

# LOS ANGELES COUNTY FIRE DEPARTMENT



Mobile Data Computer  
User Guide

# INTRODUCTION

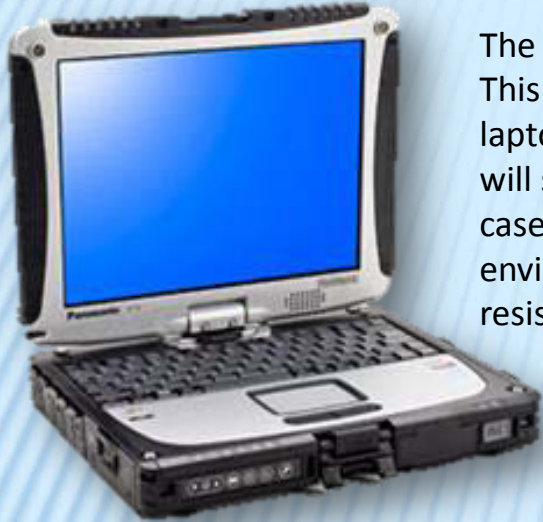
---

The Fire Department is now utilizing Mobile Data Computer (MDC) technology to replace the current Motorola 9100-10 Mobile Data Terminals (MDTs). The new MDC system includes a Panasonic CF-19/ CF-31 Toughbook laptop computer that operates two new custom applications: IQ Mobile and GST Mapper© MDC/MP Navigator. The new MDC integrated system provides CAD communications, mapping, routing, image viewing, two-way messaging, and vehicle locating capabilities.

RadioMobile's IQ Mobile application integrates the Department's current CAD system into a new interface that is now Windows based, but still maintains the functionality of the Motorola MDT system.

GST Mapper© MDC/MP Navigator is an integrated interface for mapping, displaying, geo-coding, routing, CAD linking, and GPS/AVL. GST Mapper© MDC/MP Navigator, developed by GeoSpatial Technologies, Inc. (GST), working in conjunction with Microsoft's MapPoint 2010 National map, is an application designed specifically for public safety agencies. It provides a complete set of mapping tools with the ability to display vehicle and incident locations in real time. GST Mapper© MDC/MP Navigator© offers powerful and comprehensive functions of real-time visual display and map manipulation. When installed in MDCs, the software enables field personnel to find locations, generate shortest routes, and search for incidents or vehicles.

## Panasonic Toughbook CF-19 Laptop



The Panasonic Toughbook CF-19 laptop is a fully-ruggedized laptop convertible tablet PC. This laptop features an LCD touch screen, and an emissive backlit keyboard. The CF-19 laptop design with a full magnesium alloy case, helps to ensure that the Toughbook 19 will stand up to the most rigorous environments. is designed with a full magnesium alloy case, that helps ensure the Toughbook will withstand some of the toughest environments, including drops, shocks, vibration, humidity, altitude, rain, dust- and sand-resistance, temperature extremes and thermal shock.

## Panasonic Toughbook CF-31 Laptop

The Panasonic Toughbook 31 is a reliable laptop offers high performance with a rugged design and drop shock protection. Its Intel® Core™ i5 vPro™ and i3 processors along with available discrete graphics, deliver desktop-class performance and improved video/3D graphics. The Toughbook 31 offers a 13.1" brilliant 1200 nit touchscreen available with Panasonic CircuLumin™ technology, and up to 13 hours of battery life.



## **Panasonic Permanent Display Removable Computer (PDRC)**

The Panasonic PDRC is mounted in the front of the most first responder vehicles (most engines, quints, and trucks). It is also mounted on the top of the command box in the back of the battalion chief vehicles. The PDRC seamlessly integrates with the Panasonic Toughbook MDC laptop to provide a secure and ergonomic in-vehicle computing solution while maintain the flexibility of using your MDC, while at the scene of an incident.



## **Havis Docking Station**



The Fire Department is currently using both Havis and Gamber Johnson docking stations in Department vehicles. Both docks allow for the laptops to be docked, charged, connected to the network, and securely locked into place.

## **Gamber Johnson Docking Station**



# GETTING STARTED

You should not need to power on or off your MDC unless you are going to utilize the vehicle's "MDC Power" toggle switch. The only time the "MDC Power" needs to be turned off is when the vehicle will be parked for an extended period of time and/or is unable to be plugged into a power outlet and charged. Turning off the MDC power will cut all power to the vehicle's TAIT radio modem (radio communications with CAD/Dispatch), and docking station. The AVL modem will continue to have power at all times.

Once the power is turned off, the laptop will need to be properly shut down using the Windows shutdown function.



The picture shows the MDC power switch on a BC suburban and squad. This switch is located to the left of the PDRC screen on engines and trucks.

