

**Minutes of the meeting of Expert Committee for the Review of
Specification of Mobile Forensic Van**

Members:-

1. Sh. Lakshmi Kanta Halder, DS, WS-II, MHA.
2. Dr. Deepak Middha, Dy. Director, CFSL, Chandigarh.
3. Dr. S. Ahmed, Sr. Scientific Officer Gr. I (FS), DFSS HQs, New Delhi
4. Sh. Durga Prasad Gangwar, AD & Sc. C, CFSL Chandigarh
5. Dr. Vimukti Chauhan, AD & Sc. C, CFSL Chandigarh
6. Dr. Ritika Verma, SSO & Sc. B, CFSL Chandigarh
7. Sh. Ashok Kumar, Inspector, I/C Crime Branch, Chandigarh Police.
8. Sh. Harjinder Singh, ASI, Mobile Forensic Team, Crime Branch, Chandigarh Police.

The above committee was constituted by Director CFSL, Chandigarh as per direction of CFS, DFSS, New Delhi to review the Specification of Mobile Forensic Van (MFV) received through email dated 22/09/2023 from DFSS.


The committee met Offline & Online modes on 22/09/2023 evening and 25/09/2023 (first half) to review the Specification of Mobile Forensic Van as per present SOC requirement in Indian scenario.


After reviewing Mobile Forensic Van (MFV) specification followed by discussion and thorough research, the committee is of the view that in order to provide wholesome solution to investigating agency in the form of MFV and crime scene management amidst all sort of crime scene scenarios the following items need to be included at common items list of specifications of MFV, these items are as follows:

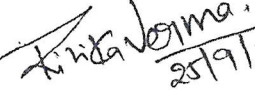
- 360° Revolving Camera On Van/Vehicle Roof
- Body Wearing Camera
- Light Source: AC/DC Ultra High Power Led Panel Along With Stand And Carrying Case
- Public Address System
- 1-D And 2-D Barcode Scanner & Printer
- Handheld GPS Tracking System
- Digital Tablet With Internet Facility


Further Committee finalized the specifications unanimously and the same is enclosed herewith as Annexure 'A'.

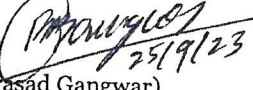
Dated: 25.09.23



(ASI, Harjinder Singh)
IO, MFV, Chandigarh Police
25.09.2023

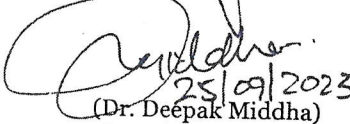

(Inspector, Ashok Kumar)
IO/Incharge Crime Branch
25/9/2023


(Dr. Ritika Verma)
SSO & Sc. B
25/9/2023


(Dr. Vimukti Chauhan)
AD & Sc. C
25/9/23


(Durga Prasad Gangwar)
AD & Sc. C
25/9/23


(Dr. S. Ahmed)
SSO Gr. I (FS)
25.09.2023


(Dr. Deepak Middha)
Dy. Director & Sc. D
25/09/2023


(Lakshmi Kanta Halder)
DS, WS-II, MHA
25/09/2023

**SPECIFICATIONS OF DIRECTORATE OF FORENSIC
SCIENCE , MHA, GOI FOR MOBILE FORENSIC VAN
WITH IT ENABLED FORENSIC EVIDENCE
MANAGEMENT SYSTEM:-**

1. Introduction:-

The goal of crime scene investigation is to identify, document and collect physical and biological evidences at the scene of crime and must be done with great care and a thoughtful approach, since the case under investigation has to be put in the court. Solving the crime will depend on reaching the crime scene in time as well as piecing together the evidences to form a picture of what happened at the crime scene. Crime scene investigation includes securing of crime scene, photography, proper search of crime scene, systematic documentation of the crime scene along with the suitable collection, packaging, preservation and transport of all the evidences encountered at a specific crime scene. In the majority of cases, the investigating officer who protects and searches a crime scene plays a critical role in determining whether physical evidence will be used in solving or prosecuting crimes. For such it was felt to develop a proper Scene of Crime (SOC) Vehicle for effective and efficient crime scene management.

