Requirements Traceability Matrix

Project Name		Terma case		Business Area					
Project Manager				**Business Analyst Lead**					
QA Lead		Rune Jacobsen		**Target Implementation Date**					
BR# from Terma Case.pdf	**Category/Functional Activity**	**Requirement Description**	**SRS reference**	**Design Document Reference**	**Code Module/ Reference**	**Test Case Reference**	**User Acceptance Validation**	**Comments**	
UR-1	Capacity	The pod shall include a minimum of eight standard magazines.	SR-36, SR-39, SR-41, SR-53						
UR-2	Functional	The pod shall be able to dispense forwards, downwards and sideways.	SR-33, SR-4, SR-35, SR-37, SR-38, SR-40						
UR-3	Quality	Introduction of the system may not compromise the operation of the current weapon systems.	SR-42, SR-47						
UR-5	Functional	Threats shall be transmitted to the aircraft mission computer in body frame format (relative to aircraft) for displaying purposes.	SR-55, SR-48, SR-56, SR-58,SR-59						
UR-6	Functional	The system shall provide the aircraft mission computer with status information and built in test results.	SR-49, SR-44, SR-28, SR-50, SR-29, SR-45, SR-51						
UR-7	Functional	The system shall interface the aircraft intercom system to provide audio cues and warnings.	SR-17 SR-19, SR-22						
UR-8	Functional/Security?	The system shall include a hardware implemented safety interlock to prevent dispensing on ground.	SR-61, SR-62						
UR-9	Functional/Security?	The system shall be able to erase sensitive data upon input from a discrete zeroize signal from aircraft.	SR-57, SR-31, SR-32, SR-52						
UR-10	Functional	The system status on individual LRU level shall be provided by cockpit unit.	SR-16, SR-46, SR-60						
UR-11	Functional	The cockpit unit shall be able to control power of dispensing system and MWS.	SR-9, SR-10, SR-11						
UR-12	Functional	The system shall comprise at least three modes, manual, semi automatic and automatic.	SR-12						
UR-13	Functional	Manual mode shall dispense the program selected by the pilot.	SR-20						
UR-14	Functional	Semi automatic shall initiate an intelligent threat response upon consent from the pilot.	SR-23						
UR-15	Functional	Automatic mode shall initiate an intelligent threat response without pilot interaction.	SR-24, SR-14						
UR-16	Functional	The system shall provide a method of loading software to MWS.	SR-15						
UR-20	Performance	The system shall be able to dispense a minimum of two payloads simultaneously.	SR-53						
UR-21	Performance	The system shall be able to dispense an intelligent pattern	SR-12						
UR-22	Performance MEN HVORDAN MÅLES??	The system shall provide the optimal coverage against missile threats.	SR-86						
UR-30	Environmental	The pod structure shall remain intact when exposed to steady state acceleration levels of 5g fore 2.5 aft, 25g up, 11 down.	SR-70,SR-71,SR-72,SR-73						
UR-31	Environmental	The total weight of pod cannot exceed 270 kg.	SR-74						
UR-32	Environmental	The pod shall be operational at temperatures of 95°C on outer skin and 102°C on leading edge for 25 minutes.	SR-67						
UR-33	Environmental	The pod shall be operational at temperatures of 134°C on outer skin and 151°C on leading edge for 3 minutes.	SR-68						
UR-40	Intefaces	The cockpit unit shall communicate with the MWS via a MIL_STD-1553-B data bus.	SR-58						
UR-41	Intefaces	The cockpit unit shall communicate with the mission computer via a MIL-STD-1553-B data bus.	SR-54						
UR-42	Intefaces	The pod shall be mounted on the aircraft wing with standard T-hooks spaced by 13 inches.	SR-77						
UR-43	Intefaces	The power consumption of the pod shall not exceed 700W	SR-82						
UR-4 or UR-44	Intefaces	The pod shall be mounted on the left-hand wing.	SR-43, SR-54					Marked as UR-4 in document, but probaly it is UR-44	
Power	Constraint	PCU convert 115VAC 400Hz to 28VDC.							
Power	Constraint	PCU Max output 250W							
Power	Constraint	Weights 25kg							
MWS	Constraint	MWS consist of 6 sensors and one ECU							
MWS	Constraint	The ECU will provide threat information in inertial format.							
MWS	Constraint	Direction of the threat is relative to north.							
MWS	Constraint	The MWS must receive navigation data from the aircraft mission computer with a minimum latency.							
MWS	Constraint	Navigation data includes aircraft attitude, heading, altitude and GPS data.							
MWS	Constraint	The MWS is qualified to the following steady state acceleration levels 4g fore 2.5 aft, 22g up, 10 down.							
MWS	Constraint	The MWS requires a maximum of 85W from 28VDC and a maximum of 100W from 115VAC 400Hz							
MWS	Constraint	The MWS including ECU and six sensors weighs 18,2 kg.							
MWS	Constraint	The MWS operating maximum temperature is 70°C.							
Provided interfaces	Constraint	The cockpit unit is provided with sufficient 28 VDC power.							
Provided interfaces	Constraint	Various aircraft discrete signals can be routed to cockpit unit, to be discussed.							
Provided interfaces	Constraint	Wiring in wing available to pod: 6 discrete wires, shielded wires suitable for data bus, 115VAC 400Hz power.							
Dispensing	Constraint	The power required to ignite a payload is up to 126W for a period of up to 20ms.							
Dispensing	Constraint	The Digital Sequencer Switches (DSS) run on 28 VDC and each consumes 3W for operating power							
Dispensing	Constraint	Each DSS can control 2 magazines.							
MWS	Constraint	Weight of complete MWS is 18,2kg							
DSS	Constraint	Weight of DSS is 5kg							
Dispenser assembly	Constraint	Weight of Dispencer assembly is 3kg							
pod harness	Constraint	Weight of pod harness is 20kg							
pod structure	Constraint	Weight of pod structure is 175kg							
Cockpit unit	Constraint	Weight of cockpit unit is 4kg							