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MILITARY SPECIFICATION

SEAT, AIRCRAFT

1. SCOPE

1.1 This specification covers two types of adjustable, long range aircraft pilot's seats.

* <u>1.2 Classification</u>. Pilot seats covered by this specification shall be of the following types.

Type I. - For use in long-range helicopters.

Type II. - For use in cargo, transport, and multi-engine trainer aircraft.

2. APPLICABLE DOCUMENTS

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

SPECIFICATIONS

Federal

QQ-P-416 QQ-Z-325 TT-L-20 PPP-B-601 PPP-B-621 PPP-B-636	Plating, Cadmium (Electrodeposited) Zinc Coating, Electrodeposited Requirements For Lacquer Camouflage Boxes, Wood, Cleated-Plywood Boxes, Wood, Nailed And Lock-Corner Box, Fiberboard
Military	
MIL-P-116	Preservation, Methods Of
MIL-D-1000	Drawings, Engineering And Associated Lists
MIL-M-3171	Magnesium Alloy, Processes For Pretreatment And Prevention Of Corrosion On
MIL-R-5001	Rubber Cellular Sheet, Molded And Hand Built Shapes; Latex Foam
MIL-E-5272	Environmental Testing, Aeronautical And Associated Equipment, General Specification For
MIL-H-6088	Heat Treatment Of Aluminum Alloys

MIL-11-6875	Heat Treatment Of Steels (Aircraft
	Practice, Processes For)
MIL-C-7219	Cloth, Duck, Nylon, Parachute Packs
MIL-S-7742	Screw Threads , Standard, Optimum
	Selected Series, General Specification For
MIL-R-8236	Reels, Shoulder Harness, Inertia-Lock
MIL-S-8512	Support Equipment. Aeronautical, Special General Specification For Design Of
MTTD-8585	Primer Coating Zinc Chromate
	Low-Moisture-Sensitivity
MIL-A-8625	Anodic Coatings, For Aluminum And Aluminum Alloys

STANDARDS

Federal

FED-STD-595 Colors

Military

MIL-STD-129	Marking. For Shipment And Storage
MIL-STD-130	Identification Marking Of US Military
	Property
MIL-STD-143	Specifications And Standards, Order
	Of Precedence For The Selection Of
MIL-STD-831	Test Reports, Preparation Of
MIL-STD-838	Lubrication Of Military Equipment
MIL-STD-1186	Cushioning, Anchoring, Bracing,
	Blocking, And Waterproofing; With
	Appropriate Test Methods
MS33586	Metals, Definition Of Dissimilar

DRAWINGS

Air Force

54H19650	Belt, Aircraft Safety Lar, Type MD-1
54H19651	Belt, Aircraft Safety Lap, Type MD-2
57D677	Harness, Aircraft Safety Shoulder,
	Adjustable, Type MB-2A

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

3. REQUIREMENTS

- *3.1 <u>Preproduction testing.</u> This specification makes provision for preproduction testing.
- 3.2 <u>Selection of specifications and standards.</u> Specifications and standards for necessary commodities and services not specified herein shall be selected in accordance with MIL-STD-143.

3.2.1 <u>Standard parts.</u> Standard parts (MS, AN, or JAN) shall be used wherever they are suitable for the purpose, and shall be identified on the drawing by their part numbers. Commercial utility parts such as screws, bolts, nuts, cotter pins, et cetera, may be used, provided they possess suitable properties and are replaceable by the standard parts (MS, AN, or JAN) without alteration, and provided the corresponding standard part numbers are referenced in the parts list and on the contractor's drawings. In the event there is no suitable corresponding standard part in effect on date of incitation for bids, commercial parts may be used provided they conform to all applicable requirements of this specification.

3.3 Materials.

3.3.1 <u>Protective treatment.</u> When materials are used in the construction of the seat that are subject to corrosion in salt air or other atmospheric condition likely to occur during service usage, they shall be protected against such corrosion in a manner that will in no way prevent compliance with the performance requirements of this specification. The use of any protective coating that will crack, chip, or scale with age or extremes of atmospheric conditions shall be avoided.

3.3.2 <u>Metals.</u> Metals shall be of the corrosion-resistant type or suitably treated to resist corrosion due to fuels, salt spray, or atmospheric conditions likely to be met in storage or normal service.

