

Equipment Location – Certification Information Database (EL-CID)

Version 6.0

User Training Manual

Manual 6.0 Revision 1.3

Prepared by:



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EL-CID Point of Contact Information

EL-CID Support Center Web Site

http://www.ntia.doc.gov/osmhome/elcid/

NTIA Office of Spectrum Management Web Site

http://www.ntia.doc.gov/osmhome/osmhome.html

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INTRODUCTION

The intent of this manual is to introduce you to some of the capabilities of the EL-CID program. An introduction to all of the capabilities would occupy more time than we are allotted. The user should become familiar with the help file that gives a greater in-depth explanation of the options of the model. Additional help can be obtained from the resources printed on the inside cover of this document.

We understand that these examples are simple in nature and may not completely mimic your operation, but are employed to demonstrate the capabilities of the system.

If you have any comments please send them to the EI-CID help desk or if you have a suggestion for the program operation, write a program change request (form can be found under the References Folder on the EL-CID CD) and send it to the EL-CID help desk.

Thank you,

EL-CID Development Team EL-CID Training Team

Please click on the desktop icon "Student Information Sheet" and fill in your information at this time.

SOFTWARE INSTALLATION

If not already done, install the EL-CID software. If you are taking this course with an Instructor, follow his instructions (**Appendix B**). If you are taking this course on your own, and have the software Installation CD, follow the instructions you will find on the Training CD in folder **Installation Instructions**. You can also install EL-CID by downloading from the Internet. Go to the EL-CID Support Center Web Site at the web address given on the inside cover of this manual for instructions.

DOCUMENT CONVENTIONS

On-screen elements

Text you see on the screen is **bolded**.

User Actions and input data

User actions and input data are **highlighted**. You should perform these actions (or type in the indicated text) as you work through the training.

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El-Cid

1.0 STARTING THE EL-CID PROGRAM

Step 1. To start the **EL-CID** program, **double-click** the **EL-CID** icon with the Windows desktop. The **About EL-CID** "splash" window will be displayed.



The EL-CID Release Information window will then be displayed.

E	L-CID Release Information	
	Welcome to the Equipment Location - Certification Information Database (EL-CID).	2
	EL-CID is developed and distributed by the National Telecommunications & Information Administration (NTIA).	
	Location information provided with EL-CID has not been validated. Do not use this information for weapons targeting, legal boundaries, and similar uses that would require accurate and complete information.	
	The NTIA point of contact for programmatic issues is Mr. Binyam (Ben) Tadesse. (Email: BTadesse@ntia.doc.gov).	
	The EL-CID help desk is available for technical assistance, or comments. (Email: ELCIDHelp@itt.com).	>
I	□ Do not show this again	

Step 2. Check the **Do not show this again** check box if you don't want to see the **Release** Information window in the future and then click **OK**.

<u>HINT</u>: If you check Do not show this again you can still retrieve this window by resetting the option in the **Preferred Settings** window.

The **Login** window is displayed.

Login		
		1
Agency:		_
	ОК	<u>C</u> ancel

- **Step 3.** Choose your **Agency** by clicking the down arrow **button** and clicking on your agency (e.g., AR Department of the Army) in the list that drops down. When you are logged in as a DoD agency, additional data items appear on many of the windows and the printed reports differ from when you are <u>not</u> logged in as a DoD agency. The DoD agencies are:
 - AF Department of the Air Force AR – Department of the Army N – Department of the Navy CG – Coast Guard

For purposes of this training, choose **AR – Department of the Army**.

HINT: You can type in the first character of your agency name *abbreviation* to go down in the list. Pressing the letter again will go to the next agency whose abbreviation begins with the letter.

Step 4. Click OK. The Startup EL-CID Wizard window is displayed.

EL-CID	
 <u>C</u>reate a new Certification Application <u>E</u>dit an existing Certification record 	<u>O</u> K C <u>a</u> ncel
Query the database	
O Import data □ Do not <u>s</u> h	now this again

Step 5. This screen allows you to select one of the four EL-CID wizards that will guide you through each capability. Click **Cancel** to go directly into the EL-CID program without the aid of the Startup Wizard.

<u>*HINT:*</u> Check the **Do not show this again** check box if you don't want to use the Startup Wizard in the future.

2.0 SETTING SYSTEM PREFERENCES

The **Preferred Settings** window provides options for setting the data item default units displayed throughout EL-CID and for the customization of wizard and window displays. Three tabs are available for setting preferences: **Default Units, General,** and **Fonts and Colors**.

Step 1. To change or review your system preference settings, click the **Preferences button 1** on the tool bar. The **Preferred Settings** window is displayed. The options currently checked in the tab are the installed defaults.

erred Settings	
Default Units General	Fonts and Colors
🔽 Large icons in toolbar	
Compact database on startup	
C Open data item selector when creating new	(query
Display wizard on startup	
Display release information on startup	
Show rulers in curve editor	
Use mouse to enter point values in curve ec	ditor
Allow drag and drop in Tree View	
Include XML-Schema (export.xsd) in export f	iles
🔲 Warn about possible viruses when viewing	attachments
Path to Satellite Registration (ITU):	
Restore Map Defaults	Restore Grid Defaults
	OK Car

The General tab permits you to set the following options:

- Large icons in toolbar Uncheck the Large icons check box if you want the tool bar to display using small pictures.
- **Compact database on startup** To save some time at startup of the EL-CID program, uncheck the **Compact database on startup** check box (Compacting the database saves disk space and improves the performance of the software.) Remember to manually compact the database from time-to-time by choosing Compact Database on the Maintenance menu.
- Open data item selector when creating new query When you create a new database query, the program normally assumes that you want to immediately pick a data item to query on and automatically displays the Data Item Selector screen. Uncheck the **Open data item selector** check box if you don't want to automatically display the Data Item Selector screen when starting a new query.
- Display wizard on startup When the EL-CID program first starts, an optional Startup Wizard is displayed to assist beginning users. Uncheck Display wizard on startup to turn this feature off.

- **Display release information on startup** When the EL-CID program first starts, a screen displaying release information, including how to obtain help, is displayed. **Uncheck Display release information on startup** to turn this feature off.
- Show rulers in curve editor In the Curve Editor screen, you may display ruler lines to help visualize data points. Check Show rulers in curve editor to turn this feature on. You may also set this option when using the curve editor.
- Use mouse to enter point values in curve editor In the Curve Editor screen, you may enter curve points or drag them using the mouse. Check Use mouse to enter point values in curve editor to turn this feature on.
- Allow drag and drop in Tree View In the Tree View screen, you can copy and paste nodes of the tree using the Windows clipboard. If you check Allow drag and drop in Tree View, you can also copy nodes by dragging them with the mouse.
- Include XML-Schema (export.xsd) in export files EL-CID export files are in XML format. If you want the export file to include the XML-Schema as well, check Include XML-Schema (export.xsd) in export files. (advanced users only)
- Warn about possible viruses when viewing attachments When you view an attachment from EL-CID, the program will normally warn you about the possibility of viruses, trojans, and other malware that may be in the attachment. Unchecking the Warn about possible viruses when viewing attachments box will turn off this warning.
- Path to Satellite Registration (ITU) The Path to Satellite Registration (ITU) box is used to tell EL-CID where to find the ITU program (Spacecap), which is used to enter ITU satellite data. If you have the ITU software installed, click the Browse button, and navigate to the ITU program executable file. If you installed the ITU software in the default location, it will be C:\BR_SOFT\Spacecap\Spacecap.exe.
- Restore map defaults button The EL-CID Locations Map normally preserves your layer settings from one viewing to the next. These settings include color, opacity, and labeling, and also your latest zoom settings. To restore the Map to the defaults used when EL-CID was first installed, click the Restore map defaults button. (Select OK on the EL-CID information window)
- Certain screens containing grids of data permit you to change the order of the columns displayed. The order is remembered from one viewing of the screen to another. To restore these grids to their default settings, **click** the **Restore Grid Defaults** button.
- Step 2. The Default Units tab permits you to control the units used to display and print numeric quantities throughout the program. Click in the DATA ITEM field to select it and click the Units to get the dropdown list.

Default Units] <u> </u>	neral	Fonts and Colors
Data Item	Units	Significa	nt Digits Sample
Frequency	MHz	7	0.00001234568 MHz
Bandwidth/Selectivity	kHz.	5	0.012346 kHz
Frequency Tolerance	kHz	5	0.012346 kHz
Tuning Increment	kHz	5	0.012346 kHz
Data Rate	bps	3	12.3 bps
Pulse Rate	pps	3	12.3 pps
Chip Rate	/sec	3	12.3 /sec
Code Repetition Rate	/sec	3	12.3 /sec
Hop Rate	/sec	3	12.3 /sec
Power	W	3	12.3 W
Power Density	W/m2	3	12.3 W/m2
Spectral Power Density	dBw/ł	Hz 3	10.9 dBw/Hz
Ised for:			
Allocation Frequency	High Frequency		
Allocation Frequency	Low Frequency		
Antenna - Aperture	Antenna Lower F	requency Lin	nit

You cannot change anything in the shaded columns. Click on the units abbreviation in the **Units** column next to the **Data Item** whose units you want to change. A pick list of available units displays.

	Units	Significan	
	megaher	5	
	hertz		
	kilohertz		
	megahert	z	
	gigahertz		
	terahertz		
_	Waveleng	ith 📙	
	líser	7	

The **Sample** column displays an example of what a quantity might look like in the chosen units. Change the **Significant Digits** to control the rounding of the number displayed.

When you click on a data item, the **Used For** box displays the entities and data items in the database that are affected by changing the units of the highlighted item. The Tree View node name is given first, followed by the field name.

<u>**HINT**</u>: Internally, the program always stores numeric quantities using fixed units. Changing the units on this screen only affects how the quantities are displayed. Another user can display the same quantities using different units and significant digits. The program always stores numeric quantities with the number of significant digits entered, but always rounds the display to the Significant Digits preference.

Step 3. The **Fonts and Colors** tab permits you change the fonts used in most EL-CID screens and to change the colors used in various places throughout the program. If you wish to use a different font, click the button next to **Screen** font and increase the font size.

Preferred Setting	5				
Default	Units	General	Y	Fonts and Colors)
Screen font:			AI	ial, 9	
Data entry colo	ors ———		Classification	colors	
Unmodified:	Uni	nodified	Unclassified	UNCLASSIFIED.	
Modified valid:	Mod	fied Valid	Confidential	CONFIDENTIAL.	
Invalid:	I	nvalid	Secret	SECRET	
Stations Palet	te colors —		Invalid lega	acy data color:	
Linkable Tx S	Station:	nkable Tx Station		Invalid	
Linkable Rx S	Station: Li	nkable Rx Station			
Linkable Tx a	and Rx:	nkable Tx and Rx			
Non-linkable S	Station: No	on-linkable Station			
					Factory Defaults
					<u>O</u> K <u>C</u> ancel

The **Factory Defaults** button will restore the default fonts and colors as originally set by the EL-CID install program.

<u>**HINT:</u>** Do not set the font larger than 12 point Arial; otherwise screens will become too crowded to be usable.</u>

Step 4. Click **OK** to save any changes or **Cancel** to exit the screen.

3.0 REVIEWING HELP TOPICS

The Help file can be accessed from the EL-CID main menu and is available throughout the program. All items covered in training and many functions available within EL-CID, but not covered in training, are explained in extensive detail. These help topics have also been saved to a file on the installation CD (**ELCIDHelp.pdf**) in the **Documents** folder under the EL-CID program.

The Help Menu provides:

- Contents and Index Help files for using EL-CID.
- About– Displays the About EL-CID "splash" window. The installed version number and revision number is available on this window, along with copyright information and the path to the folder containing the EL-CID data.

Step 1. Select Help | About.

File	Edit	Maintenance	Tools	Help	
				Co	ntents and Index
				Ab	out

The **About Equipment Location – Certification Information Database** window will be displayed. Note the version and revision number. This will be requested by the help desk when calling for assistance.



Step 2. Select OK to close the window.

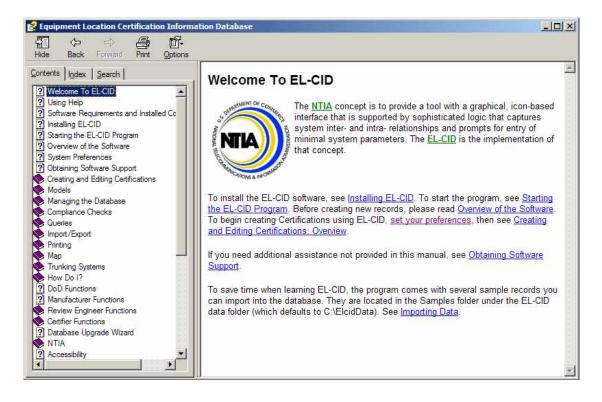
3.1 Navigating The Help Files

Step 1. Select Help | Contents and Index, or select the **button**.

File	Edit	Maintenance	Tools	Help	
				Contents and Index	
				About	

The EL-CID help file will be displayed.

At the top of the help file screen, five navigation icons are visible (Hide, Back, Forward, Print, and <u>Options</u>). Directly below these icons are the <u>Contents</u>, <u>Index</u>, and <u>Search</u> tabs.

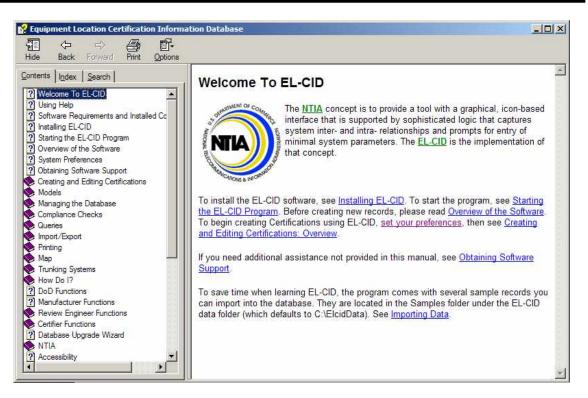


3.1.1 Help Tabs

3.1.1.1 Contents

Step 1. Select the Contents tab to view the Table of Contents,

Scroll to search for the desired section, indicated by a book icon and content <u>Models</u>. Double clicking will expand the content, displaying individual topics <u>Installing EL-CID</u>. **Highlighting** a topic will immediately display the topic information on the right of the screen.



