



PROJECT PERFORMANCE  
INTERNATIONAL

**EXAMPLE STATEMENT OF WORK (SOW)**

**SUBMARINE EMERGENCY COMMUNICATION BUOY USER TRAINING**

**PPI-005604-2**

**28 June 2014**

## FOREWORD

This example Statement of Work (SOW), developed by Project Performance International (PPI), is a part of PPI's documentation in support of its consulting and training activities with clients.

This document is intended to serve as an example of the nature of a requirements specification defining one or more required services. The requirements specification is intended to drive procurement and/or development of the service, as well as subsequent verification and acceptance.

The SOW specifies the solution-free requirements to be satisfied by the service provider in any service solution. The SOW may also specify goals to be pursued during procurement and/or service development (if applicable) and delivery. The SOW may also contain process direction, that is, direction as to *how* the service is to be provided, where it is considered that such direction would reduce risk to the acquirer.

The SOW is the single most important artefact in procurement or development of one or more service elements which is/are the subject of the SOW. Creation, capture and specification of the information content of the SOW should be done with the utmost care, and with appropriate skills applied, to avoid problems such as:

- services that do not satisfy the needs of the acquirer at all, or fall significantly short of satisfying the needs;
- avoidable inaccuracies in cost estimation; and
- delays due to contractual dispute, rework, or the need to undertake supplementary procurements.

This example SOW is for User Training in relation to a submarine Emergency Communication Buoy (ECB). The nature with the example service – safety critical – necessitates a fairly high standard of specification of requirements; this is reflected in the example.

The basic SOW structure and sentence constructs of the example should be used as guidance, regardless of the size or value of the service(s) being specified, and their criticality or otherwise.

The requirements and organisations referred to in the example SOW are fictitious.

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# SUBMARINE EMERGENCY COMMUNICATION BUOY USER TRAINING

## STATEMENT OF WORK

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## **1. INTRODUCTION AND SCOPE**

### **1.1. Identification**

This Statement of Work (SOW) is a requirements specification for the delivery of User Training in relation to an Emergency Communications Buoy (ECB), hereinafter referred to as “the Buoy”, to be acquired by the Royal Botswan Navy (RBN).

The User Training relates to two variants of the Buoy:

- a. Type A Buoy      RF Buoy only; and
- b. Type B Buoy      RF Buoy with Strobe Light.

Unless otherwise stated, all requirements in 4 “REQUIREMENTS” relate the User Training to both the Type A Buoy and the Type B Buoy, therein referred to as “the Buoy”. Where a distinction applies, the terms “Type A Buoy” and “Type B Buoy” are used, as applicable.

The SOW does not specify requirements on any data deliverables - these are specified separately in a Contract Data Requirements List (CDRL) and by associated Data Item Descriptions (DIDs) which are invoked by the CDRL. However, data deliverables to be created by the work tasks specified herein are referred to in this SOW.

### **1.2. Purpose of the Training**

The User Training is a part of the solution to the provision of a Submarine Search and Rescue Capability (SSCR) for the Royal Botswan Navy. The Buoy is used within that solution to communicate the existence and nature of an emergency from a submarine in distress to one or both of two families of maritime emergency communications satellites, GEOSAT and LEOSAT. The Buoy is subsequently used in the conduct of the response to the emergency, by emitting a radio frequency signal that is homed in on by search resources, to find the submarine. The Type B Buoy will also emit a strobe light, to aid visual sighting. The intended use of the Buoy is described in detail in “Concept of Use (CONUSE) for a Submarine Emergency Communication Buoy”.

The purpose of the User Training is to ensure that all crew of the two types of submarine involved, Oberon Class and Collins Class, are capable of operating and loading both types of Buoy in emergency circumstances, without any perceptible reduction of probability of rescue as a result of lack of training. It is intended that the formal training specified herein will be complemented by regular on-board drills (outside of the scope of this SOW).

A second purpose of the User Training is to ensure that designated crew of the two types of submarine involved, Oberon Class and Collins Class, are capable of maintaining the Buoy in a state or readiness for use in an emergency situation.