3.3.3 <u>Heat treat.</u> Materials which require heat treatment in order to satisfactorily accomplish their design shall be heat treated in accordance with MIL-H-6875 for steels and MIL-H-6088 for aluminum.

3.3.4 <u>Dissimilar metals</u>. Unless suitably protected against electrolytic corrosion, dissimilar metals shall not be used in intimate contact with each other. Dissimilar metals are defined in MS33586.

3.4 <u>Design</u>. The seat shall be designed for maximum comfort and ease of adjustment. The area above and to each side of the seat bottom pan should be left as open as possible to aid ingress, egress, and freedom of movement for the seat occupant.

3.4.1 <u>Dimension</u>. The critical dimensions of the seat shall be as specified in Figures 1 through 4.

3.4.2 Adjustments. The seat shall be adjustable as follows:

3.4.2.1 <u>Vertical adjustment</u>. The seat shall be provided with a 5-inch vertical adjustment as indicated in Figure 1. The seat shall be adjustable in increments of 1/2 inch within the 5-inch adjustment range. This adjustment shall incorporate a loaded mechanical device which shall raise the seat as the occupant's weight is removed. This load shall not exceed 150 pounds when the seat is in the lowest position nor be less than 30 pounds when the seat is in the highest position. Suitable stops shall be provided at the ends of the adjustment range.

3.4.2.2 <u>Horizontal (fore-and-aft) adjustment.</u> The seat shall be adjustable along the tracks for a distance of 6 inches in increments of not more than 1 inch, as indicated on Figure 1. Suitable stops shall be provided at the ends of the adjustment range.

3.4.2.3 <u>Recline adjustment</u>. When the seat is in the normal position, the back shall be inclined aft at an angle of 13-1/2 degrees from a line perpendicular to the plane of the tracks. The back shall be adjustable aft from the normal position through 20 degrees in increments of 5 degrees. The design shall permit this adjustment to be made easily while the seat is carrying a weight of 250 pounds (man plus equipment). Suitable stops shall be provided at the ends of the adjustment range.

3.4.2.4 Locking mechanisms. The control lever for operating the vertical adjustment shall be located on the right hand side of the seat pan near the front. of the pan, and shall be easily accessible to the occupant. The control for the shoulder harness inertia reel shall be located on the left hand side of the seat pan approximately 3 inches aft of the front face of the seat pan. The control for operating the fore-and-aft adjustment shall be located on the left side of the seat in a position accessible to the seat occupant with the seat in either the extreme up or down positions. The control lever for the reclining adjustment shall be accessible to the pilot on the right hand side of the seat and shall not interfere with the Other seat adjustment levers. The locking mechanisms shall be released by an upwardmovement of the levers. The angular movement of the levers shall not exceed 50 degrees, and the mechanisms shall automatically lock when the levers are released.

3.4.3 <u>Armrests</u> Armrests shall be provided on each side of the seat at the approximate location indicated in Figures 2 and 3. The armrests shall fold into a position where they will not interfere with the egress and ingress of the occupant when wearing a back-type parachute. The covering material on the armrests shall be 7-1/4 ounce nylon cloth conforming to MIL-C-7219, Type III. The top surface of the armrests shall be cushioned with a 3/4 inch thickness of foam rubber conforming to MIL-R-5001, Type II, class medium. The color of the covering material shall be maroon red conforming to color No. 21136 of FED-STD-595, unless otherwise specified by the procuring agency.

3.4.4 <u>Headrest.</u> The seat shall incorporate a headrest in the approximate location shown in Figures 1 and 2. The headrest shall be so designed and installed as not to interfere with the egress or ingress of the occupant wearing a back-type parachute. The headrest cushioning material shall be resilient, durable, comfortable, and shall not pack due to use. The covering material shall be 7-1/4 ounce nylon cloth conforming to MIL-C-7219, Type III. The color shall be maroon red conforming to color No. 21136 of FED-STD-595, unless otherwise specified by the procuring agency.

3.4.5 <u>Shoulder harness reel.</u> The seat shall incorporate a shoulder harness take up, inertia lock reel in accordance with MIL-R-8236, Type MA-2 for the Type I seat and Type MA-1 for the Type II seat. The reel shall be located so that the center line of the shoulder harness attaching bolt is 20 inches below the top of the shoulder harness roller. It shall be located so that the cable pulls off the reel in a plane which includes the longitudinal (fore-and-aft) and vertical centerlines of the seat. The angle between the mounting plane of the reel and the floor plane of the seat shall not be less than 75 degrees when the seat back is reclined at the 13-1/2 degree position.