Notice the <u>GREEN BOLD underlined</u> letters and the <u>blue bold underlined</u> text. The green bold underlined letters are acronyms and, when clicked, display expanding text that defines the acronym. The blue bold underlined text is a hyperlink to other help topics.

- Step 2. Click EL-CID. The acronym expands to display (Equipment Location Certification Information Database).
- Step 3. Click Creating and Editing Certifications: Overview. That topic will be displayed.

3.1.1.2 Index

Step 1. Select the **Index** tab and type in the keyword to be found, **CREATE**. The keyword list will be displayed automatically, with an alphabetic list of keywords and the first topic entry highlighted that begins with the keyword entered.



Step 2. Click <u>Display</u>, if this is the desired topic. Otherwise, highlight another topic.

3.1.1.3 Search

- Step 1. Select the **Search** tab and type in the keyword to be found, **POWER**.
- Step 2. Click <u>List Topics</u>. A list of topics containing the selected keyword will be displayed. Highlight the desired topic and click **Display**. The topic will be displayed on the right of the screen with every occurrence of the keyword highlighted.



- **Step 2.** Double-click the topic **Satellite Power Flux Density**. Note the word **power** is highlighted throughout the Help topic.
- **Step 3.** If you want to find a specific phrase of two or more words, you must enclose them within double quotes. Type in **transmitter record**, and then click **List Topics**.

Contents Index Search
Type in the key <u>w</u> ord to find:
transmitter record
Select <u>T</u> opic to display:
About Record IDs, Approval Status, Timest A About the Map Advanced Compliance Checks Advanced Queries Approve Certification Applications Certifier Functions Overview Classification Markings of Aggregate Outpu Cloning Records Create a New Equipment Record Creating a Certification Creating and Editing Equipments Creating and Editing Equipments Creating or Editing a Query Curve Editor Data Item Finder Data Sum Finder Data Sum Finder Data Sum Finder Data Sum Finder
<u>D</u> isplay

Notice how many topics were found.

Step 4. Select Advanced Queries and <u>Display</u>. These topics contain the word transmitter or the word record somewhere in them.

Step 5. Enclose the search term within quotes; "transmitter record" and click List Topics.

Contents Index Search] Type in the keyword to find:
"transmitter record"
List Topics
Select <u>T</u> opic to display:
Creating and Editing Equipments Data Item Finder DoD Functions Manufacturer Interface Overview of the Software Standard Curves
<u>D</u> isplay

Notice that the number of topics has been reduced.

Step 6. Select Overview of the Software and Display. These topics contain the phrase transmitter record.

<u>NOTE</u>: The entire help is also available in PDF format as a file named **ELCIDHelp.pdf** on the training CD or in the **Documents** sub-folder within the EL-CID program folder.

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4.0 UPDATING NTIA DATA

From time to time, NTIA will issue data updates. For example, NTIA may distribute approved Certification records, or updated Compliance Checks. These updates will typically be posted on the EL-CID Support Center Web Site for you to download. Updates will be announced by e-mail to all users on the mailing list. (The Internet address for the web site is given on the inside cover of this manual.) In this chapter, we will apply some data updates to the EL-CID database by importing records from files on the Training CD.

Step 1. Insert the Training CD in the CD drive. Click the Import button on the tool bar, or from the menu File | Import.



The Import window is displayed.

Import
F <u>a</u> vorite folders
D:\ElcidData\User
Import <u>f</u> ilename
D:\ElcidData\User\export.cid
Import <u>C</u> ancel

Step 2. Click the **browse button** to select the file to import. The folder we are using is on the **Training CD** and called **Database Update** (For training, this will be the **E:\Database Update**). Highlight the filename **NTIA Data.cid** and then click **Open**.

Open					? 🗙
Look jn:	🗀 Database Upo	late	•	🗢 🗈 💣 📰 -	
My Recent Documents Desktop	NTIA Data.cid				
My Documents					
My Computer					
My Network Places	File <u>n</u> ame:	NTIA Data.cid		<u> </u>	<u>O</u> pen
	Files of type:	EL-CID Export Files (*.cid)		•	Cancel

The **Import** window displays the selection.

Import		
F <u>a</u> vorite folders		
E:\Database Update	•	
Import <u>f</u> ilename		
E:\Database Update\NTIA Data.cid		
	Import Cance	!

Step 3. Click Import. A progress window is displayed followed by the File Description.

File Des	cription 🛛 🔀
2	NTIA Data Records 3 Certifications Exported on 01/15/2008 8:51:44 PM GMT Highest Classification: UNCLASSIFIED
	Continue?
	OK Cancel

Step 4. Click OK. The Import Record List - Certification window is displayed.

Action	Туре	ID	Comparison Results
Add	Certification	NTIA - Ericsson EDACS NB Trunk Template - 4 - Approved - 01/15/2008 2:46:57 PM - J/F 12	No matching record in database
Add	Antenna	EDACS Generic Mobile - Approved - 06/08/2004 12:33:32 PM - J/F 12	No matching record in database
Add	Antenna	EDACS Generic Base - Approved - 06/08/2004 12:33:17 PM - J/F 12	No matching record in database
Add	Antenna	EDACS Generic Portable - Approved - 06/08/2004 12:33:40 PM - J/F 12	No matching record in database
Add	Receiver	MASTR III REPEATER - Approved - 08/05/2003 3:05:01 PM - J/F 12	No matching record in database
Add	Receiver	M-RK PORTABLE - Approved - 08/05/2003 3:14:39 PM - J/F 12	No matching record in database
Add	Receiver	ORION MOBILE - Approved - 08/05/2003 3:11:38 PM - J/F 12	No matching record in database
Add	Transmitter	MASTR III REPEATER - Approved - 09/16/2002 1:26:37 PM - J/F 12	No matching record in database

Step 5. Click Apply. The Progress window is briefly displayed and then the Import Record List - Certification window is again displayed.

Action	Туре	ID	Comparison Results
ADDED	Certification	NTIA - Ericsson EDACS NB Trunk Template - 4 - Approved - 01/15/2008 2:46:57 PM - J/F 12	No matching record in database
ADDED	Antenna	EDACS Generic Mobile - Approved - 06/08/2004 12:33:32 PM - J/F 12	No matching record in database
ADDED	Antenna	EDACS Generic Base - Approved - 06/08/2004 12:33:17 PM - J/F 12	No matching record in database
ADDED	Antenna	EDACS Generic Portable - Approved - 06/08/2004 12:33:40 PM - J/F 12	No matching record in database
ADDED	Receiver	MASTR III REPEATER - Approved - 08/05/2003 3:05:01 PM - J/F 12	No matching record in database
- ADDED	Receiver	M-RK PORTABLE - Approved - 08/05/2003 3:14:39 PM - J/F 12	No matching record in database
ADDED	Receiver	ORION MOBILE - Approved - 08/05/2003 3:11:38 PM - J/F 12	No matching record in database
ADDED	Transmitter	MASTR III REPEATER - Approved - 09/16/2002 1:26:37 PM - J/F 12	No matching record in database

Notice that **Add** changes to **ADDED** in the **Action** column. At this point, the records have been added to the local EL-CID database.

Step 6. Click **OK** to close the window.

The procedure for importing updated Compliance Checks is similar to above, but slightly different. If your instructor tells you to, turn to **Appendix C** and follow the instructions there to import updated Compliance Checks.

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5.0 CREATING A NEW CERTIFICATION

The main purpose of EL-CID is the creation and maintenance of Certification Applications along with their supporting equipment and location data. When you create a Certification Application, the first thing you normally do is to create a line diagram which is a logical picture of the system.

Next, you add Transmitter, Receiver, and Antenna equipment records to the stations. You may use existing equipments in the database, or create new ones.

Next, you specify Locations where you want the equipment to be certified for use.

Finally, for each Link in the diagram, you select Station Class(es), the transmitting and receiving equipment(s), and select the modes (frequencies, powers, and emissions) to be certified

Step 1. Click the Create New Certification button on the tool bar or from the menu select File|New | Certification.

<u>N</u> ew ▶ Open ▶	Certification Transmitter Receiver
<u>Close</u> S <u>a</u> ve	⊥_ Antenna ► Query
Export Import	
<u>P</u> rint	
Clone Delete	
Compliance Check	
E <u>x</u> it	

The New Certification Application window is displayed.

New Certification Application	
System <u>n</u> ame: Walk & Talk	
Trunking? Choose from Trunking Te <u>m</u> plates	Number of <u>R</u> epeater Stations
- Stage	Y
C <u>1</u> - Conceptual C <u>2</u> - Experimental	
 3 - Developmental 4 - Operational 	<u>O</u> K C <u>a</u> ncel

Step 2. Enter the following data and then click **OK**.

Field	Value
System name	Walk & Talk
Stage	4-Operational

<u>*HINT:*</u> You may not use the word "and" in a System Name. You may use the ampersand or "AND" (uppercase).

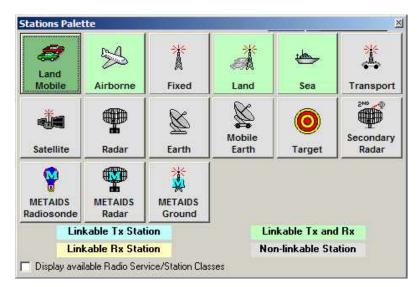
The **Tree View** is displayed with a blank Line Diagram automatically selected and the **Stations Palette** displayed. (When creating a new Certification Application, the **Stations Palette** is automatically displayed.)

** UNCLASS	IFIED **	EL-CID *	UNCLASSIFI	D ** - [Tree	View [Certifical	tion] AR - Walk & Talk	- 4 - Unapproved	- 8/18/2009 12:59:46 PM - J/F 12]	_ @ ×
File Edit Certif	fication Tools	Window Help							
		M 🔀	백 🗙	0) (0)		4	?		
	neral Informal Ints of Contac Int Dates by St mbers of Units action Informa curity Informa oram) ks] marks] achments] ierences] tification of S	tion] t] tage] s by Stage] ation]			Show frequ	Selected Modes for this	Certification		<u>*</u>
Land Mobile	Airborne	Fixed	Land	t aa Sea	Transport				
Satellite	Radar	Earth	Mobile Earth	O Target	Secondary Radar				_
METAIDS Radiosonde	METAIDS Radar	METAIDS Ground							
La constante de	kable Tx Stat kable Rx Stat lable Radio Serv	ion	No	ikable Tx an n-linkable St					
					•I			ř.	, •
									Cl <u>o</u> se
Drag a station t	to diagram.			→ UNCL	ASSIFIED [Cert	ification] AR - Walk & Ta	ilk - 4 - Unapprove	d - 8/18/2009 12:59:46 PM - J/F 12	* *

5.1 Selecting Stations

The Line Diagram is used to create a logical picture of a Certification system. The diagram consists of one or more named Stations depicted by icons, which you create by dragging onto the diagram. Links between stations are drawn as arrows from the transmitting Station to the receiving Station. In some cases, a reverse link also exists and is drawn as a single line with arrows on both ends.

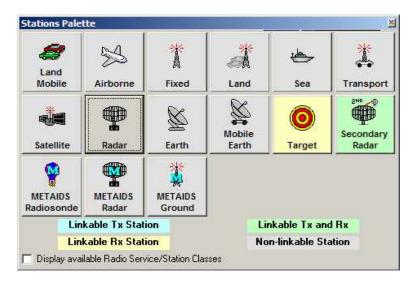
You are about to create a diagram by dragging icons from the **Stations Palette** to the **Diagram** drawing area. There are rules about which icons can be linked to each other. These rules are displayed using various colors on the **Stations Palette**.



Step 1. On the Stations Palette window, click (but do not drag) the Land Mobile icon.

The icon colors indicate that one may draw a link from a **Land Mobile** icon to an **Airborne**, **Land**, or **Sea** icon. One may also draw a link from any of these three icons back to a **Land Mobile** icon. Because the **Land Mobile** icon is a darker green color, one may also draw a link between two **Land Mobile** icons.

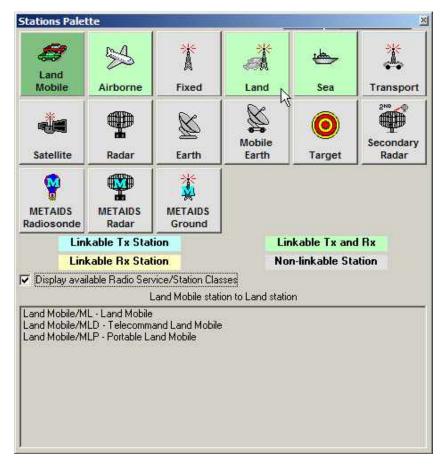
Step 2. Click (but do not drag) the Radar icon.



One may draw a link from a **Radar** icon to a **Target** icon, but not from a **Target** to a **Radar**. One may draw a link from a **Radar** to a **Secondary Radar**, or the reverse. One may not draw a link between two **Radar** icons.

The icons that you choose for your diagram determine the Radio Services and Station Classes available for the links between them.

Step 3. On the Stations Palette window check the Display available Radio Service/Station Classes check box. Click the Land Mobile icon, then move the mouse pointer so that it is positioned over the Land icon, but do not click.



The panel at the bottom of the **Stations Palette** informs us that when a link is drawn from a **Land Mobile** icon to a **Land** icon, one may only choose from Radio Service **Land Mobile**, and Station Classes **ML – Land Mobile**, **MLD – Telecommand Land Mobile**, and **MLP – Portable Land Mobile**.

<u>*HINT:*</u> Remember that the panel shows available choices <u>from</u> the selected icon <u>to</u> the icon under the mouse pointer.

Step 4. Click on the Land Mobile icon and drag it to the drawing area on the right.

The Change Station Name window is displayed with Land Mobile as the station name.

Step 5. Type WAT1 and then click OK.

Change Sta	ation Name		
St <u>a</u> tion:	WAT1		
		<u>0</u> K	<u>C</u> ancel

- Step 6. Drag two more Land Mobile icons to the drawing area and name them WAT2 and WAT3.
- Step 7. Close the palette using the X in the upper right or by clicking the Stations Palette button and the tool bar.

HINT: The Stations Palette may be redisplayed by clicking the Stations Palette button again.

The diagram will resemble the following.

