
APPENDIX 1 TO ANNEX A
TECHNICAL REQUIREMENT SPECIFICATION
FOR THE PROCUREMENT OF
PERSONAL FLOTATION DEVICE- CADET VEST (PFD-CV)

CONTRAT NO: W8486-249619/A

1.0 SCOPE

1.1 Purpose

1.1.1 This Technical Specification describes the requirements for the Personal Flotation Device- Cadet Vest.

1.2 List of Acronyms and Abbreviations

| Abbreviation | Description |
|---------------------|---------------------------------------|
| CA | Contracting Authority |
| CFSD | Canadian Forces Supply Depot |
| CIC | Cadet Instructor Cadre |
| COTS | Commercial-Off-The-Shelf |
| DND | Department of National Defence |
| IUID | Item Unique Identification |
| NSN | NATO Stock Number |
| PFD-CV | Personal Flotation Device- Cadet Vest |
| QTY | Quantity |
| RFP | Request for Proposal |
| SOW | Statement of Work |
| TA | Technical Authority |
| TC | Transport Canada |
| ULC | Underwriters Laboratories Canada |

Figure 1 List of Acronyms and Abbreviations

1.3 Terminology

1.3.1 Certificate of Conformity- A certificate that is given to products that meet a minimum set of safety, regulatory and technical requirements.

1.3.2 Certification- an element of verification that utilizes already existing, previously completed, detailed and customer approved qualification tests, including procedures and results, for products or components of products determined to be Commercial-Off-The Shelf (COTS), to provide evidence that the stated requirements are met.

1.3.3 Verification- An action performed to establish and to document that a product, service, or system meets the requirements of the contract.

2.0 APPLICABLE DOCUMENTS

2.1 References

2.1.1 The following references are provided with the Request for Proposal (RFP). Where mentioned, the following Standards must be used for the preparation of deliverables to the extent specified in this SOW.

2.1.1.1 DND Specifications, Standards and Publications:

| REFERENCE | PROMULGATION | REFERENCE TITLE |
|-------------------------------------|--------------|---|
| D-02-002-001/SG-001 | 2021-06-30 | IDENTIFICATION MARKING FOR DND MATERIELS PROPERTY |
| D-LM-008-036/SF-000 | 2020-09-30 | SPECIFICATION FOR MINIMUM REQUIREMENTS FOR MANUFACTURER'S STANDARD PACK |

Figure 2 DND Specifications, Standards and Publications

2.1.1.2 Other Standards and Publications

| REFERENCE | PROMULGATION | REFERENCE TITLE |
|---------------------------|--------------|--|
| ANSI/CAN/UL 124025:2015 | 2019 | PERSONAL FLOTATION DEVICES- PART 5: BUOYACY AIDS (LEVEL 50)- SAFETY REQUIREMENTS |
| CAN/CGSB-65.11-M88 | 1972 | STNADARD FOR PERSONAL FLOTATION DEVICES |
| CAN/CGSB-65.19-2004 | 2004 | TEXTILE COMPONENTS OF LIFE JACKETS AND PERSONAL FLOTATION DEVICES |
| TP 14475E | 2010 | CANADIAN LIFE SAVING APPLIANCE STANDARD |

Figure 3 Other Standards and Specifications

2.2 Order of Precedence

2.2.1 In the event of a conflict between the content of this SOW and the referenced documents, the content of the SOW takes precedence.

2.2.2 The Technical Authority (TA) must be advised immediately of a requirement of this SOW is deemed incompatible with the standards listed in para 2.

3.0 REQUIREMENTS

3.1 Performance Requirements

3.1.1 The PFD-CV must be compliant with CAN/CGSB-65.11-M88. It must be a Type 1, inherently buoyant, personal flotation device with a minimum 69 N (15.5 pounds-force (lbf)) buoyancy rating.

3.1.2 The PFD-CV must meet the requirements of TP 14475 Canadian Life Saving Appliance Standard and be approved by Transport Canada.

