

INCH-FOUND

MIL-STD-911
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MILITARY STANDARD
THE DEPARTMENT OF DEFENSE
STANDARD FAMILY
OF
TACTICAL RIGID WALL SHELTERS



AMSC N/A

FSC 5411

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FOREWARD

1. This military standard is approved for use by all Departments and Agencies of the Department of Defense.
2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to : Engineering Program Management Directorate, U.S. Army Natick Research, Development and Engineering Center, STRNC-ES, Natick, MA 01760-5014, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.
3. This document supplements departmental manuals, directives, and military standards, and provides basic and fundamental information on the DOD Standard Family of Tactical Rigid Wall Shelters. It is intended as a general reference to aid in the selection process and provide for standardization among the Military Services and the Defense Agencies.
4. The shelters contained in this standard are the only tactical rigid wall shelters approved for military use (see 6.3).

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1. SCOPE

1.1 Purpose. The purpose of this military standard is to provide assistance in the selection of a tactical rigid wall shelter from the DOD Family of Tactical Rigid Wall Shelters and to encourage standardization among the DOD community. The tactical rigid wall shelters presented in this document constitute the only tactical rigid wall shelters approved by the DOD for military use (see 6.3).

1.2 Policy. Army Regulation 70-59, paragraph 8d, states that all DOD components will use the DOD standard shelters unless a waiver is granted. Waiver procedures are listed in paragraph 10 of Army Regulation 70-59, and require a request with specific and comprehensive justification to be sent through the voting Joint Committee on Tactical Shelters (JOCOTAS) member for the requesting service, to Under Secretary of Defense for Acquisition. Army Regulation 70-59 is a multi-service regulation and applies to Departments of the Army, Navy and the Air Force.

1.3 Scope. This standard consists of the first group of shelters to be standardized for DOD use by the Joint Committee on Tactical Shelters (JOCOTAS) (See AR 56-1). The shelters listed in this standard were in varying stages of development and production at the time JOCOTAS developed a military standard for engineering and design criteria. Therefore, the shelters listed may not conform in all respects to the design criteria contained in MIL-STD-907. As new military requirements and technology advances occur, additional shelters will be added by JOCOTAS to the existing list. All new rigid wall shelters must meet the engineering and design criteria contained in MIL-STD-907.

1.4 Classification. All tactical shelters covered by this standard will have the Federal Supply Class (FSC) designation 5411. This class includes only portable expandable and nonexpandable unitized shelters that are designed to be transported by land, air, or sea. These shelters are complete units that require no specialized setup equipment and minimum site preparation. This class excludes fabric wall shelters, air supported structures, refrigerated buildings, cargo containers, and prefabricated semipermanent buildings or structures.

2. APPLICABLE DOCUMENTS

2.1 Government Documents.

2.1.1 Specifications, standards, and handbooks. The following specifications and standards form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplemental thereto, cited in the solicitation (see 6.2).

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SPECIFICATIONS

- MIL-S-29409 - Shelter Assembly, Knockdown
- MIL-S-29410 - Shelter Assembly, Rigid, General Purpose
- MIL-S-29411 - Shelter Assemblies, 10 Foot and 20 Foot,
Electromagnetic Interference
- MIL-S-44195 - Shelter, Tactical, Expandable, Two-Side
- MIL-S-44196 - Shelters, Tactical, Non-Expandable
- MIL-S-44197 - Shelters, Tactical, Expandable, One-Side
- MIL-S-55286 - Shelter, Electrical Equipment S-280 (/)G
- MIL-S-55541 - Shelter, Electrical Equipment S-250 (/)G
- MIL-M-81957 - Mobile Facility, General Specification For

STANDARD

- MIL-STD-907 - Engineering and Design Criteria for Shelters,
Expandable and Nonexpandable

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents. The following other Government documents form a part of this document to the extent specified herein. Unless otherwise specified, the issue shall be those in effect on the date of solicitation.

REGULATIONS

- AR 70-59 - Department of Defense Tactical Shelter Program
- AR 56-1 - Use of Intermodal Containers, Special Purpose
Vans, and Tactical Shelters
- Joint Service Regulations: Army Regulation 70-59, OPNAVINST
3900.27B, AFR 80-8, and MCO 3920.5A.