- Mobile Forensic Van (MFV) vehicle should have a prefabricated driver cabin and a chassis to accommodate the different cabins for storage of kits, chemicals, exhibits, etc.
- MVF should be designed to have in the see-through labeled drawers, ease out to pick the right tool, kits and consumables for use.
- A wash basin to clean hands and face to be fitted inside the MFV.
- A DC operated refrigerator (suitable for moving vehicles) has to be installed in dedicated space, so that e.g. DNA samples can reach safely in the forensic lab for testing without deterioration.
- An inverter has to be provided in the MFV that will supply the electric current continuously at the time of investigation. It can be charged both on moving vehicles with the engine as well as from external charging points provided in the vehicle.
- MFV proposed should have more internal height with sufficient working space as well as space for Equipment, with rigid ladder type chassis, which offers sturdiness on road and longer life of vehicle in view of Indian vivid terrains.
- Proposed Vehicle should be fit for precise customized fabrication to ensure Quality Control, Warranty and Serviceability.

Technical Specifications of Proposed Mobile Forensic Van/Vehicle	
Fuel	Diesel/CNG
Engine Capacity (cc)	3450 or better
Category of Vehicle for which Chassis to be used	Light Capacity Commercial Vehicles
Type of Chassis with certification	Chassis with face cowl
Body Style & Length	Tilt Cabin Chassis with 12ft or better
Chassis with Built up Cabin	Yes
Type of Fuel	Diesel/CNG
Vehicle Emission Compliance	BS VI
Chassis Transmission System	Manual
Max Engine Power BHP	100 or better
Max Engine Torque (N-m)	315 or better
Engine Aspiration	Turbocharged Intercooled
No. of Cylinder in Engine (Nos)	4
Ground Clearance (mm)	225 millimeter or better
Wheel Base (mm)	3300 millimeter or better
Type of Steering	Manual/Power
No of Axle (Nos)	2
Axle Configuration (No of Outside Tyre x No of Driving Tyre)	4X2
Type of Front & Rear Axle and Suspension System	MULTI-LEAF SPRING
No. of Speed/ Forward Gears (Nos)	5
Front & Rear Vehicle Brake	DRUM
Type of Clutch	Dry Sgl. plate
CONSTRUCTION	
Design of Chassis	Full Frame chassis
Body Options	Customize-able
Fuel Tank Capacity (Ltrs)	90 or better
Length of Chassis (mm)	6000 or better
Width of Chassis (mm)	2200 or better
Height of Chassis (mm)	2700 or better
Type of Vehicle Tyre	Tube/tubeless
Size of Wheel	400mm or better
Vehicle Mileage (Km/Ltr)	8 or better
Speed, Max (Km/Hr)	80 or better
Turning Radius (mm)	7000 or better
Warranty Period inclusive of warranty of Battery (Month)	36 months or better

3. Details of basic Forensic Evidence Collection Kits :

With reference to crime scenario vis-à-vis CrPC requirements on evidence management to be housed in MFVs are given below:

- 1) MVF Common Items and PPE Kits
MFVs are to be equipped with dashboard and cabin CCTVs with chip or DVR recording facilities with at least 2 months backup.
- 2) Physical Evidence Collection and Packaging Kits.
- 3) Biological Evidence Collection Kits/Sexual Assault Evidence Collection Kit (SAECKIT)
- 4) Shoe Print And Tyre Marks Collection Kits.
- 5) Digital Evidence Collection Kits.
- 6) Fingerprint Lifting Kits.
- 7) Questioned Documents Collection Kits.
- 8) Chemicals, Explosive and Narcotics Collection Kits.
- 9) Ballistics Evidence Collection Kits.
- 10) Digital evidence collection Kits.

