



# ***Aerostat Surveillance Systems***

## ***ASTRUM 300 / 500 / 800***

***“Provides superb monitoring and surveillance capability in small logistics footprint. Flexible, safe and cost-effective solution, capable to stay in the air for several days. Proven in combat and civil applications. Covering radius of up to 17 km during day and night, equipped with advanced cameras helps to identify targets within the detection area, performs a visual investigation and enables to take immediate actions required to protect the assets inside the facility.”***

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The **ASTRUM** aerostat system is safe and cost-effective solution, which allows rapid deployment and gyro stabilized, dual sensor camera with up to 17 km of surveillance capabilities. System is flexible for transportation and weather resistant. Dedicated trailer is designed to be towed by commercial vehicle. Helium re-use station helps to recycle expensive Helium (up to 5 times); after the mission, the system stores Helium in dedicated cylinders.

- Helium filled balloon anchored to the ground by tether & mooring system
- Advanced EO/IR payloads for continuous, day/night operation
- Commanding viewpoint providing superb real time intelligence, surveillance, and monitoring
- The ultimate solution for non-stop 360° surveillance
- Proven in combat and civilian security roles
- Highly mobile, cost effective systems with small logistic footprints
- Applications: surveillance, mobile communications; Wifi, 4G, LTE, 5G, GSM
- Silent; noiseless when airborne



	<b>Astrum 300</b>	<b>Astrum 500</b>	<b>Astrum 800</b>
<b>Type of Balloon</b>	1-ply	2-ply	2-ply
<b>Balloon size / diameter</b>	19m <sup>3</sup> / 3.8m	38m <sup>3</sup> / 4.8m	73m <sup>3</sup> / 6m
<b>Max tether length / operational height</b>	150 m / 100 m	300 m / 200 m	300 m / 200 m
<b>Lifting capacity</b>	12 kg	24 kg	34 kg
<b>Max length of mission</b>	4 days	7 days	30 days
<b>Wind resistance</b>	13 m/s	17 m/s	22 m/s
<b>Temperatures</b>	-35°C to +55°C	-35°C to +55°C	-35°C to +55°C
<b>Detection range – human</b>	up to 2.5 km	up to 6.5 km	up to 9 km
<b>Detection range – vehicle</b>	up to 4 km	up to 10 km	up to 17 km
<b>Camera</b>	3-axis, stabilized, all weather gimbal camera. HD Day + IR Uncooled Digital transmission	3-axis, stabilized, all weather gimbal camera. HD Day + IR Cooled Digital transmission, tracking of objects, geo-location	3-axis, stabilized all weather gimbal camera. HD Day + IR Cooled Digital transmission, tracking of objects, geo-location
<b>Ground Control Station</b>	Basic	Tactical	Tactical
<b>Mooring system</b>	Trailer with winch / mooring system, independent power supply, helium storage		
<b>Options</b>	Helium re-use system, Emergency deflation system, customized payload bays		

### Cameras for day & night imaginary

Our own design of tactical payload carrier includes the communication, electricity, and avionics systems, allows the integration of any sensor desired by our customer.

- 3 – axis stabilized gimbal camera
- Dual sensor CCD (Day) & IR (Night)
- Optionally distance measurement, laser designation



### Other payload options

The lifting capability is sufficient to support also various other applications beyond standard surveillance solutions. Statically located and powered payload bay can host also wide range of communications and electronics devices, such as GSM cells, 4G/LTE or 5G cells, WiFi access points or measurement devices.



### Ground Control Station

Portable, Pelicase type of GCS is available for quick and mobile use. Tactical station, designed as single user workplace, is designed as foldable, rugged, all weather unit. Both solutions allow the operator to manage the payload, track targets, record and hand over imaginary data.



## Transportation / Logistics

Rugged trailer is designed to be towed by commercial vehicle (SUV, small truck etc.) The trailer hosts complete infrastructure for deployment; winch and mooring system, electronics control unit, backup power source, helium bottles and storage compartments for balloon storage.



## Helium re-use system

To preserve costly Helium, specialized trailer with re-use system has been designed. It enables to reuse the Helium up to 5 times. Easy a fast operation.



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