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GW_RCM
Software Version 2.16.4
Module Book

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Refer to the *Troubleshooting & Support* section of the GenWatch3 Manual Shell (Book 600-2.16.4-AA.1) for complete support and contact information.

Document History

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2.0.3	Revisions Before Release	JAW
2.0.4	Revisions Before Release	JAW
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2.0.6	Updated screenshots	CLB
2.0.6	Updated “Monitoring Commands” section	CLB
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2.13	Revisions Before Release	ATG
2.14	Revisions Before Release	JAW
2.15	Revisions Before Release	REB
2.16	Revisions Before Release	JPS

Table of Contents

Goals

This manual describes the role and function of the GW_RCM tool in the GenWatch3 solution.

Who Should Read This Manual?

This manual is written for the intended audience of mid-level trunked radio system users and novice to mid-level PC users. If you are responsible for any of the following, then you should read this manual:

- Monitoring system events such as Status, Message, Emergency Alarm and ChangeMe requests.
- Issuing radio commands such as Selective Inhibit, Dynamic Regrouping, Call Alert, etc.

How This Manual Is Organized

This manual is organized as follows:

- **Overview:** Provides an overview of the GW_RCM tool.
- **Setup:** Describes the process of setting up GW_RCM for use.
- **Monitoring Events:** Describes how to monitor system radio events (such as Emergency Alarm, Status, Message and ChangeMe requests) and the workflow for these events.
- **Issuing Commands:** Describes how to issue radio commands (such as Selective Inhibit, Call Alert, Dynamic Regroup, etc.).
- **Monitoring Commands:** Describes how to monitor the progress of an issued command (such as Selective Inhibit, Call Alert, Dynamic Regroup, etc.).
- **Radio Compatibility:** Gives a list of radios that are tested to be compatible with the radio commands issued by GW_Halcyon via GW_RCM.

This manual contains the following images, used to indicate that a segment of text requires special attention:

-  **Additional Information**: Additional information is used to indicate shortcuts or tips.
-  **Warning**: Warnings are used to indicate possible problem areas, such as a risk of data loss, or incorrect/unexpected functionality.

Chapter 1 Overview

This chapter provides an overview of the GW_RCM interface and its features.

This chapter contains the following sections:

- **What is GW_RCM?:** Defines the role and function of the GW_RCM tool.
- **Menu Options:** Describes the menu options provided by GW_RCM.
- **Information Panels:** Describes the GW_RCM information panels.
- **Selecting Radio IDs:** Describes the process of selecting radio IDs.

What is GW_RCM?

GW_RCM is a replacement for the SIMS, SIMSII and SIP interfaces for the Motorola trunking system. This interface allows you to:

- Monitor system radio events, including:
  - Emergency Alarms
  - ChangeMe Requests
  - Statuses
  - Messages
- Issue radio commands, including:
  - Call Alert
  - Request Radio Affiliation (also known as Radio Check or Radio Ping)
  - Selective Inhibit / Cancel Selective Inhibit
  - Selector Lock / Selector Unlock
  - Dynamic Regroup / Cancel Dynamic Regroup
  - Dynamic Failsoft Assignment / Cancel Dynamic Failsoft Assignment

Licensed Functionality by Bundle

The **Commander LE** Bundle Includes:

- Call Alert
- Database Snapshot
- Emergency Alarm ACK
- Selective Inhibit / Cancel Selective Inhibit

The **Commander Host** Bundle includes all **Commander LE** functionality and:

- ChangeMe ACK (Reprogram Request ACK)
- Dynamic Failsoft Assignment / Cancel Dynamic Failsoft Assignment
- Dynamic Regroup / Cancel Dynamic Regroup
- Message ACK
- Selector Lock / Selector Unlock
- Status ACK

GPS Location commands include:

- GPS Immediate Location Request
- GPS Triggered Location Change Request
- GPS Triggered Location Stop Request
- GPS Digital Output Change Request

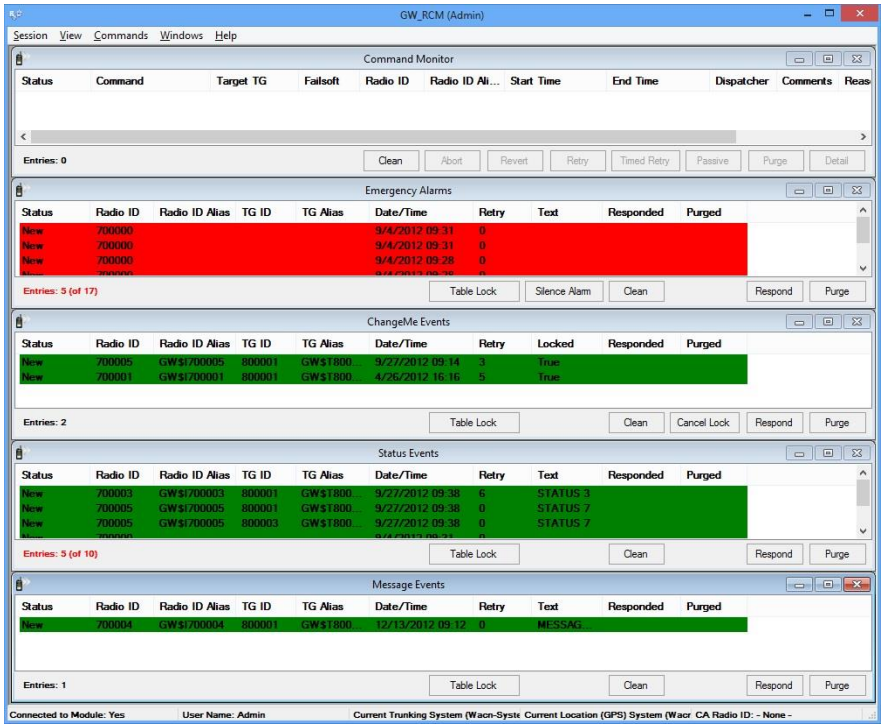


Figure 1.1 – GW_RCM GUI

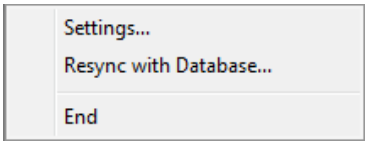
Any of the above windows can be closed to preserve screen space for the windows that you actually use. For example, if your day-to-day operations include creating Selective Inhibit commands, monitoring Emergency Alarms and monitoring Messages, you could close the Change Me and Status windows.

Menu Options

The following menu options are available in GW_RCM:

Session Menu

Settings…



This window allows you to choose the system that will broadcast the commands that you issue. This selection does not limit the system that you are monitoring for system radio events. In this window you can also choose the radio ID to use as the originating radio ID when issuing Call Alerts.

Resync With Database…

This synchronizes the GW_RCM GUI with the GenWatch3 database. This should rarely, if ever, need to be used. GenWatch3 maintains all necessary system information in memory in case the database goes down, so that it can continue to function without database connectivity.

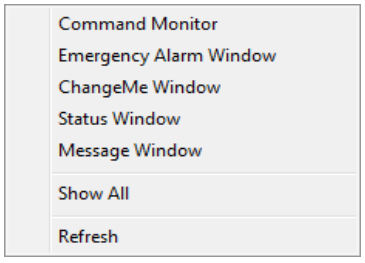
If you find that you are repeatedly losing connectivity to the module and/or database, or notice that some information in your GW_RCM GUI does not match what you see elsewhere in GenWatch3, you will want to use this feature to make sure that your GW_RCM GUI's system information is fully updated.

Likewise, if you are notified by a system administrator that the GenWatch3 database will be going down (for maintenance, etc.), it would be prudent to use this feature to ensure that you are fully synchronized before the database goes offline.

End

Ends the session and closes the GW_RCM GUI, saving current window states to your profile settings.

View Menu



Command Monitor

Shows / hides the *Command Monitor* window. The check to the left of this menu option indicates if the window is currently visible. (See Figure 1.1, section 2)

Emergency Alarm Window

Shows / hides the *Emergency Alarm* window. The check to the left of this menu option indicates if the window is currently visible. In order to open this window, you must be licensed for Emergency Alarm and your user must have the *Emergency Alarm* privilege. (See Figure 1.1, section 3)

ChangeMe Window

Shows / hides the *ChangeMe* window. The check to the left of this menu option indicates if the window is currently visible. In order to open this window, you must be licensed for Dynamic Regrouping and your user must have the *ChangeMe* privilege. (See Figure 1.1, section 4)

Status Window

Shows / hides the *Status* window. The check to the left of this menu option indicates if the window is currently visible. In order to open this window, you must be licensed for Status/Message and your user must have the *Status Message* privilege. (See Figure 1.1, section 5)

Message Window

Shows / hides the *Message* window. The check to the left of this menu option indicates if the window is currently visible. In order to open this window, you must be licensed for Status/Message and your user must have the *Status Message* privilege. (See Figure 1.1, section 6)

Show All

Opens all of the licensed View windows that are valid for this user.