3.4.6 <u>Shoulder harness roller and guide</u>. A shoulder harness roller and guide shall be provided on the seat back. The dimensions and location of

the roller and guide shall be as shown on Figures 2 and 3. The roller shall have a minimum diameter of 1 inch.

3.4.7 <u>Safety belt and shoulder harness</u>. Provisions shall be made for the use of either Type MD-1 or MD-2 safety belt conforming to drawing 54H19650 and 54H19651, respectively, the belt to be attached with 1/4-inch diameter aircraft bolts. The attachment fitting shall be of the fork type which will place the attachment bolt in double shear. The point of attachment of the belt to the seat shall be as indicated in Figure 3. Provisions shall also be made for the use of the Type MB-2A shoulder harness (depicted on drawing 5D677).

3.4.8 <u>Parachute support bulkhead</u>. The seat shall be provided with a metal bulkhead permanently fastened within the seat. The size and location of this bulkhead shall be as shown in Figure 3.

3.4.9 <u>Drain holes</u>. Drain holes shall be provided to drain the seat with the bottom in any position into which it might be placed by any normal ground position of the airplane.

3.4.10 Tracks. The tracks which permit fore-and-aft adjustment of the seat shall be provided with holes for attachment to the floor. These holes shall be drilled 17/64 inch in diameter for 1/k-inch bolts. The holes shall be arranged in two rows on each track. The two rows shall be symmetrical about the centerline of the tract (not in staggered rows) and shall be 2-1/2 inches apart. The longitudinal spacing of the holes in both rows shall be 5-1/2 inches between center starting with a set of holes directly below the seat reference point when the seat is adjusted to a position midway of the fore-and-aft travel The tolerance on the distance between the centerlines of any two holes (on one track) shall be plus or minus 1/64 inch.

3.5 Construction.

3.5.1 <u>Methods.</u> Riveting or welding may be used for assembly of component parts fabricated of metals which are suitable for this type of construction. Fittings and joints which will require disassembly for installation or removal of the seat from the airplane or for disassembly of the component parts of the seat shall be bolted.

3.5.2 <u>Projections</u> The inside surfaces of the seat shall be free from projections which could catch or damage by abrasion the parachute pack or the clothing of the occupant. The exterior surfaces of the seat shall be free from sharp edges or any projections which might scratch the hands or clothing of the occupant as he moves his arms about the sides of the seat to handle equipment within his reach to the rear and to the sides.

3.5.3 <u>Strength requirements.</u> The seat shall have sufficient strength to carry the following loads:

Types I and II:

a. Headrest: An aft load of 200 pounds ultimate, 135 pounds proof, uniformly distributed over the headrest. The seat back shall be inclined to the 13-1/2-degree position during this test.

b. Armrests: A down load of 300 pounds ultimate, 200 pounds proof, applied at the center of each armrest. A side load of 100 pounds ultimate, 67 pounds proof, applied outward or inward perpendicularly to each armrest in a horizontal plane. The above loads shall be applied at the center of each armrest. It is not. required that these loads be applied simultaneously.

c. Seat pan, front edge: The seat shall withstand a down load (perpendicular to the floor plane) of 400 pounds ultimate applied to the front edge of the seat pan, applied over the space extending 1-1/2 inches each side of the centerline of the seat pan.

Type I only:

a. Seat bottom: A down load of 3000 pounds ultimate, 2000 pounds proof, distributed over the seat bottom with the load center of gravity located as shown in Figure 1. The seat shall be adjusted to the maximum up position during this test.

b. Seat back: An aft load of 2000 pounds ultimate, 1335 pounds proof, distributed over the area of the seat back with the load center of gravity located as shown in Figure 1. The seat shall be adjusted to the maximum up position, and the seat back shall be inclined to the 13-1/2-degree position during the test.

c. Safety belt mountings: A load of 1440 pounds ultimate, 960 pounds proof, applied to the lap safety belt mountings (equally distributed between the two) on the side of the seat in a direction forward and inclined 40 degrees up from the floor plane; and a load of 900 pounds ultimate, 600 pounds proof, applied to the shoulder harness take-up reel in a forward direction parallel to the floor plane as indicated in 11.5.2. These loads shall be applied simultaneously and under the following separate conditions: directly forward, 20 degrees to the right of forward and 20 degrees to the left of forward. If the structure is shown to be symmetrical, the yaw load need only be applied to one side.

d. Lap safety belt mountings: An up load of 1500 pounds ultimate, 1000 pounds proof, applied to the lap belt mountings (equally distributed between the two) on the side of' the seat, and parallel to the seat back.

