

**Nano Unmanned Air Vehicle Salient Characteristics**

<b>Nano SUAS Required General Characteristics</b>	
Range	1km (T); 3km (O)
Endurance	20min (T); 30min (O)
Wind Speed	Launch, hover, and recover in 10kts (T) ≥ 20kts (O)
Weight	UA < 65 grams (T); <30 (O)
Mission Altitude	from ground to 100 (T), 300(O) ft (AGL)
Ceiling	8,000ft MSL DA (T) ≥ 12,000ft MSL DA (O)
<b>No.</b>	<b>Nano SUAS Additional Requirements</b>
1	The entire system (aircraft, ground control station, and remote video terminal) shall be capable of operation using only rechargeable battery power.
2	Before operator system preflight the system shall perform a BIT for 95% identification of faults and isolate failed components ≤ 3min to complete.
8	All spectrum dependent components require spectrum certification in compliance with DoD, National, and International Spectrum Management policies and regulations. At a minimum, DD Form 1494 shall be submitted/verified for all equipment, including Commercial off-the-shelf (COTS) items, to ensure the availability of the required spectrum.
9	The aircraft shall transmit its information in such a manner that the One-System Remote Video Terminal (OSRVT) is capable of receiving and decoding its video and metadata in accordance with the Interoperability Standards published by PM UAS Interface Control Working Group, located here: <a href="https://www.us.army.mil/suite/grouppage/100592">https://www.us.army.mil/suite/grouppage/100592</a>
14	Navigation – in Fully autonomous mode, the system shall execute a pre-programmed mission, including navigation to preplanned easting/northing/altitude waypoints, loiter, and mission termination, without operator interference using a GPS, or potentially vision based navigation for GPS challenged environments.
16	Navigation – in Manual Mode, the system shall provide the operator direct control over the aircraft. The controller shall provide the operator a method to control flight speed, heading and elevation.
17	The system shall provide color daylight video or night (passive IR) video based on the sensor chosen before launch.
18	The aircraft shall execute loss of link procedures to attempt to reacquire the link in the event of data link loss.
19	If the data link cannot be reacquired, the aircraft will return to a preplanned or pre-designated recovery point and execute a recovery sequence.
20	The aircraft shall be hand-launched and shall not require special launch mechanisms
22	The contractor shall have developed an Interface Control Document (ICD) defining mechanical, electrical, and software requirements for the Modular Payload Interface (MPI) to facilitate future payload development by the prime contractor and/or other DoD contractors selected by the government.