3.1.3 When correctly worn, sized and adjusted to fit as indicated in its label, the PFD-CV must provide buoyancy to support a conscious person in an upright or backward-inclined position. The PFD-CV is not required to turn a conscious or unconscious person from the face-down position in the water.

3.1.4 The PFD-CV must have no tendency to turn the wearer from a safe, face-up position to a face-down position in the water nor shall it inhibit a wearer from turning and positioning themselves to a safe floating position.

3.2 Design

3.2.1 The PFD-CV must be a Commercial-Off-The-Shelf (COTS) product. The full offering of PFD-CV must be of one model for all sizes.

3.2.2 The PFD-CV must be comfortable, non-restrictive of motion and vision, and non-bulky as is consistent with the performance.

3.2.3 The PFD-CV must be a Type 1, inherently buoyant PFD which is intended for use by those who are competent swimmers and who are near to bank or shore, or who have help and a means of rescue close at hand.

3.2.4 The PFD-CV must be suitable for water activities such as canoeing, kayaking, and small vessel sailing.

3.2.5 The PFD-CV must be a vest-style and must not include a collar.

3.2.6 The front opening of the PFD-CV must be fastened with a slide fastener.

3.2.7 The PFD-CV must incorporate strapping (webbing straps) and fastenings (buckles) to ensure proper adjustment, both in and out of the water, to the size declared on the label.

3.2.7.1 The PFD-CV must include no more than three strappings and fastenings to adjust the PFD-CV to the wearer's torso.

3.2.7.2 The PFD-CV must include strappings at the shoulders to adjust the length of the PFD-CV to the wearer's body.

3.2.7.3 The PFD-CV strappings (used for size adjustments) must remain firmly engaged in the fastenings when pulled.

3.2.8 The PFD-CV design must include, at minimum, one (1) pocket, with slide fastener closure, for storage of personal items.

3.2.9 The PFD-CV must incorporate the DND logo shown in Figure 4.

3.2.9.1 The DND logo must be centred on the outer back panel of the PFD-CV.

3.2.9.2 The DND logo must be embroidered, or silk screened in the colour black.

3.2.9.3 The letters of the DND logo must be block letters that are 7.62 centimetres (3 inches) in height.

3.2.9.4 The DND logo must include a maple leaf using AltCode Unicode design “ALT 127809”.

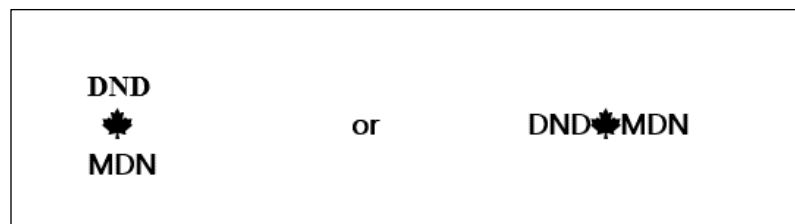


Figure 4 DND Logo

3.3 Size Requirements

3.3.1 The PFD-CV must meet the size requirements provided in Figure 5.

| CHEST SIZE RANGE | SIZE DESIGNATION | COLOUR |
|----------------------------------|---|--------|
| 76 cm- 81 cm (30-32 inches) | EXTRA- SMALL | RED |
| 81 cm- 101 cm (32-40 inches) | SMALL/ MEDIUM | ORANGE |
| 101 cm- 121 cm (40-48 inches) | LARGE/ EXTRA-LARGE (XL) | YELLOW |
| 106 cm- 142 cm (48-56 inches) | EXTRA-LARGE (XL)/ EXTRA- EXTRA LARGE (XXL) | RED |

Figure 5 Chest Size and Colour Requirements

3.4 Hardware and Fasteners

3.4.1 Hardware and fasteners must be compatible and of a size and strength consistent with the intended design activity and must be located to enhance the wearability of the device. The hardware and fasteners must be composed of a corrosion resistant material. Hardware must not damage other components of the PFD-CV.

3.5 Textiles

3.5.1 The PFD-CV must be manufactured from materials that meet all the requirements of CAN/CGSB-65.19- Textile Components of Life Jackets and Personal Flotation Devices.