*** UNCLASSIFIED *** EL-CID	** UNCLASSIFIED ** - [Tree View [Certification] AR - Walk & Talk 💶 🗵 🗙
File Edit Certification Station Tools Wi	indow Help
□☞■●₩♥₩×®®	
 Certification] AR - Walk & Ta Certification] AR - Walk & Ta Certification] AR - Walk & Ta Certification] Certification] Certification Information] Certification] WAT1 Certification of Spectrum ! Certification of Spectrum ! 	Show frequency list There are no Selected Modes for this Certification WAT3 WAT3 WAT2 Close
Station selected <right click=""> A for options.</right>	UNCLASSIFIED [Certification] AR - Walk & Talk - 4 - Unapproved -

HINT: You may move the Stations by clicking and dragging them.

<u>*HINT:*</u> When you hover the mouse pointer over an icon, the station type pops up in a small yellow box.

Step 8. Click on the **WAT3** icon. Notice that a box is drawn around the **WAT3** icon, indicating that it is selected. **[Station] WAT3** is highlighted in blue in the Tree View outline on the left. The status panel in the lower left corner indicates that a station has been selected.

<u>*HINT:*</u> If you right-click on an icon, a context menu pops up. One of the choices is **Rename**, which will permit you to change the name of a Station. To avoid confusion, make sure your Stations are named **WAT1**, **WAT2**, and **WAT3** as you see in the picture above.

5.2 Drawing Links between Stations

Links between stations are drawn as arrows from the transmitting Station to the receiving Station. There can be only one link from any given transmitting Station to a receiving Station. In some cases, a reverse link also exists and is drawn as a single line with arrows on both ends. You draw a reverse link so that the receiving Station also becomes a transmitting Station and the transmitting Station also becomes a receiving Station. The link lines remain as dotted until certain parameters are set for each link.

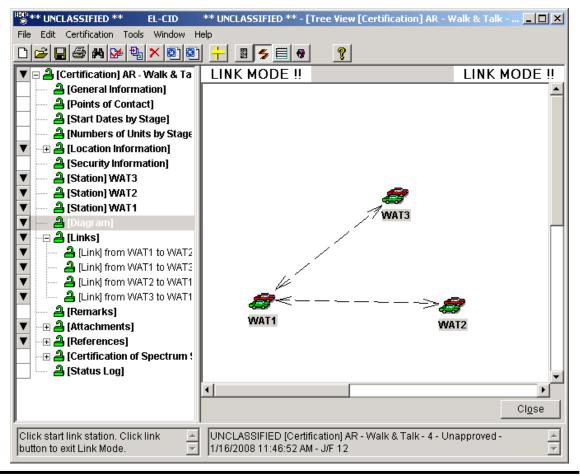
- Step 1. Click the Create New Links button on the tool bar. The words LINK MODE!! appear at the top of the diagram and the screen changes color, whenever the program is in LINK MODE!!.
- Step 2. Click once on the transmitting station WAT1 icon, and then click once on the receiving station, WAT2 icon. A dotted line will be drawn between the stations, with an arrowhead at the receiving end of the link. Notice that the link was added to the Tree View.

<u>**HINT**</u>: Watch the status panel in the lower left corner. It will indicate which step you are on while drawing links.

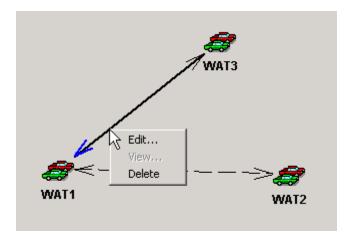
<u>HINT:</u> If it is not permitted to draw a link between two Stations, the mouse pointer will change

to \heartsuit . For example, it is not permitted to draw a link from a Station to itself. In fact, this is a handy way to cancel drawing a link -- if you start a link by clicking on the wrong Station, click the same Station again.

Step 3. Draw additional links from WAT2 to WAT1 and from WAT1 to WAT3 and from WAT3 to WAT1.



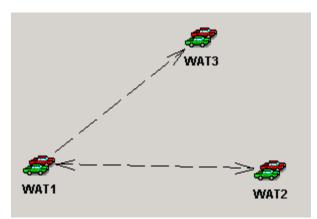
- **Step 4.** Click the **Create New Links button** on the tool bar. The words **LINK MODE!!** will disappear from the top of the diagram and the screen will change color.
- Step 5. In Step 3 above, we purposefully made an error. We should not have drawn a link from WAT3 to WAT1. Now we want to delete that link. Right-click on the link line near to the WAT1 icon and select Delete in the menu that pops up.



<u>**HINT**</u>: Note where the mouse pointer is in the picture above at the moment the user rightclicked. It is near the **WAT1** end of the line, but not too close to the end, otherwise the user would select the WAT1 Station and not the link. Also notice how the arrowhead has turned blue, indicating which link is selected.

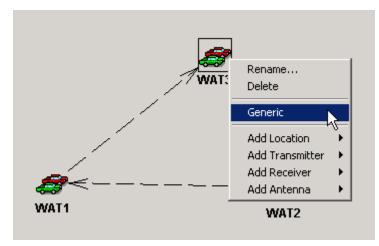
When you select **Delete**, the following window appears.

ELCID	×
Are you sure you wa	ant to delete this link?
Yes	No



Click Yes. Your diagram should now look something like this.

Step 6. Right-click on the WAT3 Station icon, and then click Generic in the popup menu that is displayed,



A shaded background is displayed around the Station icon to indicate that it is generic.



<u>**HINT**</u>: A generic icon does not allow receiving equipment data to be entered. The generic icon may be used as a termination for a link but cannot be used as a transmitting station. The transmitting station (**WAT1**) is now able to enter the link data between the transmitter and the generic station.

Example: You are certifying a telemetry transmitter. The receiver is an alreadyapproved equipment.

Example: You are certifying a broadcast transmitter, therefore there is no particular receiver.

5.3 **Useful Terms and Hints**

Save There are at least three ways to save data:

- Click on the save button . This will save your data and allow you to continue processing.
- Click on the any node on the left side of the screen in the Tree View section. This will save your data and allow you to continue processing.
- Cl<u>o</u>se • Click on the close button This will save your data and *close* the Certification.

Tree View

Refers to the left side of the screen which presents an image similar to windows explorer.

Expand Tree View

To expand the Tree View, highlight a node in the Tree View and press nodes under the highlighted node will be expanded. You can also expand the node by clicking on the 庄 button.

Collapse Tree View

				_	
		-			
7	Shi	£.	t.		→
			-		LJ

To collapse the Tree View, highlight a node in the Tree View and press . All nodes under the highlighted node will be collapsed. You can also collapse the node by clicking on the 🗉 button.

Data Grid

Refers to the right side of the screen and is a place to input data. Data items in bold are required data items.

Move between lines in the data grid.

To move between lines in the data grid, click the mouse \bigcirc in the data field, or use the
C Shift to move up or the Shift to move down the grid. The tab key
also moves the cursor between fields in the data grid.

5.4 Entering General Information

The Tree View is the main screen for entering Certification and equipment data. The Tree View has two main panels -- the tree on the left and the data entry panel on the right. The tree panel on the left displays the parts of the record in a tree-like outline (hence the name Tree View). Each node has a type in square brackets and (for some nodes) a name. When you single-click on a node of the tree, the right-hand panel displays all the data item fields for that node.

Step 1.	Click on the	General Information	node in the Tree View.	

□ ♣ [Certification] AR - Walk & Tall ▲ [General Information]	Data Item	Class	Value	Units
A [Points of Contact]	Agency Code	U	AR	
🗕 [Start Dates by Stage]	System Name (Nomenclature)	U	Walk & Talk	
- A [Numbers of Units by Stage]	Stage	U	4 - Operational	
E a [Location Information]	Approval Status	U	Unapproved	
A [Security Information]	Date/Time Last Modified		1/16/2008 12:09:06 PM	local
a [Station] WAT2	+ Coordination ID	U	J/F 12	
🔒 [Station] WAT1	JF12 Number	U		
🗕 [Diagram]	National Authority Coordination Required?		Yes	
	Title	U		
- 🔒 [Link] from WAT1 to WAT3	Proxy Record?		No	
🔒 [Link] from WAT2 to WAT1	FROM	U		
	то	U		
E A [References]	Target Date for System Approval	U		date
- 🕀 🔒 [Certification of Spectrum S	System Description	U		
📖 🚑 [Status Log]	Target Date for System Activation	U		date
			<u> </u>	Reset
			<u> </u>	Reset Close

Step 2. Enter the following information by clicking in the appropriate field and entering the information.

Field	Value
Target Date for System Approval	09/30/2012
System Description	This unit is a small, lightweight radio capable of providing two-way ground communications
Target Date for System Activation	03/30/2013
Target Date for System Termination	10/30/2023

<u>**HINT**</u>: If entering data with units, select the units first, then enter the data. Check each data field to determine if there is a dropdown list (indicated by), an expanded text/memo field or user select list (indicated by). Entries in **BLUE** indicate that the data is in the correct format. Entries in **RED** indicate that there is a problem with the data format. Data items in **bold** are required data items.

<u>*HINT:*</u> There are several fields in the **General Information** node that are only visible when logged in as a DoD agency. If not logged in as DoD, they are hidden. These items include:

National Authority Coordination Required? Title FROM TO Extent of Use Number of Units in Same Environment System Cost Comments

When you click on these items, **DoD Only** appears in the description block near the bottom.

Step 3. Save the data you've entered by clicking on **any node** in the Tree View (including the node you are working on), or by clicking the **Save button**. When saved, the data will turn **BLACK**.

<u>**HINT:**</u> At any time before saving the data, you can click the **Reset** button to restore the node to its previous state, discarding your changes.

<u>WARNING</u>: Do not click the **Close** button in the lower right corner. This will save the data, but it will also close the Tree View screen and return to the main window! If you inadvertently do this, use the Open button on the tool bar to reopen the Walk & Talk system.

5.5 Entering Location Data

Before approving a Certification Application, NTIA needs to know where the intended area of operation will be. This is accomplished by adding Location records to the Certification record in the Tree View. Where Locations are placed within a Certification depends upon the kind of system being certified.

Locations may be specified in two places. [Location] nodes may appear Underneath the **[Location Information]** node. These Locations are associated with a Stage and they apply to the entire Certification as a whole, and/or

Underneath each **[Station]** node in the tree. These Locations apply to the Station they are under. In effect, these are the Locations of the Antennas used at the Station. Refer to the Help for additional requirements

Locations are separate records in EL-CID, which means they may be separately displayed, created, edited, queried, imported, and exported using EL-CID capabilities. They may be used in more than one Certification record.

Step 1. Right-click on the Location Information node in the Tree View, then click Get Existing Location.



HINT: Another way to pop up menus on the Tree View outline is to click the down arrow button to the left of the node. A third method is to click the node to select it, and then choose the desired option from the main menu – in this case **Location Information**.

The Select Stage window appears.

Select Stage
At which Stage will the Location be used?
◯ <u>1</u> - Conceptual
© <u>2</u> - Experimental
O <u>3</u> - Developmental
• 4 - Operational
<u>O</u> K

Step 2. With **4 – Operational** chosen (the default), click **OK**. The **Pick Existing Location** window is displayed.

earch:		Find <u>F</u> irst	Find Ne <u>x</u> t	
Classification	State/Country	City	Approval Status	Timestamp 🔄
UNCLASSIFIED	Afghanistan		Approved	5/23/2003 11:24:08 AM
UNCLASSIFIED	Afghanistan	Asadabad	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Aybak	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Baghlan	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Bamian	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Baraki Barak	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Chaghcharan	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Charikar	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Farah	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Feyzabad	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Gardez	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Afghanistan	Ghazni	Approved	5/23/2003 10:03:53 AM
	Afghanistan	Uarat	Approved	5/00/0000 40:00:50 AM

Step 3. Type **maryland**, and click the **Find First** button. The list scrolls down and **Maryland** (without a city) is highlighted.

earch: MARYLA		Find <u>F</u> irst	Find Ne <u>x</u> t	
Classification	State/Country	City	Approval Status	Timestamp
UNCLASSIFIED	Mali	Kayes	Approved	5/23/2003 10:03:55 AM
UNCLASSIFIED	Mali	Mopti	Approved	5/23/2003 10:03:55 AM
UNCLASSIFIED	Mali	Segou	Approved	5/23/2003 10:03:55 AM
UNCLASSIFIED	Mali	Sikasso	Approved	5/23/2003 10:03:56 AM
UNCLASSIFIED	Mali	Timbuktu	Approved	5/23/2003 10:03:55 AM
UNCLASSIFIED	Malta		Approved	5/23/2003 11:24:08 AM
UNCLASSIFIED	Malta	Valletta	Approved	5/23/2003 10:03:53 AM
UNCLASSIFIED	Marshall Is.		Approved	5/23/2003 11:24:09 AM
UNCLASSIFIED	Marshall Is.	Dalap-Uliga-Dorr	Approved	5/23/2003 10:03:50 AM
UNCLASSIFIED	Martinique		Approved	5/23/2003 11:24:08 AM
UNCLASSIFIED	Martinique	Fort-De-France	Approved	5/23/2003 10:03:55 AM
UNCLASSIFIED	Maryland		Approved	5/23/2003 11:24:35 AM
	Moniond	1 hordoon	0 paperound	5/22/2002 10:00:11 MM

HINT: The Maryland location without a City name represents the entire state of Maryland.

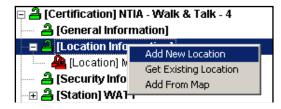
Step 4. Click **OK**. The location data will be added and another entry in the Tree View will be created.



The red, closed padlock next to **[Location] Maryland** indicates that this is an Approved location and you are not permitted to alter the Maryland data.

<u>*HINT:*</u> The Points of Contact, Start Dates by Stage, and Numbers of Units by Stage nodes in the picture above only appear because you are logged in as a DoD agency. If you had not logged in as a DoD agency, they would not appear. Similarly, the **Remarks** node only appears when logged in as DoD.

- Step 5.Next, we need to add a location called Training Area 1 in the state of Virginia.Repeat Steps1 and 2 to display the Pick Existing Location window.
- Step 6. Type training area in the Search box and verify that a location with City Training Area 1 and State/Country Virginia does not already exist. Click Cancel on the Pick Existing Location window to close it.
- **Step 7.** To create a new location, **right-click** on the **Location Information** node in the Tree View and then click **Add New Location**.



When the Select Stage window appears, click OK.

The new Location data grid is displayed.