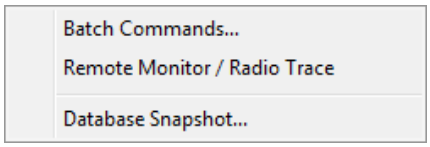
Refresh

Requests a "list reload" from the GW_Halcyon module. This will clear each window and request a list of current commands and events from GW_Halcyon. While waiting for their list of commands, each window will show *(Loading List…)* text in the title of the window. Once the first command or event is received, the text will change to *(Loading list x of n…)*, where *x* is the current command index in the reload and *n* is the number of commands that will be received in the reload. The lists also display this information when the GW_RCM GUI is first loaded.

Requesting a Refresh will clear any Silenced Emergency Alarms. If your lists consist of one or more new Emergency Alarms, the alarm will sound until silenced again.

Commands Menu

Batch Commands



Allows you to create and send radio commands that can target from one to 100 radio IDs. Batch commands include Selective Inhibit, Call Alert, etc. See Chapter 4 for a detailed list and description of batch commands.

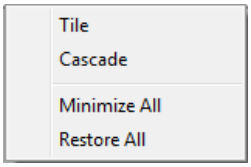
Database Snapshot

Returns a historical query for a single radio. This provides a quick glance of the state of a radio, as far as its inhibit, regroup, selector lock statuses, etc. In order to open this window, you must be licensed for Database Snapshot and your user must have the *Database Snapshot* privilege. See Chapter 4 for more information on database snapshot.

Windows Menu

Tile

Tiles all open windows.



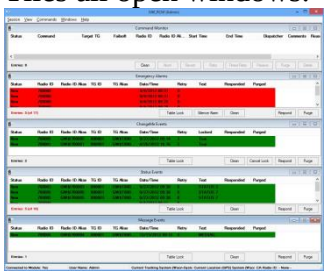


Figure 1.2 – Tiled Windows

Cascade

Cascades all open windows

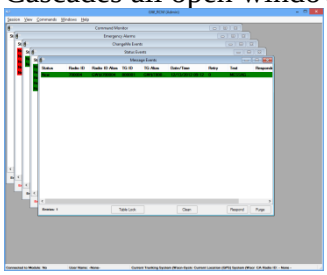


Figure 1.3 – Cascaded Windows

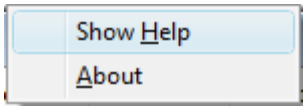
Minimize All

Minimizes all open windows

Restore All

Restores all open windows that are minimized, returning them to the state they were in before they were minimized.

Help Menu



Show Help

Shows the help for GW_RCM.

About

Shows the GW_RCM About box.

Information Panels

The GW_RCM tool contains the following information panels:

- **Module Connection:** Shows one of two messages:
  - **Connected To Module: Yes** – This indicates that the GW_RCM GUI is currently connected to the RCM connection in the GW_Halcyon module.
  - **Connected to Module: No** – This indicates that the GW_RCM GUI is NOT currently connected to the RCM connection in the module. This is bad. If you see this state on GW_RCM GUI, report this to your system administrator.
- **User Name:** Shows the user name of the current GW_RCM user. This panel shows "none":
  - If the GW_RCM is disconnected from the RCM connection in the GW_Halcyon module.
  - Until the user is authenticated by the GW_Halcyon module. This is only done when the GW_RCM GUI first loads.
- **Current Trunking System:** Shows the current target system for radio commands issued in the GW_RCM GUI for the current user.
- **Current Location (GPS) System:** Shows the current target system for GPS location commands issued in the GW_RCM GUI for the current user.
- **CA Radio ID:** Shows the source radio ID provided in Call Alert commands sent in the GW_RCM for the current user. This is the radio ID displayed on the target radio when a call alert is sent.

Figure 1.4 – Information Panels

When the GW_RCM GUI is not connected (via TCP/IP) to the GW_Halcyon module, some menu options are disabled (see module connection above).

When the GW_RCM database is not connected, some menu options are disabled.

If any information in the Information Panel is not viewable, place the mouse curser over the information to see a tooltip containing all information for that section.

Selecting Radio IDs

Whenever GW_RCM needs a radio ID to accomplish a selected task, it provides the *Select Radios* window. With this screen you can query the GW_Alias database for radio IDs and select them from the list. This approach eliminates data-entry mistakes.

To perform a search using the *Select Radios* window, follow the steps below:

1. Enter your search criteria (or leave blank for all).
2. Press enter or click on the **Search** button: This will load the radio list.
3. In the radio list, check each radio ID that you want to select (or click the **Select All** button).
4. Press the **OK** button.

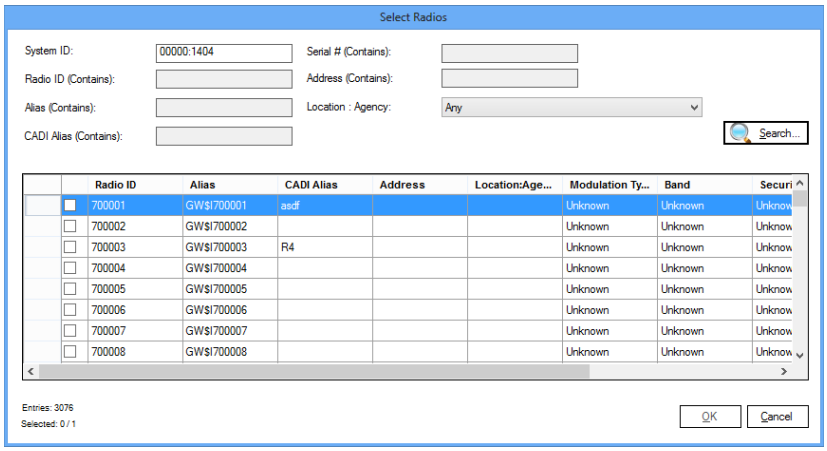


Figure 1.5 – Select Radios window

The most common way to select a radio ID is to type in a partial radio ID alias and press the Enter key. For example, if you want to selective inhibit a radio ID with an alias of CITY 1, then you would take the following steps:

1. Type CITY into the **Alias** box.
2. Press Enter: This will return all radio IDs with the word CITY in their alias, such as CITY 1, CITY 2, and NY CITY.
3. Click the check box next to CITY 1.
4. Click the **OK** button.

Why are some Radio IDs missing?

GenWatch3 will omit a radio ID from the list for the following reasons:

- The search criteria you entered do not include the radio ID.
- You are attempting a Batch Command and the radio ID is already included in the Batch Command's radio ID list.
- The radio ID does not exist in the GW_Alias database under the system associated with your Current System.
- Your user does not have a radio ID's **Default Group** as a talkgroup in its attachment list (for more information on attachment lists, see the *GW_Security* section of the *GenWatch3 Core Manual*).
- You are attempting a batch command that includes a Regroup and the radio ID does not have a compatible Security Type, Band or Modulation Type (Defined in GW_Alias).

GW_RCM settings are stored on a per-user basis. If a user loads the GW_RCM tool on a different computer and later on her normal computer, the GW_RCM tool will still load the settings that were saved from the last session on the normal computer. These settings include:

- Current System.
- Source radio ID for call alerts.
- Open Windows (such as Command Window, Status Window, etc.).
- Window positions and sizes.
- GPS Location.

This chapter describes how to set up user options for the GW_RCM GUI.