3. DEFINITIONS.

3.1 Acronyms used in this standard.

- a. AR - Army Regulation
- b. DOD - Department of Defense.
- c. DODISS - Department of Defense Index of Specifications and
Standards
- d. EMI - Electro Magnetic Interference
- e. FSC - Federal Supply Class
- f. GP - General Purpose

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- g. ISO - International Organization for Standardization
- h. JOCOTAS - Joint Committee on Tactical Shelters.
- i. RW - Rigid Wall

3.2 Definitions.

a. Tactical rigid wall shelter. A tactical rigid wall shelter is defined as a presized transportable structure which provides a live-in or work-in capacity. The structure can be either expandable or nonexpandable. These shelters are complete units that require no special setup equipment and minimum site preparation.

b. Expandable tactical shelter. An expandable tactical shelter is a shelter which is capable of increasing the interior volume through the use of hinged or movable side panels.

c. Nonexpandable tactical shelter. A nonexpandable tactical shelter is a shelter which has fixed walls, roof and floor and maintains a constant floor area. These shelters may, however, be capable of joining with other shelters by using corridors and integration units.

d. Knockdown tactical shelter. A knockdown tactical shelter is a tactical shelter capable of being collapsed for shipment and storage. Multiple knockdown shelters are stacked upon each other to enable the stack to be handled and shipped similiar to a full size ISO rigid wall shelter.

4. GENERAL REQUIREMENTS

4.1 Background. The Standard Family of Rigid Wall Tactical Shelters was formed by JOCOTAS to standardize the use of tactical shelters and to stop the proliferation of non-standard shelters in the DOD inventory. The shelters listed in 5.1 are the first of a group of shelters to be standardized by JOCOTAS for DOD use. These shelters were in varying stages of development and production at the time JOCOTAS was formed, and therefore these shelters may not conform in all respects to MIL-STD-907 engineering and design criteria. As new military requirements and technology advances occur, additional shelters will be added to the list. Special attention has been given to ISO requirements to ensure standard corner fittings and conformance to structural container requirements.

4.2 JOCOTAS design standards. Approved JOCOTAS engineering and design criteria for development of DOD shelters has been published as MIL-STD-907, Engineering and Design Criteria for Shelters, Expandable and Nonexpandable. All new rigid wall tactical shelters must be designed in accordance with MIL-STD-907.

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5. DETAILED REQUIREMENTS.

5.1 Shelter characteristics. The following is a general description of the individual shelters. For more detailed information, reference the applicable specification.

5.1.1 Nonexpandable tactical shelters.

5.1.1.1 Army shelters. The following is a list of available Army non-expandable tactical shelters. For further information or guidance, contact U.S. Army Natick Research, Development and Engineering Center, ATTN: STRNC-UST, Natick, MA 01760-5014.

NAME: Shelter, Electrical Equipment, S-250 ()/G
 DESCRIPTION: This mobile shelter is typically used to house electronic systems. The shelter is designed for transport by cargo truck, helicopter, rail, ship, or fixed wing aircraft.
 SPECIFICATION: MIL-S-55541
 INTERIOR DIMENSIONS: 5'4" H x 6'3" W (Top), 3'8" W (Floor) x 6'6" L
 EXTERIOR DIMENSIONS: 5'10" H x 6'7" W x 7' L
 TARE WEIGHT: 770 lbs
 PAYLOAD: 1900 lbs
 GROSS WEIGHT: 2670 lbs
 NSN: 5411-00-999-4935/Unshielded
 NSN: 5411-00-489-6076/EMI Shielded

NAME: Shelter, Electrical Equipment, S-280 (C)/G
 DESCRIPTION: This mobile shelter is typically used to house electronic equipment and repair shops. The shelter is designed for transport by cargo truck, fixed or rotary wing aircraft, rail, ship or landing craft.
 SPECIFICATION: MIL-S-55286
 INTERIOR DIMENSIONS: 6'5" H x 6'10" W x 11'6" L
 EXTERIOR DIMENSIONS: 7'3" H x 7'3" W x 12' L
 TARE WEIGHT: 1400 lbs
 PAYLOAD: 5000 lbs
 GROSS WEIGHT: 6400 lbs
 NSN: 5411-00-092-0892/Unshielded
 NSN: 5411-01-304-3069/EMI Shielded