Type II only:

a. Seat bottom: A down load of 4000 pounds ultimate, 2665 pounds proof, distributed over the seat bottom with the load center of gravity located as shown in Figure 1. The seat shall be adjusted to the maximum up position during this test.

b. Seat back: An aft load of 1500 pounds ultimate, 1000 pounds proof, distributed over the area of the seat back with the load center of gravity located as shown in Figure 1. The seat shall be adjusted to the maximum up position, and the seat back shall be inclines to the 13-1/2-degree position during the test.

c. Safety belt mountings: A load of 2880 pounds ultimate, 1920 pounds proof, applied to the lap safety belt mounting (equally distributed between the two) on the side of the seat in a direction forward and inclined 40 degrees up from the floor plane, and a load of 1800 pounds ultimate, 1200 pounds proof, applied to the shoulder harness take-up reel in a forward direction parallel to the floor plane, as indicated in 4.5.2. These loads shall be applied simultaneously and under the following separate conditions: directly forward, 20 degrees to the right of forward, and 20 degrees to the left of forward. If the structure is shown to be symmetrical, the yaw load need only be applied to one side.

3.6 <u>Environmental exposure</u>. The seat shall be capable of conforming all requirements specified herein after exposure to the following environmental conditions:

- a. Humidity of 100 percent.
- b. Fungus growth as may be encountered in tropical climates.
- c. Salt spray as may be encountered in salt-sea atmosphere.
- d. Sand and dust as may be encountered in tropical climates.
- e. Sunshine.
- f. Vibration.

3.7 <u>Interchangeability</u> All parts having the same manufacturer's part number shall be directly and completely interchangeable with each other with respect to installation and performance. Changes in manufacturer's part numbers shall be governed by the drawing number requirements of MIL-D-1000.

3.8 <u>Weight</u> The complete seat, including all parts, inertia reel, adequate finish coating and tracks which permit a 6 inch fore-and-aft adjustment shall not exceed a total weight of 45 pounds for the Type II seat and 30 pounds for the Type I. seat. The seat bottom and seat back cushions are not considered a part of the seat for the purpose of this specification.

3.9 <u>Color.</u> The color of the seat structure shall be medium gray conforming to color No. 36231 of FED-STD-595, unless otherwise specified by the procuring agency.

3.10 <u>Finish.</u> Aluminum alloy parts shall be anodically treated in accordance with MIL-A-8625. Magnesium-alloy parts shall be treated in accordance with MIL-M-3171. Noncorrosion-resisting steel parts shall be cadmium-plated in accordance with QQ-P-416, or zinc-plated in accordance with QQ-Z-325. The seat shall have a paint finish consisting of one think coat of zinc-chromate primer conforming to MIL-P-8585, followed by two coats of aircraft lacquer conforming to TT-L-20, except that anodized aluminum alloy parts need not be painted if colored-anodized.

3.11 Identification of product.

3.11.1 <u>Identification</u> of product. Equipment, assemblies and parts shall be marked for identification in accordance with MIL-STD-130.

3.11.2 Use of AN orMIL designations. All or MIL designations shall not be applied to a product. except for qualification test samples, nor referred to in correspondence or sales matter, until notification has been received from the qualifying agency that the product has been approved by the procuring service.

3.12 <u>Lubrication</u>. Lubrication shall be accomplished in accordance with MIL-STD-838. Lubrication shall conform to applicable Government specifications, unless otherwise approved by the procuring service.

3.13 <u>Screw threads.</u> Unless otherwise specified screw threads shall conform to MIL-S-7742. All threaded parts shall be securely locked.

3.14 <u>Special tools</u>. Seats shall be so designed that special tools will not be required for assembly or disassembly. Special tools and comerical standard tools are defined in MIL-D-8512.

3.15 <u>Workmanship.</u> The seat, including all parts and accessories, shall be constructed and finished in a thoroughly workmanlike manner. Particular attention shall be given to neatness and thoroughness of welding, riveting, machine-screw assemblies, painting, and freedom of parts from burrs and sham edges.

