Remote ID pushed out 6 months

https://www.faa.gov/newsroom/faa-extends-remote-id-enforcement-date-six-months

SkyID from spectrum

https://www.horizonhobby.com/product/skyid-remote-id-module/SPMA9500.html

Flight test ID

https://store.flitetest.com/ft-ez-id/

Remote ID cloud system for public safety?

https://www.suasnews.com/2023/09/airsentinel-joins-forces-with-droneresponders-to-provide-remote-identification-of-dronesservice-to-public-safety/?mc_cid=f0f8c3046c&mc_eid=d22ec97035

Dronebanners

https://www.uasvision.com/2023/09/20/drones-to-replace-banner-towplanes-over-miami-beach/

Skydio X10

https://www.skydio.com/x10

Hardware Comparison Chart (recently and regularly updated)

Drone Hardware Comparison Chart

Commercial UAV conference notes from Greg Lang

FAA Keynote-

Lots of talk about the need for more robust data reporting system to provide input into further regulation. Struggling to identify stats for rulemaking

-Balance of safety and utility needs to shift for drones...further in the direction of utility.

-Taking applications for committee members of the drone safety team. dronesafetyteam@gmail.com

-New safety management system needed specifically for drones as standard system is a poor fit.

-Some talk to part 108 as a new cert for future/advanced operations

Keynote-

-Remote ID "relief" is coming and was later announced as delay to mid-March 2024

FAA session on waivers-

-Slides of shielded operations shared, and applicants encouraged to tell the story of what you are doing and fill out the entire safety questionnaire.

-New BVLOS rules are in Dev now but no timeline given for release.

Autonomous session-

-Percepto remote site inspections with shielded workflow and 200ft buffer and remote piloting on fixed sites.

Rulemaking session-

-Congress set for re-authorization of FAA end of this month,

-Proposed rulemaking is being pushed for a 4-16 month period, shorter than in the past.

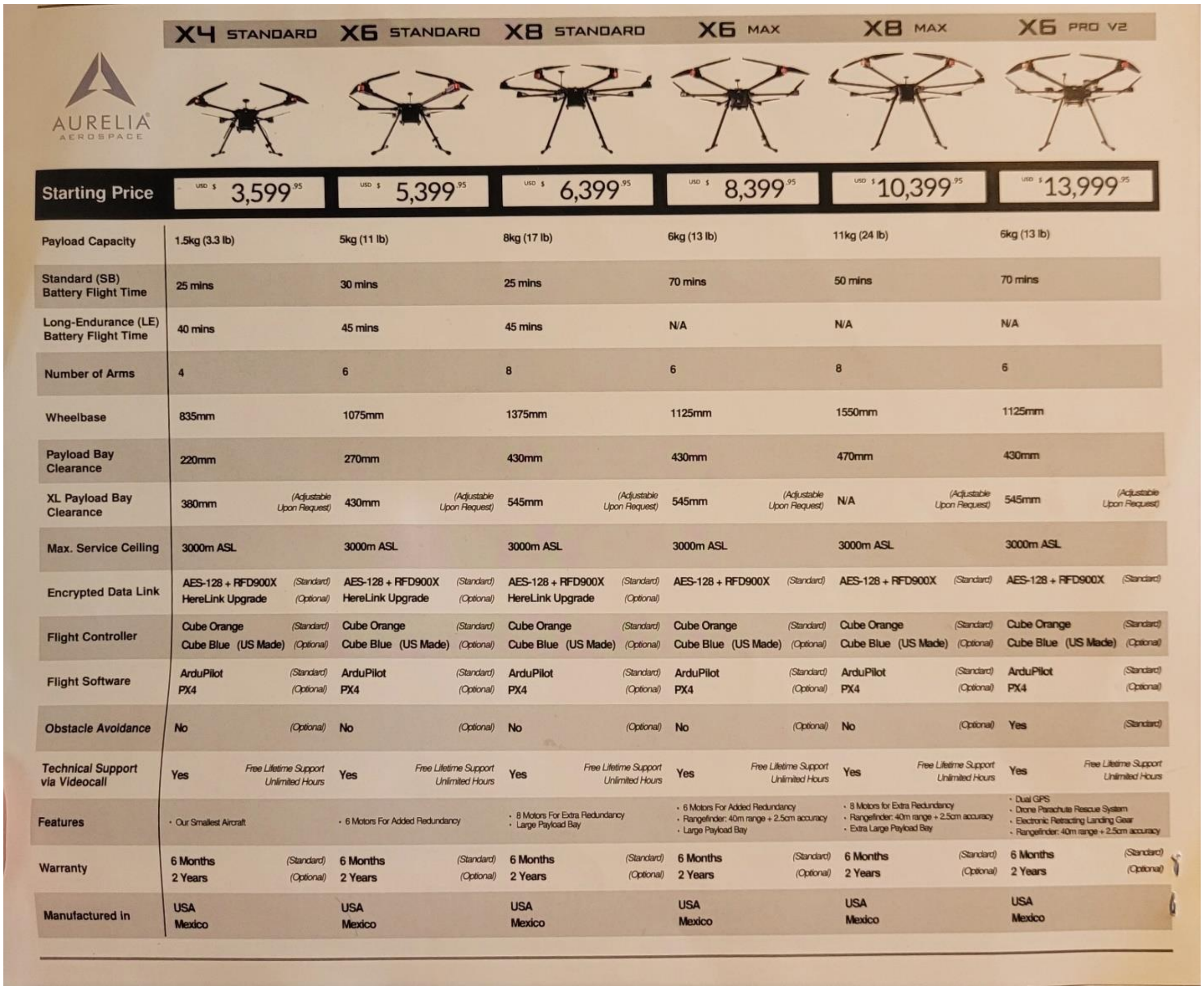
-New process will include airworthiness, sub 400ft, pilot standards, and new compliance methods leveraging third parties.

