

GEO Tactical SATCOM for Land-Border Operations

Extending command, video and voice to the edge of a 400 km frontier —
where radio, fibre and cellular run out.

Long borders with limited connectivity present a challenge for border security forces. Their activity is essential to situational awareness and timely decision-making, but the existing solution relies on limited connectivity.



THE CHALLENGE

Coverage ends where the border begins

- ▶ Rugged terrain breaks tactical radio links between remote outposts and headquarters — range and line-of-sight gaps.
- ▶ Across a large area, radio coverage is limited and depends on legacy, fixed infrastructure.
- ▶ Connectivity is lost when a force dismounts or moves — no continuity on the move (COTM).

The HiSKY solution

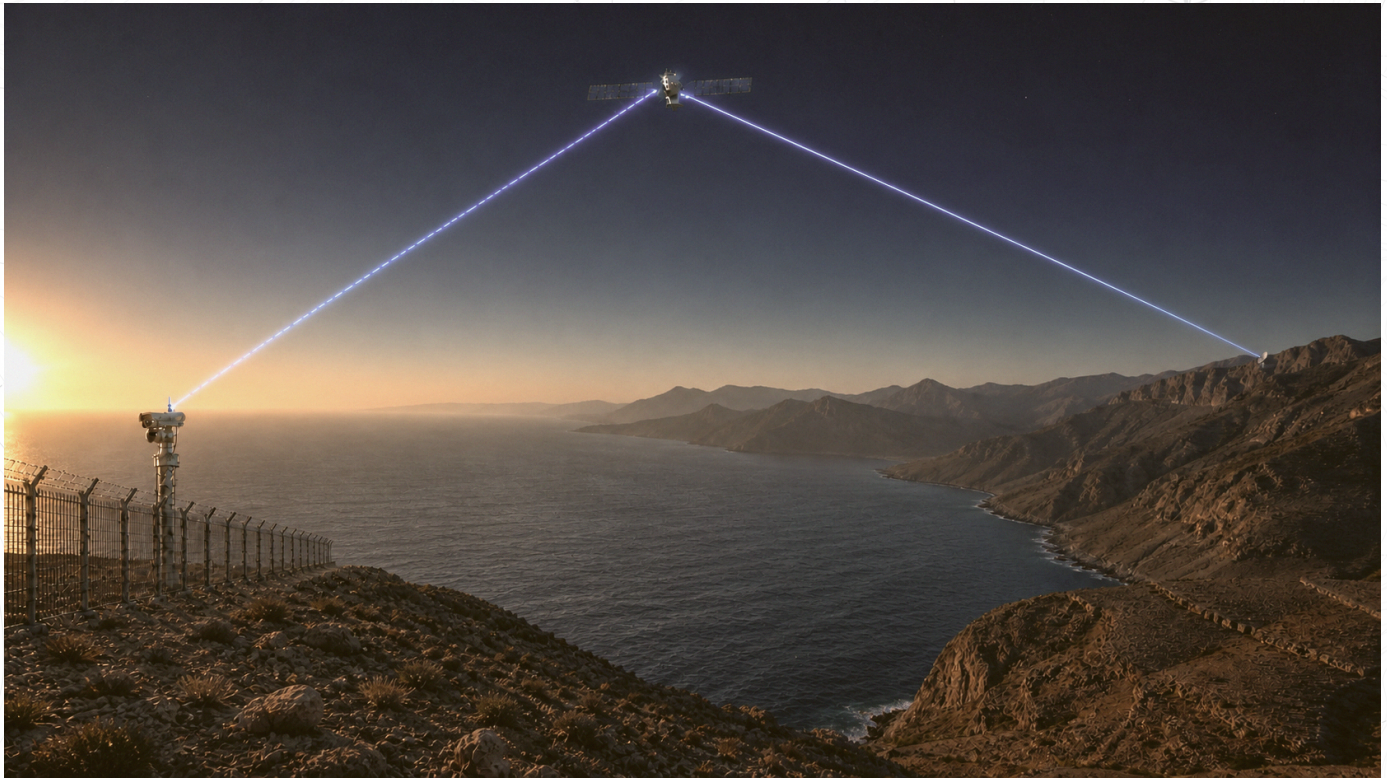
HiSKY deployed a single satellite channel and a compact, vehicle-mountable terminal architecture that turns a command vehicle into a mobile communications node and pushes VoIP and IP services to the tactical edge. The same Ku channel was reconfigured between scenarios — tactical-radio relay and IP/WiFi services — one resource flexing across operational modes.