S. No.	ILLUSTRATION OF ITEMS	QUANTITY	REMARKS
1) MVF' COMMON ITEMS AND PPE KITS			
1.	DISPOSABLE GLOVES (SMALL, MEDIUM AND LARGE)	1 BOX Each Size.	DISPOSABLE
2.	DISPOSABLE FACE MASKS, EAR LOOP, 3 PLY.	1 BOX	DISPOSABLE
3.	DISPOSABLE CAPS, FREE SIZE	1 BOX	DISPOSABLE
4.	DISPOSABLE GOWNS, FREE SIZE	1 Pkkg/ Box	DISPOSABLE
5.	DISPOSABLE SHOE COVERS , FREE SIZE	1 BOX	DISPOSABLE
6.	DISPOSABLE NAPKINS, STANDARD SIZE	6 PACKETS	DISPOSABLE
7.	CRIME SCENE COATS AND PLASTIC APRONS	6 PIECES EACH	REUSABLE
8.	SAFETY GOGGLES, FREE SIZE	6 PIECES	REUSABLE
9.	HEAVY DUTY RUBBER PROTECTIVE GLOVES	6 PAIRS	REUSABLE
10.	PROTECTIVE RUBBER SHOES UPTO KNEE	6 PAIRS	REUSABLE REUSABLE
11.	HAND SANITIZERS, ALCOHOL BASED	500ML pack /6 BOTTLES	CONSUMABLE
12.	DISPOSABLE BIODEGRADABLE WASTE BAGS ,MEDIUM SIZE	1 PACK	DISPOSABLE
13.	MAGNIFYING LENS 4" DIA	4 NOs	REUSEABLE
14.	FORCEPS (TOOTHED AND POINTED) OF VARIOUS LENGTHS 6"-8"	4 PIECES	REUSEABLE

15.	SCISSORS (SMALL 6" 2 PCS)(BIG 8", 2PCS),(CLOTH CUTTING SCISSORS-1)	05 PIECES	REUSEABLE
16.	STAINLESS STEEL SPATULAS 4"-6"	4 PIECES	REUSEABLE
17.	SURGICAL BLADE WITH HANDLES (4"-6")	3 HANDLES + 1 BOX BLADES	DISPOSABLE
18.	GLASS SLIDES FOR MICROSCOPE, STANDARD SIZE	1 BOX	DISPOSABLE
19.	Dissection NEEDLES (3"-4")	5 PIECES	REUSEABLE
20.	NAIL CUTTER, STANDARD SIZE	1 PIECE	REUSEABLE
21.	COMBS (SMALL AND BIG)	2 PIECES EACH	REUSEABLE
22.	DIFFERENT SIZES OF RUBBER BANDS	250 GMS	REUSEABLE
23.	MEASURING TAPES (50 FT, 100FT)	ONE PIECES EACH.	REUSEABLE
24.	DIGITAL DISTANCE MEASURING DEVICE	2 PIECE	REUSEABLE
25.	RIGID PHOTO SCALE (WHITE AND GREY), STANDARD SIZE	6 PIECES	REUSEABLE
26.	SUITABLE EVIDENCE NUMBER MARKING FLAGS OR PEGS	1-60 & A TO Z	REUSEABLE
27.	PHOTO NUMBER BOOKLETS ADHESIVE (LARGE AND SMALL)	2 (ONE EACH)	DISPOSABLE
28.	SET OF DIRECTION INDICATORS (SIZE) 3"-4"	15 PIECES	REUSEABLE
29.	CRIME-SCENE TAPE 200 MTR WITH PLASTIC STANDS NO. 6	6 SETS	REUSEABLE
30.	FOLDING LADDER 6 ' HEIGHT	2 PIECE	REUSEABLE
31.	DIRECTION COMPASS, STANDARD	2PIECE	REUSEABLE
32.	HAND HELD RECHARGEABLE TORCH	4 PIECES	REUSEABLE
33.	RECHARGEABLE BRIGHT WHITE LED LIGHT WITH TRIPOD STAND	4 PIECE	REUSEABLE
34.	SMALL BATTERY OPERATED UV LIGHT	1 PIECE	REUSEABLE
35.	CAMERA CANON/ NIKON/SONY/FUJI, 20 MEGAPIXELS 12X OPTICAL ZOOM, CMOS SENSOR, SUPPORT FOR WI-FI / NFC, FULL HD MOVIE RECORDING (OR BETTER SECES)	1 PIECE WITH 2 SETS OF RECHARGE BATTERIES	REUSEABLE
36.	SMART 360° REVOLVING OUTDOOR CAMERA ON VAN/VEHICLE ROOF with Full HD, COLOUR NIGHT VISION AND MOTION & SOUND DETECT.	01	REUSEABLE
37.	BODY WEARING CAMERA	02	REUSEABLE