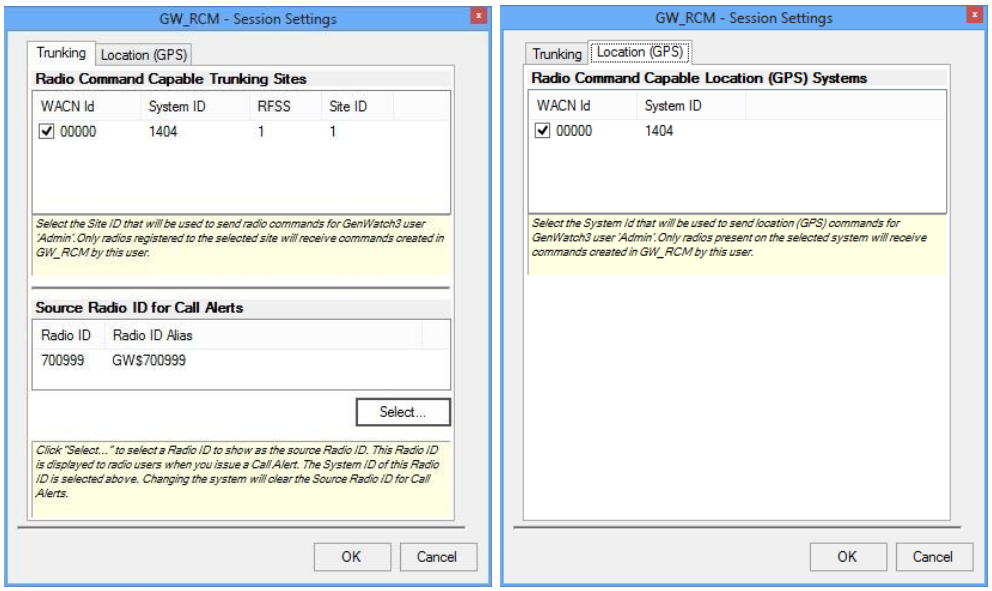


Figure 2.1 – Session Settings window

Setting User Options

The user options are set in the *Session Settings* window. To set the user options, take the following steps:

1. In the GW_RCM menu, click on **Session → Settings**: This will open the *Session Settings* window.
2. In the **Radio Command Capable Trunking Sites** list, choose your system by checking the checkbox next to the desired system.
3. Under the **Source Radio ID for Call Alerts** list, click the **Select…** button: this will load the *Radio ID Selection* window.
4. Choose the radio ID that you would like to display on Call Alerts.
5. Click the **OK** button.
6. In the *Session Settings* window, click **OK** to save your user changes.

 If no items are in the **Radio Command Capable Trunking Sites** list, then your GenWatch3 does not have an enabled RPC CAD connection configured in GW_Connect.

 If no items are in the **Radio Command Capable Location (GPS) Systems** list, then your GenWatch3 does not have a configured GW_Location connection.

 If your user's attachment list does not contain at least one talkgroup on a system, this system will not be shown in the *Session Settings* **Radio Command Capable Trunking Sites** list. If your role contains the *View All Groups* privilege for GW_Halcyon, systems WILL NOT be excluded from this list based on your user's attachment list.

 You will not be able to issue Call Alerts until you have selected a **Source Radio ID for Call Alerts.**

 If you are not licensed for Call Alert or if your user's role does not contain the CallAlert privilege for GW_Halcyon (in GW_Security) then you will not have access to the **Source Radio ID for Call Alerts** section of this window.

 Your selected system determines the system that will issue the commands you create in GW_RCM. It does not prohibit status, message, emergency alarm acknowledgements, event delivery, or acknowledgement.

Chapter 3 Monitoring Events

GW_RCM monitors the following system radio events:

- **Emergency Alarms**
- **ChangeMe requests**
- **Statuses**
- **Messages**

These events are referred to as **Reactive Commands** or **Reactive Events**. This is because these events are issued from a radio and the dispatcher's workflow involves reacting to these events. Reactive Events are not initiated by a dispatcher. They are initiated by a radio user. This chapter describes how to monitor and react to these events.

This chapter contains the following sections:

- **User Validation and Events:** Refers to the *GW_Halcyon module book* for detailed information about user validation and events.
- **Reactive Event Life Cycle:** Describes the reactive event workflow offered by GW_RCM.
- **Reactive Event Limits:** Shows the storage limit of each reactive event type.
- **Common Event Window Buttons**: Describes the buttons common to each event window.
- **Emergency Alarms:** Describes how GW_RCM displays and processes emergency alarms.
- **ChangeMe Requests:** Describes how GW_RCM displays and processes ChangeMe requests.
- **Statuses:** Describes how GW_RCM displays and processes statuses.
- **Messages:** Describes how GW_RCM displays and processes messages.

User Validation and Events

Refer to the *GW_Halcyon module book* for a description of GW_Halcyon's user validation for reactive events. See *Help\GW_Halcyon\Halcyon.htm*.

Reactive Event Life Cycle

This section describes the life cycle of a reactive event. Reactive events include:

- **Emergency Alarms**
- **ChangeMe Requests**
- **Statuses**
- **Messages**

The life cycle is as follows:

1. A radio user issues a reactive event.
2. The GW_Halcyon module receives the event.
3. The GW_Halcyon module archives the event, marking it as *New*.
4. The GW_Halcyon module passes it to each valid (see User Validation and Events above) GW_RCM connected user.
5. GW_RCM user selects the event in its list, marking the event as *Recognized* on this user's screen only.
6. GW_RCM user clicks the **Respond** button targeting the selected event(s), marking the event(s) as *Responded* on all connected user's screens.
7. GW_RCM user clicks the **Purge** button, targeting the selected event(s). This marks the event(s) as *Purged* on all other connected user's screens and removes it from the list of the user that issued the purge.

Reactive Event Limits

GW_Halcyon will store a maximum of:

- 1000 Emergency Alarms
- 500 ChangeMes
- 500 Statuses
- 500 Messages

These limits include all users and all systems monitored by GW_Halcyon. If an event is received and an event limit is reached, GW_Halcyon will purge the oldest event of this type. All users that have this event in their event list will see the event as Purged. In this case, the Purged By column will read "HALCYON-PRUNING". This means that GW_Halcyon automatically purged this event, and not a GenWatch3 user.

Each event list shows the entries count for the list in the bottom left of the window. The event windows are limited to showing 25 of the newest events. When the 26th event is received, it is added to the top of the list and the oldest event will drop off the end of the list. This dropped event is not purged, it is just not shown in the list. If there are ever more events in GW_Halcyon than can be shown in the list, the Entries count will show something like **Entries: 25 (of 30)**. This indicates that there are actually 30 events available for this user, but only 25 are shown.

Each reactive event window will show a maximum of 25 of the latest reactive events. You must purge newer events to view the older events. This is not the archived maximum. This is only a display maximum (see Reactive Event Limits section later in this chapter).

Common Event Window Buttons

Each Event Window features the following common buttons:

- **Table Lock:** This button allows you to turn on and off table locking. When a table is locked, GW_RCM does not add new events to an Event Window. This feature allows you to manage existing events without being interrupted by new ones. The new events are received by GW_RCM, they are just not added to the list until the table is unlocked.
- **Clean:** This button clears all Purged events from the Event Window. This feature allows you to keep your Event Windows clean with only a single button click.

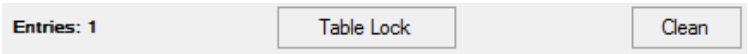


Figure 3.1 – Common Event Window Buttons

Emergency Alarms

Radios issue Emergency Alarm events when the radio user presses the radio's Emergency Alarm button. Refer to the *Reactive Event Life Cycle* section for more information on how your actions on this screen can lead to status changes for the event.

Monitoring Emergency Alarms

Emergency alarm events are shown in the *Emergency Alarm* window. Each new emergency alarm is added to the top of the list. The *Emergency Alarm* list contains the following values:

- **Status:** Shows the current status of the command. These statuses include:
  - **New:** You have received the event.
  - **Recognized:** You have clicked on the event.
  - **Responded:** You or another user has responded to the event.
  - **Purged:** Another user has purged the responded event.
- **System ID:** System ID that the event was issued on.
- **RFSS ID:** RFSS ID that the event was issued on.
- **Site ID:** Site ID that the event was issued on.
- **Radio ID:** The radio ID that issued the event.
- **Radio ID Alias:** The alias of the radio ID that issued the event.
- **TG ID:** The talkgroup the radio ID was on when the event was issued.
- **TG Alias:** The alias of the talkgroup the radio ID was on when the event was issued.
- **Date / Time:** Date and time the event was issued.
- **Retry:** The number of times this event from this radio ID was received before the event was Responded.
- **Text:** The emergency text value assigned to the radio ID in the GW_Alias GUI. Such as "Call x3322" to prompt the GW_RCM user to call a particular extension when this radio ID issues an emergency alarm.
- **Responded:** Who (if anyone) responded to this event.
- **Purged:** Who (if anyone) purged this event. This is the result of another GW_RCM user purging an event that is in your list.

