

**Requirement Specification for sub-supplier**

System Engineering-Company E

**Dismounted COP**

Prepared for:

Company F

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## **1 Introduction**

This document contains the requirements for the sub-contractor. The sub-contractor has to offer a proposal for at future Dismounted COP by no later than the 8<sup>th</sup> of October. The Dismounted COP must fulfil the provided requirements in this document.



## 2 Requirements

This chapter characterizes the requirements according to satisfy the system functionality and performance.




The purpose of this chapter is to specify the requirements and qualifications provisions to the system in order to obtain product acceptance.

All the requirements have the unique prefix identifier TPOD with a four-digit suffix.

### 2.1 Functional requirements


- TPOD-0001 The COP shall be able to interface with every existing communication systems within the involved domains. 
- TPOD-0002 The handheld device shall include a touch screen to interface the software
- TPOD-0003 It shall be possible to locate the handheld device at any time 
- TPOD-0004 The handheld device shall include features, which enables verbal communication with a mobile head quarter.
- TPOD-0005 The handheld device must be able to deploy firmware over-the-air (FOTA) technology.

### 2.2 Non-functional requirements

- TPOD-0006 The handheld device must cost less than 25000 Danish kroner.
- TPOD-0007 The handheld device must not weigh more than 1000g
- TPOD-0008 The screen on handheld device shall be between 10"-12"and shall in all cases comply with the 16:10 format.
- TPOD-0009 The handheld device shall be fully functional after a drop of 1 meter on concrete floor. This includes both software and hardware features. 
- TPOD-0010 The handheld device shall perform according to IP-67 classification.
- TPOD-0011 The battery in the handheld device shall be replaceable on sight and rechargeable by means of a 12V battery supply. 
- TPOD-0012 It shall be possible to interface all functionality of the handheld device by using your hands only and hands with gloves. 
- TPOD-0013 The handheld device shall be fully operational in the temperature range of: -25 – 80 °C.

### 2.3 Performance requirements

- TPOD-0014 The battery in the handheld device shall last for at least 12 hours of operation.

TPOD-0015 The display shall be readable in direct sunlight and the sub-supplier shall evaluate the best possible technology for a screen that performs a minimum of 1000 cd/m<sup>2</sup>. 

TPOD-0016 The handheld device shall as minimum contain a general purpose 1GHz processor and 512MB Ram and 420MHz dedicated DSP processor.

### 3 Verification strategy/Qualifications provisions

This chapter will describe how project unique requirements shall be verified.

#### 3.1 Qualification Methods

The qualification methods used to verify that the requirements of the COP system are used and include the following definitions:

Demonstration: The operation of the system, or a part of the system, that relies on observable functional operation not requiring the use of instrumentation, special test equipment, or subsequent analysis.

Test: The operation of the system, or a part of the system, using instrumentation or other special test equipment to collect data for later analysis.

Analysis: A review of test data (from the test) and theoretical analysis required to verify the requirements. The processing of accumulated data obtained from other qualification methods. Examples are reduction, interpolation, or extrapolation of test results.

Inspection: Visual examination of system components, documentation, etc.

| Requirement      | Qualification Method |
|------------------|----------------------|
| <b>TPOD-0001</b> | Demonstration        |
| <b>TPOD-0002</b> | Test                 |
| <b>TPOD-0003</b> | Test                 |
| <b>TPOD-0004</b> | Demonstration        |
| <b>TPOD-0005</b> | Test                 |
| <b>TPOD-0006</b> | Analysis             |
| <b>TPOD-0007</b> | Test                 |
| <b>TPOD-0008</b> | Inspection           |
| <b>TPOD-0009</b> | Test                 |
| <b>TPOD-0010</b> | Test                 |
| <b>TPOD-0011</b> | Test                 |
| <b>TPOD-0012</b> | Demonstration        |
| <b>TPOD-0013</b> | Test                 |
| <b>TPOD-0014</b> | Test                 |
| <b>TPOD-0015</b> | Test                 |

|                  |      |
|------------------|------|
| <b>TPOD-0016</b> | Test |
|------------------|------|

*Table 1 - Qualification matrix*