Hardware and Software-

-IVSS parachutes are working to develop a OOP compliance option for use with M30 and M300 among other larger models

-Drone rescue systems are working with a drone manufacturer to have a built in parachute option which should have some OOP compliance potential.

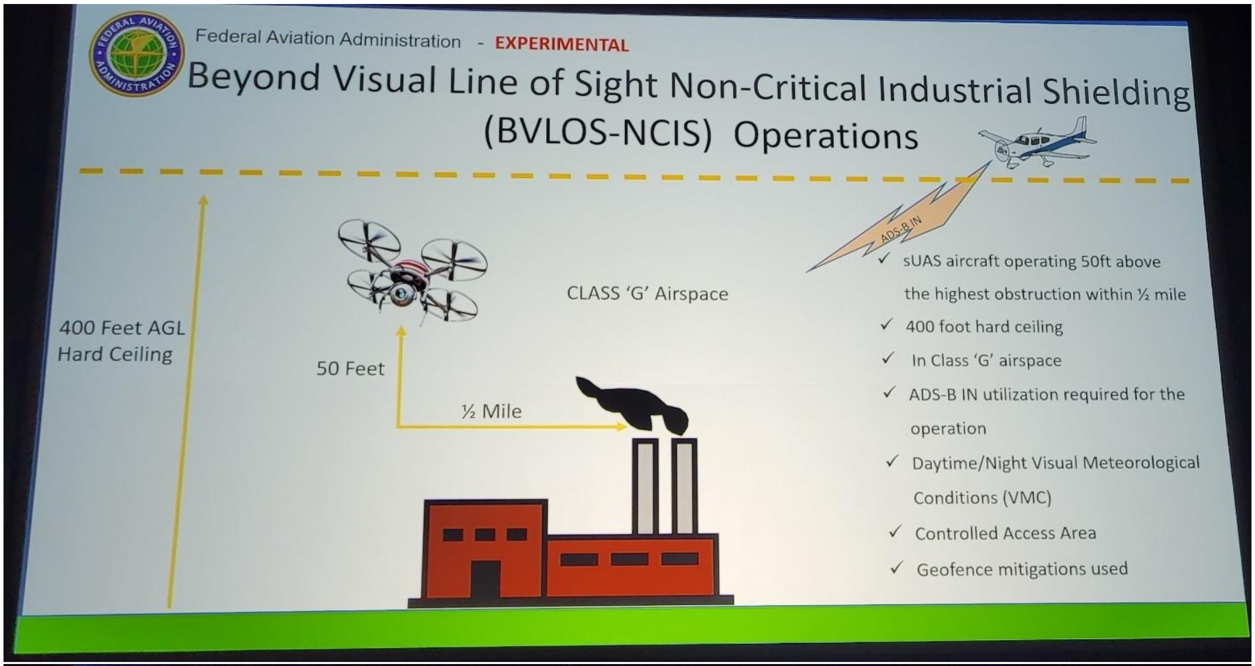
-Aurelia drones based in Mexico and Las Vegas has some promising generic platforms including a largish 3500 base option with various payloads (see image below)