38.	LIGHT SOURCE AC/DC ULTRA HIGH POWER LED PANEL ALONG WITH STAND AND CARRYING CASE	01	REUSEABLE
39.	PUBLIC ADDRESS SYSTEM	01	REUSEABLE
40.	1-D and 2-D BARCODE SCANNER & PRINTER	01	REUSEABLE
41.	HANDHELD GPS TRACKING SYSTEM	01	REUSEABLE
42.	DIGITAL TABLET WITH INTERNET FACILITY	01	REUSEABLE
43.	WET & DRY VACUUM CLEANER TO COLLECT SMALL EXHIBITS & WATER/LIQUID SAMPLES WITH ADDITIONAL COLLECTION BAGS	1 PIECE WITH 20 PIECES OF COLLECTIO N BAGS	REUSABLE/ BAGS ARE CONSUM- ABLES
44.	DC-REFRIGERATOR (165 L)	01	REUSEABLE
45.	LAPTOP AND PRINTER WITH PHOTOSTATE FACILITY(optional)	1 EACH	REUSEABLE
46.	SUITABLE INVERTER	1 PIECE	REUSEABLE
47.	METAL MIRROR, STANDARD SIZE	2 PIECE	REUSEABLE
48.	HAND TOWEL (CLOTH) AND LIQUID DETTOL SOAP DISPENSER.	1 EACH	CONSUMABL E
49.	CLOTH LINING FOR EXHIBITS WITH NEEDLE AND THREAD.	1 ROLL OF 20 METERS	CONSUMABL E
50.	STATIONARY ITEMS; PAPER RIM,CARBON PAPERS, VARIOUS MARKERS,NOTE PADS, PAPER WRING SUPPORT, STAPLER, PENCILS, SHARPENER, PAPER CUTTER, FEVISTICK, CARDBOARD PINS, PAPER PUNCH, PAPER THREADS ,CELLO TAPE OF DIFFERENT SIZES	2 PACKS EACH	CONSUMABL E
51.	SPECIAL PACKING PAPER ENVELOPES OF(A5,A4,A3 SIZES)	20 EACH	CONSUMABL E
52.	TAMPERPROOF PLASTIC ZIPPER ENVELOPES (250,500,1000G CAPACITY)	20 EACH	CONSUMABL E
53.	TAMPERPROOF PLASTIC CONTAINERS WITH AIRTIGHT LID (100, 250,500 AND 1000 ML CAPACITY)	10 EACH	DISPOSABLE
54.	CARDBOARD BOXES OF(1'X2'; 2'X2')	10 PCS	DISPOSABLE
55.	TAMPER PROOF TAPE	4 ROLLS	CONSUMABL E