When the "MDC Power" toggle switch is flipped to the ON position, the laptop will then need to be powered on by using the power button located on the front of the laptop.

If you should need to restart the laptop the User ID is **MDC** and the password is **Fire12345**.

# IQ MOBILE

When the MDC powers up and Microsoft Windows 7 opens, the IQ Mobile application will automatically launch. The features on this Mobile Data Unit screen will replicate the functionality of the previous Motorola MDTs.



## Box 1



**SPEC:** Retrieves list of resources on the current incident

**STGD:** Staged

**D INFO:** Requests the CAD resend dispatch info

**EN RTE:** En route

**ON SCN:** On scene

**AV ONS:** Available on scene

## Box 2



**LOC HX:** Retrieves a status of the hospitals shown in the FSO of the current incident.

**AT HSP:** At hospital; only active after using the hospital follow-up form (Form 2)

**MAN ACK:** Manual acknowledgement accepts the transmission & resets the Alarm

**AV VOI:** Available voice, not in quarters of unit

**AV MDT:** Available for dispatch by MDT

**AV QTR:** Available in quarters by station SCU

## Box 3



**FORM 0:** Display blank “free form” for CAD input

**RCVD MSG:** Display next message received from CAD or another unit

**CLR RX:** Delete “currently displayed” message

**FORMS:** Display current CAD FORMS options (resource update, reserve unit status, etc.)

**CMDS:** Display button options for various mdc commands (*See description below*)

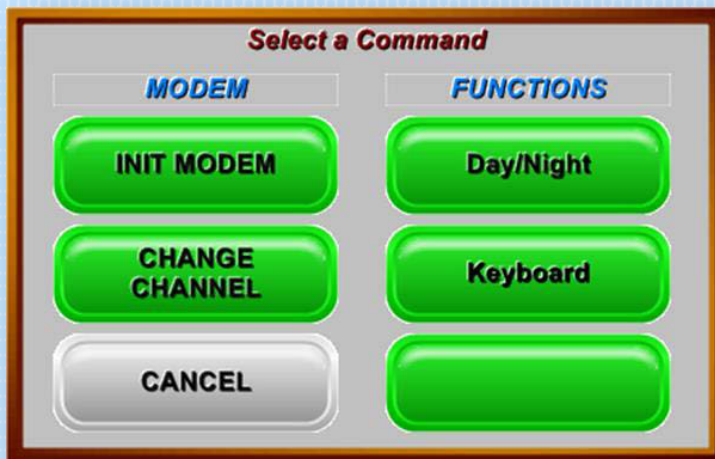
**XMIT F1:** Transmit current command request to CAD

**SENT MSG:** Display the next message that was “sent” from terminal

**CLR ALL RX:** Delete all received and sent messages

**UTILS:** MDC utility options (*See description below*)

**MAP:** Allows you to toggle between the IQ Mobile screen and the Mapper MDC screen



### UTILS Button (Sub Window) ←

**INIT MODEM** – Reboots Radio Modem

**CHANGE CHANNEL** – Manually changes radio modem channel

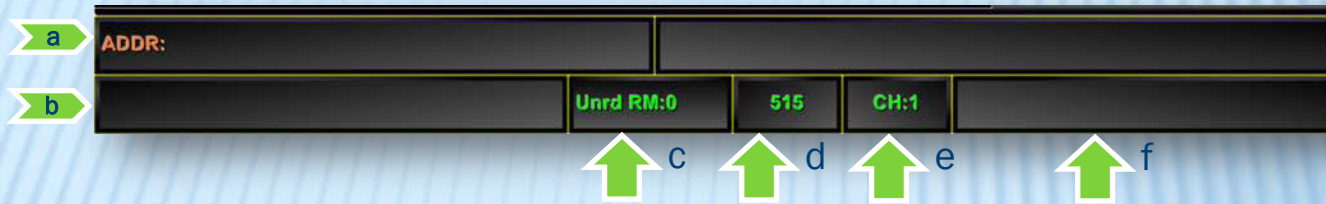
**CANCEL** – Closes command window

**DAY/NIGHT** – Switches screen contrast from day/night mode

**KEYBOARD** – Enables on screen keyboard



## Box 4



- a. Displays dispatched address and cross streets
- b. Displays message pages (i.e. 1 of 12)
- c. Unread message window that blinks **RED** when you have an unread message and becomes a button. By pressing the RED button it takes you to the first of any unread messages
- d. Displays the MID associated with your MDC
- e. Displays the channel number assigned to the MDC
- f. Displays the current MDC status

Forms Button (sub window)



**HOSPITAL FOLL UP (2)** – Used to change status in CAD with adding to the CAD Call History the Destination Hospital, Number of Patients, and any comments

