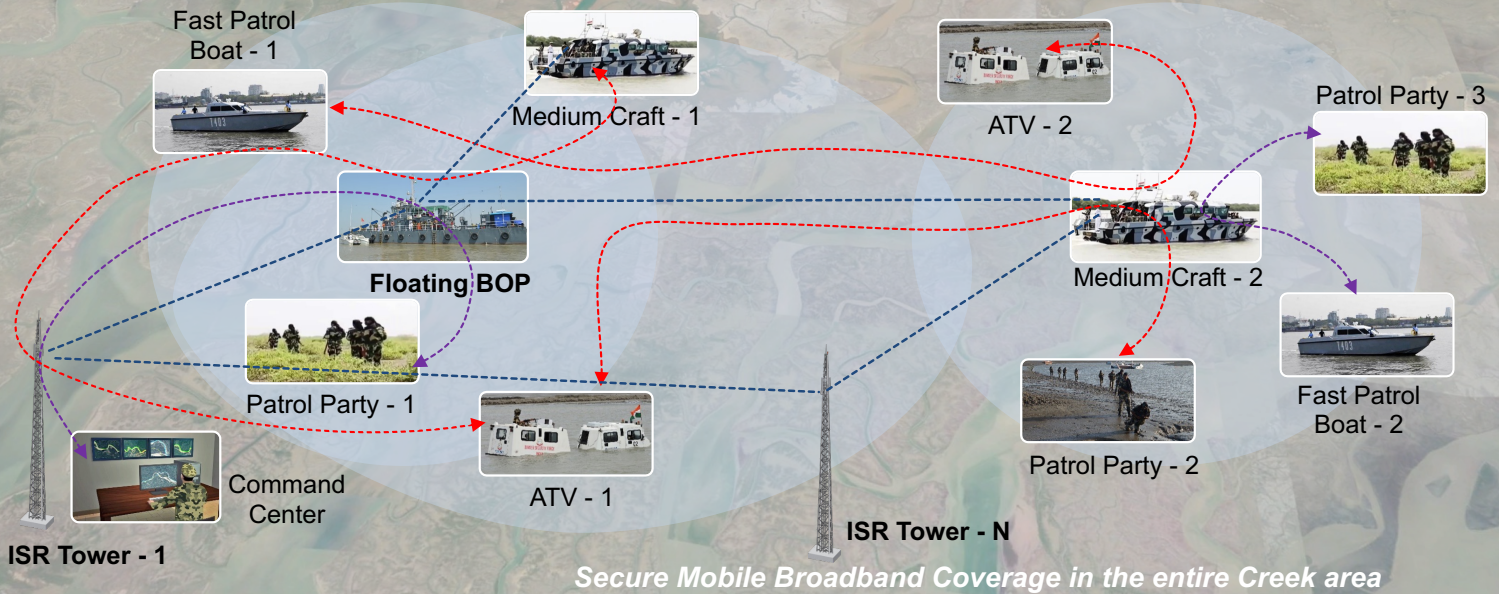


Sir Creek Area - ISR

Real Time Networked Situational Awareness & Data Fusion



Historically, Desert & Marshy terrain like Sir Creek has been a challenge for establishing and maintaining critical communications. Strengthening surveillance across Marshy & Desert border to improve a commander's ability to direct a mission at difficult terrain which requires equipment that is rugged, light weighted, portable and designed for Marshy & Saline terrain. Security against illegal immigration, smuggling, and terrorism demands reliable long-range threat detection and positive identification of potential threats all day, all night, and in all conditions.

ShyamVNL's proven Secure Communication, Intelligence, Surveillance, Reconnaissance solution for – Desert & Marshy terrain exploits the advantages of Marshy, Saline, high tide/low tide terrain to deliver unfettered Secure communication, real time video data and remote monitoring services at HQ. Secure Communication & Surveillance solutions enable users to quickly communicate & distinguish between true threats and false alarms to achieve their mission.

The field-tested dedicated Secure Communication (4G/LTE), surveillance solution is lightweight, portable and easy to configure. when deployed at difficult terrain, enabled commanders and on-field soldiers to transmit live video, images, maps and other GIS information in real-time between operation center and multiple field offices over an encrypted and secure IP network.

BENEFITS

- Conceived, Designed and Manufactured in India
- All IPR's SW, HW owned by Shyam VNL
- Real-time Video feed from remote locations to HQ
- Used for real-time situational awareness
- 24/7 Day & night operation

HIGHLIGHTS

- Total area of 2,500 Sq Kms covered with Secure Mobile Broadband System
- Entire area also covered with Radars, E&O & SIGINT System
- All personal, Boats, floating BOP & ATV connected with High-Speed Mobile Broadband
- Live Location Status of all personal & mobile assets

In general, there is no `fit for all` border security solution that is able to address the many complexities that relate to climate, topography, geographic location, and even associated politics. Real solutions require innovative products and seamless integration to work as a force multiplier and provide smart, effective border protection.

Shyam VNL's Smart Border Management solution includes an integrated and omnipresent system, called Intelligence Surveillance and Reconnaissance (ISR), Perimeter Intrusion Detection System

(PIDS), Wireless Intrusion Detection System (WIDS), Solutions that enable authorities with real-time, remote monitoring and control over critical locations. This integrated real-time intrusion detection and surveillance solution aids forces in effectively monitoring a designated area without endangering human lives to provide all-weather surveillance.

Each terrain type provides different complexities and challenges and a multi-layer security control and management solution is recommended with customizations.

APPLICATION

Each military/civilian installation of value has its own strengths and weaknesses in terms of how intrusion may be carried out. While the structure and layout of the effective solutions may vary, every installation follows the fundamental principles of the **five Ds – Deter, Detect, Deny, Delay and Defend**. The threat assessment is carried out from the outside – measuring the assessment

based on the threat levels at the outermost limits and then proceeding inwards as the coverage area reduces and threat perception increases.

As has been mentioned before, borders of different terrains and geographies require different Ds to be taken into consideration for PIDS setups. **A few examples of ideal setups are categorised as:**



Border areas in deserts, vast open spaces

A multi-tiered layer of sensors to ensure comprehensive security for borders with vast, open areas.

Border areas with delta, estuary & creek

A multi-tiered layer of sensors to ensure comprehensive security for borders with difficult-to-manoeuvre, marshy terrain includes:

Detect: Situational Awareness

- Day and thermal camera
- Ground Surveillance Radar
- WIDS on drone
- 4G/LTE for Mobile Broadband Communication

Defend: Apt Response Mechanisms

- Unmanned aerial vehicle tethered on boat/buoy

For further information visit our website www.shyamvnl.com



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