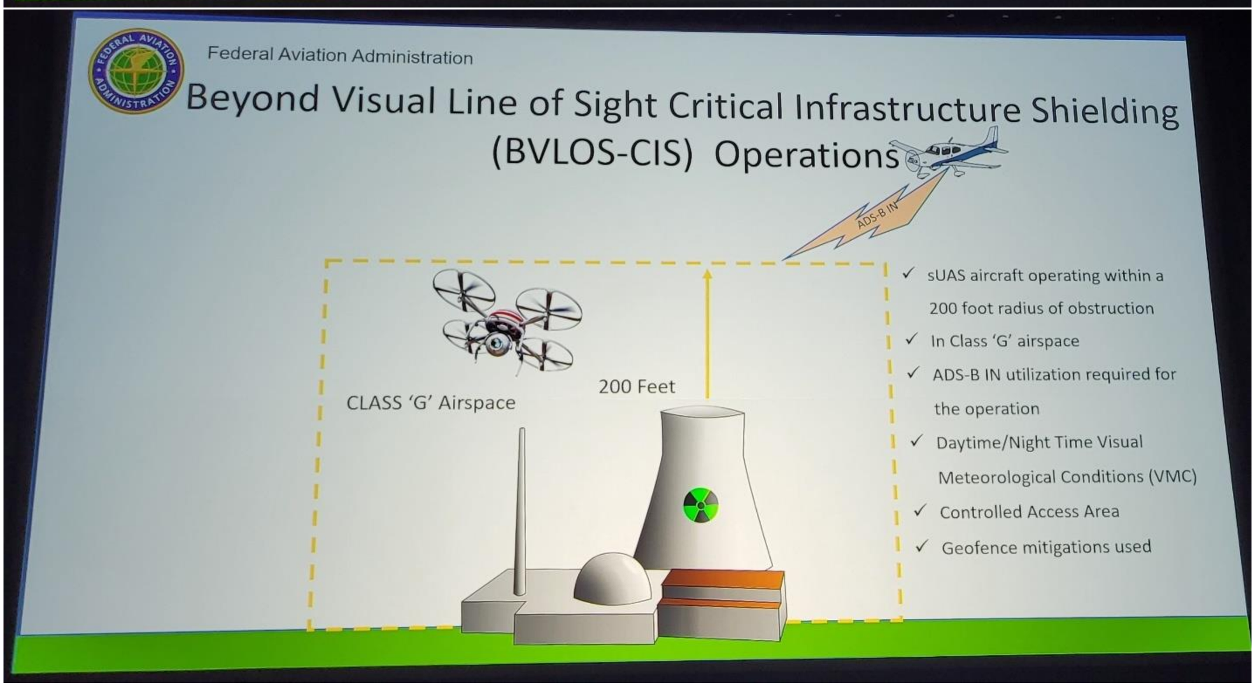


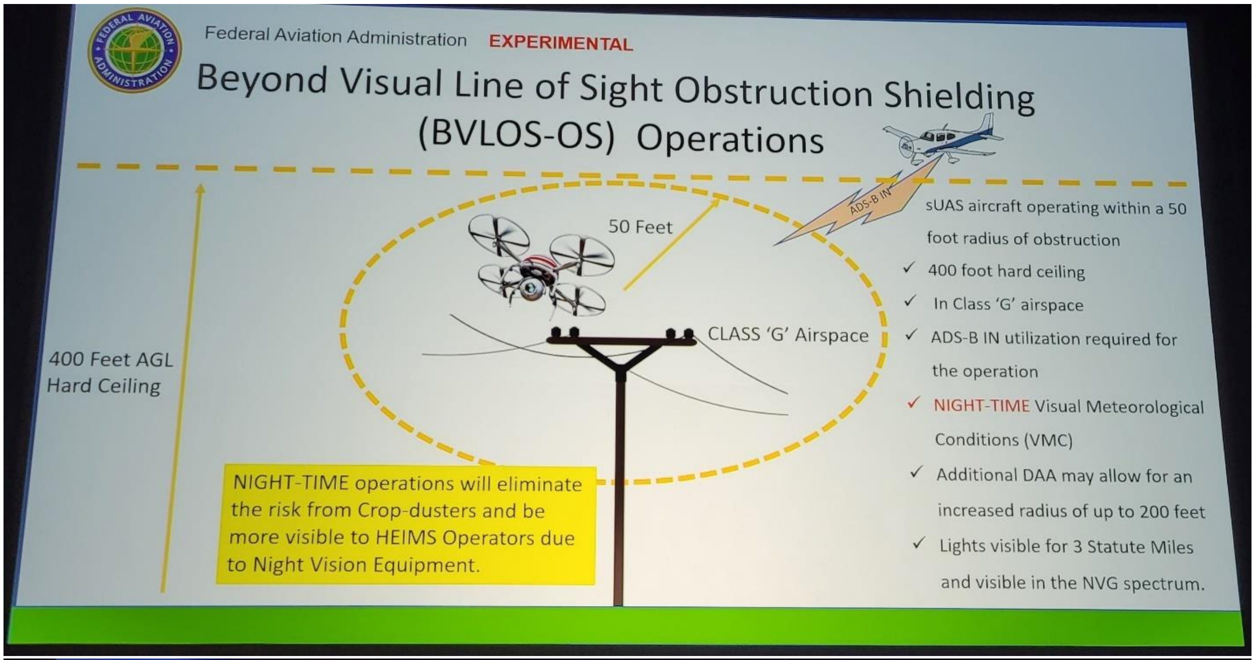
	X4 STANDARD	X6 STANDARD	X8 STANDARD	X6 MAX	X8 MAX	X6 PRO V2
Starting Price	USD $ 3,599.95	USD $ 5,399.95	USD $ 6,399.95	USD $ 8,399.95	USD $ 10,399.95	USD $ 13,999.95
Payload Capacity	1.5kg (3.3 lb)	5kg (11 lb)	8kg (17 lb)	6kg (13 lb)	11kg (24 lb)	6kg (13 lb)
Standard (SB) Battery Flight Time	25 mins	30 mins	25 mins	70 mins	50 mins	70 mins
Long-Endurance (LE) Battery Flight Time	40 mins	45 mins	45 mins	N/A	N/A	N/A
Number of Arms	4	6	8	6	8	6
Wheelbase	835mm	1075mm	1375mm	1125mm	1550mm	1125mm
Payload Bay Clearance	220mm	270mm	430mm	430mm	470mm	430mm
XL Payload Bay Clearance	380mm (Adjustable Upon Request)	430mm (Adjustable Upon Request)	545mm (Adjustable Upon Request)	545mm (Adjustable Upon Request)	N/A (Adjustable Upon Request)	545mm (Adjustable Upon Request)
Max. Service Ceiling	3000m ASL	3000m ASL	3000m ASL	3000m ASL	3000m ASL	3000m ASL
Encrypted Data Link	AES-128 + RFD900X (Standard) HereLink Upgrade (Optional)	AES-128 + RFD900X (Standard) HereLink Upgrade (Optional)	AES-128 + RFD900X (Standard) HereLink Upgrade (Optional)	AES-128 + RFD900X (Standard)	AES-128 + RFD900X (Standard)	AES-128 + RFD900X (Standard)
Flight Controller	Cube Orange (Standard) Cube Blue (US Made) (Optional)	Cube Orange (Standard) Cube Blue (US Made) (Optional)	Cube Orange (Standard) Cube Blue (US Made) (Optional)	Cube Orange (Standard) Cube Blue (US Made) (Optional)	Cube Orange (Standard) Cube Blue (US Made) (Optional)	Cube Orange (Standard) Cube Blue (US Made) (Optional)