**SPECIAL ACT (4)** – Utilized to put vehicle available or out of service for special activity (Drills, CE, etc.)

**AMBULANCE REQU – CANC (6)** – Used to send a “predefined message” to the radio operator to request or cancel ambulance response

**SIGN ON (9)** – NOT USED BY FIELD PERSONELL

**RESOURCE STAT CHAN (3)** – Utilized to change status of resources assigned to a unit (Jaws, AFFF, WVAC, etc.)

**LOCATION INFO (5)** – NOT USED AT THIS TIME

**RESERVE UNIT STAT CHAN (7)** – Used to place a Reserve vehicle to in-service status or replacing a front line unit



Below is a brief description of the shortcut buttons that appear at the top of the GST Mapper© MDC/MP Navigator window.

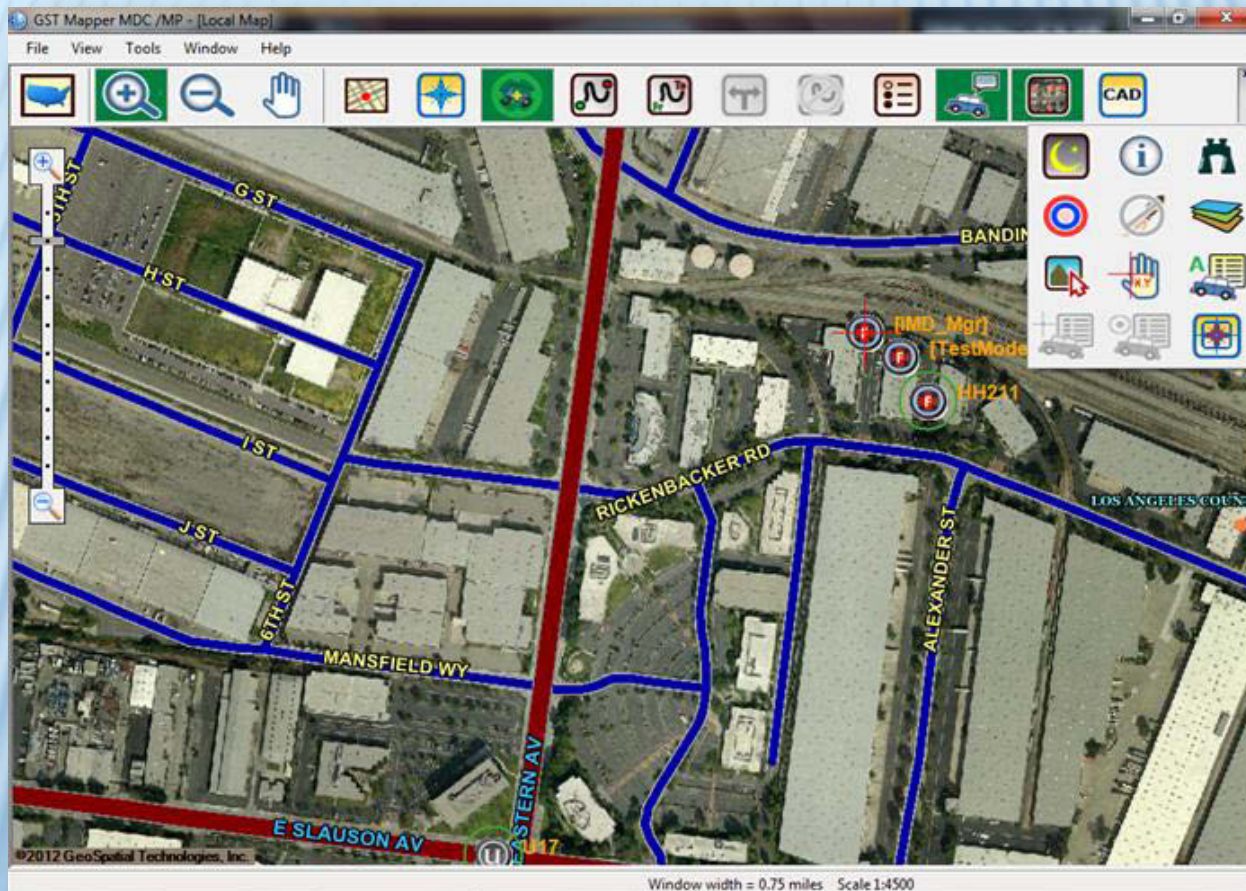
Icon	Name	Local Map	National Map	Description
	National Map			Switches to MapPoint map <i>*Use this feature only when you are out of LA County jurisdiction</i>
	Local Map			Switches to Local GIS map
	Zoom In			Select and then click on the map to zoom in one scale level. Click and drag on the map to create a marquee around an area you'd like to zoom in to.
	Zoom Out			Select and then click on the map to zoom out one scale level.
	Pan			Click, hold and drag to reposition the map
	Center Poll			Places and keeps your vehicle centered on the map. Green when active, red when inactive.
	Center Poll			Displays detailed incident information (Applicable only to CAD interfaced agencies)
	GST Navigator			Allows you to navigate to the chose destination, incident location or sister unit location.
	Addresses or GPS Routing			Generates a route between address(es) and/or vehicle location(s)

