

# MOBILE COMMAND & COMMUNICATION VEHICLE

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Enabler of Digital Transformation



# Mobile Command & Communication Vehicle

In times of major crisis or natural disasters, rapid deployment of command centres to mobilise resources and coordinate multi-agencies rescue efforts are critical to saving lives and property. Leveraging ST Engineering's expertise and capabilities in providing large-scale system integration for mobile communication vehicles, we offer public safety agencies

a one-stop centre for purpose-built Mobile Command and Communication Vehicles (MCCVs). Our range of customisable MCCVs addresses the most demanding defence, homeland security and emergency situations where clear and effective command, control and communications are essential.

## Mobile Command And Interoperable Communication

The versatile and robust MCCVs serve as mobile C4 centres to support on-site mission planning and management of emergency situations and disasters. It enables the quick establishment of on-site incident command for effective and efficient personnel and resource deployment. It is built for all-weather operations to ensure voice, data and video are transmitted in real-time between incident site(s) and HQ command centres.

It is common for different agencies to use disparate communication systems that are incompatible, resulting in communication breakdown at incident site(s). To address this concern, the MCCVs are equipped with our state-of-the-art Integrated Communication Systems (ICS) to provide seamless interoperable communication.



**MCCVs are equipped with ICS to provide interoperable communication among:**

- Radio (HF, VHF, UHF and Trunked Radio)
- Telephones
- Wireless Tablets
- GSM Phones
- 3G/4G
- WiFi Phones
- VSAT
- Video Conferencing
- Fixed Command Centre



## Forward Command Vehicle

The Forward Command Vehicle (FCV) is designed based on a robust four-wheel drive chassis to enable easy manoeuvring on demanding cross-country terrains. It is deployed for the management of large scale disasters that require the cooperation of multi-agencies (army, police, medical, forestry, etc.) in rescue and recovery efforts.

The FCV is ideal for quick deployment anytime and anywhere. It is built for all weather conditions to provide round-the-clock surveillance and interoperable communication essential for mission planning and incident management.

### Key Features

- Supports interoperability between agencies
- Highly manoeuvrable
- Suitable for different terrains
- Supports voice, data and video communications



Air Transportable Command Post



## Mobile Command Hub

The Mobile Command Hub (MCH) heralds a breakthrough in vehicular design where workspace is not limited by the size of the vehicle. It is developed based on a motorised mechanism to provide quick and fully automated expansion of the cabins and deployment of its internal consoles. The MCH provides the flexibility of expanding one or both side(s) of the vehicle body to suit different operational requirements.

By using a truck of 28 tons (GVW), the MCH has an internal working space of more than 40sqm. This is three times its size in a closed configuration. With an enclosed floor space, the versatile vehicle incorporates support equipment and communication facilities that can be utilised to support on-site mission planning, command and control (C2) as well as inter-agency communications for large scale events, emergencies and disaster recovery. It can also be customised to provide surveillance, media briefing, conference facilities, office automation as well as voice, data and video communications with the HQ command centre for effective crisis management.

### Key Features

- Provides more than 40sqm of working space
- Provides automated deployment
- Supports one/two side expansion
- Supports interoperability between agencies
- Supports voice, data and video communications

## Mobile Command Post

The Mobile Command Post (MCP) is designed to operate in cross-country environment and difficult terrains. It is built for mobile and quick deployment with a fast deployable shelter and a large working space (45 sqm) that is expandable. Multiple MCPs can also be deployed side-by-side or back-to-back to suit different operational needs. This feature utilises fewer vehicles per command post, reducing the operational and logistical costs involved in HQ deployment and incident management.

With minimum field maintenance and the ability to provide clear and effective voice, data and video communications while on the move, these benefits have made the MCP an excellent choice for defence and public safety agencies.

### Key Features

- Provides 45sqm of working space
- Supports interoperability between agencies
- Suitable for different terrains
- Supports voice, data and video communications





## Specialised Communication Vehicle

### Mobile Radio Vehicle

The Mobile Radio Vehicle is designed to operate as a mobile base station. It can be deployed to enhance radio coverage or provide additional communication channels during major events and incidents.

### Directional Finder

The Directional Finder specialises in spectrum monitoring and direction finding. It is a useful tool for regulatory authorities to monitor and police the use of limited radio frequency spectrum.

Equipped with an integrated spectrum monitoring system, the Directional Finder enables detection of unlicensed usage of frequencies. Its homing capability allows the authorities to trace the origins of these frequencies and track movement of the transmitting source. This acts as deterrence to potential offenders, thereby reducing interference to legitimate transmissions.

### Heli-portable Mobile Communication Vehicle

This is a purpose-built vehicle that can be under slung and air-lifted by a helicopter for greater mobility during emergency and disaster management.

### Mobile Generator Power Plant

The availability of power is vital for the successful operation of C3 (Communication, Command and Control) and other supporting systems in field command centres. This is especially so in the management of emergencies and disasters.

It is important that field vehicles are customised to incorporate mobile generators to provide power for critical C4 systems and other fieldwork when the local power source is not available. Our mobile generator power plant is designed to operate under all weather conditions. It provides the flexibility of further customisation to meet different operational needs such as the design for a failover feature when 2 generators are provided on the same vehicle.

## Customisation

Understanding that each operation is unique and requires different supporting equipment during the management of incidents, the MCCVs are designed for easy and versatile customisation to suit different operational requirements. Its equipment layout and operator console design is developed with full

consideration of Human Factor Engineering (HFE). This enables easy access to communication resources via an Integrated Despatch Console (IDC) that provides user-friendly Graphical User Interfaces (GUI) required for optimised operational management.

We provide a broad range of equipment to help users handle all types of situations. These include:

- Portable Microwave Transmission (PMT)
- M4 Inmarsat
- VSAT
- DVB recording
- Wireless network system (WiMax, LTE)
- Digital line switch
- Trunked radio system
- Integrated multiplexed video, audio and VGA switch
- Telescopic mast with lifting jack
- Integrated weather monitoring system
- High-powered lighting system
- PA system
- Video conferencing equipment
- Computers, fax, scanners, copiers, printers
- Surveillance, detection, security cameras
- Monitors, LCD and Plasma TVs
- Generator - 3ph and single ph
- Air-conditioners

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