## **2. APPLICABLE AND OTHER REFERENCED DOCUMENTS**

### **2.1. Applicable Documents**

The following documents form a part of 4 “REQUIREMENTS”, to the extent specified therein.

Where a conflict exists between a requirement in 4 “REQUIREMENTS” and the content of an Applicable Document as listed below, the requirement in 4 “REQUIREMENTS” shall have precedence to the extent of the conflict.

*Note: Where the user of this SOW identifies a conflict between 4 “REQUIREMENTS” and an Applicable Document, the user of this SOW should inform the RBN without delay.*

Where no issue or release number is identified explicitly for an Applicable Document, the issue shall be the issue in effect at the date of issue of this SOW.

Applicable documents are:

- a. "Concept of Use (CONUSE) for a Submarine Emergency Communication Buoy";
- b. ECB Operators Manual; and
- c. TBD, RBN Training Policy Manual.

## 2.2. Other Referenced Documents

The following documents, although not invoked in 4 "REQUIREMENTS", are referred to in this document:

- a. TBD, "Contract Data Requirements List (CDRL) for ECB User Training".

## 3. DEFINITIONS, ACRONYMS AND ABBREVIATIONS

### 3.1. Definitions

The following definitions shall be used in the interpretation of this document:

**Contract** means a legally binding agreement, between the BDF and the Contractor, which invokes this SOW for the specification of services, deliverable or otherwise, to be performed by the Contractor under the Contract.

**Contractor** means the legal entity contracted to the BDF to deliver the services specified herein, as well as related deliverables.

**Deliverable** means any product, service, data item or other item that the Contractor has a legal obligation to supply to the BDF under the Contract.

**Effective Date** means the date on which the Contract came into legal effect.

**Week** means a calendar week of seven consecutive days.

The following additional definitions shall be used in the interpretation of this document:

- a. **Shall** expresses a characteristic which is to be present in the work which is the subject of the SOW, i.e. "shall" expresses a requirement which is intended to be contractually binding.
- b. **Should** expresses a non-binding preference or goal.
- c. **May** expresses permissive guidance.
- d. **Will** expresses a declaration of intent on the part of the BDF. "Will" does not express a requirement or goal. "Will" may also be used in cases where the simple future tense is needed.

The Concise Oxford English Dictionary shall be used in the interpretation of terms used in 4 "REQUIREMENTS" which are not otherwise defined above.

### 3.2. Acronyms

The acronyms used in this document shall be interpreted as follows:

**CDRL** means Contract Data Requirements List  
**CFE** means Crown Furnished Equipment  
**DID** means Data Item Description  
**ECB** means Emergency Communications Buoy  
**HQ** meant Headquarters  
**OEM** means Original Equipment Manufacturer

|            |   |
|------------|---|
| <b>RBN</b> | means Royal Botswan Navy  |
| <b>RF</b>  | means Radio Frequency   |
| <b>SAR</b> | means Search and Rescue   |
| <b>SOW</b> | means Statement of Work   |
| <b>SSE</b> | means Submerged Signal Ejector  |
| <b>TBD</b> | means To Be Determined (i.e., to be provided in writing by the RBN at a later date) |

### **3.3. Abbreviations**

The abbreviations used in this document shall be interpreted as follows:

**CONUSE** means Concept of Use

## **4. REQUIREMENTS**

### **4.1. Do All Things Necessary**

The Contractor shall do all things necessary to supply the deliverables under the Contract, whether explicitly referred to in this SOW or incidental, including but not limited to: travel; investigation; obtaining of licenses, permissions and regulatory approvals; planning; preparation; design; development; construction; verification; validation; maintenance; and delivery. (REQID 001)

### **4.2. Conduct Stakeholder Conference**

#### **4.2.1. Task Inputs and Input Sources**

The RBN will supply the following inputs to this task:

- a. upon request, notification of acceptable dates for the Stakeholder Conference;
- b. conference meeting room, data projection, incidental facilities and limited catering;
- c. relevant RBN personnel to attend the Stakeholder Conference; and
- d. responses to questions raised by the Contractor at the conference.