Flight Software	ArduPilot (Standard) PX4 (Optional)	ArduPilot (Standard) PX4 (Optional)	ArduPilot (Standard) PX4 (Optional)	ArduPilot (Standard) PX4 (Optional)	ArduPilot (Standard) PX4 (Optional)	ArduPilot (Standard) PX4 (Optional)
Obstacle Avoidance	No (Optional)	No (Optional)	No (Optional)	No (Optional)	No (Optional)	Yes (Standard)
Technical Support via Videocall	Yes — Free Lifetime Support Unlimited Hours	Yes — Free Lifetime Support Unlimited Hours	Yes — Free Lifetime Support Unlimited Hours	Yes — Free Lifetime Support Unlimited Hours	Yes — Free Lifetime Support Unlimited Hours	Yes — Free Lifetime Support Unlimited Hours
Features	• Our Smallest Aircraft	• 6 Motors For Added Redundancy	• 8 Motors For Extra Redundancy • Large Payload Bay	• 6 Motors For Added Redundancy • Rangefinder: 40m range + 2.5cm accuracy • Large Payload Bay	• 8 Motors for Extra Redundancy • Rangefinder: 40m range + 2.5cm accuracy • Extra Large Payload Bay	• Dual GPS • Drone Parachute Rescue System • Electronic Retracting Landing Gear • Rangefinder: 40m range + 2.5cm accuracy
Warranty	6 Months (Standard) 2 Years (Optional)	6 Months (Standard) 2 Years (Optional)	6 Months (Standard) 2 Years (Optional)	6 Months (Standard) 2 Years (Optional)	6 Months (Standard) 2 Years (Optional)	6 Months (Standard) 2 Years (Optional)
Manufactured in	USA Mexico	USA Mexico	USA Mexico	USA Mexico	USA Mexico	USA Mexico