Certification] AR - Walk & Tall [General Information]	Data Item	Class	Value	Units
A [Points of Contact]	Approval Status	U	Unapproved	
	State, Country, or Location Name Part 1	U		
[Numbers of Units by Stage]	City or Location Name Part 2	U		
(Location Information)	Date/Time Last Modified		1/16/2008 1:51:14 PM	local
I	+ Location Type	U	Single Point	
[Location]	Geographic Coordinates	U		lat/lon
- a [Security Information]	Map Layer			
🖌 🔤 [Station] WAT3	Date/Time Imported			local
A [Station] WAT2				
/ [Station] WAT1 / [Diagram]				
/ ♣ [Links]				
[Link] from WAT1 to WAT2				
/ 🔄 🐴 [Link] from WAT1 to WAT3				
🖌 👘 🔒 [Link] from WAT2 to WAT1				
🗕 [Remarks]				
′ - ⊞ 🚑 [Attachments]				
	l			
 Image: A status Log Image: A status Log 			<u>ے</u>	Reset

Step 8. Enter the following information.

Field	Value
State, Country, or Location Name	Virginia
Part 1	
City or Location Name Part 2	Training Area 1
Location Type	Center point and Radius
Geographic Coordinates	370000N 0800000W
Radius	100 km

<u>**HINT**</u>: The Geographic Coordinates are divided into two segments in the data item (latitude on the left and longitude on the right). Since the minutes and seconds are zero, you need only type **37N** for the latitude, press **TAB** key, type **80W** for the longitude, and press **TAB** key.

Geographic Coordinates	jat/ion	

<u>**HINT:</u>** If you are familiar with entering coordinates in SPECTRUM XXI, you can click on the units selector at the right side labeled **lat/lon**. Select **comp. lat/lon** in the dropdown list that appears, then type in **370000N0800000W**. When focus leaves the coordinates data item, it returns to the default units format (determined by your Preferences).</u>

Geographic Coordinates 🛛 🗸 💌	lat/lon 🔽
Map Layer	seconds
Date/Time Imported	signed deg. dec. degrees
	dec. minutes
	lation
	comp. lat/lon radians
	UTM
	MilGrd (10m)
	MilGrd (100m)

Step 9. Save the data.

Step 10. Notice that the Map Layer item may not be edited. To enter the Map Layer, we must put the location "on the map". To do this, right-click on the [Location] Virginia – Training Area 1 node in the Tree View and then click Display/Edit in Map.

▼			Date/Time La
۲			+ Location T
▼	🔤 🐣 (Location) Maryland -		· · · ·
	📃 📖 🚨 [Location] Virginia - Training Area 1		Genorapt
	- A [Security Information]	Display/Edit in M	ap
¥	🖅 🔒 [Station] WAT1	Clone	~
▼	🕀 🛃 [Station] WAT2	Show Using Cert	ifications
▼	🖅 🛃 [Station] WAT3	Show Similar Ver	
V	🔤 🖴 [Diagram]		SIONS
¥		Remove	
T	🔄 🖂 🛙 inkl from WAT1 to WAT2		

The following informational dialog appears.

E	ELCID
	This Location is not currently on the map (Map Layer is blank). To put it on the map, change the geometry (optional), pick a Location Layer, and click OK.
	ОК

Step 11. Click OK. The Display/Edit Location window appears.

🐃 Display/Edit Location		
	Location layer: States	•
743.24	Layers	
Canada 🗧 🛛 🔁 🥇 🗛 🚽	Visible Select Label Name]
	🗆 🧧 🛛 🛛 🗤 World Topo	
	🗹 🗆 🗖 🗹 A Countries	
Montana Minnesota	🗹 🗆 🗹 🖬 🖌 A States	
Oregon New York	🗌 🗖 🗖 🗖 🗖 A Special Regions 🚽	- -
USP (US & POSS)	🔲 🗖 🗖 🗖 🗛 DoD Land Areas	±
California	O A Cities	. X
Texas Georgia Bermu		-
Flarida		
Mexico	Geometry type: Circle	•
Cuba	Coordinates	
Puerto Ric	37 0'0''N 80 0'0'W	lat/kon
Honduras		
Costa Rica Frinidad	100.000) <u>km</u>
ALL T	·	
Ç <mark>olombia</mark> ▼		
Locations		
	Add Ins Del Part	pply
	Print OK Can	cel

<u>WARNING</u>: Do not click anywhere on the map. Doing so will change the coordinates of the **Virginia – Training Area 1** location. If you inadvertently do that, click **Cancel** and go back to Step 10.

The **Layers** grid in the upper right corner lists the various layers of location data. The map software supports layers of three types, depending upon the type of location geometry that may be stored in the layer:

PolygonThe layer may contain locations whose coordinates form a polygon,
rectangle, or circle. The Countries, States, Special Regions, and
DOD Land Areas are examples.PointThe layer may contain locations that have single point coordinates.
Cities is such a layer.LineThe layer may contain locations whose coordinates form a line or
multiple line segments. Interstates is such a layer.

One may not mix geometry types within a layer. For example, you cannot mix polygons and points within a single layer.

To put the **Virginia – Training Area 1** location on the map, you must select a layer whose geometry type is compatible. Since we created the location as a **Center Point and Radius** (circle), we must pick a layer that contains polygons.

Step 12. Click the down arrow next to the Location layer box in the upper righthand corner of the window. Notice that the program lists all the layers whose geometry type is polygon. Select DoD Land Areas.

Ι	Location layer: States			•			
Layers							
I	Visi	ble	Se	lect	Cou Sta	Jntri Ioc	es
I					Spe	cia	Regions
I			~		Dol	D La	and Areas 🔉 🔪
I					Acc	epte	ed Cert Areas 🗸
I						А	DoD Land Areas
I				0		А	Cities 📃 🔳
						А	Accepted Cert Areas 🚽 🗙
	•	-				٨	

Step 13. Click the **OK** button. The following window appears.

ELCID	×
?	WARNING: You have changed the layer or geometry of this location. Store changes?
	OK Cancel

Step 14. Click OK. After a moment, the Tree View window reappears. DoD Land Areas now appears in the Map Layer data item.

🐣 (Location) Maryland -	+ сосацоя туре	U	Center Point and Radius
🗕 [Location] Virginia - Training Area 1	Geographic Coordinates	U	37 0'0"N 80 0'0"W I
Security Information]	Radius	U	100 k
Station] WAT1	Map Layer		DoD Land Areas
Station] WAT2 Station1 WAT3	Date/Time Imported		I

5.6 Entering Application Classification Markings

EL-CID handles data up to the Secret level of classification. For most individual data items you can enter a classification. In the Tree View, the classification of individual data items is displayed and edited in the Class column.

Throughout the program, classified data items are colored to help you locate them as follows:

- White Unclassified
- Yellow Confidential
- Pink Secret

<u>NOTE</u>: If an output would be considered classified when several items are output together, then all of the individual data items should be marked at that minimum classification. For example, if Nomenclature and Frequency are considered to be Confidential when appearing together, then both Nomenclature and Frequency should be marked Confidential or higher.

When you change the classification of any data item; the overall classification of the record is recalculated and upgraded or downgraded as necessary.

The overall classification of the record is displayed in the lower right-hand corner of the Tree View screen.

In addition, the highest classification of all the data in the database is displayed in the title bar.

Step 1. Click the Security Information node in the Tree View. The Security Information window will be displayed.

Se	ecui	rity Info	ormation				
	\square		Classification Source(s) Declassification Instructions				
Ĺ			Downgrading Instructions Special Handling				
	_	Code	Description	<u> </u>			
		A	Approved for public release; distribution is unlimited (DoD Directive 5230.24)	-			
			Releasable to soil country and the North Atlantic Treaty Organization (NATO); otherwise, not releasable outside the US Government in accordance with (IAW) Section 552 (b)(1) of Title 5 of the US Code.				
		с	Releasable to soil country and coalition operation organizations; otherwise, not releasable outside the US government in accordance with (IAW) Section 552 (b)(1) of Title 5 of the US				
		E	Not Releasable outside the US Government IAW Section 552 (b)(1) of Title 5 of the US Code.				
		F	Not releasable to foreign nationals and not releasable outside the US Government IAW Section 552 (b)(1) of Title 5 US Code.	_			
		H Releasable to soil country only; otherwise, not releasable outside the US Government IAW Section 552 (b)(1) of Title 5 US Code.					
	Contingency Assignment - The record contains unified commander comments only; not releasable to foreign nationals unless formally coordinated; otherwise, not releasable outside the US Government IAW Section 552 (b)(1) of Title 5 US Code.						
		Permanent Assignment - Available for contingency use within the theater after coordination with and approval of the cognizant unified commander - releasable to soil nation; otherwise, not releasable outside the US Government IAW Section 552 (b)(1) of Title 5 US Code.					
		N Releasable to NATO; otherwise, not releasable outside the US Government IAW Section 552 (b)(1) of Title 5 US Code.					
		P	Proprietary; otherwise, not releasable outside the US Government IAW Section 552 (b)(1) of	₽			
F	leco	rd Clas	sification: UNCLASSIFIED	ancel			

The overall Record Classification is displayed at the bottom left of this screen. You may not change this, except by changing the classification of individual data items in the record.

The Security Information screen has four tabs used for entering the following information:

- **Special Handling**. All Certification records are required to specify a Special Handling Code.
- Classification Source(s). Enabled only if the record is Confidential or Secret.
- Declassification Instructions. Enabled only if the record is Confidential or Secret.
- **Downgrading Instructions**. Enabled only if the record is Secret.

All Certification records are required to have a Special Handling Code. When you create a brand new Certification, the record is unclassified and the Special Handling Code defaults to "A", which means unlimited distribution. If a record becomes classified, the "A" code is erased and you must specify a new Special Handling Code. In addition, all classified records are required to have a Classification Source and Declassification Instructions. Secret records may also have Downgrading Instructions.

Step 2. Click **OK** to save the data.

5.7 Entering Station Data

Station data consists of transmitter data, receiver data, and antenna data. If required, you could also enter specific location data.

5.7.1 Entering Transmitter Data

Step 1. Right-click on the [Station] WAT1 node in the Tree View and then select Add Transmitter | Add New Transmitter.

	alk & Talk - 4	Data Item	Class	Value	Units
General Informatio	n]	Station Name	U	WAT1	
[Points of Contact] [Start Dates by Start	nel	+ Type of Station (icon)		Land Mobile	
A [Numbers of Units I		Generic	U	No	
THE REAL PROPERTY AND TO	Delete				
· ⊞ 🛃 [Station] WAT3 	Generic				
<mark>A</mark> [Diagram] ⊡ A [Links]	Generic Add Location				
🔏 [Diagram]	Generic Add Location Add Transm	itter 🕨 Add New Transmitter	[
	Generic Add Location Add Transm Add Receive Add Antenn	itter Add New Transmitter Get Existing Transmitter	1		

The Add Nomenclature window will be displayed.

Add Nomenclature		
Nomenclature:		
	<u>0</u> K	<u>C</u> ancel

Step 2. Type Walk & Talk Tx and then click OK.

Add Nomenclature				
Nomenclature: Walk & Talk Tx				
	<u>0</u> K	<u>C</u> ancel		

The **Transmitter** data grid is displayed:

Data Item	Class	Value	Units
Nomenclature	U	Walk & Talk Tx	
Manufacturer	U		
Model Name and Number	U		
Approval Status	U	Unapproved	
Date/Time Last Modified		1/16/2008 2:40:29 PM	local
Coordination ID	U	J/F 12	
Туре	U		
Filter Type	U		
Proxy Record?		No	
FCC Acceptance Number	U		
Frequency Stability (+/-)	U		
Frequency Stability Units			
Output Device	U		
Tuning Method	U		
Suppression of Harmonic	U	No	
Radar or Communications?	U	Communications	
Date/Time Imported			local

Step 3. Enter the following data

Field	Value
Manufacturer	RELM Communications, Inc
Model Name and Number	Model 127A
FCC Acceptance Number	K95LT20002
Frequency Stability (+/-)	5
Frequency Stability Units	ppm
Output Device	Transistor
Tuning Method	Synthesizer

<u>*HINT:*</u> Manufacturer is a select list (indicated by _____). You can type **relm** in the **Search** box and click **Find First** to find the correct entry.

The **bolded items** are required. You are expected to enter **Frequency Stability** and **Frequency Stability Units**. If you click on **Output Device**, you will see **DoD required item** appear in the description block at the bottom. This indicates that this item is required when logged in as a DoD agency. It is optional when not logged in as a DoD agency. Similarly, **Tuning Method** and **Suppression of Harmonic** are DoD required items.

Step 4. Right-click on [Transmitter] Walk & Talk Tx and then select Add Power.

The **Power** data grid is displayed.

Data Item	Class	Value	Units
Power Type			
Power Lower Limit	U		W
Power Upper Limit	U		W

Step 5. Enter the following data.

Field	Value
Power Type	Mean
Power Upper Limit	3 W

<u>*HINT:*</u> Power Lower Limit only appears when logged in as a DoD agency. NTIA requires only the maximum power of the transmitter.

Step 6. Right-click on [Transmitter] Walk & Talk Tx and then select Add Tuned Frequency.

) 🗲 🔒 🚳 M	👺 🔁 🗙 🖻			🤫 🢡
🛛 🛱 🛃 [Certification] AR - Walk 8	Data Item	Class		
General Information]		Nomenclature	U	
Points of Contact] A [Points of Contact] A [Start Dates by Stage]		Manufacturer	U	RELN
[Numbers of Units by S	tage]	Model Name and Number	U	
Location Information]		Approval Status	U	
[A [Stage] 4 [A [Location] Maryland	C	Date/Time Last Modified		
A [Location] Virginia - Training Area 1 A [Security Information]		Coordination ID		
		Туре	U	
[Here 2] [Station] WAT1 Image: state of the second stat	CUDITY	Filter Type	U	
- A [Other Nomencial	Add Power	roxy Record?		
- 🕘 [Installations]	Add Fixed Frequency Add Tuned Frequency	CC Acceptance Number	U	
- 🔒 [Power] 3.00 W M	Add Multiple Harmonics	requency Stability (+/-)	U	
A [Remarks] → A [Station] WAT2	Add Harmonic	requency Stability Units		
🕀 🔒 [Station] WAT3	Add Spurious Emission	Dutput Device	U	
(Diagram)	Show Using Certifications Show Similar Versions	uning Method	U	
[Links] [Remarks] Clone [Attachments]	Suppression of Harmonic	U		
		Radar or Communications?	U	
References]				

The **Tuned Frequency** data grid is displayed.

