### ****3.1 Required states and modes****

Described in UR 12-15.

* How should modes be selected?
* How should manual mode be controlled? Direction? Chaffs or Flares?
* How to activate in semi-automatic mode? How is the pilot warned?
* When should a threat response be initiated?

### ****3.2 System capability requirements (behavior and relevant parameters)****

* **What is the maximum reload time? Two payloads simultaneously?**
* **What constitutes an ”intelligent pattern of payloads”? (UR-21)**
* What is an ”intelligent threat response”? (UR-14-15)
* What constitutes a threat?
* **What constitutes ”optimal coverage” (UR-22)**
* **What is a standard magazine (UR-1)?**
  + **Is a magazine one-time use?**
  + **How many payloads are contained in a single magazine?**
  + **Different kinds of payload?**
* **What is a LRU - Line replacement unit (UR-10)?**

### ****3.3 System external interface requirements****

* **How to determine if the aircraft is on the ground? Which interfaces are provided by the aircraft? (UR-8)**
* **Where does the zeroize signal come from? Which interface? (UR-9)**
* Failsafe on interface fails?

### ****3.4 System internal interface requirements.****

* Are there requirements for internal interfaces inside the pod?
* Failsafe on interface fails?

### 3.5 System internal data requirements.

* UR-5: **Threats** shall be transmitted to the aircraft mission computer in **body frame format** (relative to aircraft) for displaying purposes. Threats and body frame format should be clarified.
* UR-6: The system shall provide the aircraft mission computer with **status information** and built-in **test results**. This needs further clarification.
* UR-7: Regarding interfacing with the **aircraft intercom**, an **interface** **description** must be provided.
  + **Warnings and audio** cues must be defined.
* UR-10: The system status on individual **LRU** level shall be provided by cockpit unit, what is an LRU?
* The cockpit unit will need access to the data described above. This is to be discussed with the customer.
* The data includes aircraft attitude, heading, altitude and GPS data; **how much data is it**? The amount of data must be transferable within the latency demands given the capacity of the MIL-STD-1553-B dataBUS.
  + MIL-STD-1553-B bus data rate is 1 Mbit/sek. This should be enough.[[1]](#footnote-1)
* The MWS must receive data from the mission computer with a **minimum latency**. The acceptable latency must be defined.

### 3.6 Adaptation requirements.

* UR-3: The system may not compromise the operation of the current weapon systems. **Which constraints are related to this demand?** **Spacial requirements.**

### 3.7 Safety requirements.

* UR-8: Which condition should **activate the hardware interlock** to prevent ground dispensing? Wheels on the **ground** or a certain **altitude**?

### 3.8 Security and privacy requirements.

* UR-9: The system shall be able to erase **sensitive** data upon a zeroize signal from the aircraft, this needs some clarification? Maybe there is a standard way of doing this, and what is sensitive data.
  + Where does the signal originate from?
  + Which system unit shall receive the signal?
* What are the storage requirements for the magasines with payload? **Temperature / humidity / best before**

### 3.9 See enviromental requirements

Questions to UR-32 to UR-33:

* Is this also true when dispensing payloads -> Then the magazine should be isolated from the rest of the system.
* A lower limit for the temperature is needed?
* Questions to UR-30:
* Definition of the requirement to the acceleration on the pod structure from left and right?
* The pod structure shall remain intact when exposed to steady state acceleration levels of **5g fore 2.5g aft, 25g up, 11g down**

### 3.10 Computer resource requirements.

Are there any requirements to the resources of the computer implemented in the system?

### 3.11 System quality factors.

Maintainability frequency? Time between service on system?

Critical system. CANNOT fail!!

### 3.12 Design and construction constraints.

What physical dimension are the contraints of the pod?

### 3.13Personnel-related requirements.

The payloads must be loaded the aircraft before take-off -> Personel task!

### 3.14Training-related requirements.

Human interface -> Pilots must learn how to use the system in manual and semi-automaic (And know what’s happening in automatic mode)

Service of the system -> Technicians

### 3.15 Logistics-related requirements.

*Requirements concerning logistics considerations.*

* No logistic considerations

### 3.16 Packaging requirements.

*Requirements concerning packaging, labling and handling the systems and its components for delivery.*

* The chaffs and flares must be handled and labed according to normal military transport procedures.

### 3.17 Other requirements.

*No other requirements.*

1. wiki [↑](#footnote-ref-1)