56.	ALUMINUM FOILS	5 PCS	CONSUMABLE
57.	BUTTER WRAPS	5 ROLLS	CONSUMABLE
58.	BUBBLE WRAP	20 METER	DISPOSABLE
59.	BROWN PAPER	1 ROLL	CONSUMABLE
60.	FILTER PAPERS 6"	2 PACKETS	CONSUMABLE
61.	CANDLES, MATCH BOX PACKET CONTAINING 5 MATCH BOXES. AND ONE PACK OF TOOTHPICKS	1 EACH	CONSUMABLE
2) PHYSICAL EVIDENCE COLLECTION KITS			
62.	HAMMER AND CLAW HAMMER, SMALL, BIG & STANDARD SIZE	1 EACH	REUSEABLE
63.	SHOVEL, STANDARD SIZE	1 PIECE	REUSEABLE
64.	SCRAPPER 8"	1 PIECE	REUSEABLE
65.	DIGITAL VERNIER GAUZE 15-20 CMS	1 PIECE	REUSEABLE
66.	GLASS CUTTER, STANDARD SIZE	2 PIECE	REUSEABLE
67.	PLIER (NOZZLE AND ORDINARY), STANDARD SIZE	2 EACH	REUSABLE
68.	WIRE CUTTER, STANDARD SIZE	1 PIECE	REUSEABLE
69.	RATCHETSCREWDRIVER WITH ASSORTED HEADS, STANDARD SIZE	1 SET	REUSEABLE
70.	ELECTRICAL TESTER, STANDARD SIZE	2 PIECE	REUSEABLE
71.	HACK SAW BOTH FOR WOOD AND IRON CUTTING, STANDARD SIZE.	1 EACH	REUSEABLE
72.	TROLLEY WITH FOUR WHEELS (2'Wx3'L)	1 PIECE	REUSEABLE
73.	CONVERTER ADAPTER FOR COMPUTER	2 PIECES	REUSEABLE
74.	ELECTRICAL EXTENSION BOARDS (6MTR CORD LENGTH)	1-1 EACH	REUSEABLE
75.	CPU POWER CORDS	3	REUSEABLE
3) BIOLOGICAL & DNA EVIDENCE COLLECTION & SEAC KITS			
76.	STERILIZED COTTON SWABS, INDIVIDUALLY PACKED	50 PIECES	DISPOSABLE
77.	SWAB DRYER RACKS, 25-30 CMS L, 10-15 CMS W	3 PIECES	REUSEABLE

78.	STERILIZED COTTON GAUZE, SIZE 2"X2" OR 4"X 4"	25 PIECES	DISPOSABLE
79.	STERILIZED PLASTIC CONTAINERS-30ML	15 PIECES	DISPOSABLE
80.	ALCOHOL SWABS, INDIVIDUALLY PACKED	100 PIECES	DISPOSABLE
81.	EDTA VIALS- 3ML	50 PIECES	DISPOSABLE
82.	DISPOSABLE PLASTIC PIPETTES, 3-5 ML	50 PIECES	DISPOSABLE
83.	DISPOSABLE NEEDLE SYRINGE- 3-5 ML	50 PIECES	DISPOSABLE
84.	DISTILLED WATER	250 ML	CONSUMABLE
85.	SALINE WATER	250 ML	CONSUMABLE
4) SHOE PRINT AND TYRE MARKS COLLECTION KITS			
86.	FOOT PRINT FRAME ALUMINUM (14"X8"X2")	1 PIECES	REUSEABLE
87.	MIXING BOWL (2 LTR)	1 [PIECES	REUSEABLE
88.	MIXING SPOON, STANDARD SIZE	1 PIECES	REUSEABLE
89.	TALCUM POWDER -250-400 G	1 PIECES	CONSUMABLE
90.	POP	2 KG	CONSUMABLE
91.	POLY VINYL CHLORIDE (PVC)	1 KG	CONSUMABLE
5) DIGITAL EVIDENCE COLLECTION TOOL/ KITS			
92.	PEN DRIVES 64 GB OR HIGHER CONFIGURATION	5	REUSEABLE
93.	HARD DRIVE 1TB	3	REUSEABLE
94.	SCREW DRIVIER SET WITH BITS 3-8MM ALLEN KEY 1.27,1.5,2.2.5 MM EXTENSION ANDSLIDING T BAR	1 SET EACH	REUSEABLE
6) FINGERPRINT LIFTING KITS			
95.	BLACK, WHITE, SILVER-BLACK,SILVER-GREY, SILVER RED LATENT POWDERS	1 STANDARD PACKET EACH	CONSUMABLE
96.	BLACK AND WHITE FEATHER DUSTER, REGULAR POWDER BRUSHES, FINGERPRINT LIFTING TAPE	1 PIECE EACH	CONSUMABLE
7) QUESTIONED DOCUMENTS LIFTING KITS			