Data Item	Class	Value	Units
+ Fixed Frequency?		No	
Lowest Tuned Frequency	U		MHz
Highest Tuned Frequency	U		MHz
Tuning Increment	U		kHz
# of Frequencies Required for Operation	U		
Minimum Required Frequency Separation	U		MHz
Frequency Blocking Indicator	U	No	
Lowest Usable Channel	U		MHz

Step 7. Enter the following data.

Field	Value
Lowest Tuned Frequency	136 MHz
Hightest Tuned Frequency	160 MHz
Tuning Increment	12.5 kHz

HINT: Frequencies may be entered as M136, 136M, K136000, 136000K, or 136m etc.

Step 8. Right-click on [Transmitter] Walk & Talk Tx and then select Add Harmonic.

	TED ** - [Tree View [Certification]	AR - Walk & Talk - 4
File Edit Transmitter Tools Window Help		#
▼ 🖻 🛃 [Certification] AR - Walk & Talk - 4	Data Item	Class
A [General Information]	Nomenclature	Ü
Points of Contact] A [Start Dates by Stage]	Manufacturer	Ŭ
[Numbers of Units by Stage]	Model Name and Number	U
▼	Approval Status	U
E 🔤 [Stage] 4	Date/Time Last Modified	
Location] Maryland -	Coordination ID	
- A [Security Information]	Туре	U
🔻 🖂 🔁 [Station] WAT1	Filter Type	U
🔽 🗧 🖴 [Transmitter] Walk & Talk Tx		Ŭ
[Other Nomenclatures]	Add Power Add Fixed Frequency	
	Add Tuned Frequency ber	Ū
	Add Multiple Harmonics -)	U
A [Remarks]	Add Harmonic its	
V 🕀 🔁 [Station] WAT2	Add Spurious Emission	U
▼ - I 🛃 [Station] WAT3	Show Using Certifications	U
▼ [Diagram] ▼ [Links]	Show Similar Versions	U
	Clone ons?	U
 ✓ ④ [Remarks] ✓ ⊕ ▲ [Attachments] ✓ ⊕ ▲ [References] 	Remove Transmitter Replace Transmitter	

The Harmonic	window i	is displayed.
--------------	----------	---------------

Harmonic			
Classification: U 💌	Harmonic Number.	2nd 💌	
Freq offset (Fo) Attenuation		in the second	
0.00000	Delete Point	Add Point	
	Freq offset (Fo):	0.00000 KHz	
	Attenuation:	dB	
20-	T E		
0-	i i		
-	i i		
-20 -	i i		
- 9-40 -	ÎÌ		
-	11		
-60 -	11		
-80 -	11		
-			
-100 -			
-1000 -100 -10.0	-1.00 2Fc	+1.00 +10.0	+100 +1
	Frequency = 2		<< >>
Scale: 2000 KHz	Autoscale = carrier fre	quenej)	🔽 Log scale

Step 9. Enter the following data and Save.

Field	Value
Harmonic Number	2nd
Attenuation	-60 dB

<u>HINT:</u> Do not use the Add Point button on the Harmonic window to add another Harmonic. Instead, right click on the Transmitter node and select Add Harmonic again, following Step 8, or use the Add Multiple Harmonics option shown below.

** UNCLASSIFIED ** - [Tree View [Certification] AR - Walk & Talk - 4 - U ** UNCLASSIFIED ** EL-CID Edit Transmitter Tools Window Help File 🔒 🞒 🚧 👺 🖏 X Ê. 8 14 0 T AR - Walk & Talk - 4 Data Item Class A [General Information] Nomenclature 11 A [Points of Contact] Manufacturer U A [Start Dates by Stage] [Numbers of Units by Stage] U Model Name and Number [Location Information] Approval Status U [Security Information] Date/Time Last Modified 🖻 🛃 [Station] WAT1 linotion ID 🗖 🚍 [Transmitter] Walk & Talk Tx Y Add Power [Other Nomenclatures] U Add Fixed Frequency a [Installations] Add Tuned Frequency U 🐴 [Harmonic] 2nd Add Multiple Harmonics rd? A [Harmonic] 3rd -Add Harmonic U ¥ E Add Spurious Emission tance Number v 🖃 🐴 [Emission Designator] U Stability (+/-) Show Using Certifications T 🖃 🛃 [Modulation] 11K0F3 **Stability Units** Show Similar Versions a [RF Fundamental] U ice 🐴 [Power] 3.00 W Mean Clone a [Spurious Emission Curve U Y thod Remove Transmitter A [Remarks] Replace Transmitter on of Harmonic U 🗄 🔒 [Station] WAT2 Dedecar 11

Step 10. Right-click on [Transmitter] Walk & Talk Tx and then select Add Multiple Harmonics.

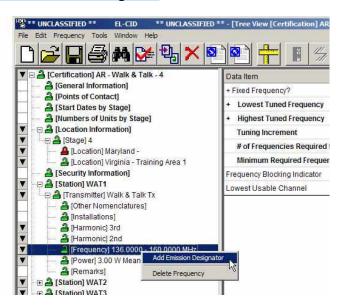
The Add Multiple Harmonics window is displayed.

	Classification	Attenuation
2nd Harmonic	U 💌	-60.0 dB
C 3rd Harmonic	U 👻	dB
🗖 Oţher Harmonic	U¥	dB

Step 11. Check the 3rd and Other Harmonic checkboxes and Enter the following data and Save.

Field	Value
Harmonic Number	3 rd
Attenuation	-60 dB
Harmonic Number	Other
Attenuation	-60 dB

Step 12. Right-click on [Transmitter] Walk & Talk Tx | [Frequency] 136.00 – 160 MHz and then select Add Emission Designator.



The **Emission Designator** data grid is displayed.

Data Item	Class	Value	Units
Necessary Bandwidth			kHz
+ Emission Designator	U		
Emission Digitized Spectrum Code	U		

Step 13. Enter the following data and then Save.

Field	Value
Necessary Bandwidth	11 kHz
Emission Designator	11K0F3E

<u>*HINT:*</u> If you need help in determining the Necessary Bandwidth you can click on the button to access one of the models. The button only appears when focus is on the **Necessary Bandwidth** field.

<u>**HINT:</u>** If you need help in determining the Emission Designator you can click on the button to access the Emission Designator Wizard. The button only appears when focus is on the **Emission Designator** field.</u>

Step 14. Right-click on [Emission Designator] 11K0F3E and then select Add Modulation.



The **Modulation** data grid is displayed.

Data Item	Class	Value	Units
+ Emission Designator		11K0F3E	
+ Radar or Communications?		Communications	
Occupied Bandwidth	U		kHz
Measured or Calculated?	U		
+ Spread Spectrum?		No	
+ Modulation Type	U		
Lowest Modulation Frequency	U		MHz
Pseudorandom Code Period	U		ms
Peak Frequency Deviation Index	U		
RMS Frequency Deviation	U		
RMS Frequency Deviation Code	U		
RMS Modulation Index	U		
Pulse Repetition Rate Lower Limit	U		pps
Pulse Repetition Rate Upper Limit	U		pps
Pulse Duration Lower Limit	U		ms
Pulse Duration Upper Limit	U		ms

HINT: There are quite a few DoD only data fields in this grid.

Step 15. Enter the following data and Save.

Field	Value
Occupied Bandwidth	11 kHz
Measured or Calculated	Measured
Spread Spectrum	No
Modulation Type	Analog Modulation (AM, FM, or Phase)
Peak Deviation	Leave blank
Deviation Ratio	0.833
Maximum Modulation Frequency	3 kHz

Notice that the **Peak Deviation**, **Deviation Ratio**, and **Maximum Modulation Frequency** items do not appear until Analog is chosen for **Modulation Type**. The program will hide irrelevant items. The plus sign (+) next to **Modulation Type** indicates that other items will appear or disappear depending upon what you choose for the **Modulation Type**.

Step 16. When you click on any of the three items – Peak Deviation, Deviation Ratio, or Maximum

Modulation Frequency – a calculator button appears. Since you left **Peak Deviation** blank in **Step 14**, **click on it now** and **click the calculator button**. The calculated value of 2.4990 kHz appears.

<u>HINT</u>: If any of the inputs to the calculation are classified, a message will appear advising you to check the classification of the calculated item.

Step 17. Click on [RF Fundamental Curve].



<u>*HINT:*</u> The **[RF Fundamental Curve]** node was automatically created when you added the **[Modulation]** node. The fundamental curve cannot be deleted.

RF Fundamental Curve	Measured or Calculated	?:	
Classification: 💵 🏢			
Freq offset (Fo) Level (dB)			
-3.00	Delete Point	Add Point	
-20.0	Freq offset (Fo):		
-40.0			
-60.0	Level (dB):	-3.00 dB	
20 0 - -20 - ₩-40 - -60 - -80 - -100 -			
-9.00 -6.00 -3.00		5.00 +9.00 +12.	
Scale: 30.0 KHZ Au	Frequency = toscale (Fc = carrier fr		_<< _>> Log scale

The RF Fundamental Curve window is displayed.

Step 18. Enter the following data.

Field	Value
Measured or Calculated	Measured

Step 19. **Highlight** the point to be entered in the point grid.

Freq offset (Fo)	Level (dB)
	-3.00
	-20.0
	-40.0
	-60.0

Step 20. Enter 4 in the Frequency offset.

Freq offset (Fo):	4 kHz
Level (dB):	-3.00 dB

HINT: Freq offset equals 1/2 bandwidth

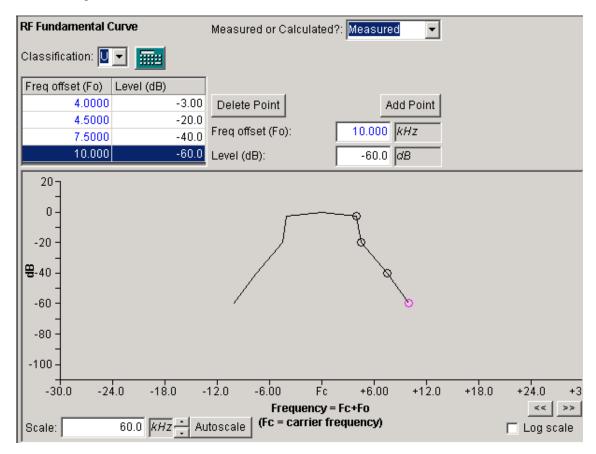
Step 21. Click on the -3 dB row in the point grid to complete entering the point.

Step 22. Enter the following data, by following Step 19 and Step 20.

Field	Value
Freq Offset (1/2 Bandwidth) at -20 dB	4.5 kHz
Freq Offset (1/2 Bandwidth) at -40 dB	7.5 kHz
Freq Offset (1/2 Bandwidth) at -60 dB	10 kHz

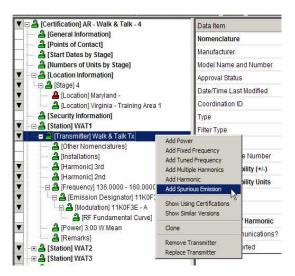
HINT: You may add additional rows to the point grid by clicking the **Add Point** button.

<u>*HINT:*</u> If your screen does not match the one below, Click the **Autoscale** button and make sure the Log Scale checkbox is unchecked. The resulting **RF Fundamental Curve** should look like the following:

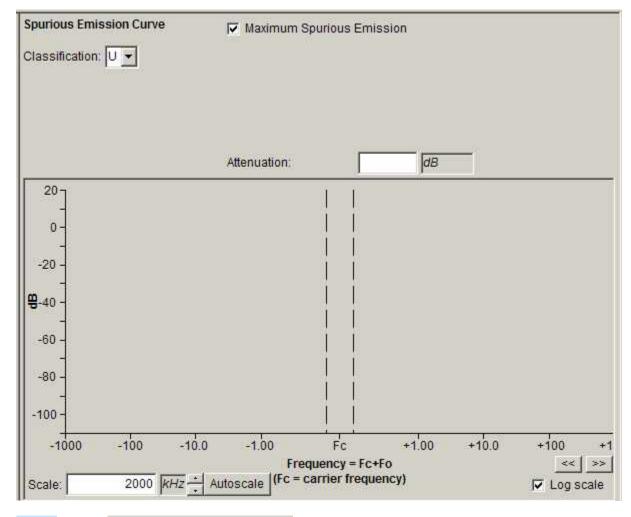


Step 23. Save the data.

Step 24. Right click on [Transmitter]Walk & Talk and then select Add Spurious Emission.



The Spurious Emission Curve window is displayed;

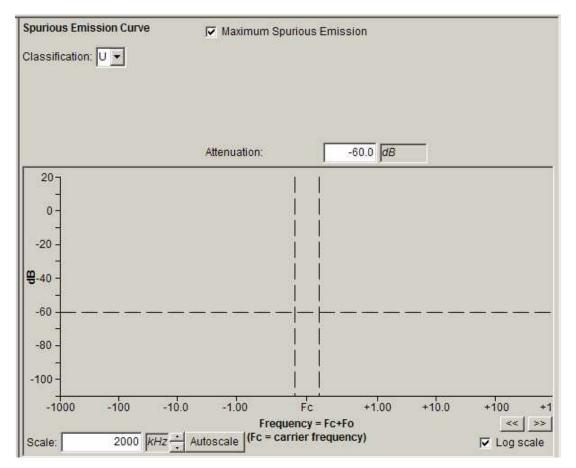


Step 25. Check the box Maximum Spurious Emission

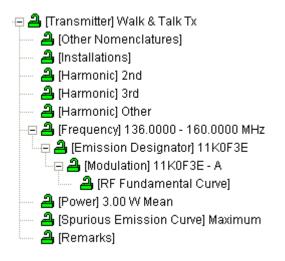
Step 26. Enter the following and Save.

Field	Value
Attenuation (dB)	-60 dB

The **Spurious Emission Curve** appears as a single line because it represents the maximum of all spurious emissions across all frequencies.



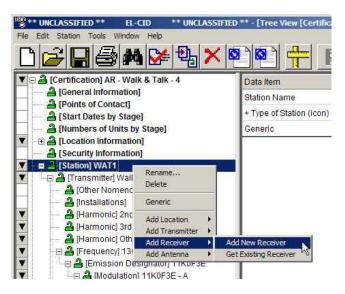
This completes the data entry for the Transmitter **Walk & Talk Tx**. The transmitter portion of Tree View looks like the following:



<u>*HINT:*</u> [Other Nomenclatures], [Installations], and [Remarks] only appear when logged in as a DoD agency.