Audible Alarm

As long as the *Emergency Alarm* list contains a non-responded event, an audible alarm will sound. To silence the alarm, take one of the following actions:

- Respond to all non-responded events
- Click the **Silence Alarm** button: The audible alarm is silenced until GW_RCM receives a new Emergency Alarm

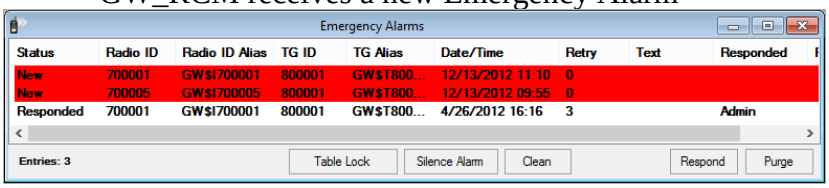


Figure 3.2 – Emergency Alarms Event Window

The **Silence Alarm** button will blink red as long as the audible alarm is active. Anytime the *Emergency Alarm* window is evaluated (selecting **Clean** or removing an entry with **Purge**) and contains an emergency with a **Status** of new the audible alarm will be activated.

ChangeMe Requests

Radios issue ChangeMe events when a radio user selects the RPGM option on the radio. Refer to the *Reactive Event Life Cycle* section for more information on how your actions on this window can lead to status changes for the event.

Monitoring ChangeMe Requests

ChangeMe events are shown in the *ChangeMe* window. Each new ChangeMe is added to the top of the list. The ChangeMe list contains the following values:

- **Status:** Shows the current status of the command. These statuses include:
  - **New:** You have received the event.
  - **Recognized:** You have clicked on the event.
  - **Responded:** You or another user has responded to the event.
  - **Purged:** Another user has purged the responded event.
- **System ID:** System ID that the event was issued on.
- **RFSS ID:** RFSS ID that the event was issued on.
- **Site ID:** Site ID that the event was issued on.
- **Radio ID:** The radio ID that issued the event.
- **Radio ID Alias:** The alias of the radio ID that issued the event.
- **TG ID:** The talkgroup the radio ID was on when the event was issued
- **TG Alias:** The alias of the talkgroup the radio ID was on when the event was issued.
- **Date / Time:** Date and time the event was issued.
- **Retry:** The number of times this event from this radio ID was received before the event was responded.
- **Locked:** Shows the known state of the radio's selector lock. Values include:
  - True if the radio's selector is known to be locked.
  - False if the radio's selector is not known to be locked.
- **Responded:** Who (if anyone) responded to this event.
- **Purged:** Who (if anyone) purged this event.

Cancel Lock

The **Cancel Lock** button allows you to quickly send a Selector Unlock command in response to receiving a ChangeMe request. Clicking **Cancel Lock** will result in a Selector Unlock command in the Command List. This command will unlock the selector of the requesting radio and allow the radio user to change from the regrouped talkgroup. This will also mark the command as *Responded*, assigning responsibility to the user that clicked **Cancel Lock**.

Figure 3.3 – ChangeMe Event Window

Statuses

Radios issue Status events when the radio user selects and sends a status or when a mobile radio user presses a status button. Refer to the *Reactive Event Life Cycle* section for more information on how your actions on this screen can lead to status changes for the event.

Monitoring Statuses

Status events are shown in the *Status* window. Each new status is added to the top of the list. The *Status* list contains the following values:

- **Status:** Shows the current status of the command. These statuses include:
  - **New:** You have received the event.
  - **Recognized:** You have clicked on the event.
  - **Responded:** You or another user has responded to the event.
  - **Purged:** Another user has purged the responded event.
- **System ID:** System ID that the event was issued on.
- **RFSS ID:** RFSS ID that the event was issued on.
- **Site ID:** Site ID that the event was issued on.
- **Radio ID:** The radio ID that issued the event.
- **Radio ID Alias:** The alias of the radio ID that issued the event.
- **TG ID:** The talkgroup the radio ID was on when the event was issued.
- **TG Alias:** The alias of the talkgroup the radio ID was on when the event was issued.
- **Date / Time:** Date and time the event was issued.
- **Retry:** The number of times this event from this radio ID was received before the event was Responded.
- **Text:** If the radio ID is assigned a Status Set in GW_Alias (see the *GW_Alias module book* for more information on Status Sets), then the status text of the corresponding status number is shown. If no Status Set is assigned to the radio ID, then this value shows STATUS x, where x is the status number.
- **Responded:** Who (if anyone) responded to this event.
- **Purged:** Who (if anyone) purged this event.

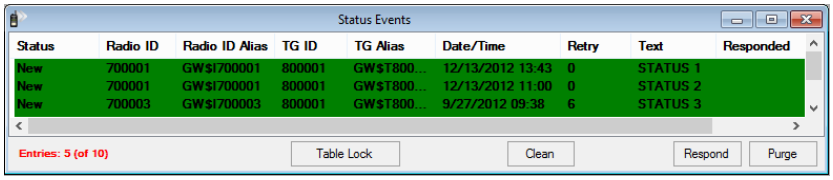


Figure 3.4 - Statuses Event Window

Messages

Radios issue Message events when the radio user selects and sends a message to or from a mobile radio when the radio user presses a message button. Refer to the *Reactive Event Life Cycle* section for more information on how your actions on this screen can lead to status changes for the event.

Monitoring Messages

Message events are shown in the *Message* window. Each new message is added to the top of the list. The *Message* list contains the following values:

- **Status:** Shows the current status of the command. These statuses include:
  - **New:** You have received the event.
  - **Recognized:** You have clicked on the event.
  - **Responded:** You or another user has responded to the event.
  - **Purged:** Another user has purged the responded event.
- **System ID:** System ID that the event was issued on.
- **RFSS ID:** RFSS ID that the event was issued on.
- **Site ID:** Site ID that the event was issued on.
- **Radio ID:** The radio ID that issued the event.
- **Radio ID Alias:** The alias of the radio ID that issued the event.
- **TG ID:** The talkgroup the radio ID was on when the event was issued.
- **TG Alias:** The alias of the talkgroup the radio ID was on when the event was issued.
- **Date / Time:** Date and time the event was issued.
- **Retry:** The number of times this event from this radio ID was received before the event was Responded.
- **Text:** If the radio ID is assigned a Message Set in GW_Alias (see the *GW_Alias module book* for more information on Message Sets), then the message text of the corresponding message number is shown. If no Message Set is assigned to the radio ID, then this value shows MESSAGE x, where x is the message number.
- **Responded:** Who (if anyone) responded to this event.
- **Purged:** Who (if anyone) purged this event.

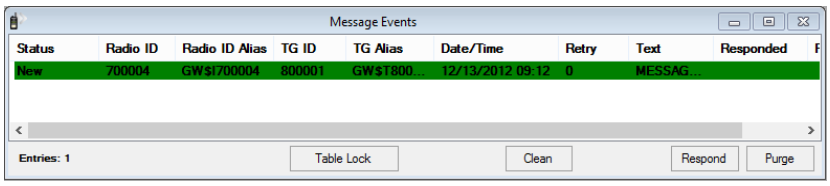


Figure 3.5 – Message Event Window

Chapter 4 Ways to Issue Commands

GW_RCM allows you to issue commands to radios. Some commands can target multiple radios, some target single radios and some include multiple commands that target multiple radios. These commands are referred to as **Proactive Commands**, because the RCM user originates the command.

This chapter contains the following sections

- **Batch Commands:** Describes the radio commands that can target up to 100 radio IDs.
- **Single Radio Commands:** Describes the radio commands that target exactly one radio ID.

Each of these command types are described in detail in the following section.