#### **4.2.2. Function and Performance Requirements**

##### **4.2.2.1. Arrange Conference Task**

The Contractor shall arrange a stakeholder conference at the RBN Training Command Headquarters (HQ) in Nemo City, of duration at least one day, on a date accepted in writing by the RBN and no more than 45 days after the Effective Date, to be conducted in order for the Contractor to determine from RBN personnel the Buoy operating environment, the RBN training environment, and to ask any questions that the Contractor may have of the RBN, such as to ensure that the subsequent training is fit for its purpose. (REQID 002)

##### **4.2.2.2. Notify Conference Details Task**

The Contractor shall provide to the RBN Training Command formal notification by email of the date, place and agenda of the stakeholder conference, with at least 4 weeks notice. (REQID 003)

##### **4.2.2.3. Conduct Conference Task**

The Contractor shall conduct the stakeholder conference at the place and on the date advised. (REQID 004)

#### **4.2.2.4. Prepare Conference Report Task**

The Contractor shall prepare a Stakeholder Conference Report (CDRL 01). (REQID 005)

#### **4.2.3. Task Outputs**

Outputs of this task are to include:

- a. any questions from the Contractor to the RBN; and
- b. Stakeholder Conference Report (CDRL 01).

#### **4.3. Training Needs Analysis**

##### **4.3.1. Task Inputs and Input Sources**

The RBN will supply the following inputs to this task:

- a. copy of the ECB Operators Manual as supplied by the OEM;
- b. "Concept of Use (CONUSE) for a Submarine Emergency Communication Buoy", containing details of the classifications and the relevant characteristics of submarine crew, including their existing learning;
- c. RBN Training Policy Manual;
- d. if a Draft Training Needs Analysis Report is approved, notification of that approval;
- e. if a Draft Training Needs Analysis Report is disapproved, notification of that disapproval together with the reasons for disapproval; and
- f. responses to questions raised by the Contractor.

##### **4.3.2. Function and Performance Requirements**

###### **4.3.2.1. Conduct Training Needs Analysis – Readiness Task**

The Contractor shall conduct an analysis to determine gaps between designated submarine crew existing capability and the needed capability for designated submarine crew members to periodically assess the state of readiness of the Buoy for operational use, depending on the result of that assessment decide on the course of action, and if not ready for operational use, perform the following tasks as applicable: designate the Buoy as unserviceable, replace any depleted battery, replace and recharge any depleted battery, while complying with OEM recommendations and within the constraints on resources in the operational submarine environment. (REQID 006)

###### **4.3.2.2. Conduct Training Needs Analysis – Emergency Task**

The Contractor shall conduct an analysis to determine gaps between submarine crew existing capability and the needed capability for each member of a submarine crew, possibly in isolation and possibly injured, to be able to: decide whether to prepare a Buoy, decide which type of Buoy to prepare (Type A or Type B), retrieve a Buoy from storage, make a decision as to whether to program the Buoy or not, program the Buoy (if applicable), make a decision as to whether to test the Buoy, test the Buoy, make a decision as to course of action depending on test results, load the Buoy, activate the Buoy launch function, assess whether the Buoy has launched correctly, and make a decision as to course of action depending on assessment of the success of the launch. (REQID 007)

###### **4.3.2.3. Prepare Draft Training Needs Analysis Report Task**

The Contractor shall prepare a Draft Training Needs Analysis Report to the RBN Training Command for review and consideration for approval by RBN Training Command (CDRL 02). (REQID 008)

#### **4.3.2.4. Revise Training Needs Analysis Report Task**

The Contractor, if approval of the Draft Training Needs Analysis Report is withheld by RBN Training Command, shall act upon the reasons advised by RBN Training Command for disapproval, and prepare a revised Draft Training Needs Analysis Report (CDRL 02). (REQID 009)

#### **4.3.2.5. Final Training Needs Analysis Report Task**

The Contractor, having received RBN approval of a Draft Training Needs Analysis Report, shall prepare a final Training Needs Analysis Report (CDRL 02). (REQID 010)

#### **4.3.3. Task Outputs**

Outputs of this task are to include:

- a. any questions from the Contractor of the RBN;
- b. Draft Training Needs Analysis Report(s) (CDRL 02); and
- c. when approved, approved Training Needs Analysis Report (CDRL 02).