5.7.2 Entering Receiver Data

Step 1. Right-click on the [Station] WAT1 node and select Add Receiver | Add New Receiver.



The Add Nomenclature window is displayed.

Add Nomenclature		
Nomenclature:		
	<u>0</u> K	<u>C</u> ancel

Step 2. Type Walk & Talk Rx and click OK.

Add Nomenclature				
Nomenclature: Walk & Talk Rx				
	<u>0</u> K	<u>C</u> ancel		

The **Receiver** data grid is displayed.

Data Item	Class	Value	Units
Nomenclature	U	Walk & Talk Rx	
Manufacturer	U		
Model Name and Number	U		
Approval Status	U	Unapproved	
Date/Time Last Modified		1/16/2008 4:31:45 PM	local
Coordination ID	U	J/F 12	
Туре	U		
Proxy Record?		No	
FCC Acceptance Number	U		
Frequency Stability (+/-)	U		
Frequency Stability Units	U		
Image Rejection Level	U		dB
Conducted Undesired Emissions	U		dBm
Local Oscillator Tuned Indicator	U		
Tuning Method	U		
Maximum Bit Rate	U		bps
Minimum Post Detection Frequency	U		MHz
Maximum Post Detection Frequency	U		MHz
Preselection Type	U		
Date/Time Imported			local

Step 3. Enter the following receiver data.

Field	Value			
Manufacturer	RELM Communications, Inc			
Model Name and Number	Model 127A			
FCC Acceptance Number	K95LT20002			
Frequency Stability (+/-)	5			
Frequency Stability Units	Ppm			
Local Oscillator Tuned Indicator	Below			

<u>**HINT:</u>** You can type the Manufacturer name in the block, but it has to be the exact spelling and punctuation as appears in the user select list.</u>

Step 4. Right-click on [Receiver] Walk & Talk Rx and select Add Tuned Frequency.

💌 🖃 🚑 (Station) WAT1	
🔽 🚽 🐣 [Receiver] Wa	 Add Eived Erequency
 Transmitter] □ ☐ ☐ (Transmitter) □ ☐ ☐ (Harmonic) 	Add Tuped Erequency
💌 🛁 (Harmonic)	Show Similar Versions
💌 🖂 🔁 (Frequency	-
,▼	
 Imoduli Imoduli	
▼ ⊕ 🚑 [Station] WAT2	Replace Receiver

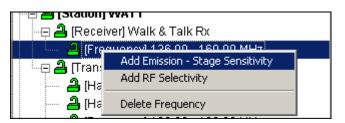
The Tuned Frequency data grid is displayed

Data Item	Class	Value	Units
+ Fixed Frequency?		No	
Lowest Tuned Frequency	U		MHz
Highest Tuned Frequency	U		MHz
Tuning Increment	U		kHz

Step 5. Enter the following tuned frequency data and Save.

Field	Value
Lowest Tuned Frequency	136 MHz
Hightest Tuned Frequency	160 MHz
Tuning Increment	12.5 kHz

Step 6. Right-click on the Receiver [Frequency] 136 – 160 MHz node and select Add Emission – Stage Sensitivity.



The Emission – Stage Sensitivity data grid is displayed.

Data Item	Class	Value	Units
+ Emission Designator	U		
Necessary Bandwidth			kHz
Performance Criteria	U		
Performance Value	U		
Sensitivity	U		dBm
Noise Figure	U		dB
Noise Temperature	U		к
Spurious Rejection Level	U		dB
Adjacent Channel Selectivity	U		dB
Intermodulation Rejection Level	U		dB

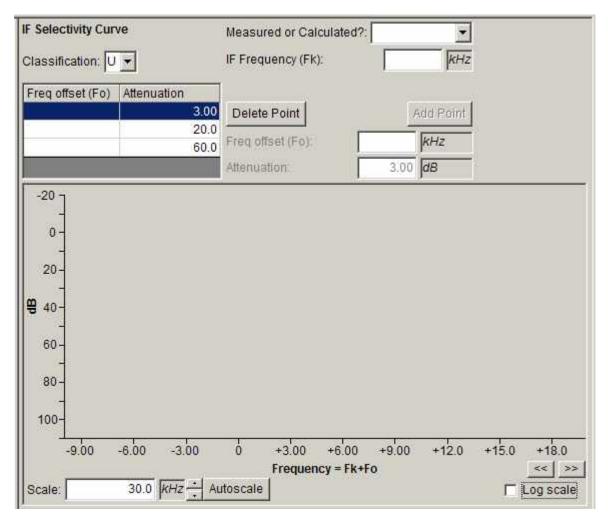
Step 7. Enter the following emission data and **Save**.

Field	Value		
Emission Designator	11K0F3E		
Performance Criteria	SINAD–Signal-to-Noise and Distortion Ratio		
	(dB)		
Performance Value	10		
Sensitivity	-119 dBm		
Spurious Rejection Level	75 dB		
Adjacent Channel Selectivity	75 dB		
Intermodulation Rejection Level	75 dB		

<u>*HINT:*</u> The **Necessary Bandwidth** field is automatically filled when the **Emission Designator** is entered.

Step 8. Right-click on the [Emission – Sensitivity] 11K0F3E – 119 dBm node and select Add IF Selectivity.

•	🕐 🖂 🔁 [Station] WAT1			
•	🖙 🖴 (Receiver) Walk & Talk Rx			
•	🛶 🖴 [Frequency] 136.00 - 160.00 MHz			
	Emission - Sensitivity 111/0E3E - 119 dB			
•	Add IF Selectivity			
•	🔒 [H 🛛 Delete Emission - Stage Sensitivity			
•	r 🕘 (Harmonic) 3			
-	■ □ ① [Eroguopey] 126 00 160 00 MHz			



The IF Selectivity Curve window is displayed.

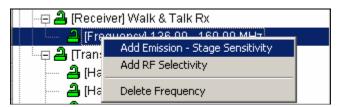
Step 9. Enter the following intermediate frequency data.

Field	Value	
Measured or Calculated	Measured	
IF Frequency	M455	
Freq Offset (1/2 Bandwidth) at 3 dB	4.5 kHz	
Freq Offset (1/2 Bandwidth) at 20 dB	7.5 kHz	
Freq Offset (1/2 Bandwidth) at 60 dB	15 kHz	

Step 10. Click the Autoscale button to redraw curve. The resulting IF Selectivity Curve should look like the following:

IF Selectivity Curve Measured or Calculated?: Measured		
Classification: 🔽 💌	IF Frequency (Fk): 455.00 MHz	
Freq offset (Fo) Attenuation (dB) 4.5000 3.00 7.5000 20.0 15.000 60.0	Delete Point Add Point Freq offset (Fo): 15.000 Attenuation (dB): 60.0	
-20 0- 20- ₩ 40- 60- 80- 100-		
+454959 454968 454977+45	4980 454995 455004 45501 3 455022 455031 45504(
	Frequency = Fk+Fo	
Scale: 90.0 KHz Au	itoscale 🔽 Log scale	

Step 11. Right-click on the [Frequency] 136 – 160 MHz node and select Add Emission – Stage Sensitivity to enter a second set of data.



The **Emission – Stage Sensitivity** data grid is displayed.

Step 12. Enter the following data for the second set of emission data and Save.

Field	Value
Emission Designator	12K0F3E
Performance Criteria	SINAD–Signal-to-Noise and Distortion Ratio (dB)
Performance Value	10
Sensitivity	-119 dBm
Spurious Rejection Level	75 dB
Adjacent Channel Selectivity	75 dB
Intermodulation Rejection Level	75 dB

Step 13. Right-click on the [Emission – Sensitivity] 12K0F3E – 119 dBm node and select Add IF Selectivity to add the IF Selectivity values for the 2nd emission designator.



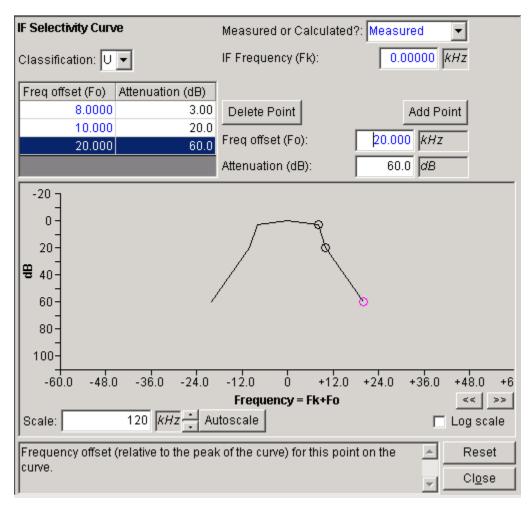
The IF Selectivity Curve window is displayed.

Step 14. Enter the following IF Selectivity data for the 12K0F3E emission.

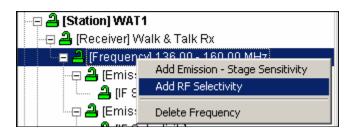
Field	Value	
Measured or Calculated	Measured	
IF Frequency	0	
Freq Offset (1/2 Bandwidth) at 3 dB	8 kHz	
Freq Offset (1/2 Bandwidth) at 20 dB	10 kHz	
Freq Offset (1/2 Bandwidth) at 60 dB	20 kHz	

HINT: If you do not know the IF Frequency, enter 0.

Step 15. Click the Autoscale button. The resulting IF Selectivity Curve should look like the following:



Step 16. Right-click on the [Frequency] 136 – 160 MHz node and select Add RF Selectivity to add the RF selectivity.



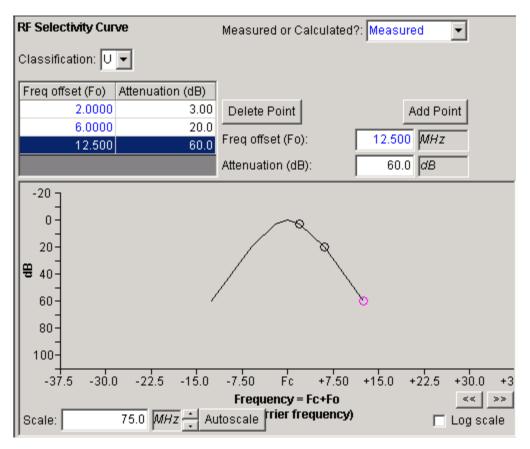
The **RF Selectivity Curve** window is displayed.

Step 17. Enter the following RF selectivity data.

Field	Value
Measured or Calculated	Measured
Freq Offset (1/2 Bandwidth) at 3 dB	2MHz
Freq Offset (1/2 Bandwidth) at 20 dB	6MHz
Freq Offset (1/2 Bandwidth) at 60 dB	12.5MHz

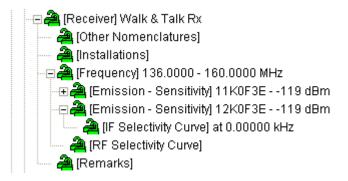
Notice that when you enter M to choose megahertz frequency offset units, the scale of the x-axis on the graph automatically changes to MHz.

Step 18. Click the Autoscale button. The resulting RF Selectivity Curve should look like the following:



Step 19. Save the data.

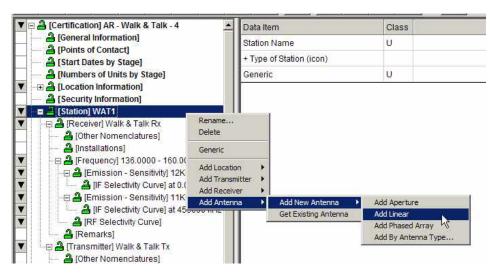
This completes the data entry for the Receiver **Walk & Talk Rx**. The receiver portion of the Tree View looks like the following



<u>*HINT:*</u> The [Other Nomenclatures], [Installations], and [Remarks] nodes only appear when logged in as a DoD agency.

5.7.3 Entering Antenna Data

Step 1. Right-click on the [Station] WAT1 node and select Add Antenna | Add New Antenna | Add Linear.



The Add Nomenclature window is displayed.

Add Nomenclature		
Nomenclature:		
	<u>0</u> K	<u>C</u> ancel

Step 2. Type Walk & Talk Ant and click OK.

Add Nomenclature		
Nomenclature: Walk & Talk Ant		
	<u>0</u> K	<u>C</u> ancel

The Antenna data grid is displayed.

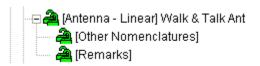
Data Item	Class	Value	Units
Antenna Category		Linear	2
Nomenclature	U	Walk & Talk Ant	1
Manufacturer	U		
Model Name and Number	U		
Approval Status	U	Unapproved	
Date/Time Last Modified		8/19/2009 1:16:05 PM	local
Coordination ID		J/F 12	1
Proxy Record?		No	
Antenna Type	U		
Antenna Horizontal Beamwidth	U		degrees
Antenna Vertical Beamwidth	U		degrees
Antenna Lower Frequency Limit	U		MHz
Antenna Upper Frequency Limit	U		MHz
Polarization	U		
+ Antenna Main Beam Gain	U		dBi
Date/Time Imported			local

Step 3. Enter the following antenna data.

Field	Value	
Manufacturer	RELM COMMUNICATIONS, INC	
Model Name and Number	Model 127A	
Antenna Type	Dipole	
Antenna Horizontal Beamwidth	360 degrees	
Antenna Vertical Beamwidth	45 degrees	
Antenna Lower Frequency Limit	136 MHz	
Antenna Upper Frequency Limit	160 MHz	
Polarization:	Linear	
Antenna Main Beam Gain	0 dBi	

Step 4. Save the data.

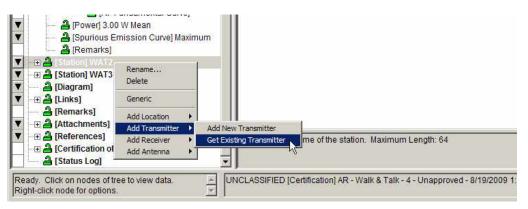
This completes the data entry for the antenna **Walk & Talk Ant**. The antenna portion of the Tree View looks like the following:



<u>*HINT:*</u> The [Other Nomenclatures] and [Remarks] nodes only appear when logged in as a DoD agency.

5.7.4 Getting Existing Transmitter Data

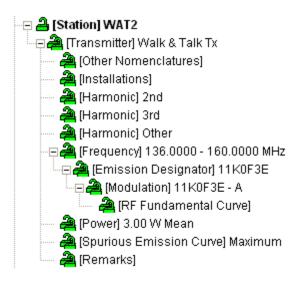
Step 1. We are going to add a transmitter to station WAT2 by selecting an existing transmitter from the list of transmitters that are already in the database. Right-click on [Station] WAT2 and select Add Transmitter | Get Existing Transmitter.