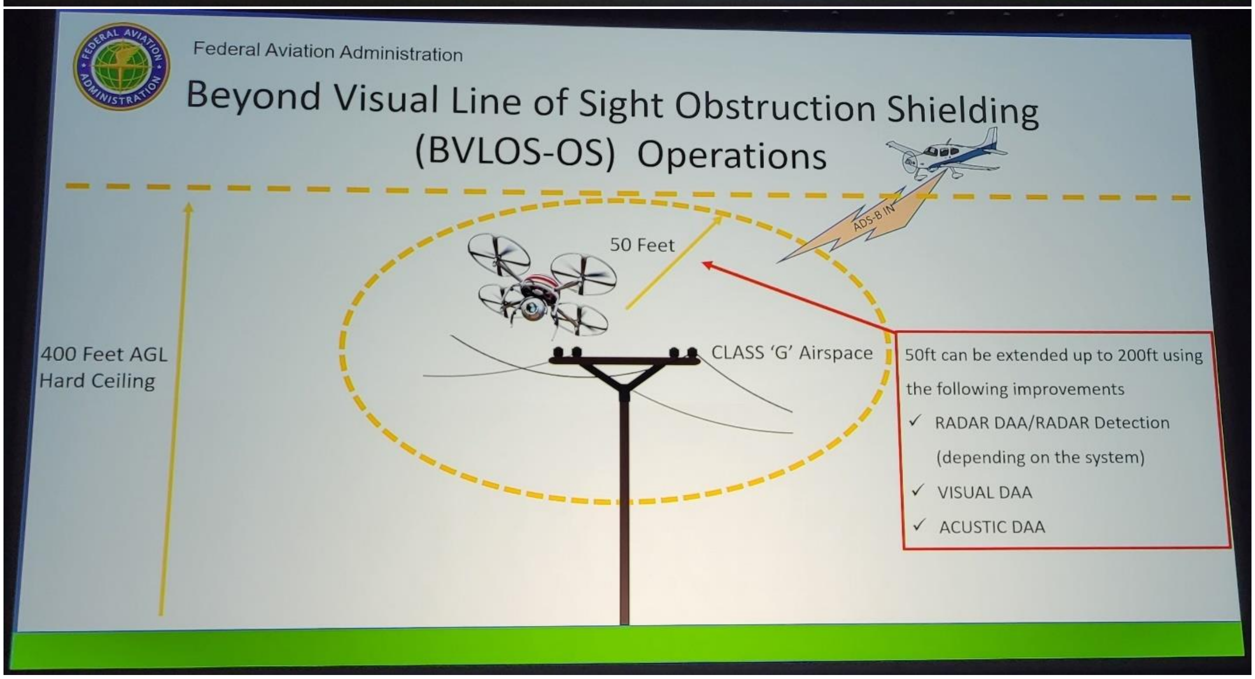
ACSL Soten model drone from Japan has a promising model in the 9k price range with swappable payloads and a smart controller that includes flight automation options.