Batch Commands

Batch commands are one to three commands that can target up to 100 different radio IDs. Batch commands include:

- **Call Alert:** Sends a Call Alert event to a radio, showing the radio ID of the dispatcher. You must be licensed for Call Alert and your user's role must have the *Call Alert* privilege or this command will not be available. Additionally, you must set up a source radio ID for call alerts in *System Settings.*
- **Radio Check:** Forces the radio to send out a talkgroup affiliation message. You must be licensed for Radio Check and your user's role must have the *Radio Check* privilege or this command will not be available.
- **Regroup**: Move the radio to a different talkgroup. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* privilege or this command will not be available.
- *** Regroup & Selector Lock:** Move the radio to a different talkgroup and lock the radio's talkgroup selector. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* and *Selector Lock* privileges or this command will not be available.
- *** Regroup & Failsoft Assign:** Move the radio to a different talkgroup and assign a failsoft channel. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* and *Failsoft Assignment* privileges or this command will not be available.
- **** Regroup, Selector Lock & Failsoft Assign:** Move the radio to a different talkgroup, lock the radio's talkgroup selector and assign a failsoft channel. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping*, *Selector Lock* and *Failsoft Assignment* privileges or this command will not be available.
- **Selective Inhibit:** Disables a radio. The radio still receives control channel commands, but cannot transmit events or receive conversation. You must be licensed for Radio Inhibit and your user's role must have the *Selective Inhibit* privilege or this command will not be available.
- **Selector Lock:** Lock the radio's talkgroup selector. The selector is only locked while the radio is regrouped. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* and *Selector Lock* privileges or this command will not be available.
- **Cancel Failsoft Assign:** Change the radio's failsoft frequency back to the default. This also occurs automatically when a radio receives a Cancel Regroup. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* and *Failsoft Assignment* privileges or this command will not be available.
- **Cancel Regroup:** Move the radio back to its selected group and change the radio's failsoft frequency back to the default. You must be licensed

for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* privilege or this command will not be available.

- *** Cancel Regroup & Selector Lock:** Move the radio back to its selected group, change the radio's failsoft frequency back to the default and cancel the lock on a radio's selector. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* and *Selector Lock* privileges or this command will not be available.
- *** Cancel Regroup & Failsoft Assign:** Move the radio back to its selected group and change the radio's failsoft frequency back to the default. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* and *Failsoft Assignment* privileges or this command will not be available.
- **** Cancel Regroup, Selector Lock and Failsoft Assign:** Move the radio back to its selected group, cancel the lock on a radio's selector and change the radio's failsoft frequency back to the default. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping*, *Selector Lock* and *Failsoft Assignment* privileges or this command will not be available.
- **Cancel Selective Inhibit:** Enables a radio that was previously disabled via selective inhibit. You must be licensed for Radio Inhibit and your user's role must have the *Selective Inhibit* privilege or this command will not be available.
- **Cancel Selector Lock:** Cancel the lock on a radio's selector. You must be licensed for Dynamic Regrouping and your user's role must have the *Dynamic Regrouping* and *Selector Lock* privileges or this command will not be available.
- **GPS Immediate Location Request**: Prompts the radio to send its current GPS location information.
- **GPS Triggered Location Change Request**: Changes the GPS delivery options for a radio. Through this command the user can choose to have radios send GPS information based on cadence (timed interval) or a change in distance threshold.
- **GPS Triggered Location Stop Request**: Instructs the radio to stop sending GPS information based on cadence or distance.
- **GPS Digital Output Change Request**: Provisions a change to a sensor attached to a GPS-capable device. This could be used to sound a siren for x seconds, etc.

 * - Each of these Command options will result in two separate commands in the Command Monitor.

 ** - Each of these Command options will result in three separate commands in the Command Monitor.

Batch Commands Window

Batch Command Window Options

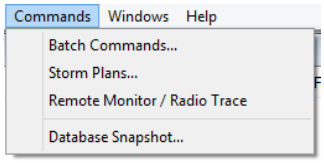
Batch commands are issued from the *Batch Command* window. This window allows you to define and send your batch command. The *Batch Command* window contains the following properties (refer to Figure 4.1):

- **Command:** The command to issue (see *Batch Commands* above for a list of commands).
- **Regroup Talkgroup:** Only enabled for batch commands that include Regroup. This is the target talkgroup for the regroup command. The Security Type, Band and Modulation Type will determine which Radio IDs will show in the *Radio ID Selector* window.
- **Site ID:** Only enabled for batch commands that include Failsoft Assign issued on CADI connections. Site ID used to issue the request.
- **Trigger Type:** Only used with GPS Triggered Location Change Request command. Allows for selection of cadence (time range) or Distance.
- **Sensor Name:** Only enabled for GPS Digital Output Change Request command. Used to select the name of a sensor.
- **Failsoft Channel:** Only enabled for batch commands that include Failsoft Assign. This is the target frequency for the failsoft assignment.
- **Threshold Value:** Only used with GPS Triggered Location Change Request command. Allows for selection of either a time range or a distance selection for the command.
- **Target Radio IDs:** All radio IDs targeted by the Batch Command. Up to 100 different radios can be selected.
- **Comment:** Optional comment to display for this batch command.

 The Failsoft list will only contain frequencies that are marked as **Failsoft** in the GW_Alias GUI.

 The Commands window will show a maximum of 100 commands. GW_RCM will not allow you to create a command while you have 100 commands in your *Commands* window. To create a command, purge one or more commands in the *Commands* window. See Chapter 5 for more information on purging commands.

Issuing a Batch Command



To issue a batch command, follow the steps below:

1. Load the *Batch Commands* window by choosing **Commands → Batch Commands…** from the **Commands** menu.
2. Choose a **Command** Type.
3. If you chose a command containing the Regroup command, choose a Regroup Talkgroup.
4. If you chose a command containing the Failsoft Assign.
    a. Select the Site for a CADI connection if needed.
    b. Choose a Failsoft Channel.
5. Click the **Add…** button: This will load the *Radio ID Selector* screen
6. Choose the radio ID(s) that you wish to target with this command.
7. Click **OK** to close the *Radio ID Selector* window.
8. Optionally, enter a comment.
9. Click the **Submit** button: This will send the batch command to the GW_Halcyon module. You will see your command appear in the *Command List*. From here you can monitor its progress.

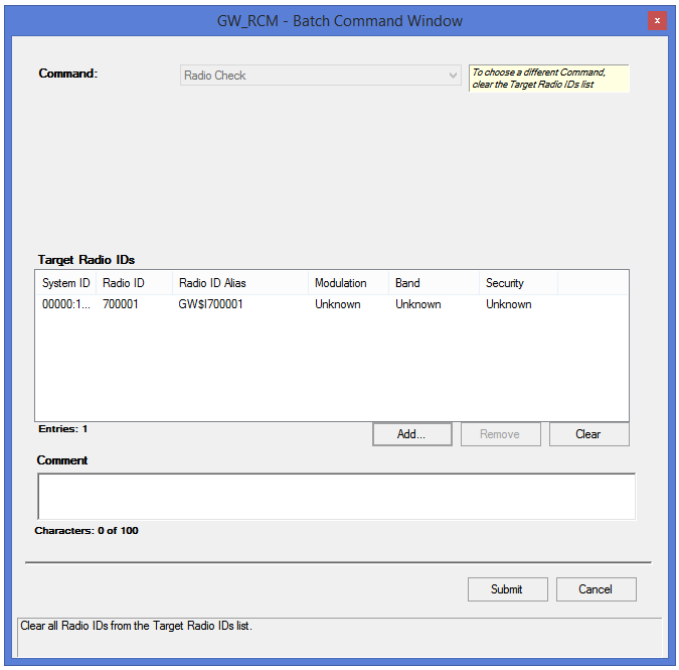


Figure 4.1 – Batch Commands

For Failsoft Assign commands, the *Radio ID Selector* will only show radio IDs that have been assigned a modulation type in GW_Alias.

For Regroup commands, the *Radio ID Selector* will only show radio IDs that have a modulation type, security type and band (assigned in GW_Alias) compatible with the selected Regroup Talkgroup's modulation type, security type and band (assigned in GW_Alias).

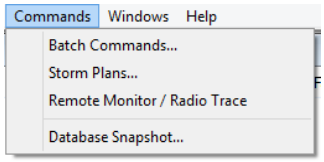
Single Radio Commands

Single radio commands are commands that target a single radio ID. These commands include:

- **Database Snapshot:** Queries the Halcyon database for radio command and radio event history for a radio ID. You must be licensed for Database Snapshot and your user's role must contain the *Database Snapshot* privilege or this window will not be available.

Each command is described in detail in the following sections.

Issuing Database Snapshot Commands



To issue a Database Snapshot command, take the following steps:

1. Click on the **Database Snapshot…** option under the **Commands** menu: This will load the *Database Snapshot* window.
2. Click on the **Select…** button: This will load the *Radio ID Selector* window. (see Figure 1.5)
3. Select exactly one radio ID.
4. Click the **OK** button: This will close the *Radio ID Selector* window.
5. If you wish to issue a radio check to determine the current affiliation information for this radio, check the **Send Radio Check** option.
6. If you wish to issue an Immediate Location Request to determine the current GPS information for this radio, check the **Send Immediate Location Request** option.
7. Click the **Query…** button: This will execute a query on the Halcyon database and fill in the applicable values in the **Database Snapshot** grid.