The Pick Existing Transmitter window is displayed.

Search: Find Eirst Find Next					
Classification	Nomenclature	Approval Status	Timestamp	Coordina	
UNCLASSIFIED	JWN Base Transmitter	Approved	1/8/2008 9:51:44 AM	J/F 12	
UNCLASSIFIED	JWN Mobile Transmitter	Approved	8/15/2003 1:49:17 PM	J/F 12	
UNCLASSIFIED	JWN Portable Transmitter	Approved	1/7/2004 9:21:46 AM	J/F 12	
UNCLASSIFIED	MASTR III REPEATER	Approved	9/16/2002 12:26:37 PM	J/F 12	
UNCLASSIFIED	Model T 5365 Quantar Base Tx	Approved	1/8/2008 9:35:33 AM	J/F 12	
UNCLASSIFIED	Model XTS 5000 Quantar Portable Tx	Approved	8/15/2003 10:58:42 AM	J/F 12	
UNCLASSIFIED	M-RK PORTABLE	Approved	9/16/2002 12:48:35 PM	J/F 12	
UNCLASSIFIED	ORION MOBILE	Approved	9/16/2002 12:32:45 PM	J/F 12	
UNCLASSIFIED	Walk & Talk Tx	Unapproved	1/16/2008 4:25:38 PM	J/F 12	
•				Þ	
			<u>0</u> K	<u>C</u> ancel	

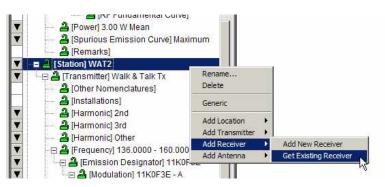
- Step 2. Highlight Walk & Talk Tx and click OK to add the Walk & Talk Tx to Station WAT2.
- Step 3. Open all the nodes for the WAT2 station by clicking the + beside each node. You will see that all of the transmitter data was inserted for the station. The data is identical to the data for the Walk & Talk Tx under Station WAT1 because it is a single Transmitter record that is shared at both Stations. A change to the data at one Station will also change the same data at the other Station.



<u>HINT</u>: You may also expand a node and all its child nodes by holding down the Shift key and clicking on the node or by holding down the Shift key and pressing the right arrow key. Holding down the Shift key and pressing the left arrow key will collapse the node. Using the Ctrl key in combination with the left or right arrow keys will expand or collapse a node, but not the child nodes.

5.7.5 Getting Existing Receiver Data

Step 1. We are going to add a receiver to station WAT2 by selecting an existing receiver from the list of receivers that are already in the database. Right-click on [Station] WAT2 | Add Receiver | Get Existing Receiver.



The Pick Existing Receiver window is displayed.

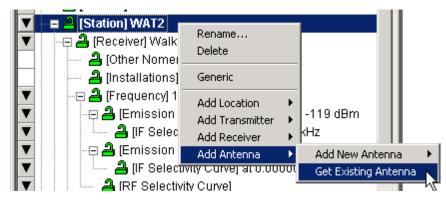
Classification	Nomenclature	Approval Status	Timestamp	Coordinatior 4
UNCLASSIFIED	JWN Mobile Receiver	Approved	6/4/2003 3:45:08 PM	J/F 12
UNCLASSIFIED	JWN Portable Receiver	Approved	6/4/2003 3:45:07 PM	J/F 12
UNCLASSIFIED	MASTR III REPEATER	Approved	8/5/2003 2:05:01 PM	J/F 12
UNCLASSIFIED	Model T 5365 Quantar Receiver	Approved	8/11/2003 4:35:05 PM	J/F 12
UNCLASSIFIED	Moto. Portable UHF Receiver	Approved	6/6/2003 1:29:47 PM	J/F 12
UNCLASSIFIED	Moto. Portable VHF Receiver	Approved	6/6/2003 1:14:43 PM	J/F 12
UNCLASSIFIED	M-RK PORTABLE	Approved	8/5/2003 2:14:39 PM	J/F 12
UNCLASSIFIED	ORION MOBILE	Approved	8/5/2003 2:11:38 PM	J/F 12
UNCLASSIFIED	Walk & Talk Rx	Unapproved	1/16/2008 5:16:45 PM	J/F 12 -

- Step 2. Highlight Walk & Talk Rx and then click OK to add the Walk & Talk Rx to Station WAT2.
- **Step 3.** Open all the nodes for the receiver of the **WAT2** station by clicking the + beside each node. You will see that all of the receiver data was inserted for the station. Just as the Transmitter, it is shared with Station **WAT1**.



5.7.6 Getting Existing Antenna Data

Step 1. We are going to add an antenna to station WAT2 by selecting an existing antenna from the list of antennas that are already in the database. Right-click on [Station] WAT2 and select Add Antenna | Get Existing Antenna.



The Pick Existing Antenna window will be displayed.

Classification	Nomenclature	Approval Status	Timestamp	Coord 4
UNCLASSIFIED	JWN Mobile VHF Antenna	Approved	6/8/2004 11:34:27 AM	J/F 12
UNCLASSIFIED	JWN Portable Antenna	Approved	6/8/2004 11:34:32 AM	J/F 12
UNCLASSIFIED	Moto. Quantar Base UHF Antenna	Approved	6/8/2004 11:34:57 AM	J/F 12
UNCLASSIFIED	Moto. Quantar Base VHF Antenna	Approved	6/8/2004 11:34:58 AM	J/F 12
UNCLASSIFIED	Moto. Quantar UHF Portable Antenna	Approved	6/8/2004 11:35:04 AM	J/F 12
UNCLASSIFIED	Moto. Quantar VHF Portable Antenna	Approved	6/8/2004 11:35:09 AM	J/F 12
UNCLASSIFIED	Moto. Quantar Xportable UHF Antenna	Approved	6/8/2004 11:35:16 AM	J/F 12
UNCLASSIFIED	Moto. Quantar Xportable VHF Antenna	Approved	6/8/2004 11:35:20 AM	J/F 12
UNCLASSIFIED	Walk & Talk Ant	Unapproved	1/16/2008 5:25:34 PM	J/F 12

Step 2. Highlight Walk & Talk Ant and then click OK, to add the Walk & Talk Ant to Station WAT2. The added antenna will appear on the Tree View under Station WAT2 and just like the Transmitter and Receiver, it is shared with Station WAT1.

🖃 🖴 [Station] WAT2
- 🖃 🚑 (Antenna - Linear) Walk & Talk Ant
🔤 🚑 [Other Nomenclatures]
📖 🚑 (Remarks)

<u>HINT</u>: Recall that **WAT3** is a Generic station. A generic station does not have specific equipment associated with it.

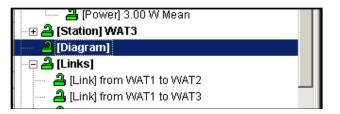


5.8 Entering Data For Links

The transmitting link between stations must be defined. The **Link Information** window is used to select the combinations of transmitters, transmitting antennas, receivers, and receiving antennas to be used in a link between stations. It is also used to select the frequencies, powers, and emissions that will be used in each equipment combination. For each frequency range that does not match the pre-defined Frequency Allocation Tables, a justification for out-of-band is also required.

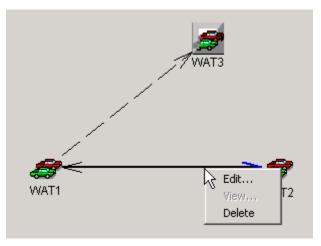
Data can be entered by accessing the diagram and using the graphical links to select which link to edit or by selecting the appropriate **[Links]** in the Tree View.

Step 1. Click on the [Diagram] node in the Tree View. The Diagram is displayed showing the links that had been defined earlier.



There are two ways to display the Link Information window.

Step 2. The first way is to right-click on the link line near the receiving end and then click Edit in the popup menu that is displayed. Right-click on the link line near the WAT2 station and select Edit (as shown below).



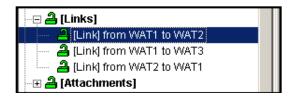
You must right-click on the line near the receiving end, but not too close to the Station, otherwise the program will think you are clicking on the Station. Notice how the arrow head turns blue indicating which link has been selected.

The Link Information window will be displayed.

ink Information			The second s			
From Station: WA	Reverse Link	Station: WAT2	Radio Service: Land Mobile		Station Class(es):	
				Select Ra <u>d</u> io Serv	vice / Station Class	
Transmitter: Walk	& Talk Tx		🔻 Tra	nsmitter antenna: Wa	ilk & Talk Ant	*
	Coupling Lg	95: 🚺 🔫	dB			
Receiver: Walk &	Talk Rx	5 12	✓ Rei	celver antenna: Walk	& Talk Ant	*
	uency (MHz) 0000 - 160.0000	Sec. 115446	and? > <	Selected Modes: Power (W) Frequen		Bplit
Erequency Alloca	ition Table			Link is Invalid	/iew Lin<u>k</u> Apply	<u>C</u> lose

HINT: The Link is Invalid button is red because no link information has been entered.

- Step 3. Click Close to close the Link Information window.
- Step 4. The second way to display the Link Information window is to click on the individual link shown in the Tree View. Click on [Link] from WAT1 to WAT2. Again, the Link Information window will be displayed.



Step 5. Click the Select Radio Service/Station Class button.

Select Radio Service / Station Class ...

The Select Radio Service/Station Class window is displayed.

5	elect Radio	Service and Station Class				
		<u>a</u> —	÷	<i>.</i>		
	F	rom Station: WAT1	To Sta	ation: WAT	2	
1		_		Radio Ser	vice	
				Land Mol	bile	
	Station Class	ML - Land Mobile		k		
		MLD - Telecommand Land Mobile				
	Class	MLP - Portable Land Mobile				
		le: A mobile service betwee tions, or between land mot			and land	
				<u>0</u> K	<u>C</u> ance	I

<u>HINT</u>: As you hover the mouse cursor over the Station Class or Radio Service, a description of each appears in the box below.

Step 6. Select Station Classes **ML** and **MLP** (i.e., click the respective check boxes) as shown below and then click **OK**.

s	elect Radio	Service and Station Class			
		<i>s</i> —	>	8	
	F	rom Station: WAT1	To	Station: WAT2	
				Radio Service	
				Land Mobile	
		ML - Land Mobile	✓		
	Station Class	MLD - Telecommand Land Mobile			
	cidoo	MLP - Portable Land Mobile	✓		
					*
				<u>O</u> K <u>C</u> ance	!

The Link Information window reappears with the Radio Service and Station Classes shown.

Link Informa	tion				
From Statio		Station: WA	Land	o Servio d Mobile	
					Select Radio Service / Station Class
Transmitter.	Walk & Talk Tx			~	Transmitter antenna: Walk & Talk Ant
	Coupling Lo	ss: U 👻		dB	
Receiver:	alk & Talk Rx			-	Receiver antenna: Walk & Talk Ant
Available Mo	des:	Г	In-band or	aly	Selected Modes:
Power (W)	Frequency (MHz)	Emission	In-band?		Power (W) Frequency (MHz) Emission In-band?
3.00 Mean	136.0000 - 138.0000	11K0F3E	No		
3.00 Mean	138.0000 - 144.0000	11K0F3E	PRI	1	<
3.00 Mean	144.0000 - 148.0000	11K0F3E	No	-	
3.00 Mean	148.0000 - 149.9000	11K0F3E	PRI	>	>>
3.00 Mean	149.9000 - 150.0500	11K0F3E	No		
3.00 Mean	150.0500 - 150.8000	11K0F3E	PRI	<	<<
3.00 Mean	150.8000 - 160.0000	11K0F3E	No	-	
					Justification for out-of-band Modes
<u>F</u> requency	Allocation Table				Link is Invalid View Link Apply Close

If there is more than one transmitter, choose a specific Transmitter using the button. Currently, we have identified only one transmitter for Station **WAT1**, therefore the pick list is grayed out.

<u>T</u> ransmitter:	
Walk & Talk Tx	~

If there is more than one transmitter antenna, choose a specific Transmitting Antenna using the button. Currently, we have identified only one Transmitting Antenna for Station **WAT1**.

Transmitter a <u>n</u> tenna:	
Walk & Talk Ant	\checkmark

Enter the transmitter to transmitter antenna coupling loss (e.g., cable insertion loss). The security classification is entered using the button. Since we haven't entered this data before we could enter it now if we had the information.

Coupling	<u>L</u> oss:	
U		dB

NOTE: Coupling Loss (as well as SPD) is required for certain Satellite links.

If there is more than one receiver, choose a specific Receiver using the button. Currently, we have identified only one receiver for Station **WAT2**.

<u>R</u> eceiver:	Walk & Talk Rx	-

If there is more than one receiver antenna, choose a specific Receiving Antenna at Station **WAT2** using the button.



Step 7. From the list of Available Modes on the left side, select the modes that you want to certify. Select the 3 modes which have a PRI in the In-band? column. You can hold down the Ctrl key and click each one as shown below.

Link Information		
$g \longrightarrow g$	Radio Service:	Station Class(es):
Reverse Link	Land Mobile	ML - Land Mobile MLP - Portable Land Mobile
From Station: WAT1 To Station: W	/AT2	
	Sele	ect Radio Service / Station Class
Transmitter: Walk & Talk Tx	👻 Transmitter	antenna: Walk & Talk Ant
Coupling Loss: 🛛 💌	dB	
Receiver: Walk & Talk Rx	✓ Receiver an	tenna: Walk & Talk Ant
Available Modes:	In-band only Selected	Modes:
Power (W) Frequency (MHz) Emission		W) Frequency (MHz) Emission In-band?
3.00 Mean 136.0000 - 138.0000 11K0F3E	No	
3.00 Mean 138.0000 - 144.0000 11K0F3E	The second se	
3.00 Mean 144.0000 - 148.0000 11K0F3E 3.00 Mean 148.0000 - 149.9000 11K0F3E		
3.00 Mean 149.9000 - 149.9000 11K0F3E		
3.00 Mean 150.0500 - 150.8000 11K0F3E	and a second sec	
3.00 Mean 150.8000 - 160.0000 11K0F3E	No	
		er out-of-band Modes
Erequency Allocation Table	Link is	Invalid View Link Apply Close
		box and only the in-band frequencies
>		
he L button. If you choose		is not in-band, you will have to give a
ustification for using the band.	– Justification for out-of-ban	d Modes Policies
	the Available Modes	to the list of Selected Modes .

