

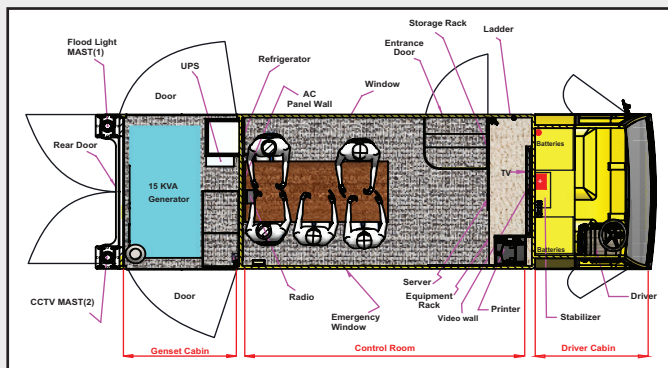


Mobile Command Post for KIAB

Introduction

A Mobile Command Post (MCP) is a customized, fully-equipped, robust vehicle, outfitted with specialized equipment for emergency response. The vehicle designs are customizable and are capable of supporting diverse missions of military, security or police units.

A Mobile Command Post can be quickly dispatched to the site of disaster/emergency and can undertake the local command, control and coordination among the multiple agencies responding to the emergency. This case study showcases Mistral's capability in designing a customized Mobile Command Post unit for handling emergencies and disasters at Airport premises.



“ This case study showcases Mistral's capability in designing a customized Mobile Command Post unit for emergency response. ”

The Customer

The customer is Kempegowda International Airport, Bengaluru (KIAB), South India's busiest and India's third largest airport. KIAB was keen on a state-of-the-art vehicle to quickly respond to the incident of disasters at airport. The deployment of Mobile Command Post Vehicles has been recommended at all Indian Airports by DGCA & ICAO to handle emergency situations like Air Crash, Air Hijack or Fire, etc. in and around the Airport Terminals and Aerodromes.

The Requirement

KIAB approached Mistral for a tactical solution for incident management necessitating mobility, inter-connectivity and communications. The solution had to be highly efficient and would have to serve as a coordination, communication and command centre during emergencies handling fire and rescue management, security, evacuation, medical support, ambulance management among other responsibilities. The Mobile Command Post would have to work in coordination with the Fixed Emergency Operations Centre located at the landside.

Solution Provided

Mistral designed an integrated Mobile Command Post based on a 4x4 vehicle chassis that consisted of an operator managed Wireless Radio Communication System allowing the various agencies to communicate seamlessly with each other during an emergency. The vehicle was self-contained in terms of power generation with a Diesel Genset & UPS supplying a back-up of up to 2Hrs. Raw power, when available, could also be used to power the electronics.

The vehicle was installed with a video wall display for live Video feed transmission from the disaster site via 6-meter high, mast-mounted PTZ Camera. A 6-meter mast with LED Flood lights was installed for night-time operations. An auto-tracking Mobile Dish TV Antenna provides the Mobile Command Post with live Satellite DTH TV channel feeds, which provide the controller with updated media news about the disaster. All the electronics were installed inside vibration and shock-proof mounted racks, to prevent the damage due to driving uneven terrain.

Features & Sub systems

Vehicle	AC, All Terrain, 2/4WD Vehicle with Hydraulic Stabilizers
Pneumatic Masts	Telescopic masts (up to 6m) with 40Kg head load
PTZ Camera	Mast mounted HD resolution, PTZ Camera with VMS
Communication	Wireless radios for multiple agencies within Airport
Video Wall	For Common Operation Picture & Situational Awareness
GPS Clocks	GPS based Digital Clocks showing IST and UTC times
LED Flood Lights	Mast mounted heavy-duty LED Flood Lights for night operations
PA System	PA System with 4 speakers and wireless microphone
Satellite TV	Auto-tracking Mobile DTH TV Antenna
Display System	LED Display System
Power System	Diesel Genset and Online UPS with battery backup

The Challenges

- ▶ Fitting all the required electronic components and creating seating arrangements for five personnel within the vehicle was a challenge due to interior size constraints. This was managed by choosing an optimal rack design along with suitable equipment selection during the design stage.
- ▶ The default practice in such vehicle designs is to place the power generation unit in the rear of the vehicle. In this case, the UPS required was 10 KVA and this made the battery banks very heavy affecting the load balance of the vehicle. To ensure optimal load balance, Mistral's team had to rework the design of the MCP by moving the batteries to the front of the vehicle near the driver area.

Key Achievements

- ▶ Delivered a cutting edge, robust solution meeting the requirements of the customer.
- ▶ The customized, full featured vehicle delivered to the customer was the first high-tech MCP commissioned and executed in India. Setting benchmarks in the industry this pioneering initiative at KIAB is now being introduced at other airports and corporates as well.

Customer Benefits

- ▶ Installed with specially designed computerized consoles, radio operators can instantly connect police and fire personnel, law enforcement, government or national agencies to communicate together as needed providing a valuable support system.
- ▶ MCP is particularly effective in isolated areas where there may be limited or no accessibility to technology or resources necessary for effective on-scene management of an incident or event.
- ▶ The MCP allows seamless and efficient coordination ensuring quicker response to emergencies, augment security at disaster site, systematic medical care to victims and quicker resumption of airport operations post the disaster.



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