Icon	Name	Local Map	National Map	Description
	From-To Routing			Select and then click on two points within the map to generate a route
	Driving Direction			Displays text driving directions
	Clear Route			Removes a previously created route
	Unit List			Displays viewing pane for other vehicles
	Identify			View attributes of individual items
	Aerial Photo			Displays aerial photo view of map
	Day/Night View Mode			Switches between day and night mode
	AVL & Incident Label			Displays vehicle and incident information on map
	Find Address			Searches for address on map
	AVL Mode			Displays own unit and sister units with a 10 second refresh rate
	Balloon			Displays vehicle information for 2 minutes. After this time, the button is turned off automatically.
	Radius Ring			Creates 3 concentric circles of different radii

Icon	Name	Local Map	National Map	Description
	Clear Cosmetic Layers			Removes any annotations created on the map
	Hot Link Layer Mode			Brings up PDF or picture files associated with locations on map
	Map Layers			Turns map layer views on or off
	AVL Locator			Toggles on/off AVL Locator to temporarily change the Dynamic Grouping radius location
	Define AVL Location			Changes the Dynamic Grouping radius to another temporary location
	Pan to AVL Location			Centers the new Dynamic Grouping radius location on the map
	CAD Button			Toggles between the Mapper application and the IQ Mobile screen
	Switch GST Navigator Size			Switches the GST Navigator Size from small to large sized screen

The screen shot below shows the placement of the icons on the Mapper MDC application. The **double arrows to the far right of the window** open a drop down menu that displays additional icons.

It is important to note that any time an icon is highlighted green then that indicated that that function is enabled. For example, in the picture below, the Center Pole, AVL Locator and Aerial Photo functions are all active.



# DISPATCH/RESPONSE PROCEDURES

When you are dispatched to an incident your IQ Mobile Data Unit application will display the detailed CAD incident data in the window (see below).

You will utilize the following steps to acknowledge a dispatch, map your vehicle to the incident, and navigate to the dispatched incident:

The screenshot displays the IQ Mobile v4.2.10 application interface. The top left window shows incident details: \$193023, POLE/TRANS FIRE, 08/15 10:21, S WILMINGTON AV/E CARSON ST, CARS, TB: 764G6, GRID:0740B, LAT/LON: 033 49.905/118 14.369, and FREQ) TRO:BLU-1 TAC:V-9D 127) IMD1 /1016 TEXT: NO FURTHER. The right side features a vertical column of function buttons: SPEC, EN RTE (F1), STGD, ON SCN (F2), D INFO, AV OAS (F3), LOC HX, AV VOI (F4), ATHSP, AV MDT (F5), MAN ACK, and AV QTR (F6). Below this is a grid of buttons: FORM 0 (F7), RCVD MSG (F8), CLR RX (F9), FORMS, CMDS, XMIT (F10), SENT MSG (F11), Clr All RX (F12), UTILS, and MAP (circled in red). A red arrow points from the MAP button to the first step of the procedure. The bottom status bar shows 'S WILMINGTON AVE CARSON ST,CARS', 'Unrd RM:3', '515', 'CH:3', and 'DISPATCHED'.