NAME: Shelter, Tactical, Nonexpandable (ISO)
 DESCRIPTION: This mobile shelter is typically used for work-in/live-in space. The shelter conforms to ISO standards for material handling equipment and can be transported by all modes of transportation including cargo container ships.
 SPECIFICATION: MIL-S-44196
 INTERIOR DIMENSIONS: 7'1" H x 7'7" W x 19' L
 EXTERIOR DIMENSIONS: 8' H x 8' W x 20' L
 TARE WEIGHT: 3900 lbs
 PAYLOAD: 11,100 lbs

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GROSS WEIGHT: 15,000 lbs
 EMI SHIELDED: No
 NSN: 5411-01-136-9837/60 AMP
 NSN: 5411-01-294-6390/100 AMP

5.1.1.2 Marine Corps shelters. The following is a list of available Marine Corps. nonexpandable tactical shelters. For further information or guidance, contact Marine Corps. Research, Development and Aquisition Command, ATTN: Code SSCGP, Washington, D.C. 20380-0001.

NAME: Shelter Assembly, 10 Foot (ISO)
 SPECIFICATION: MIL-S-29411
 INTERIOR DIMENSIONS: 7'2" H x 7'6" W x 9' L
 EXTERIOR DIMENSIONS: 8' H x 8' W x 10' L
 TARE WEIGHT: 2670 lbs
 PAYLOAD: 3500 lbs
 GROSS WEIGHT: 6170 lbs
 EMI SHIELDED: Yes
 NSN: 5411-01-206-6079

NAME: Shelter Assembly, 20 Foot (ISO)
 SPECIFICATION: MIL-S-29411
 INTERIOR DIMENSIONS: 7'2" H x 7'6" W x 19'1" L
 EXTERIOR DIMENSIONS: 8' H x 8' W x 20' L
 TARE WEIGHT: 4180 lbs
 PAYLOAD: 7000 lbs
 GROSS WEIGHT: 11,180 lbs
 EMI SHIELDED: Yes
 NSN: 5411-01-206-6078

NAME: Shelter Assembly, Rigid, General Purpose
 SPECIFICATION: MIL-S-29410
 INTERIOR DIMENSIONS: 7'1" W x 7'5" H x 19' L
 EXTERIOR DIMENSIONS: 8' H x 8' W x 20' L
 TARE WEIGHT: 3900 lbs
 PAYLOAD: 7000 lbs
 GROSS WEIGHT: 10,900 lbs
 EMI SHIELDED: No
 NSN: 5411-01-209-3451

5.1.1.3 Navy shelters. The following is a list of available Navy nonexpandable tactical shelters. For further information or guidance, contact Naval Air Systems Command, ATTN: AIR-41712A, Washington, D.C. 20361.

NAME: Basic Mobile Facility, Type A (ISO)
 DESCRIPTION: Two removable end doors and one removable ECU access panel.
 INTERIOR DIMENSIONS: 84.3" H x 89.81" W x 232.3" L
 EXTERIOR DIMENSIONS: 96" H x 96" W x 238" L

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TARE WEIGHT: 5,035 lbs
 PAYLOAD: 14,965 lbs
 GROSS WEIGHT: 20,000 lbs
 EMI SHIELDED: No
 PART NO. 1339AS700-1 (30003)

NAME: Basic Mobile Facility, Type B (ISO)
 DESCRIPTION: This mobile shelter typically has two removable end doors and one removable ECU access panel.
 INTERIOR DIMENSIONS: 84.3" H x 89.81" W x 232.3" L
 EXTERIOR DIMENSIONS: 96" H x 96" W x 238" L
 TARE WEIGHT: 5,235 lbs
 PAYLOAD: 14,765 lbs
 GROSS WEIGHT: 20,000 lbs
 EMI SHIELDED: No
 PART NO. 1339AS701-1 (30003)