Terminal — Dynamic Ku 16×16

Service tier — Ku-band; Layer-3 IP service

Deployment — Vehicle COTM (roof-mount) + fixed (tripod, boresight) — same terminal, both modes

One Ku channel from the border sector to headquarters



How it works — the Dynamic Ku 16×16 terminal on the command vehicle (or on a tripod at a fixed outpost) closes the link to the GEO satellite; the HiSKY teleport and HUB land it on the customer's private network. The same single channel carries tactical-radio relay, real-time video and VoIP/WiFi services — reconfigured per scenario and managed end to end through Space Control (NMS).

WHY HiSKY

One channel, three missions

► One channel, three missions

A single resource was reconfigured for tactical voice relay, real-time video and IP services — efficient use of scarce, costly bandwidth.

► Compact, rapid-deploy terminal

Magnet roof-mount on a standard vehicle — no fixed infrastructure required.

► Managed end to end

HiSKY teleport, HUB and Space Control (NMS) give the customer a fully supported, monitored service.

► Continuity on the move

Voice and IP stayed up with the vehicle in motion — and when the team walked away from it.

► Bridges legacy tactical radio

Existing military radio (unencrypted tactical net) is carried transparently over satellite — no rip-and-replace of fielded kit.

► Selected over the alternatives

Terrestrial and RF options could not close the range and line-of-sight gaps; a generic GEO VSAT could not deliver the low-latency, on-the-move tactical experience the mission demanded.

RESULTS & VALUE DELIVERED

Before and after HiSKY

CATEGORY	BEFORE HISKY	AFTER HISKY
Connectivity	Tactical radio range/LOS-limited; coverage gaps off-axis	Self-contained comms bubble around the command vehicle; clear two-way voice via satellite, on the move and dismounted
IP / data services	No data services for forces operating off fixed infrastructure	Satellite-fed WiFi bubble carrying messaging, voice and calls — stationary and while driving the axis
Bandwidth efficiency	Multiple link types, separate infrastructure	All capabilities delivered over one Ku channel, reconfigured per scenario
Business outcome	Coverage gaps → delayed detection, degraded picture, forces going dark on manoeuvre	Resilient command, video and voice extended to the tactical edge — clearing the path to a sector-wide rollout

“In one week, on a single channel, HiSKY put command, eyes-on video and voice exactly where our radios and cellular couldn't reach. That changes how we hold the line.”

— A Senior Officer

WHY HISKY — COMPETITIVE CONTEXT

Selection criteria

The customer weighed continued reliance on legacy terrestrial links and short-range tactical radio, and considered a generic GEO device. Terrestrial/RF options could not close the range and line-of-sight gaps across the area; GEO VSAT alone could not deliver the low-latency, on-the-move tactical experience the mission demanded. HiSKY was selected for its COTM performance, compact rapid-deploy terminal, ability to bridge fielded military radio, and a fully managed, monitored service.

CRITERION	WEIGHTING	HISKY SCORE
Latency & low-rate tactical voice performance	High	★★★★★
Continuity on the move & dismounted (COTM)	High	★★★★★
Terminal size & speed of installation	Medium	★★★★★
Coverage across the operating sector	High	★★★★★
Integration with fielded military radio	High	★★★★★
Managed service & vendor support	Medium	★★★★★

DEPLOYMENT SNAPSHOT

What was fielded

SITES / TERMINALS

Command vehicle (COTM) +
Dynamic 16×16 Ku; one active Ku
channel

DEPLOYMENT TIMELINE

In less than a week from the start
of teleport equipment installation,
the customer operated the
system independently — without
HiSKY on site.

INTEGRATION

Legacy tactical RF radio over IP /
WiFi for cellular handsets,
connected to the HiSKY 16×16 Ku
terminal

MANAGEMENT

Space Control (NMS)

REFERENCE STATUS

Restricted

PRODUCTS

HiSKY full solution: Dynamic Ku
16×16 COTM, HiSKY HUB, Space
Control (NMS)

REPLICATION POTENTIAL

Addressable prospect profile

Any land force, border-security agency or critical-infrastructure operator covering long, terrain-limited geographic boundaries where fibre and cellular run out: divisional/brigade commands, border police, energy-corridor and pipeline security, and forward operating bases needing command and control and IP services on the move — without standing up fixed infrastructure.

HISKY PRODUCTS IN THIS USE CASE

One sovereign system

TERMINAL

Dynamic Ku 16×16 COTM



HUB SYSTEM

HiSKY HUB modem + packet
processor



NMS

Space Control Standard /
Premium



Full network sovereignty and
mission-grade redundancy.