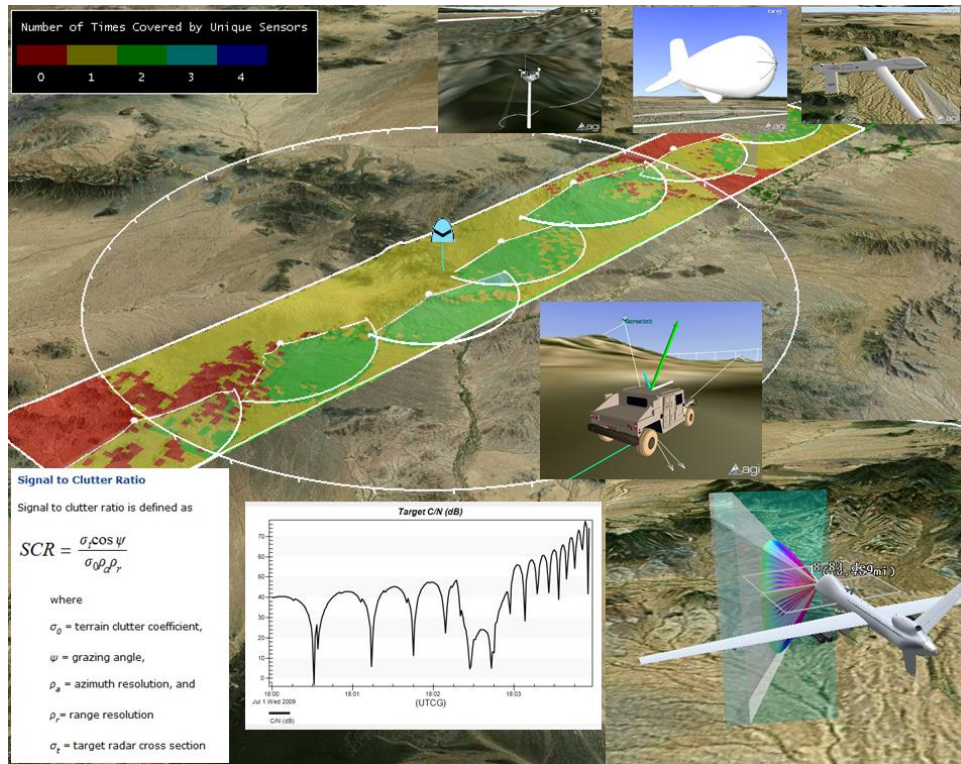


ISR Border Patrol Coverage

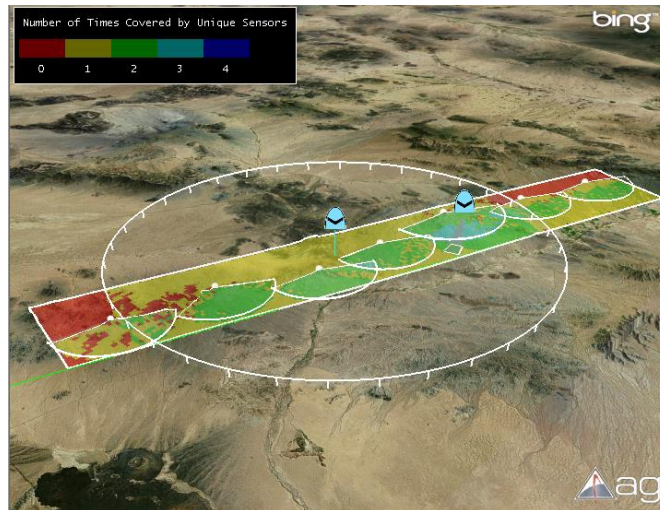
Introduction:

This scenario depicts a hypothetical U.S. Customs and Border Patrol (CBP) surveillance mission aimed at intercepting illegal border crossings. The goal is to establish persistent surveillance along a 40 mile stretch of the Arizona West Desert by combining land and air ISR platforms.

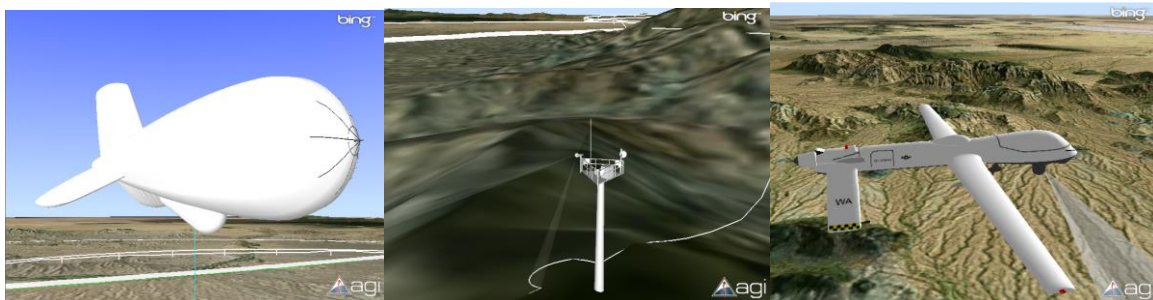


Regional Coverage:

The scenario opens with the coverage of a variety of ground based cameras. Animate the scenario to show the N Asset FOM contours changing as the aerostat and predator cover the region.



Assets include a "fence" of pole based cameras, a tethered Aerostat, and a Predator UAV. The sensor coverage of each asset is computed over local terrain at 250 meter resolution. Use the stored views to zoom in on each asset:



Generate the "Coverage by asset" quick report to get the accumulated coverage for each of the assets.

Asset Name	Minimum % Coverage	Maximum % Coverage	Average % Coverage	Accumulated % Coverage
Camera3	4.10	4.10	4.10	4.10
Camera4	4.45	4.45	4.45	4.45
Camera5	4.86	4.86	4.86	4.86
Camera6	4.53	4.53	4.53	4.53
Camera7	7.18	7.18	7.18	7.18
Camera8	4.33	4.33	4.33	4.33
Camera9	4.87	4.87	4.87	4.87
Predator_Sensor	0.00	0.36	0.06	99.65
Aerostat_Sensor	0.11	62.88	54.88	63.74

This report tells us that the Predator provides the most regional coverage, and the aerostat provides the most persistent coverage.

Generate the "Coverage comparison" quick report to compare the performance of each system. This is a great report to see which assets provide the biggest coverage. If we had the cost for each system, we could do a cost vs. performance comparison.

Nasset_Aerostat - Percent Satisfied

63.740827

Nasset_Cameras - Percent Satisfied

33.990056

Nasset_Predator - Percent Satisfied

99.653827

Jump to the “ground vehicle detection” stored view to view the performance of the system to detect a notional ground vehicle driving through the region.



Object coverage is used for this ground vehicle to colorize the route based on how many assets can see it.

Jump to the “ground vehicle closeup” view to ride along the ground vehicle and view the geometry of the collection assets and the detection.

