

Resolution progression

from orbital awareness to trusted spatial action

The collection method determines observable detail. Reality Engine makes heterogeneous evidence spatially coherent; CLF preserves provenance, confidence and fitness for decision.

01 RESOLUTION PROGRESSION

Planning ranges - validate against mission geometry and control

SAT ORBIT WHERE TO LOOK	AIR WHAT CHANGED	GND GROUND WHAT ACTION TO TAKE
Planet EO3.7 m monitoring / 0.5 m tasking	EagleHawk fixed wing1-5 cm target GSD	XGRIDS~1.2 cm relative / <=3 cm absolute
Capella SARup to 25 cm	Drone coverage1-3 cm typical	Mirrorless reconstruction3-10 mm relative detail
Umbra SARup to 16 cm	High-detail drone0.5-1 cm target	Cell phone reconstruction1-5 cm relative detail
Wide-area detection, all-weather cueing and change context.	Site characterization, inspection and higher-confidence assessment.	Condition documentation, localized measurement and operational action.

02 FROM SPATIAL EVIDENCE TO TRUSTED ACTION

NVIDIA-aligned target pathway - not a validation or endorsement claim



MISSION VALUE

Detect change Characterize Measure Reconstruct Simulate Rehearse Inform action

TRUST GUARDRAILS Resolution is not accuracy. SAR + SAR improves resilience and revisit, but remains one phenomenology. EO, thermal, LiDAR, drone or ground evidence supplies complementary observation.

RECOMMENDED NEXT STEP

Select one mission, one AOI and one collection mix for a 60-90 day validation pilot.