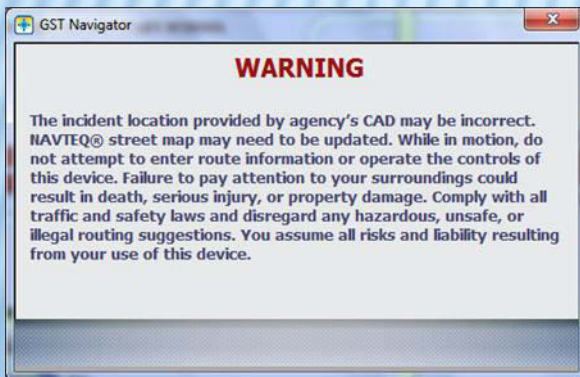
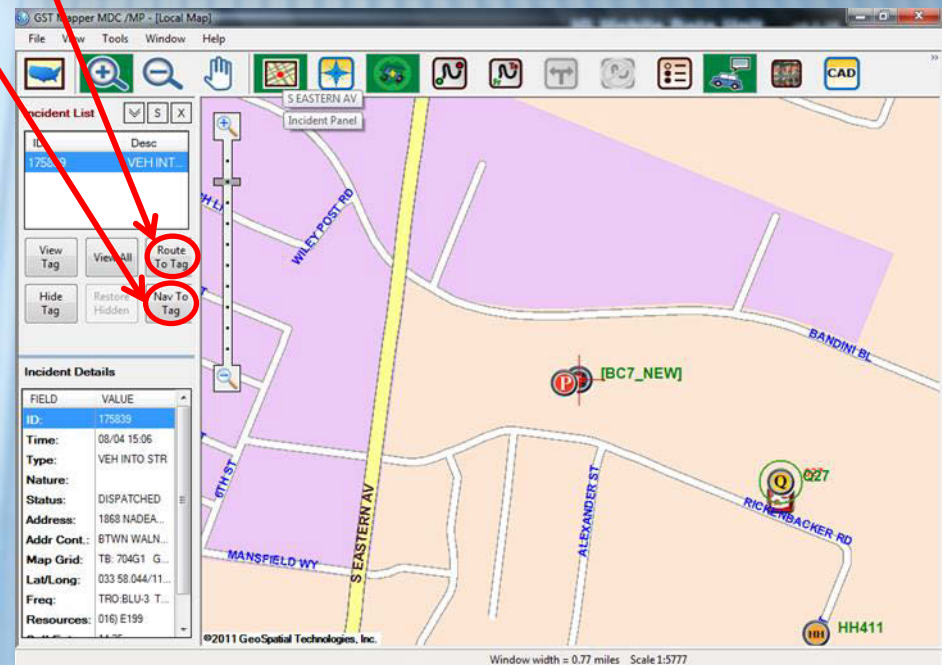
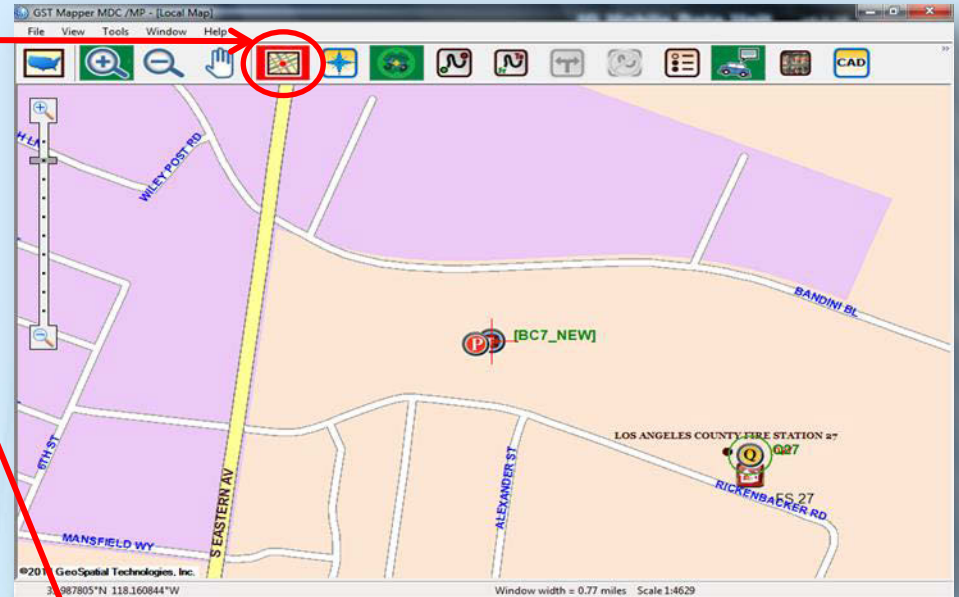
1. You will follow normal Department procedure to acknowledge the dispatched call by utilizing the buttons provided (ie. **MAN ACK**, **EN RTE**, **ON SCN**, etc.).
2. Press the **MAP** button to toggle over to the Mapper application to map your incident on the displayed map and to navigate to the dispatched location.
3. Once the Mapper application opens you will press the **incident button** (it will be blinking **RED** if the incident panel is not already open to the left of the window) to populate the CAD data (the dispatched location and the incident data) within the Incident Panel that will open on the left hand side of the window.