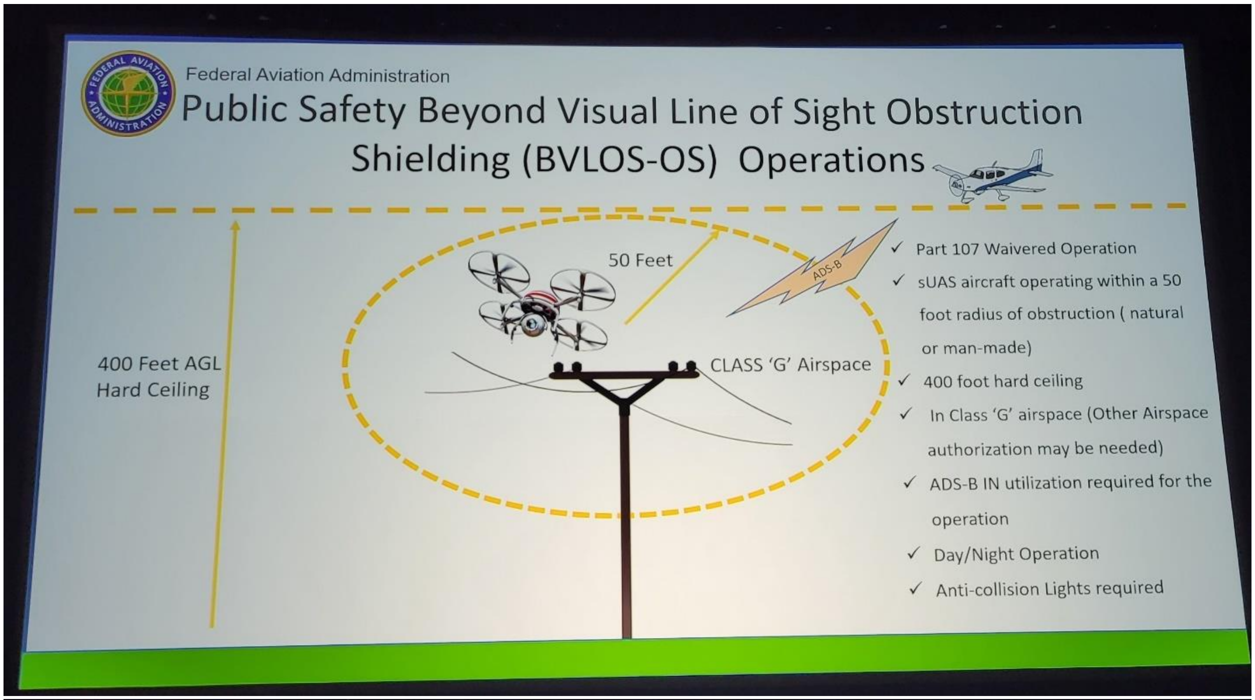
Topodrone has a tow under/behind bathymetry option for use with M300 platform that could work for rivers or other water bodies.