NAME: Integration Unit Mobile Facility (ISO)
 DESCRIPTION: This mobile shelter typically has two removable end doors and three removable side panels for complexing.
 INTERIOR DIMENSIONS: 84.3" H x 89.81" W x 232.3" L
 EXTERIOR DIMENSIONS: 96" H x 96" W x 238" L
 TARE WEIGHT: 5,865 lbs
 PAYLOAD: 14,135 lbs
 GROSS WEIGHT: 20,000 lbs
 EMI SHIELDED: No
 PART NO. 1339AS900-2 (30003)

NAME: Side Opening Mobile Facility, Type A (ISO)
 DESCRIPTION: This mobile shelter typically has two removable end doors, one removable side-wall panel for side-to side complexing, and two removable ECU access panels.
 INTERIOR DIMENSIONS: 84.3" H x 89.81" W x 232.3" L
 EXTERIOR DIMENSIONS: 96" H x 96" W x 238" L
 TARE WEIGHT: 5,350 lbs
 PAYLOAD: 14,650 lbs
 GROSS WEIGHT: 20,000 lbs
 EMI SHIELDED: No
 PART NO. 1399AS500-1 (30003)

NAME: Side Opening Mobile Facility, Type B (ISO)
 DESCRIPTION: This mobile shelter typically has one personnel access side door, one removable sidewall panel for side-to side complexing, and two removable ECU access panels.
 INTERIOR DIMENSIONS: 84.3" H x 89.81" W x 232.3" L
 EXTERIOR DIMENSIONS: 96" H x 96" W x 238" L
 TARE WEIGHT: 5,221 lbs
 PAYLOAD: 14,779 lbs
 GROSS WEIGHT: 20,000 lbs

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EMI SHIELDED: No
PART NO. 1339AS501-1 (30003)

NAME: Side Opening Mobile Facility, Type C (ISO)
DESCRIPTION: This mobile shelter typically has one removable end door,
and two removable sidewall panels for side-to side complexing.
INTERIOR DIMENSIONS: 84.3" H x 89.81" W x 232.3" L
EXTERIOR DIMENSIONS: 96" H x 96" W x 238" L
TARE WEIGHT: TBD
PAYLOAD: TBD
GROSS WEIGHT: 20,000 lbs
EMI SHIELDED: No
PART NO. 1339AS1100

5.1.2 Expandable tactical shelters.

5.1.2.1 Army shelters. The following is a list of available Army expandable tactical shelters. For further information or guidance, contact U.S. Army Natick Research, Development and Engineering Center, ATTN: STRNC-UDT, Natick, MA 01760-5014.

NAME: Shelter, Tactical, Expandable, One Side (ISO)
DESCRIPTION: This mobile shelter is typically used for work-in/live-in space. The shelter conforms to ISO standards for material handling equipment and can be transported by all modes of transportation including cargo container ships.
SPECIFICATION: MIL-S-44197
INTERIOR DIMENSIONS: (CLOSED) 7'1" H x 7' W x 19'1" L
INTERIOR DIMENSIONS: (EXPANDED) 7'1" H x 14'6" W x 18'4" L
EXTERIOR DIMENSIONS: 8' H x 8' W x 20' L
TARE WEIGHT: 5500 lbs
PAYLOAD: 9500 lbs
GROSS WEIGHT: 15,000 lbs
EMI SHIELDED: No
NSN: 5411-01-124-1377/60 AMP
NSN: 5411-01-295-3433/100 AMP

NAME: Shelter, Tactical Expanded, Two Sided (ISO)
DESCRIPTION: This mobile shelter is typically used for work-in/live-in space. The shelter conforms to ISO standards for material handling equipment and can be transported by all modes of transportation including cargo container ships.
SPECIFICATION: MIL-S-44195
INTERIOR DIMENSIONS: (CLOSED) 7'1" H x 6'5" W x 19'1" L
INTERIOR DIMENSIONS: (EXPANDED) 7'1" H x 21'6" W x 18'4" L
EXTERIOR DIMENSIONS: 8' H x 8' W x 20' L
TARE WEIGHT: 6900 lbs
PAYLOAD: 8100 lbs
GROSS WEIGHT: 15,000 lbs

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EMI SHIELDED: No
 NSN: 5411-01-136-9838/60 AMP
 NSN: 5411-01-294-9866/100 AMP

5.1.2.2 Air Force shelters. The following is a list of available Air Force expandable tactical shelters. For further information or guidance, contact USAF Shelter Technology Office, ATTN: ESD/AVMS, Hanscom AFB, MA 01731.