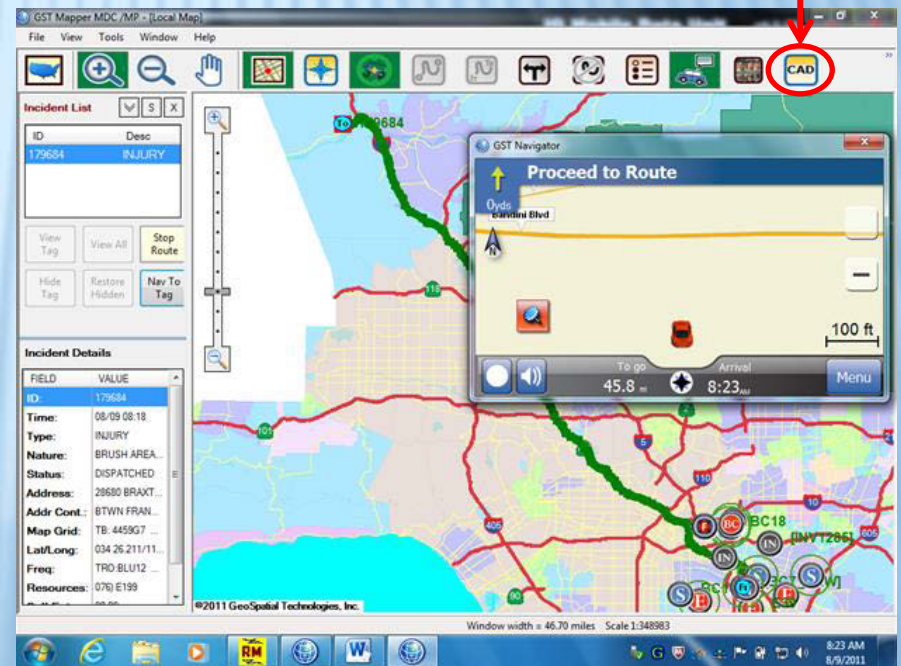
\*This button will be blinking red

4. To display a Mapped route to the dispatched address/location, press the **Route to Tag** button on the left hand side of the window.

5. To open the GST Navigator and get voiced turn-by-turn driving directions to the dispatched address/location, press the **Nav To Tag** button located within the Incident Panel window on the left hand side of the window. A disclaimer window will appear and disappear within a few seconds (see below).



6. The Navigator window appears in the upper right corner of the Mapper window. The automated voice will begin speaking turn by turn directions. This window is a “movable” window. To customize your viewable screen by moving the GST Navigator, tap and hold on the title bar and drag the window where you would like it.
7. To navigate back and forth between the Mapper application and the IQ Mobile application, you can press the **CAD button** (see below) on the Mapper application and the MAP button on the IQ Mobile application.
8. As you drive closer to the dispatched location, your displayed map will automatically zoom in closer to the dispatched address/location. As you arrive within ¼ mile of your designated location both the “Parcel” layer and “Hydrant” layer will automatically appear.