4. QUALITY ASSURANCE PROVISIONS

4.1 <u>Responsibility for inspection.</u> Unless otherwise specified in the contract Or purchase order, the supplier responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier 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 <u>Classification of tests</u>. The inspection and testing of the seats shall be classified as follows:

- a. Quality conformance tests See 4.3
- b. Preproduction testing See 4.7

4.3 <u>Ouality conformance tests</u>. Quality conformance tests shall consist of:

- a. Individual tests.
- b. Sampling plans and tests.

4.3.1 <u>Individual tests</u>. Each seat shall be subjected to the following tests as described under 4.5 of this specification:

- a. Examination of product.
- b. Functional tests.

4.3.2 <u>Sampling plans.</u> Sample seats shall be selected at random from each lot on same material order, in the quantities specified below, for compliance with the tests in 4.5.

- a. Two seats from each lot of 200 or fraction thereof.
- b. Three seats from each lot of 500 or fraction thereof. above 200.
- c. One seat from each additional 500 or fraction thereof, above 500.

4.3.3 <u>Rejection and retest</u>. Failure of any seat to pass the acceptance tests shall be cause for rejection of the entire lot represented. If in the opinion of the inspector, such failure is attributable to faulty workmanship or other defects not likely to occur throughout the lot, the contractor may test three additional seats selected at random from the lot. Failure of any one of these additional seats shall be cause for the final rejection of the entire lot represented.

4.4 <u>Test conditions</u>. The test conditions are described under the individual tests to which they apply.

4.5 <u>Test methods.</u>

4.5.1 <u>Examination of product</u>. Each seat shall be carefully examined to determine conformance specification with respect to design, standard parts, finish, adjustments, dimensions, workmanship, material, weight, and marking.

4.5.2 Functional tests. The sample seat shall be mounted in a suitable jig or fixture by utilizing the normal track tie down provisions. The seat shall then be subjected to and be required to withstand without failure, the ultimate loads specified in 3.5.3. These loads shall be applied to the seat without cushions. The attitude of the seat during the test may be changed to facilitate testing if the direction of the loads with respect to the seat remains the same. The loads may be applied by means of hydraulic or pneumatic press, jacks, shot bags, or any other suitable method. The lap belt and shoulder harness mountings shall be loaded simultaneously to the ultimate loads specified in 3.5.3. The lap belt attachments shall be subjected to tests in which the loads are applied to a block or a frame fitted within the seat and held in place by the lap belt attached to the shoulder harness or strap of equivalent dimensions to the shoulder harness shall be carried up over the shoulder harness support, and the loads applied as indicated in 3.5.3.

4.6 Environmental tests.

4.6.1 The following environmental tests shall be conducted in accordance with the specified procedures of MIL-E-5272.

4.6.1.1 <u>Humidity</u>. The seat shall operate satisfactorily during and after exposure to relative humidity of 100 percent, including conditions wherein condensation takes place in the form of both water and frost. Humidity test shall be conducted in accordance with Procedure I of MIL-E-5272.

4.6.1.2 <u>Fungus resistance</u>. If any material utilized in the construction of the seat is suspected to be a nutrient to fungi, the material shall show no deterioration when subjected to fungus test in accordance with Procedure I Of MIL-E-5272.

4.6.1.3 <u>Salt spray.</u> The salt spray test shall be conducted in accordance with Procedure I of MIL-E-5272. When the seat is in an "as installed" condition.

4.6.1.4 <u>Sand and dust</u>. The sand and dust test shall be conducted in accordance With Procedure I of MIL-E-5272. Upon completion of the test, the seat shall be examined and be capable of satisfactory operation.

4.6.1.5 <u>Sunshine</u>. All the materials used in the construction of any component or assembly which may be subjected to prolonged exposure to sunshine shall be carefully evaluated for and shall show no evidence of any degrading affect from such exposure. Protection against sunlight shall be provided, when required.

4.6.1.6 <u>Vibration</u>. The seat shall be capable of satisfactory operation after being subjected to the vibration test, Procedure XII of MIL-E-5272.

4.7 Preproduction testing.

4.7.1 <u>Preproduction test sample tested by the contractor</u>. The contractor shall subject a sample crew seat to the preproduction test specified in 4.7.4.

