**Sample Critical Technical Parameters (CTPs)**

**Intercept Range: 10 km against air or ground targets**

**Rate of Fire: Four missiles launched in 30 seconds**

**Fusing System: Laser proximity Fuse, Mechanical Impact Fuse**

**Response: Initial target detection to missile launch – 5 secs**

**Mobility: Cross Country Speed = 60 KPH**

**Cruising range = 400 Km**

**Survivability Move = 750m/90sec**

**Lethality: Greater than 9 cm armor penetration**

**Reliability: Mean-time-between-system-abort (MTBSA) > 100 Hrs**

**Mean-time-to-repair (MTTR) < 2 Hrs**

**Missile: Missile capacity – 8 missiles**

**Mach 3+**

**Maneuverability – 60g’s**

**Identify the CTPs that apply to the COIs (may have to make up some CTPs and adjust some numbers)**

1. Can the UAV collect ISR data to support the mission?
   1. Camera sensitivity (NEdT): <50 mK at f/1.0
   2. Camera Pixel Pitch: 17 μm
2. Are the optics capable of seeing up to the line of sight in all weather?
   1. Scene Range (High Gain): -25°C to +135°C
3. Will the susceptibility and vulnerability characteristics of the (UAV Name) allow the successful completion of its mission in its intended operating environment?
   1. Radar cross section:
4. Will the (UAV Name) be safe to operate in a combat environment?

**Identify the function of each COI and the capabilities of each function**

|  |  |
| --- | --- |
| **COI/Function** | **Capability** |
| **9. Interoperability** | * **Work with sensors** * **Work with navigation systems** |
| **10. Targeting** | * **Detect enemy threat** |
| **11. HSI** | * **Ability to interface with UAV** |
| **12. Firepower** | * **Ability for rapid engagement** * **Ability to take out enemy threats** * **Ability to self-destruct** |

**Identify the Test Objectives for each COI in the Test Objective Matrix (TOM). The rest of the COIs will be Test E-1 to E-8 (E=Effectiveness, S=Suitability).**

|  |  |  |
| --- | --- | --- |
| **COI** | **Test Objectives and Sub-Objectives** | **Test** |
| **9. Interoperability** | **To determine the accuracy of the data transfer** | **S-1** |
| **10. Targeting** | **To determine the accuracy of the sensors**   * **Range (E-9a)** * **Speed (E-9b)** | **E-9** |
| **11. HSI** | **To determine the clarity of the video** | **S-2** |
| **12. Firepower** | **To determine the impact of the weapons**   * **Lethality (E-10a)** * **Rate of fire (E-10b)** | **E-10** |