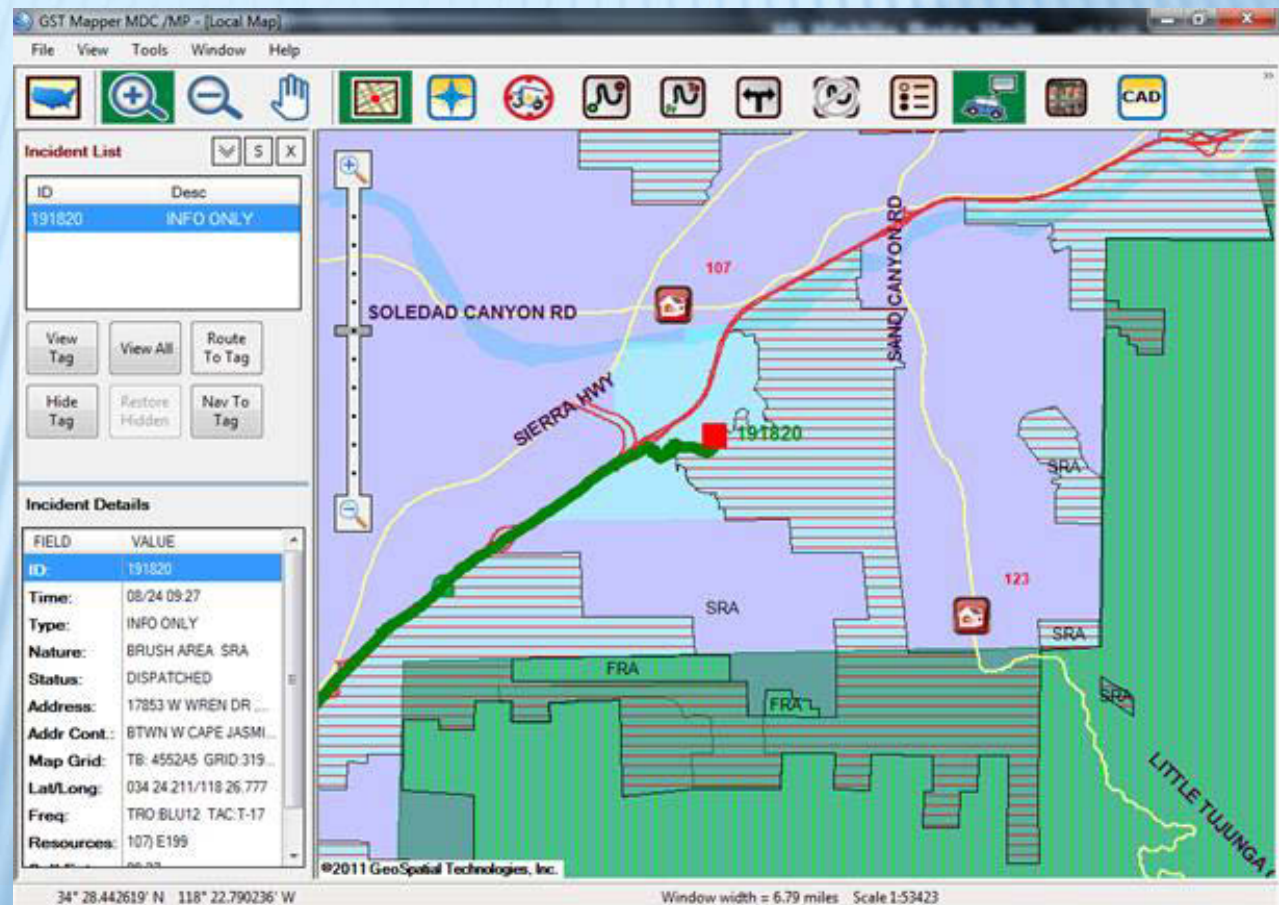


# SRA MAP LAYERS

The maps have been coded to display SRA and FRA boundary lines. If you are dispatched to an incident that is within SRA or FRA jurisdiction, in addition to both the CAD screen and the incident panel notating SRA/FRA, the map will begin to show the boundary lines, with graphic detail, as you continue to drive closer to the dispatched location.

SRA layers: 

FRA layers: 



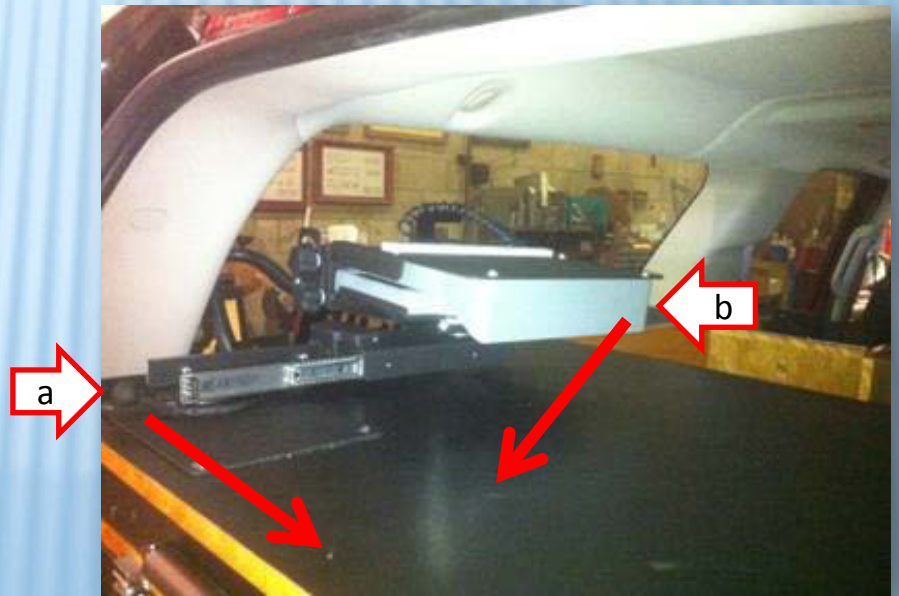
# PANASONIC PERMANENT DISPLAY REMOVABLE COMPUTER (PDRC)

When you are at an incident and want to utilize the same features available to you on in the front of your vehicle on your MDC, you now have the option to do so out of the back of your command vehicle by deploying your PDRC.



1. Flip the toggle switch (located in the front of the vehicle in the center console) to the on (up position) to feed power to the PDRC.

2. (a) Pull the knob towards you and (b) push it to the right while you swing the PDRC assembly towards you and the left.
3. Rotate the PDRC to your desired position.