97.	POLYVINYL ACETATE IN ACETONE	500ML	CONSUMABLE
98.	SUITABLE SPRAY PUMP	1 PIECE	REUSEABLE
99.	HAND MAGNIFIER WITH LIGHT	2 PIECE	REUSEABLE
100.	GLASS SHEETS TO COLLECT CHARRED DOCS	2 PIECE	REUSEABLE
8) CHEMICAL, EXPLOSIVE AND NARCOTICS COLLECTION KIT			
101.	MAGNET WITH HEIGHT ADJUSTABLE HANDLE BETWEEN 1 TO 4 FEETS) AND A SMALL MAGNET OF 6" L	1 EACH	REUSEABLE
102.	ACETONE	500ML	CONSUMABLE
103.	HELMETS	3	REUSEABLE
104.	BRUSHES 1/2, 1, 2 And 4 inches	2 each	REUSEABLE
105.	GENERAL NDPS SCREENING KIT (UNITED NATIONS) (Optional)	2 KITS	CONSUMABLE
106.	EXPLOSIVES DETECTION KIT (EXPRAV OR ANY OTHER) (Optional)	1 KIT	CONSUMABLE
107.	SPANNER SETS (OPEN AND CLOSED ENDED) AND ADJUSTABLE	1 each	REUSEABLE
108.	DRILLING MACHINE WITH DIFFERENT BITS SETS	1	REUSEABLE
109.	DIGITAL MULTIMETER	1	REUSEABLE
9) BALLISTICS EVIDENCE COLLECTION KITS			
110.	5% NITRIC ACID	500ML	CONSUMABLE
111.	PLASTIC FORCEPS TO LIFT BULLETS AND CARTRIDGES	10 PIECES	REUSEABLE
112.	GSR collection stubs	4Pkt	CONSUMABLE
113.	FIRE EXTINGUISHER	1	REUSEABLE
114.	FIRST AID KIT	1	CONSUMABLE
10) KITS FOR DIGITAL EVIDENCE INVESTIGATION			
115.	WRITE BLOCKER	1	REUSEABLE
116.	FORENSIC IMAGER	1	REUSEABLE

Each of the MFV should have the Digital Evidence Collection Tools, Camera with a drone, Longer battery backup-Laptop, Blue-tooth/WI-FI based Inktank printer, with Flatbed photo and document scanner cum copier, Compatible Memory Cards, Forensic Evidence Management System (FEMS) type Software Application

with PKI enabled technology to generate Secure Barcodes to store the information and secured login Integration with Google API (for longitude and latitude), SMS Gateway for real time updates to Key stakeholders as defined in ICJS tracking system. The proposed vehicle should have the facility of Intuitive Dashboard showing detailed level of Chain of custody, Real time GPS generation of QR code at the SOC; Print & Scan QR Code securely using authorized Mobile devices to fix on seized exhibits; Extraction of information by scanning the QR codes in authorized mobile devices having PKI key; Role based access; Supported Mobile Systems: iOS & Android; QR Code Printer/ Flexible connectivity/ Bluetooth wireless technology, Ethernet, Print labels wirelessly.

Date:25/09/2023