

# PERFORMANCE TEST REPORT

**Document ID:** PTR-SKYWATCH-008  
**Classification:** UNCLASSIFIED // FOR OFFICIAL USE ONLY  
**Test Date:** 02 July 2025  
**Test Location:** Edwards AFB / Yuma Proving Ground  
**Test Conductor:** NAVAIR

## SYSTEM UNDER TEST

**System:** Horizon-200  
**Manufacturer:** SkyWatch Industries LLC  
**Serial Number:** SKYWATCH-PT-0008  
**Configuration:** Block 4 Production Standard

## TEST OBJECTIVES

1. Validate operational range under mission-representative conditions
2. Verify payload capacity and center-of-gravity limitations
3. Assess endurance at various altitudes and payload configurations
4. Evaluate data link performance and reliability
5. Confirm environmental operating envelope

## TEST RESULTS SUMMARY

### ***RANGE TESTING***

**Flight Profile:** Standard ISR mission profile with 3 waypoint navigation  
**Conditions:** Standard day, winds 5 knots  
**Fuel Load:** 88% maximum capacity  
**Result:** 1213 km achieved  
**Specification:** 1500 km required (threshold)  
**Status:** MARGINAL

### ***PAYLOAD TESTING***

**Configuration:** Full ISR suite with EO/IR/SAR sensors  
**Measured Capacity:** 200 kg  
**Specification:** 300 kg required (threshold)  
**Status:** FAIL  
**Center of Gravity:** Tested at 30% MAC (within 22-35% limits)

## ***ENDURANCE TESTING***

**Altitude:** 40606 ft MSL

**Payload:** 70% of maximum tested capacity

**Measured Endurance:** 20 hours

**Specification:** 24 hours required

**Status:** FAIL

## DETAILED TEST ANALYSIS

### ***SERVICE CEILING VERIFICATION***

**Maximum Altitude Achieved:** 50,092 ft MSL

**Engine Performance at Ceiling:** 94% rated power

**Rate of Climb at Ceiling:** 197 ft/min

**Status:** VERIFIED - EXCEEDS OBJECTIVE

### ***DATA LINK ASSESSMENT***

**System Type:** LOS C-band

**Range Tested:** 184 km line-of-sight

**Throughput:** 49 Mbps sustained

**Latency:** 101 ms average

**Packet Loss:** 0.53%

**Status:** MEETS REQUIREMENTS

## ANOMALIES AND DEFICIENCIES

No significant anomalies noted during testing.

## CONCLUSIONS

The Horizon-200 demonstrated mixed performance across tested parameters. Measured range of 1213 km and payload capacity of 200 kg partially meet OVERWATCH program requirements. Cost-effective solution delivers required performance at significantly lower lifecycle cost than alternatives.

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