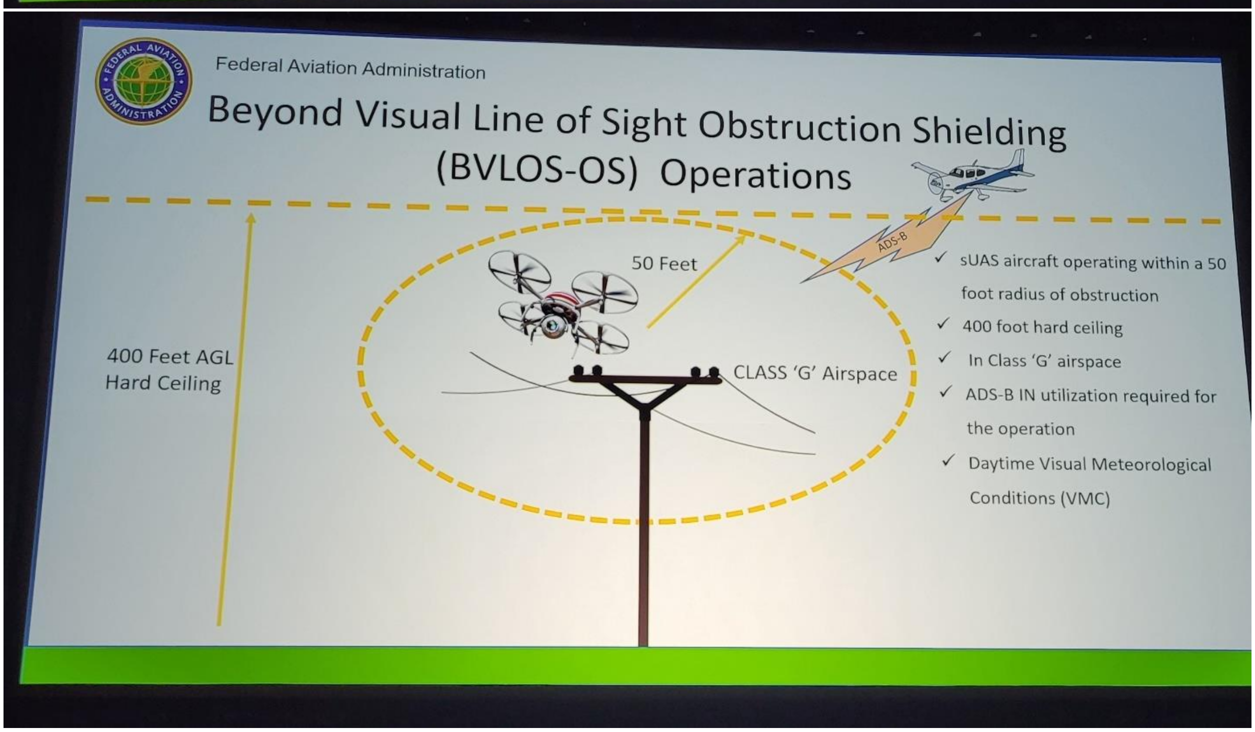

Federal Aviation Administration - EXPERIMENTAL
Beyond Visual Line of Sight Non-Critical Industrial Shielding (BVLOS-NCIS) Operations
ADS-B IN
400 Feet AGL Hard Ceiling
50 Feet
½ Mile
CLASS 'G' Airspace
✓ sUAS aircraft operating 50ft above the highest obstruction within ½ mile
✓ 400 foot hard ceiling
✓ In Class 'G' airspace
✓ ADS-B IN utilization required for the operation
✓ Daytime/Night Visual Meteorological Conditions (VMC)
✓ Controlled Access Area
✓ Geofence mitigations used