3.6 Colour

3.6.1 The primary colour of the PFD-CV outer shell must correspond by size, to the colours stated in Figure 5.

3.6.2 The outer shell may incorporate a coordinating colour (example: primarily red outer shell with black accents). The coordinating colour must be limited to no more than 25% of the overall outer shell surface.

3.6.3 The colour of the PFD-CV lining must coordinate with the outer shell.

3.7 Labelling and Marking

3.7.1 The PFD-CV must have a label, affixed to the lining, that includes detailed information, in English and French as stated in CAN/ CGSB 65.11-M88, paragraph 6.1. At minimum, the label must include the following information:

PERSONAL FLOTATION DEVICE

Designed for chest size ___ to ___ cm
Manufactured by (Manufacturer's Name)
In (month and year of mfg) Lot Number ____
To conform to standard
CAN/ CGSB-65.11-M88, Type ____
Buoyancy, 69N minimum
(15-1/2 pounds-force)
Approved by Department of Transport
Canada
Approval No. _____

VETEMENT DE FLOTTAISON INDIVIDUELLE

Tour de poitrine, de ___ a ___ cm
Fabriqué par (nom du fabricant)
En (mois et année de fabrication)
Numéro du lot ___ conforme au type ____
De la norme CGSB-65.11-M88
Flottabilité minimale, 69 N
(15 ½ livres-forces)
Approuvé par le Ministère des Transports du Canada
NO d'approbation _____

3.7.2 As per CAN/CGSB 65.11-M88, the label must include a diagram or sketch showing how the PFD is to be worn. The following paragraph must also be included in English and French:

This PDF is designed to be worn
WEAR IT!

CAUTION:

This device may lose buoyancy over a period of time and become no longer serviceable. The in-water performance should be checked regularly during each season to determine that it provides adequate buoyancy for your needs.

Ce vêtement est conçu pour votre sécurité.
PORTEZ-le!

AVERTISSEMENT :

Ce dispositif peut perdre de sa flottabilité après un certain temps et devenir inutilisable. Sa tenue en service dans l'eau devrait donc être vérifiée régulièrement au cours de chaque saison afin de s'assurer que la flottabilité offerte convient aux besoins des utilisateurs.

3.8 Identification

3.8.1 Each PFD-CV must include an identification label to meet the requirements of D-02-002-001/SG-001.

3.8.1.1 The identification label must be affixed to the lining of the PFD-CV and include the following information in English and French:

Item Description
Manufacturer's Part Number (MPN) : NATO Commercial and Government Entity (NCAGE) code
Size
Contract Number and Date of Manufacture (DoM) in the following format DD-MM-YYYY
Contractor Name or recognized Logo

3.8.1.2 An example of the label follows:
Personal Flotation Device- Cadet Vest (Vetement de Flottaison Individuel- Cadet)
XXXXXX-X :L01L1
Size : SMALL
W8486-XXXXXX DoM : 02-03-2023
ACME Flotation Inc.

3.9 Information Sheet and Maintenance Instructions

3.9.1 As described in CAN/CGSB 65.11-M88, in addition to the brief instructions marked permanently on the PFD, each PFD must have an attached sheet or booklet which contains the following minimum information in English and French:

3.9.1.1 Requirements for the carriage if PFDs or alternate flotation devices under the Small Vessel Regulations; and

3.9.1.2 Reference to the performance that may be expected:

3.9.1.2.1 Buoyancy

3.9.1.2.2 In-water performance

3.9.1.2.3 Areas of operation and suitability

3.9.1.2.4 Section on children

3.9.1.3 A special section to focus on the difficulties in floating children include the following **CAUTION: PARENTS ARE REMINDED THAT A PFD IS NOT A SUBSTITUTE FOR ADULT SUPERVISION.**

3.9.1.4 A section to include care and maintenance instructions for the PFD. It must also include a reference to in-water testing before the start of each boating season.

4.0 PACKAGING

4.1 The PDF-CV must be individually packaged and labelled for long-term storage.

4.2 Each box or shipping container must have a label affixed to it with the information prescribed in para 3.8.