If you selected the **Send Radio Check** option, the *Database Snapshot* window will wait until the radio affiliates as a result of the Radio Check command before it fills the grid. Otherwise these values are the last known values for this radio stored in the Alias database.

If you selected the **Send Immediate Location Request** option, the **Database Snapshot** screen will wait until the radio affiliates as a result of the Immediate Location Request command before it fills the grid. Otherwise these values are the last known values for this radio stored in the Alias database.

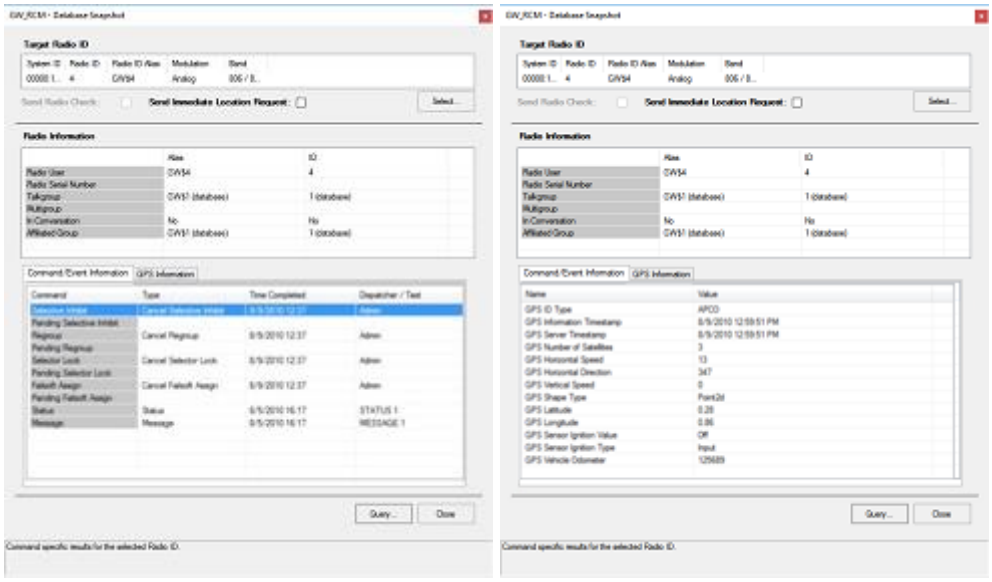


Figure 4.3 – Database Snapshot with Results

Radio Information

The **Radio Information** is pulled from the GenWatch3 alias database. This is the **last known** group/multigroup affiliation information. The **In Conversation** row indicates via **Yes** or **No** if the radio was in a conversation at the time of the database snapshot. If the column shows **Unknown**, Halcyon was unable to determine the status of the selected radio Id. The **Affiliated Group** row lists the group that this radio has reported in its last affiliation.

If you have **Send Radio Check** checked when you click **Query…**, GW_RCM will issue a *Radio Check* command to request the radio's current group affiliation. The Talkgroup and Multigroup sections show *(Pending Radio Check)* until the command completes successfully. Once the *Radio Check* command completes, the Talkgroup and Multigroup sections are updated to reflect the results of the target radio ID's affiliation response followed by *(radio check)* to indicate the information is the result of a *Radio Check.* If **Send Radio Check** is not selected, the Talkgroup and Multigroup sections show *(database)* to indicate the information came from the database.

If you have **Send Immediate Location Request** checked when you click **Query…**, GW_RCM will issue an *Immediate Location Request* to determine the radio's current GPS information. The GPS Information grid shows *(Pending Response)* until the command completes successfully. Once the *Immediate Location Request* command completes, the GPS Information section is updated to reflect the results of the location server's response. If **Send Immediate Location Request** is not selected, the GPS Information section shows *(database)* to indicate the information came from the database.

You can track the progress of the Radio Check and Immediate Location Request commands in GW_RCM's *Command* window. These commands go through the same workflow as a command issued in the *Batch Commands* window.

NOTE: If the **Send Radio Check** or **Send Immediate Location Request** options are not available, you may be restricted by license, by security privileges or ISW capability may not be available to the GW_RCM GUI.

Command/Event Information

This section shows information for the last Inhibit, Regroup, Selector Lock and Failsoft command issued to this radio ID for each command type. For example, this section will either show completed or pending information, but not both. If the last Inhibit for this radio ID is completed, then the Inhibit row is populated. If the last Inhibit for this radio is pending, then the Pending Inhibit row is populated.

NOTE: This screen does not support printing. If you wish to print this screen, hold down the Alt button and press the PrtScrn button. This will copy the Database Snapshot window to your clipboard. Load Microsoft Paint (click Start, Accessories, Paint). Copy the contents of your clipboard into Microsoft Paint by holding down the Ctrl button and pressing the V button. From the File menu of Microsoft Paint, choose Print. This will print the *Database Snapshot* window to your printer. You can also copy your clipboard (using Ctrl+V) into Microsoft Word and many popular email applications.

Each proactive command will contain a proactive task per radio ID and per command type included in the command. A proactive task is a single radio command (such as Selective Inhibit or Call Alert) that targets a single radio ID.

This section contains the following sections:

- **Proactive Command Limits:** Describes the quantity limit on proactive commands.
- **Command Monitor:** Describes the *Command Monitor* window.
- **Command Details:** Describes the *Command Details* window.
- **Proactive Task requests:** Describes the actions you can request GW_Halcyon to perform on tasks within a command.

Proactive Command Limits

GW_Halcyon will store a maximum of 500 commands. This limit includes all users. If a command is issued and a command limit is reached, GW_Halcyon will prune the oldest command in its list. This includes all tasks for this command. The user that issued the pruned command will notice that the command is deleted from his or her *Command List*. No other notification that a command was pruned is issued. The deleted commands are still available for reporting. This process simply frees up room for more current commands.

The *Command List* shows the entries count for the list in the bottom left of the window. The *command* window is limited to showing 100 of the newest commands issued by this user. When the 101st command is issued, it is added to the top of the list and the oldest command will drop off the end of the list. If there are ever more commands in GW_Halcyon than can be shown in the *Command List*, the Entries count will show something like **Entries: 100 (of 110)**. This indicates that there are actually 110 commands issued by this user, but only 100 are shown. As you purge commands from the *Command List*, the commands that were previously in excess of the 100 command limit will begin to show.

Command Monitor

The *Command Monitor* shows up to 100 of the most recent non-purged commands executed by the current user. These commands include the Batch Commands described in the previous chapter.

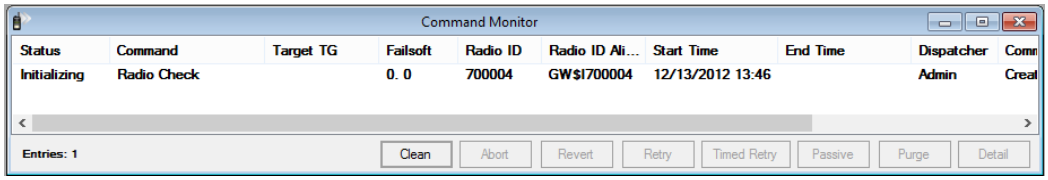


Figure 5.1 – Command Monitor

Command Monitor Columns

The *Command Monitor* contains the following columns:

- **Status:** The collective status of the tasks within the command (see *Command Details* for more information on these statuses).
    - Invalid
    - In Passive
    - In Timed Retry
    - Unsuccessful
    - Initializing
    - In Progress
    - Successful
- **Command:** The basic command type. These types include:
    - Radio Check
    - Selective Inhibit
    - Cancel Selective Inhibit
    - Regroup
    - Cancel Regroup
    - Failsoft Assign
    - Cancel Failsoft Assign
    - Selector Lock
    - Selector Unlock
    - Call Alert
    - GPS Immediate Location Request
    - GPS Triggered Location Change Request
    - GPS Triggered Location Stop Request
    - GPS Digital Output Change Request
- **Target TG:** Talkgroup targeted by the command (if any) if there is exactly one talkgroup targeted by all tasks.
- **Failsoft:** Failsoft channel targeted by the command (if any) if there is exactly one failsoft channel targeted by all tasks.
- **System ID:** System ID that the command was issued on.
- **RFSS ID:** RFSS ID that the command was issued on.
- **Site ID:** Site ID that the command was issued on.
- **Radio ID:** Radio ID targeted by the command if there is exactly one radio ID targeted by all tasks.
- **Radio ID Alias:** Radio Alias targeted by the command if there is exactly one radio ID targeted by all tasks.
- **Start Time:** The date and time the command was issued.
- **End Time:** The date and time the last task in the command completed (either successful or unsuccessful).
- **Dispatcher:** The dispatcher (GW_RCM user) that issued this command.
- **Comments:** Comment assigned to the command when the command was created.