Federal Aviation Administration
Beyond Visual Line of Sight Critical Infrastructure Shielding (BVLOS-CIS) Operations
ADS-B IN
CLASS 'G' Airspace
200 Feet
✓ sUAS aircraft operating within a 200 foot radius of obstruction
✓ In Class 'G' airspace
✓ ADS-B IN utilization required for the operation
✓ Daytime/Night Time Visual Meteorological Conditions (VMC)
✓ Controlled Access Area
✓ Geofence mitigations used


Federal Aviation Administration
EXPERIMENTAL
Beyond Visual Line of Sight Obstruction Shielding (BVLOS-OS) Operations
ADS-B IN
50 Feet
CLASS 'G' Airspace
400 Feet AGL Hard Ceiling
sUAS aircraft operating within a 50 foot radius of obstruction
✓ 400 foot hard ceiling
✓ In Class 'G' airspace
✓ ADS-B IN utilization required for the operation
✓ NIGHT-TIME Visual Meteorological Conditions (VMC)
✓ Additional DAA may allow for an increased radius of up to 200 feet
✓ Lights visible for 3 Statute Miles and visible in the NVG spectrum.
NIGHT-TIME operations will eliminate the risk from Crop-dusters and be more visible to HEIMS Operators due to Night Vision Equipment.


Federal Aviation Administration
Beyond Visual Line of Sight Obstruction Shielding (BVLOS-OS) Operations
ADS-B IN
50 Feet
CLASS 'G' Airspace
400 Feet AGL Hard Ceiling
50ft can be extended up to 200ft using the following improvements
✓ RADAR DAA/RADAR Detection (depending on the system)
✓ VISUAL DAA
✓ ACUSTIC DAA


Federal Aviation Administration
Public Safety Beyond Visual Line of Sight Obstruction Shielding (BVLOS-OS) Operations
50 Feet
ADS-B
400 Feet AGL Hard Ceiling
CLASS 'G' Airspace
✓ Part 107 Waivered Operation
✓ sUAS aircraft operating within a 50 foot radius of obstruction (natural or man-made)
✓ 400 foot hard ceiling
✓ In Class 'G' airspace (Other Airspace authorization may be needed)
✓ ADS-B IN utilization required for the operation
✓ Day/Night Operation
✓ Anti-collision Lights required


Federal Aviation Administration
Beyond Visual Line of Sight Obstruction Shielding (BVLOS-OS) Operations
50 Feet
ADS-B
400 Feet AGL Hard Ceiling
CLASS 'G' Airspace
✓ sUAS aircraft operating within a 50 foot radius of obstruction
✓ 400 foot hard ceiling
✓ In Class 'G' airspace
✓ ADS-B IN utilization required for the operation
✓ Daytime Visual Meteorological Conditions (VMC)

Federal Aviation Administration

FPV Beyond Visual Line of Sight Obstruction Shielding (BVLOS-OS) Operations

- The RPIC must be onsite at the launch and recovery area;
- Operations cannot exceed a distance of 1000 feet horizontally from the RPIC.
  The sUA must not exceed –
  a) 50 feet above ground level (AGL); or
  b) the height of any object, obstacle (natural or manmade), within a 200 foot radius of the sUA, not to exceed 400 feet AGL;

- Operations must occur in class G airspace and no closer than 3 SM to a charted airport;
- Filing a NOTAM is <u>not required</u>.
- ADS-B IN <u>not required</u>.
- Lights visible for 1 Statute Mile.. <u>not required</u>.