.2.2 Level B. Helmets preserved and packaged in accordance with 5.1.1 shall be packed in exterior-type shipping containers conforming to class - domestic of MIL-B-17757.

5.2.3 Level C. Helmets preserved and packaged in accordance with 5.1.2 shall be packed in a manner to insure acceptance by the carrier and safe delivery at destination at the lowest transportation rate.

5.3 Marking. Interior packages and exterior shipping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use. The helmet covered by this specification is intended for use by crew members of all types of tankers and trainers not equipped with ejection seats.

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number, and date of this specification
- b. Size required (see 1.1)
- c. Option for GFP headset installation by contractor (see 3.10)
- d. Selection of applicable levels of preservation and packaging and packing.

6.3 Headset-microphone assembly. Roanwell Corp Specification 3691 conforms to Type H-256/AIC headset-microphone assembly.

6.4 Changes to previous issue. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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