- **Reason:** The reason a task in the command failed, shown for the most recently failed task within the command (if any).

Proactive Task Life Cycle

Each proactive command contains at least one task. A task is an operation (such as Selective Inhibit, Call Alert, etc.) targeting a single radio ID. The state of command is derived by the state of the tasks within the command. The highest priority state of the tasks is shown as the state of the command in the *Command Monitor*. The task statuses have the following priorities, shown from highest to lowest priority:

1. Invalid
2. In Passive
3. In Timed Retry
4. Unsuccessful
5. Initializing
6. In Progress
7. Successful

This means that if a command contains Task A with state Successful and a Task B with state In Passive, the command's state will show as In Passive, because Task B's state has a higher priority.

Command Monitor Buttons

The following buttons are shown at the bottom of the *Command Monitor*:

- **Clean:** Purges all selected *Successful* and *Invalid* commands.
- **Abort:** Aborts each qualified task within each selected command. Qualified tasks have a status of *In Progress, In Timed Retry* or *In Passive*. *Abort* means Stop. Halcyon will stop processing each aborted task. Each Aborted task will show a state of *Unsuccessful* with a Reason of *Aborted by User.*
- **Revert:** Reverts each *Successful* task within each selected command. Halcyon will undo the action of the task. For example a *Revert* on a *Selective Inhibit* task will result in a *Cancel Selective Inhibit*. *Call Alert, Radio Check, Cancel Regroup* and *Cancel Failsoft* commands cannot be *Reverted*.
- **Retry:** Retries each *Unsuccessful* task within each selected command. This is a one-time manual retry that will attempt a simple *Retry* of each *Unsuccessful* task. *Unsuccessful* retries are placed in *Timed Retry*.
- **Timed Retry:** Places each *Unsuccessful* task within each selected command into *Timed Retry*. Each task will be attempted once per minute for five minutes, or until *Successful*. Tasks that are still *Unsuccessful* after *Timed Retry* are placed into *Passive*.
- **Passive:** Places each *Unsuccessful* task within each selected command into *Passive*. If the radio ID targeted by the *Passive* task issues activity, Halcyon will *Retry* the task.
- **Purge:** Purges each *Successful* and *Unsuccessful* task within each selected command. If all tasks are purged from the command, then the command is also purged (removed from the *Command List*). Tasks are still available for reporting.
- **Detail:** Shows the *Command Details* window for the selected command.

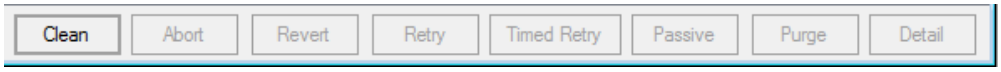


Figure 5.2 – Command Monitor Buttons

Command Details

The *Command Details* window shows each task within a command. To access the *Command Details* window, take the steps below:

1. In the *Command Monitor*, click on a command in the list.
2. Click the **Details** button, or double-click on the command in the list: This will open the *Command Details* window.

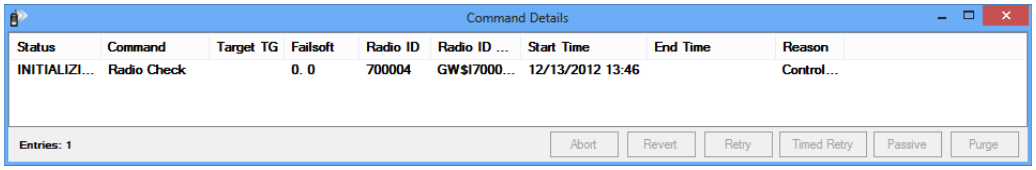


Figure 5.3 – Command Details

The current status of a task in the task workflow is shown in the Status column of the *Command Details* window. This status can be one of the following values:

- **Initializing:** The task has been sent to GW_Halcyon and has not been sent by the input module (GW_Connect or GW_Location).
- **Radio Busy:** The target radio ID is currently in conversation. Waiting to send task.
- **Invalid:** The task has been rejected for one of the reasons in the Task Failure Reasons table below.
- **In Progress:** The task has been sent by the input module (GW_Connect or GW_Location).
- **In Passive:** The original attempt to execute the task failed, and the user placed the task in Passive mode or Timed Retry period (5 minute period) expired and Halcyon automatically placed the task in Passive. The next radio activity (including Affiliation, End of Call, Status, Message, ChangeMe, Emergency Alarm, Call Alert or Radio Acknowledgement) for the radio ID in the task will cause GW_Halcyon to reissue the task.
- **In Timed Retry:** The original attempt to execute the task failed, and the user or Halcyon placed the task in Timed Retry mode. GW_Halcyon will reissue the task every minute for 5 minutes. Within this 5 minute period, if the task is aborted or command succeeds, timed retry will end.

- **Successful:** The task completed successfully.
- **Unsuccessful:** The task failed to complete. The **Reason** column contains the failure reason. You may choose to take the following actions on unsuccessful tasks:
    - **Retry:** Manually retry the task.
    - **Timed Retry:** GW_Halcyon will retry the task once every minute for the next 5 minutes. If after 5 minutes, the task is still unsuccessful, the task will transition back to passive.
    - **Passive:** GW_Halcyon will watch for activity from the target radio ID. If activity is detected from the target radio ID, GW_Halcyon will retry the task. If this attempt is unsuccessful, GW_Halcyon will put the task in Timed Retry.
    - **Purge:** Remove the task from the command.

The *Command Details* window contains the following columns:

- **Status:** The current status of the task.
  - Invalid
  - In Passive
  - In Timed Retry
  - Unsuccessful
  - Initializing
  - In Progress
  - Successful
- **Command:** The basic command type. These types include:
  - Request Radio Affiliation
  - Selective Inhibit
  - Cancel Selective Inhibit
  - Regroup
  - Cancel Regroup
  - Failsoft Assign
  - Cancel Failsoft Assign
  - Selector Lock
  - Selector Unlock
  - Call Alert
  - GPS Immediate Location Request
  - GPS Triggered Location Change Request
  - GPS Triggered Location Stop Request
  - GPS Digital Output Change Request
- **Target TG:** Talkgroup targeted by the task (if any).
- **Failsoft:** Failsoft channel targeted by the task (if any).
- **System ID:** System ID that the command was issued on.
- **RFSS ID:** RFSS ID that the command was issued on.
- **Site ID:** Site ID that the command was issued on.
- **Radio ID:** Radio ID targeted by the task.
- **Radio ID Alias:** Radio Alias targeted by the task.
- **Start Time:** The date and time the task was issued.
- **End Time:** The date and time the task completed (either successful or unsuccessful).
- **Reason:** The last reason the task failed (if any). Once successful, this value is cleared.

Command Detail Buttons

The following buttons are shown at the bottom of the *Command Details* window:

- **Abort:** Aborts each qualified selected task. Qualified tasks have a status of In Progress, In Timed Retry or In Passive. *Abort* means Stop. Halcyon will stop processing each aborted task. Each Aborted task will show a state of *Unsuccessful* with a Reason of *Aborted by User*
- **Revert:** Reverts each selected *Successful* task. Halcyon will undo the action of the task. For example a *Revert* on a *Selective Inhibit* task will result in a *Cancel Selective Inhibit*. *Call Alert, Radio Check, Cancel Regroup* and *Cancel Failsoft* commands cannot be *Reverted*.
- **Retry:** Retries each selected *Unsuccessful* task. This is a one-time manual retry that will attempt a simple *Retry* of each *Unsuccessful* task. *Unsuccessful* retries are placed in *Timed Retry*.
- **Timed Retry:** Places each selected *Unsuccessful* task into *Timed Retry*. Each task will be attempted once per minute for five minutes, or until *Successful*. Tasks that are still *Unsuccessful* after *Timed Retry* are placed into *Passive*.
- **Passive:** Places each selected *Unsuccessful* task into *Passive*. If the radio ID targeted by the *Passive* task issues activity, Halcyon will *Retry* the task.
- **Purge:** Deletes each selected *Successful* and *Unsuccessful* task. If all tasks are purged from the command, then the command is also purged (removed from the *Command List*). Tasks are still available for reporting.

