# Systems Engineering Subcontractor Agreement

Company C

TERMA Case

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# Table of contents

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# 1. Introduction

## 1.1 Purpose

This document is to describe what is expected from Company B in regard to their work for Company C.

## 1.2 Scope

The scope of this document is the design, development, qualification, and production of a transportation dolly for a reconnaissance pod for the F-16 fighter planes.

# 2. Definitions

| Term | Definition |
|---|---|
| URP | Updated Reconnaissance Pod |
| RDAF | Royal Danish Air Force |
| SoW | Statement of Work |
| TRD | Document ID: 7, Technical Requirements Document for the Transportation Dolly |
| NDI | Non-Developmental Item |

Table 1. Definition of terms used in the document.

# 3. Scope of Work

## 3.1 General

Company C is tasked with designing, developing, qualifying and producing an updated reconnaissance pod to the Royal Danish Airforce (RDAF). To meet this objective, the design of the transportation dolly is subcontracted to the Contractor, who is responsible for providing Company C with complete design documentation including a model of the transportation dolly. The transportation dolly is intended to:

- Transport the URDP
- Lifting the URDP to be mounted or unmounted from an F-16
- store the pod for longer periods of time when the pod is not in use, airplane

In addition, the design and an associated model is intended to

- provide the mechanical and electrical design documentation of the transportation dolly

- be able to verify the design and the characteristics of the transportation dolly prior to production

## 3.2 Standards of Interpretation for SOW

Throughout this Statement of Work (SOW), the following applies:

- The word SHALL in the text expresses a mandatory task of the SOW. Departure from such a task is not permissible without formal written agreement between the Contractor and Company C.
- Whenever requirements are stated herein to "include" a group of items, parameters, or other considerations, "include" shall be construed to mean those items, parameters, or other considerations specified.
- Whenever reference is made to a section, task, or paragraph, the reference shall be construed to include the subordinate and referenced paragraphs unless otherwise specified.
- The order of the SOW requirements is not intended to specify the order in which they must be carried out unless explicitly stated. The SOW defines the activities the Contractor's process should cover, i.e., the Contractor's process description and plans should include where and when these occur.

# 4. Requirements

## 4.1 Risk Management

The Contractor shall implement a Risk Management process to include risk management planning, identification, analysis, responses and monitoring and control. The Contractor shall provide within the process structured procedures to ensure the identification, assessment, prioritization and mitigation of risks. It shall describe the control mechanism regarding the implementation of mitigating action and the continual monitoring and follow-up activities.

## 4.2 Outcome and performance standards

The TRD specifies NATO Standardization Agreements (STANAGs) publications, Mil Standards, Mil Handbooks, and other Commercial Standards, where appropriate. Where STANAGs and other NATO publications are not specified, the Contractor shall base the system design on military/commercial/industrial/international standards (i.e., standards widely used and supported by a significant number of manufacturers).

## 4.3 Deliverables and proposal response format

### 4.3.1 System Engineering Planning

The Contractor shall develop and employ a proven system engineering and development methodology. The Contractor shall provide this methodology in a System Engineering Management Plan (SEMP), indicating overall systems engineering approach, milestone reviews, time schedule, dependencies etc.

### 4.3.2 Contractor's System Requirements Specification

The Contractor shall employ the systems engineering process per ISO/IEC 15288:2008 in according to the SEMP. The Contractor shall document and provide requirements traceability and design for each System, Subsystem, Hardware Configuration Item and Computer Software Configuration Item (HWCI/CSCI).

## 4.4 Safety

Company C’s objective is to acquire the transportation dolly which is to be used throughout the life cycle of an URP and preferably longer, in compliance with progressive principles of safety, health protection, handling with hazardous materials and the environment protection. The Contractor shall design a safely operated, supported and maintained transportation dolly, protecting the operator and the URP.

# 5. Outcome and performance standards

We expect the final product to minimally live up to all mandatory requirements. To ensure this the final product will have to go through evaluation by our company and if found lacking, it is expected that the contractor will continue work to correct any fund points of failure and give further detailed information of the design, if found needed.

After this our contract will terminate and the transportation dolly design will be considered our property.

## 5.1 Design expectations

In developing the system architecture to satisfy the TRD, the Contractor shall consider the following design principles:

1. Maximum use of NDI for both Hardware and Software.
2. Selection of equipment to meet the design functionality with minimal impact to the overall modular open systems architecture.
3. A modular design and integration which precludes long term dependence on closed or proprietary interface standards, technologies, products, or architectures.

4. A design which provides for growth and open interface standards to allow future reconfiguration and addition of new capabilities without large-scale redesign of the system.

## 5.2 Life-Cycle Cost

The Contractor shall estimate the URP Life Cycle Cost (LCC). The LCC shall reflect the negotiated procurement price and any subsequent changes post contract award.

## 5.3 Interfaces Control Document

The Contractor shall provide Company C with an Interfaces Control Document describing the external interfaces of the dolly that are used for interoperability purposes.

# 6. Verification

The Contractor is to verify that the design satisfies the TRD requirements. The term verify encompasses "Inspection", "Demonstration", "Testing", and "Analysis". The Contractor is to document results of the verification effort in Verification Reports.

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Company C

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Company B