#### **4.4. Develop Training.**

##### **4.4.1. Task Inputs**

The RBN will supply the following inputs to this task:

- a. approved Training Needs Analysis Report;
- b. responses to questions raised by the Contractor;
- c. Type A ECB, supplied as CFE;
- d. Type B ECB, supplied as CFE;
- e. review comments on the data item content of the initial Training Materials Package;
- f. review comments on the data item content of the revised initial Training Materials Package;
- g. review comments on the Training Materials Package used in the simulated training delivery;
- h. review comments on the post simulated training delivery revised Training Materials Package; and
- i. when approved, approval of the Training Materials Package.

##### **4.4.2. Function and Performance Requirements**

###### **4.4.2.1. Develop Initial Training Materials Task**

The Contractor shall develop an initial Training Materials Package that satisfies the training needs as documented in the approved Training Needs Analysis Report, when delivered in a training school (non-submarine) environment, by trainers who are experienced in submarine operations but who are otherwise unfamiliar with the training materials (CDRL 03). (REQID 011)

###### **4.4.2.2. Develop Initial Training Materials Task**

The Contractor shall incorporate within the Training Materials Package a process with any supporting materials that assesses the effectiveness of the training with respect to the training need, on a trainee by trainee basis.



#### **4.4.2.3. Revise Initial Training Materials Task**

The Contractor shall update the initial Training Materials Package in response to any feedback from the RBN Training Command arising from its review of the initial Training Materials Package (CDRL 03). (REQID 012)

#### **4.4.2.4. Simulate Training Delivery Task**

The Contractor shall conduct a simulated delivery of the training, using the extant Training Materials Package after any revision arising from RBN Training Command review, to four or fewer (at the discretion of the RBN) nominated RBN personnel. (REQID 013)

#### **4.4.2.5. Revise Training Materials Post-Simulation Task**

The Contractor shall update the Training Materials Package used in simulated delivery of the training in response to any feedback from the RBN Training Command arising from its participation in the simulated training delivery (CDRL 03). (REQID 014)

#### **4.4.3. Task Outputs**

Outputs of this task are to include:

- a. the data item content of the initial Training Materials Package (CDRL 03);
- b. the data item content of the revised initial Training Materials Package (CRDL 03);
- c. simulated training of RBN personnel;
- d. the data item content of the post simulated training Training Materials Package (CRDL 03);  
and
- e. approved Training Materials Package (including CDRL 03).

#### **4.4.4. Other Qualities of the Training Development**

##### **4.4.4.1. Compliance With RBN Training Policy**

The Contractor shall develop the Training Materials Package consistent with RBN training policy as documented in the version of the RBN Training Policy Manual in effect at the Effective Date. (REQID 025)

##### **4.4.4.2. Compliance with Security Directives**

The Contractor shall comply with all RBN security directives in conduct of the training development task. (REQID 027)

#### **4.5. Deliver Training**

##### **4.5.1. Task Inputs**

The RBN will supply the following inputs to this task:

- a. upon request, notification of acceptable dates for training delivery;
- b. confirmation of scheduled training dates;
- c. training room in Nemo City, data projection, mains power for any training equipment needing power, incidental facilities and limited catering;
- d. RBN submariner trainees – readiness training;
- e. RBN submariner trainees – emergency operation training;
- f. review comments from past trainees; and
- g. any review comments from RBN Training Command on past training.

Note: Trainees may include RBN Training Command personnel and other BDF personnel.