4.7.2 <u>Preproduction test report</u>. After the contractor completes the preproduction tests, he shall prepare a preproduction test report according to MIL-STD-831 and furnish three complete copies of the report to the procuring activity.

4.7.3 <u>Preproduction test sample for procuring activity.</u> Along with the preproduction test report, the contractor shall submit a sample to the procuring activity who will use it.

a. For a review of the mechanical construction of the product.

b. To perform any tests, included in the specification, after reviewing the contractor's test report.

4.7.4 <u>Preproduction tests</u>. Preproduction tests shall consist of all tests described under 4.5 and 4.6.

4.8 <u>Inspection of the preservation, packaging, packing and marking for</u> <u>shipment and storage.</u> Sample items or packs and the inspection of the preservation, packaging, packing and marking for shipment and storage shall be in accordance with the requirements of Section 5, or the documents specified therein.

5. PREPARATION FOR DELIVERY

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

5.1.1 <u>Level A.</u> Each seat shall be preserved and packaged Method III of MIL-P-116 in a weather resistant unit container conforming to PPP-B-636.

- *5.1.2 <u>Level C.</u> Preservation and packaging that will afford adequate protection against corrosion, deterioration and physical damage during shipment from supply source to the first receiving activity for immediate use. This level may conform to the supplier's commercial practice, provided the latter meets the requirements of this level.
- *5.2 <u>Packing.</u> Packing shall be Level A, B or C as specified (see 6.2).
- *5.2.1 Level A. Seats preserved and packaged as specified in 5.1.1 shall be packed in overseas type shipping containers conforming to PPP-B-601,0r PPP-E-621. As far as practicable, shipping containers shall be of uniform shape and size, of minimum cube and tare consistent with the protection required, and contain identical quantities. The gross weight of each container shall not exceed the weight limitation of the specification. Containers shall be closed and strapped in accordance with the specification and appendix thereto.
- *5.2.2 Level B. Seats preserved and packaged as specified in 5.1.1 shall not be overboxed for domestic shipments. The unit container, closed and strapped in accordance with the applicable appendix of the container specification shall be the shipping container.
- *5.2.3 <u>Level C.</u> Packing that will afford adequate protection at the lowest rate against damage during direct domestic shipment from the supply source to the first receiving activity for immediate use. This level shall conform to applicable carrier rules and regulations and may be the supplier's commercial practice, provided the latter meets the requirements of this level.
- *5.3 <u>Physical protection.</u> Cushioning, blocking and bracing shall be in accordance with MIL-STD-1186, except that for domestic shipments, water-proofing requirements for cushioning materials and containers shall be waived. Drop tests of MIL-STD-1186 shall be waived when preservation, packaging and packing of the item is for immediate use or when drop tests of MIL-P-116 are applicable.
- *5.4 <u>Marking of shipments.</u> Interior packages and exterior shipping containers shall be marked in accordance with MIL-STD-129.
 - 6. NOTES

6.1 <u>Intended use.</u> The type I seats are intended for use by the pilot and co-pilot of long range helicopters. The type II seats are intended for use by the pilot and co-pilot of long range cargo and transport aircraft, and in multi-engine trainers.

- *6.2 Ordering data. The procurement document should specify the following:
 - a. Title, number and date of this specification.
 - b. Preproduction test conditions (see 4.7).

Selection of applicable levels of preservation, packaging and packing (see 5.1 and 5.2).

* 6.3 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.

Custodian: Air Force - 82 Reviewer: Air Force - 82

Preparing Activity: Air Force - 82 project No. 1680-F222



SEAT SHOWN IN NEUTRAL POSITION BOTH VERTICALLY AND HORIZONTALLY.

DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED. TOLERANCES: DECIMALS .XX ± .06 ANGLES ± 0° 30'

FIGURE I. <u>SIDE VIEW OF SEAT</u>



DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED

TOLERANCE :

DECIMALS .XX ±.06



DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED TOLERANCES: DECIMALS .XX ±.06 ANGLES ± 30'

FIGURE 3. <u>SEAT BUCKET DETAIL</u>



BACK PARACHUTE SPACE REQUIREMENTS



SURVIVAL KIT SPACE REQUIREMENTS

DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED.

TOLERANCE : .XX ±.06

FIGURE 4 SPACE REQUIREMENTS

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