USE CASE · TETHERED SURVEILLANCE UAV

# Tethered drone for base, camp and border-post security

A post or camp needs eyes on its approaches all day and all night. Guards on towers see only so far, and a free-flying drone has to land to recharge. A tethered drone raises a camera above the perimeter and keeps it there, powered from the ground.

## IN SHORT

- A tethered drone gives a base, camp or border post a camera above the perimeter for 18-24 hours on ground power, through a cable from the ground.
- The Star INXS Tethered Surveillance UAV has no radio link while operating, because control and video travel over optical fibre, and it navigates with multi-constellation, multi-brand GNSS plus an EW /…
- A 4K day camera with 40x optical zoom, a 640 x 480 thermal/IR night camera and a 1,200 m laser range finder let a post observe and range a target by day and night.
- For patrols along a long border, a free-flying VTOL such as the Hybrid VTOL is the better tool; the tethered drone is for the fixed post.



## WHAT TO SPECIFY

| FIGURE | WHY IT MATTERS AT A POST | TETHERED SURVEILLANCE UAV |
|---|---|---|
| **Time aloft** | A watch that does not stop at shift change | 18-24 h tethered, ground power |
| **Tether** | Clears walls, towers and terrain around the post | 100 m or more |
| **Link** | Emission control and jamming resistance | Optical fibre, no radio link while operating |
| **Navigation** | Operation where GNSS is jammed | Multi-constellation, multi-brand GNSS; vision sensor, INS and LiDAR |
| **Observation** | Seeing and ranging approaches | 4K, 40x zoom; thermal/IR 640 x 480; laser range finder 1,200 m |
| **Ground power** | Camps often run on generators | 3 kW minimum power capacity |
| **Set-up** | Speed of deployment | Under 15 min; 12-15 kg all-up |

## HOW IT IS USED

1. **Position the station** where the tether has a clear path up and the operators are protected.
2. **Deploy in under 15 minutes.** The auto-configuring ground control station needs no manual set-up.
3. **Raise to working position** and monitor the live feed at the post's control point.
4. **Review the record.** The automatic flight log keeps a record of each flight for the post's reports.

## COMMON QUESTIONS

**Does a tethered drone transmit radio signals?**
No radio link is used while operating: control and video travel over the optical fibre in the tether.

**Can it operate if GNSS is jammed?**
It carries an EW / GNSS-denied suite with an indigenous vision sensor, INS and LiDAR, alongside multi-constellation, multi-brand GNSS.

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