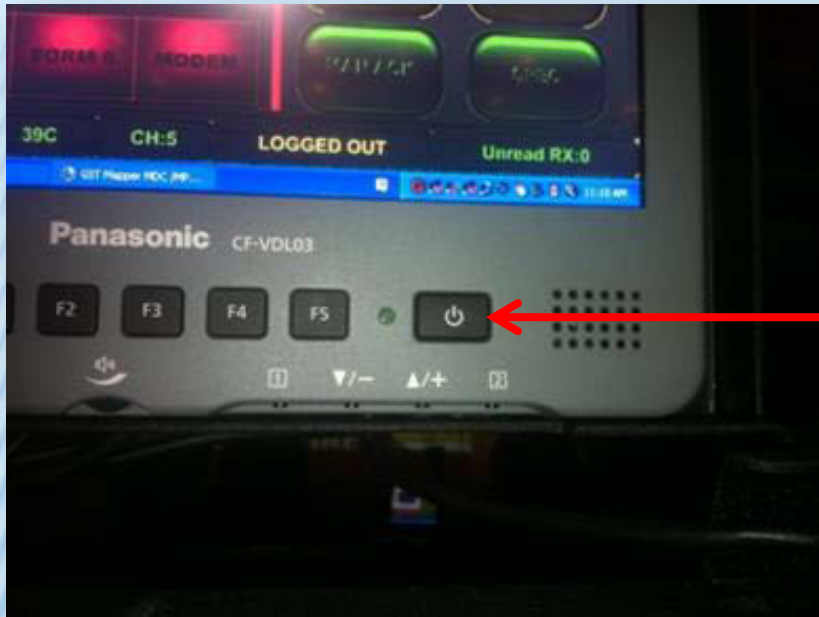




4. If you want to pull the PDR out of the vehicle more you can loosen the blue lever (located under the keyboard) by pulling it to the left and slide the display assembly arm out towards you. Then lock the blue lever back into place.



5. To open the PDR: loosen the 2 top knobs on either side of the display assembly to lift open the monitor, and then tighten them to keep the monitor open and in place.
6. To angle the keyboard upwards: loosen the 2 bottom knobs, lift the keyboard to your desired level, and then tighten the knobs to keep the keyboard in place.



7. To turn on the PDRC, press the power button on the front of the monitor.



8. If you want to remove the keyboard from the mount for easier typing, pull the lever towards you to unfasten the keyboard and place the keyboard on a sturdy platform.
9. Once the PDRC is on, the function keys located on the monitor can be used for the following:

Emergency: This button has been disabled

**F1:** Turns off brightness

**F2:** Disabled

**F3:** Disabled

**F4:** Disabled

**F5:** Turns on brightness

# To power off the PDRC and store it back into its storing position

When you are finished using the PDRC the power must be turned off and the PDRC must be closed and stored away in the back of the BC vehicle.

1. Lower the keyboard first (if raised) and then close the monitor by folding it back down. Be sure to tighten all knobs.
2. Using the blue lever, slide the PDRC as far back on its arm as it will go (if applicable).
3. Align the PDRC with the Display arm.
4. While using the knob on the right hand side, pull the knob outwards and swing the assembly back into its storing position.
5. Flip the toggle switch (located at the front center console) to the off (down) position to cut the power to the PDRC.



# FREQUENTLY ASKED QUESTIONS

## How do I log-in if the computer needs to be restarted?

*You should not need to restart the MDC. If you should need to restart the laptop for any reason, the User ID **MDC** and the password is **Fire12345**.*

## Does the computer ever need to be shut down?

*No, you will not need to restart the MDC. If the laptop freezes and you are unable to do a proper restart, then you will have to hold the power button down for 7 seconds in order to restart the pc.*

## Who do I call if I am having technical problems with the MDC?

*Christine Garibay: Office (323) 890-4181 | Cell (323) 236-3446*

*Arsen Mkrtchyan: Office (323) 890-4390 | Pager (213) 391-4746*

*Rufino Fernandez: Office (323) 890-4164 | Cell (213) 503-2352*

## I have powered on the PDRC and I have hit the power button on the monitor but the PDRC is still blank. Now what do I do?

*Press F3 on the laptop and check the PDRC display*

## Do I have to cut the power to the PDRC after every time I use it?

*Yes. If not, the laptop sound will continue to be directed to the PDRC and there will be a glow coming from the PDRC monitor display.*



**I do not have sound coming from my MDC.**

*Make sure that the volume is not muted and at its highest level. Also, make sure that the PDRC is powered off.*

**Can I remove the MDC from the docking station?**

*No. The MDC has been secured and locked into the docking station.*

**How can I clean the MDC screen and PDRC screen?**

*You can use a microfiber cloth to clean the screen or a napkin/towel with water. The microfiber works best. Be sure that you do not use any ammonia based solutions on the screen of the laptop or PDRC.*

**The Map always has North facing up while I am driving to an incident. Can the map turn as I drive?**

*The map is simply a point of reference. The Navigator is for turn-by-turn directions. North will always be up.*



# LOS ANGELES COUNTY FIRE DEPARTMENT

END OF PRESENTATION