#### **4.5.2. Function and Performance Requirements**

##### **4.5.2.1. Readiness Training Task**

The Contractor shall deliver one Buoy Readiness training course, using the approved Training Materials Package, for up to 20 trainees (number at the discretion of the BDF), at RBN Training Command Headquarters (HQ) in Nemo City, commencing on a date agreed in writing by the RBN no more that 270 days after the Effective Date. (REQID 015)

##### **4.5.2.2. Readiness Competence Assessment Task**

The Contractor shall assess the competence of each trainee who takes the Buoy Readiness training course, and was present for at least 90% of training delivery hours, using the competency assessment components of the approved Training Materials Package. (REQID 016)

##### **4.5.2.3. Readiness Competence Assessment Reporting Task**

The Contractor shall prepare a Buoy Readiness Competence Assessment Report in relation to each trainee whose buoy readiness competence is assessed (CDRL 04). (REQID 017)

##### **4.5.2.4. Readiness Competence Assessment Certification Task**

The Contractor shall issue a certificate to the RBN in the name of the trainee, for each trainee who passes the buoy readiness competence assessment (CDRL 05). (REQID 018)

##### **4.5.2.5. Emergency Operation Training Task**

The Contractor shall deliver three Buoy Emergency Operation training courses at RBN Training Command Headquarters (HQ) in Nemo City, each course using the approved Training Materials Package, each for up to 20 trainees (number at the discretion of the BDF), each commencing on a date agreed in writing by the RBN, commencing no more that 270 days after the Effective Date and the last course concluding no more than 365 days after the Effective Date. (REQID 019)

##### **4.5.2.6. Emergency Operation Competence Assessment Task**

The Contractor shall assess the competence of each trainee who takes the Buoy Emergency Operation training course, and was present for at least 90% of training delivery hours, using the competency assessment components of the approved Training Materials Package. (REQID 020)

##### **4.5.2.7. Emergency Operation Competence Assessment Reporting Task**

The Contractor shall prepare a Buoy Emergency Operation Competence Assessment Report for each trainee whose buoy emergency operation competence is assessed (CDRL 06). (REQID 021)

##### **4.5.2.8. Emergency Operation Competence Assessment Certification Task**

The Contractor shall issue a certificate to the RBN in the name of the trainee, for each trainee who passes the buoy emergency operation competence assessment (CDRL 07). (REQID 022)

##### **4.5.2.9. Training Materials Package Improvement Task**

The Contractor, if minor defects in training materials are identified during course delivery, shall update the Training Materials Package to correct those defects (CDRL 03). (REQID 023)

##### **4.5.2.10. Training Delivery Report Task**

The Contractor shall prepare a Training Delivery Report with respect to training delivered under the contract (CDRL 08). (REQID 024)

### **4.5.3. Task Outputs**

Outputs of this task are to include:

- a. trained RBN trainees – readiness training;
- b. RBN trainee competence assessments – readiness training, per trainee (CDRL 04);
- c. RBN trainee certificates - readiness training, per successful trainee (CDRL 05);
- d. trained RBN trainees – emergency use training;
- e. RBN trainee competence assessments – emergency use training, per trainee (CDRL 06);
- f. RBN trainee certificates – emergency use training, per successful trainee (CDRL 07);
- g. Training Delivery Report (CDRL 08); and
- h. any Contractor recommendations regarding future training deliveries.

### **4.5.4. Environmental Requirements**

The Contractor shall deliver the training in the RBN-provided facility provided ambient temperature within the room provided is within the range 18°C to 30°C inclusive. (REQID 029)

The Contractor, should the ambient temperature fall outside the range specified at REQID 029, may reschedule the training, or the balance of the training, as applicable.

### **4.5.5. Resource Requirements**

The Contractor shall not require more than 100m<sup>2</sup> of RBN-provided floor space for the delivery of each training course. (REQID 030)

The Contractor should not require more than 85m<sup>2</sup> of RBN-provided floor space for the delivery of each training course.

### **4.5.6. Other Qualities of the Training Delivery**

#### **4.5.6.1. Compliance With RBN Training Policy**

The Contractor shall conduct training delivery consistent with RBN training policy as documented in the version of the RBN Training Policy Manual in effect at the Effective Date. (REQID 026)

#### **4.5.6.2. Compliance with Security Directives**

The Contractor shall comply with all RBN security directives in conduct of the training delivery task. (REQID 028)