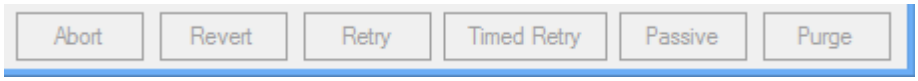


Figure 5.4 – Command Detail Buttons

Task Failure Reasons

The table below contains each reason that a task could fail and a course of action to take to resolve the issue:

Reason	Description	Solution
Unknown	-	Contact Genesis support.
Invalid Radio Command (INVALID_ISW)	Radio command was rejected by RPC CAD.	Contact Genesis Support.
Invalid Target System (INVALID_TARGET_SITE)	The Current System does not exist as an RCP CAD connection.	Change your Current System or add an RCP CAD connection in GW_Connect for this system.
Requests Exceeded for the specified Radio ID (limit of 6 pending requests) (REQUESTS_EXCEEDED)	The target radio ID already has 6 tasks in the RCP CAD queue.	Retry the task later.
Control Channel for the target system is not available (LINK_DOWN)	The connection to the RCP CAD is down.	Restore the RCP CAD connection.
Passive search timeout after 5 minutes in queue (TIMED_OUT)	The radio displayed an active (involved in a call) status for 5 full minutes.	Retry the task later.
Task aborted by user (ABORTED_BY_USER)	Task was aborted by pressing the **Abort** button.	-
Invalid Radio ID (REJ_0x01)	RFSS Controller Reject. Device types do not match or radio ID is not in valid range.	A task targeting this radio ID will never succeed.
Radio ID not enabled in SAC (REJ_0x03)	RFSS Controller Reject. Radio ID not enabled in SAC.	A task targeting this radio ID will never succeed.
Invalid TG (REJ_0x04)	RFSS Controller Reject. Talkgroup is not in valid range.	A task targeting this talkgroup will never succeed.
TG disabled (REJ_0x05)	RFSS Controller Reject. The target talkgroup of the regroup is not enabled in the central controller.	Enable the talkgroup in the SAC list of the central controller.

Reason	Description	Solution
Record Not Found (REJ_0x41)	RFSS Controller Reject. Record is not in the SAC.	Contact Genesis support.
Radio Not Found (REJ_0x52)	RFSS Controller Reject. Radio ID not currently affiliated to the system.	Ensure that the radio is on and try again.
Invalid ID (REJ_0x53)	RFSS Controller Reject. Target radio ID is not actually a radio ID.	A task targeting this radio ID will never succeed.
Incompatible TG Mode (REJ_0x56)	RFSS Controller Reject. An analog only radio ID cannot be regrouped to an ASTRO® only talkgroup.	Select a different radio ID or talkgroup for this task.
Incompatible TG Frequency (REJ_0x57)	RFSS Controller Reject. An 806 capable radio ID cannot be regrouped to a non-806 capable talkgroup.	Select a different radio ID or talkgroup for this task.
Active search time out. Radio ACK exceeded 10 seconds [30 for affiliations] (TIMED_OUT_ACTIVE)	Request was sent by RFSS Controller, but radio did not send out an acknowledgement.	Retry the task.
Echo search time out. Central Controller echo of ISW exceeded 5 seconds. (TIMED_OUT_ECHO)	Request was sent to RFSS Controller, but RFSS Controller did not broadcast the request. OR GenWatch3 missed the request echo due to interference.	Retry the task.
Radio issued a not-acknowledged (NACK)	RFSS responded to the request with a NACK (request was denied by radio).	This task will not succeed on this radio ID.
(GATEWAY_BUSY)	N/A - Legacy	N/A

Reason	Description	Solution
(GATEWAY_ID_NOT_ENABLED_IN_SAC)	N/A - Legacy	N/A
(DYNAMIC_REQUEST_DENIED)	N/A - Legacy	N/A

Table 5.1 – Task Failure Reasons

Location-Specific Task Failure Reasons

The table below contains each reason that a GPS task could fail and a course of action to take to resolve the issue:

Reason	Description	Solution
Unknown	-	Contact Genesis support.
System Failure	The location server is unable to provide the required information because of a general problem in the server or underlying network.	Contact support for your location solution.
Unspecified Error	None of the other error categories apply or privacy issues prevent the actual error from being displayed.	Contact support for your location solution.
Unauthorized Application	The requested application/user is not authorized to obtain the information for the specified radio.	Contact support for your location solution.
Absent Subscriber	The radio is known to be deaffiliated or powered off.	Verify that the radio is powered on and within range.
Congestion in Mobile Network	The radio is not currently reachable or responding within the timeout period allotted by the system.	Verify that the radio is powered on and within range.
Unsupported Version	The provider does not support the version of request received.	Contact support for your location solution.
Syntax Error	The information request has malformed XML, invalid elements or attributes or missing required elements.	Contact support for your location solution.
Service Not Supported	The provider does not support the specified service (such as triggered location requests).	Contact support for your location solution.
Query Info Not Currently Attainable	The provider is currently unable to provide the requested information.	Try your request again later.

Reporting Will Stop	A triggered request has been canceled and further reports will not be produced for this subscriber. This is the result of sending a Triggered Location Request at the same time another client is canceling Triggered Location Requests on the subscriber.	Try your request again later.
Insufficient GPS Satellites	Insufficient number of GPS satellites to determine the subscriber's location.	Try your request again later.
Bad GPS Geometry	Invalid GPS satellite geometry information.	Try your request again later.
GPS Invalid	The GPS receiver failed to find its position.	Ensure that the radio is outdoors and that the GPS device is fully connected to the device.
API Disconnected	Number of invalid requests has been reached and the API will now close the client's connection.	Try your request again later.

Table 5.2 – Location-specific Task Failure Reasons

Proactive Task Requests

Task requests can be performed from two different locations:

- **The *Command Monitor* window**: When issued from here, the request will be made on each task with a valid status within the selected command.
- **The *Command Details* window:** When issued from here, the request will be issued for each selected task with a valid status.

The table below shows each proactive task request, when it can be requested and its intended effect:

Request	Valid Task Statuses	Effect
Abort	Initializing In Timed Retry In Passive Radio Busy In Progress	Aborts any actions on the task and marks the task as unsuccessful. Will first be prompted if current status is "In Progress."
Revert	Successful	Performs the opposite of the original command (i.e., Selective Inhibit becomes Cancel Selective Inhibit).
Retry	Unsuccessful	Tries the task again.
Timed Retry	Unsuccessful	Places the task into a timed retry queue that will send the command once every minute for 5 minutes until aborted or unsuccessful. If the 5 minutes elapses, the task is placed into Passive.
Passive	Unsuccessful	Places the task into a passive queue that will send the task when the target radio ID issues an Affiliation, Call Alert, End of Call, Status, Message, ChangeMe, Emergency Alarm or an Acknowledgement.
Purge	Invalid Unsuccessful Successful	Removes the task from the command. After this, the task cannot be recovered.
Detail	All (only available in Command Monitor)	Shows the *Command Details* window for the selected command.

Table 5.3 – Tasks Request and Statuses

Chapter 6 Radio Compatibility

This chapter gives a list of radios that the GW_Halcyon module is tested to be compatible with. Other radios may work with the software, but have not been fully tested and certified.

Fully Compatible

The following radios are fully compatible with the GW_ Halcyon module.

XTS 3000	
Manufactured by	Motorola
Model Number	H09UCH9PW7AN

Limited Compatibility

The following radios are compatible with the GW_ Halcyon module, with certain limitations.

XPR 6550	
Manufactured by	Motorola
Model Number	AAH55QDH9LA1_N
Limitations	MOTOTRBO radios are limited to the following commands: • Inhibit • Uninhibit (Cancel Selective Inhibit) • Radio Check • Call Alert • IP Console Inhibit (Cancel IP Console Inhibit) • Slot Disable Available commands may be further limited by your firmware, interface and system type (single-site, IP Site Connect or Capacity Plus).

Chapter 7 Location Server Compatibility

This chapter gives a list of location servers that the GW_Halcyon module is tested to be compatible with. Other location servers may work with the software, but have not been fully tested and certified.

Fully Compatible

The following location server is fully compatible with the GW_ Halcyon module.

Motorola Universal Processing Server (MUPS) via the ASTRO® P25 Outdoor Location Solution API	
Manufactured by	Motorola
Model Number	??