NAME: S-530 (A)/G
 DESCRIPTION: Configured shelters are intended for use as electrical maintenance shops. Designed for transport by mobilizer, fixed wing aircraft, rail or ship. Can be operated as a single self-contained unit or two shelters can be mated to give approximately three times the work area of a single. To expand, side panel forms roof or floor and the extra end panel of each shelter forms wall surfaces.
 SPECIFICATION: Goodyear Aerospace Corp (CAGE 99696) drawing package
 INTERIOR DIMENSIONS: (CLOSED) 6'9" H x 6'7" W x 11'5" L
 INTERIOR DIMENSIONS: (EXPANDED) 6'9" H x 20'4" W x 11'5" L
 EXTERIOR DIMENSIONS: 7'6" H x 7'3" W x 12'2" L
 TARE WEIGHT: 2000 lbs
 PAYLOAD: 4500 lbs
 GROSS WEIGHT: 6500 lbs
 EMI SHIELDED: Yes
 NSN: 5410-01-072-2517, P/N 3142110-001-103 (unconfigured)
 NSN: 5410-01-279-5498, P/N 3142110-001-107, Type II - 400 Hz
 NSN: 5410-01-280-2909, P/N 3142110-001-109, Type I - 60 Hz

5.1.3 Knockdown shelters.

5.1.3.1 Marine Corps shelters. The following is a list of available Marine Corps knockdown tactical shelters. For further information or guidance, contact Marine Corps Research, Development and Acquisition Command, ATTN: Code SSCGP, Washington, D.C. 20380-0001.

NAME: 8 x 8 x 20 ISO
 SPECIFICATION: MIL-S-29409
 INTERIOR DIMENSIONS: 7'1" H x 7'5" W x 19' L
 EXTERIOR DIMENSIONS: (KNOCKDOWN) 1'9" H x 8' W x 19'10-1/2" L
 TARE WEIGHT: 3650 lbs
 GROSS WEIGHT: 3650 lbs
 EMI SHIELDED: No
 NSN: 5411-00-206-6077

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful but not mandatory.)

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6.1 Intended use. This document is intended as a single point of reference for all DOD tactical rigid wall shelters approved for military use. This document is not meant to substitute for the individual shelter specifications, but to serve as a guide to the available shelters.

6.2 Issue of DODISS. When this document is used in acquisition, the applicable issue of the DODISS must be cited in the solicitation.

6.3 Bare Base Expandable Shelter/Container (ES/C). The Bare Base Expandable Shelter/Container (ES/C) is a tactical rigid wall shelter which is approved for military use (bare base only). The HarvestBare family of shelters was approved for a waiver by JACOTAS on 8 May 1981.

6.4 Subject term (key word) listing.

Cover
Expandable
ISO
Knockdown
Nonexpandable
Protection
Tactical

Custodians:

Army - GL
Navy - MC
Air Force - 99

Preparing activity:

Army - GL
(Project 5411-0036)

Review activities:

Navy - AS
Air Force - 84

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
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NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-STD-911	2. DOCUMENT DATE (YYMMDD) 1990 June 29
3. DOCUMENT TITLE STANDARD FAMILY TACTICAL RIGID WALL SHELTERS		
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)		
5. REASON FOR RECOMMENDATION		
6. SUBMITTER		
a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (if applicable)	e. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY		
f. NAME S. Army Natick RD&E Center	g. TELEPHONE (Include Area Code) (1) Commercial 508-651-5221	(2) AUTOVON 256-5221
h. ADDRESS (Include Zip Code) Commander, U.S. Army Natick RD&E Center ATTN: STRNC-ES Natick, MA 01760-5014	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	