Available Mo	ilable Modes: 🗖 In-band o				Selected Mo	des:		
Power (W)	Frequency (MHz)	Emission	In-band?		Power (W)	Frequency (MHz)	Emission	In-band?
3.00 Mean	136.00 - 138.00	11K0F3E	No		3.00 Mean	138.00 - 144.00	11K0F3E	PRI
3.00 Mean	144.00 - 148.00	11K0F3E	No	<	3.00 Mean	148.00 - 149.90	11K0F3E	PRI
3.00 Mean	149.90 - 150.05	11K0F3E	No		3.00 Mean	150.05 - 150.80	11K0F3E	PRI
3.00 Mean	150.80 - 160.00	11K0F3E	No	>>				
				<<				

Step 8.

Step 9. Click **Apply** to save your choices. A notification window is displayed.

ELCID	×
Coupling and Modes	saved.
ОК	

Step 10. Click OK.

HINT: Notice that the red Link is Invalid button has changed to a grey Link is Valid button.

Step 11. Click the **View Link** button to see the link information that you have saved.

ew Link				8		<u>}</u>				
			From	n Station: W		To Station: WAT2	2		Erequency	Allocation Table
Radio Service	Transmitter	Power (W)	Frequency (MHz)	Em. Des.	EIRP (W)	TX Antenna	RX Antenna	Receiver	In-band?	Justification for
			138.0000 - 144.0000							
Land Mobile	Walk & Talk Tx	3.00 Mean	148.0000 - 149.9000	11K0F3E	3.00	Walk & Talk Ant	Walk & Talk Ant	Walk & Talk Rx	PRI	
			150.0500 - 150.8000							
•									<u> </u>	
Radio Service	Station Class:									
	ML - Land Mobile	•								
Land Mobile /	MLP - Portable L	and Mobile							Link is Va	lid <u>O</u> K

<u>*HINT:*</u> The View Link screen will display all the modes for the link shown at the top of the window.

- **Step 12.** Click **OK** after viewing the data.
- **Step 13.** Click the **Reverse Link** button **Reverse Link** to display the reverse link (i.e., Station **WAT2** to Station **WAT1**). The reverse link information will be displayed.

Link Information		
	Radio Service:	Station Class(es):
To Station: WAT1 From Station: WAT		
TO Station, MALL Provide that).	Dedia Gentes (Olettes Olese
		t Ra <u>d</u> io Service / Station Class
Transmitter Walk & Talk Tx	Transmitter a	ntenna Walk & Talk Ant
Coupling Loss. U 💌	dB	
Receiver: Walk & Talk Rx	✓ Receiver ante	mna: Walk & Talk Ant
	< ×	
Erequency Allocation Table	Link is In	valid View Link Apply Close

- Step 14. Enter information for this link as we did the previous link. Click the Select Radio Service/Station Class button. The Select Radio Service/Station Class window is displayed.
- Step 15. On the Select Radio Service/Station Class window, select station class ML and MLP by clicking the associated check boxes and clicking OK. The Link Information window is redisplayed with the selected Station Classes. Click the In-band only check box on and off to see all bands / in-band only modes.
- Step 16. Since we only have one transmitter, receiver, transmitter antenna, and receiver antenna we cannot choose another but we can enter the Coupling Loss and its classification, and select the modes to be certified. For now we will select each mode that has a PRI in the In-band? column, as shown below.

Available Mo	des:		🔲 In-band only
Power (W)	Frequency (MHz)	Emission	In-band?
3.00 Mean	136.00 - 138.00	11K0F3E	No
3.00 Mean	138.00 - 144.00	11K0F3E	PRI
3.00 Mean	144.00 - 148.00	11K0F3E	No
3.00 Mean	148.00 - 149.90	11K0F3E	PRI
3.00 Mean	149.90 - 150.05	11K0F3E	No
3.00 Mean	150.05 - 150.80	11K0F3E	PRI
3.00 Mean	150.80 - 160.00	11K0F3E	No

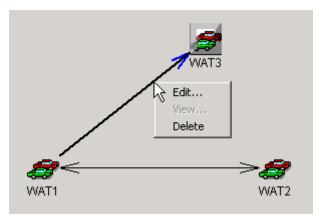
- Step 17. Click the *button to transfer the Available Modes* to the list of Selected Modes.
- Step 18. Click Apply to save your choices, and then click OK on the Notification window that pops up.
- **Step 19.** Click the **View Link** button to see the link information that you have saved.

/iew Link										
				<i></i>	Reverse Li	<u></u> <i>≝</i>				
			Fron	n Station: W		To Station: WAT	l.			
									Erequenc	Allocation Table
Radio Service	Transmitter	Power (W)	Frequency (MHz)	Em. Des.	EIRP (W)	TX Antenna	RX Antenna	Receiver	In-band?	Justification for
			138.0000 - 144.0000		3.00		& Talk Ant Walk & Talk Ant	Walk & Talk Rx	PRI	
Land Mobile	Walk & Talk Tx	3.00 Mean	148.0000 - 149.9000	11K0F3E		Walk & Talk Ant				
CONTRACTOR CONTRACTOR			150.0500 - 150.8000							
•										<u>)</u>
Radio Service	/ Station Class:									
-	ML - Land Mobile									
	MLP - Portable L								Linkis Va	alid <u>O</u> K

- Step 20. Click OK to close the View Link window, and then click Close on the Link Information window to return to the Tree View.
- Step 21. Now we are going to use the graphical view to add data for the link from WAT1 to WAT3. In the Tree View, click Diagram.

<u>NOTE</u>: If the frequency list obscures the diagram, uncheck the **Show frequency list** box.

Step 22. Right-click on the link line between WAT1 and WAT3 near the receiving end and then click Edit.



The familiar Link Information window will be displayed. Note that the **Receiver** and **Receiver Antenna** data blocks are blank, as **WAT3** is a generic station.

- **Step 23**. **Enter** the following data for this link and click **Apply**.
 - Radio Service / Station Class -- ML and MLP.
 - Coupling Loss -- Leave Blank.
 - Modes -- 3.00 Mean
 3.00 Mean
 3.00 Mean
 3.00 Mean
 3.00 Mean
 150.05 150.80 11K0F3E PRI

The information should look like the following when you view the link.

iew Link				8		→ 🧖					
			From	n Station: W	Reverse Lli AT1	To Station: WAT:	ı		ſ	Frequency Alloc	ation Table
Radio Service	Transmitter	Power (W)	Frequency (MHz)	Em. Des.	EIRP (W)	TX Antenna	RX Antenna	Receiver	In-band?	Justification fo	
			138.0000 - 144.0000								
Land Mobile	Walk & Talk Tx	3.00 Mean	148.0000 - 149.9000	11K0F3E	3.00	Walk & Talk Ant			PRI		
			150.0500 - 150.8000								
•											
Radio Service	/ Station Class:										
	ML - Land Mobile	•									
	MLP - Portable L									Linkis Valid	<u>0</u> K

Step 24. Click **OK** to close the **View Link** window, and then click **Close** on the **Link Information** window to return to the Tree View.

We have now finished entering data for the three links.

<u>*HINT:*</u> Notice that the dashed lines between the links have become solid lines. This indicates that data has been entered for the links.

5.9 Adding Attachments

Often, supporting data is necessary to accompany a certification request. This could be to explain equipment parameters out of tolerance, detail compliance check failures, clarify a complicated system, request a waiver etc. Any kind of file can be attached to a certification application. The file could be a graphics file, a text file, or a spreadsheet file. (only common file types should be attached to allow NTIA to view the file)

<u>**HINT**</u>: Once a file is attached, it can no longer be edited. If changes are necessary, the attachment should be deleted, the original should be updated and the attachment should be reattached.

Step 1. Right-click on the [Attachments] node and then click Add Attachment.

Link) from WAT2 to WAT1						
🔝 👘 📥 (Coupling) wai	📖 🚑 [Coupling] Walk & Talk Tx with Walk & Talk Ant					
🔄 📥 [Remarks]	🔤 🖴 [Remarks]					
🔻 🗉 🔒 [Attachments]						
▼	Add Attachment					
🖳 🖃 🕘 [Certification of Spectrum Support]						
🔄 🛄 🚑 [Status Log]						

The Add Attachment data grid is displayed.

Data Item	Class	Value	Units
Attachment	U		
SPS Number			
Date of the Attachment			date

Step 2. Click in the Attachment Field and click the Browse button

Data Item	Class	Value	Units
Attachment	U 🕶		
SPS Number			
Date of the Attachment			date

The **Open** window will be displayed for you to select the file that you want to attach. You will find the attachment file on your Training CD.

<u>Note:</u> This illustration shows the **Training CD** located on the **E**: drive. If your CD-ROM drive is not assigned to drive letter **E**, you must navigate to the correct drive.

Step 3. Go to	E:/Training	Material/Attachments	folder.
---------------	-------------	----------------------	---------

Open						? ×
Look in:	C Attachments			•	수 🗈 💣	
	Walk & Talk Co					
My Recent Documents						
Desktop						
My Documents						
My Computer						
S 10 10 10 10 10 10 10 10 10 10 10 10 10						
My Network	File name:	Walk & Talk Co	mponents.jpg		•	Open
Places	Files of type:	All files (*.*)			•	Cancel

<u>HINT:</u> Make sure All files (*.*) is selected in the Files of type box.

Step 4. Click on **Walk & Talk Components.jpg** and then click **Open**. The file will now be listed as an attachment to your certification application.

Data Item	Class		Value	Units
Attachment	U 💌	Walk & Talk Components.jpg		
SPS Number	1	X	-	
Date of the Attachment		`	2/6/2007	date

Step 5. Enter the following data and click the **Save** button.

Field	Value
Date of the Attachment	02/06/2010

<u>*HINT:*</u> The **Date of Attachment** is not today's date, but instead the date the attachment document was authored.

<u>*HINT:*</u> If the attached document is classified, be sure to set the classification for the **Attachment** data field.

Step 6. To view the file, click on the filename that you just added in the Value box to give it focus, and

then click on the icon to the left of the file name . The icon should be active (shown with a dotted line around it).

Data Item	Cla	S	Value	Units
Attachment	U	🕶 💽 Walk & Talk Components.jpg		
SPS Application Number		7		
Date of the Attachment			2/6/2007	date

The Show Attachment window will be displayed.

Show Attachment	
WARNING: Attachments may contain viruses or other malware. You should from trusted sources. Click Cancel to abandon viewing the attachment.	only open attachments 📥
Although the viewer application may permit it, DO NOT modify the file.	
	7
□ Do not show this again	<u>O</u> K <u>C</u> ancel

<u>HINT</u>: This window may be disabled by checking the **Do not show this again** box, or by setting the correct preferences.

- **Step 7.** Click **OK** to open the file.
- **Step 8. Close** the viewing window.
- **Step 9.** We want to add the other file that was on our training CD as an attachment. Using what you have learned in Steps 1-7 above, **add the file WAT Comments.doc** as an attachment.

5.10 Viewing The Status Log

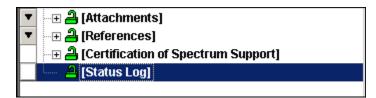
A status log is created and updated while a certification application is being processed. Most of the statuses are automated along with the time/date stamp of the action. Additonally, the Agency logged in at the time is also annotated with the updated status.

Types of automated statuses are:

- CREATED BY
- IMPORTED BY
- MODIFIED BY
- EXPORTED BY
- COMPLIANCE CHECK

A manual status may be initated by adding a comment. This will apply the **COMMENT BY**, status, along with additonal **Description** text. The next few steps will show how to view the log and to add status to the log.

Step 1. From the Tree View, click on the **[Status Log]** node.



The **Status Log** window is displayed.

Timestamp	Status	Agency	Description	
8/19/2009 2:41:45 PM	MODIFIED BY	AR		
8/18/2009 12:59:46 PM	CREATED BY	AR		

The following is an example log with more entries.

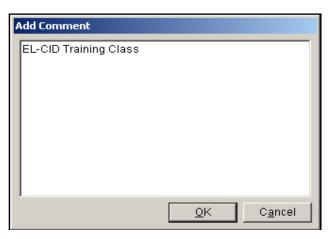
9/29/2005 11:10:02 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 1 FAILUREs, 0 WARNINGS 0 NOTEs9/29/2005 11:09:56 AMMODIFIED BYVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 1 FAILUREs, 0 WARNINGS 0 NOTEs9/29/2005 11:01:44 AMMODIFIED BYVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 0 FAILUREs, 0 WARNINGS 0 NOTEs9/29/2005 10:16:15 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 0 FAILUREs, 0 WARNINGS 0 NOTEs9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVAWARDINGS 0 NOTESNOTES9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA	Timestamp	Status	Agency	Description
1/4/2006 12:39:16 PMEXPORTED BYVA1/3/2006 11:55:57 AMIMPORTED BYVA1/3/2006 10:55:21 AMEXPORTED BYVA1/3/2005 10:55:21 AMEXPORTED BYVA1/3/2005 10:55:21 AMCOMPLIANCE CHECKVA9/29/2005 11:00:26 AMMODIFIED BYVA9/29/2005 11:00:56 AMMODIFIED BYVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVA9/29/2005 11:01:44 AMMODIFIED BYVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVA9/29/2005 10:16:15 AMMODIFIED BYVA9/29/2005 10:16:08 AMCOMPLIANCE CHECKVA9/29/2005 10:16:08 AMCOMPLIANCE CHECKVA9/29/2005 10:16:08 AMCOMPLIANCE CHECKVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA <tr< th=""><th>1/12/2006 10:37:36 AM</th><th>MODIFIED BY</th><th>VA</th><th></th></tr<>	1/12/2006 10:37:36 AM	MODIFIED BY	VA	
1/3/2006 11:55:57 AMIMPORTED BYVA1/3/2006 10:55:21 AMEXPORTED BYVA1/3/2005 10:55:21 AMEXPORTED BYVA1/3/2005 12:22:02 PMMODIFIED BYVA9/29/2005 11:10:02 AMCOMPLIANCE CHECKVA9/29/2005 11:09:56 AMMODIFIED BYVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVA9/29/2005 11:01:44 AMMODIFIED BYVA9/29/2005 11:01:44 AMMODIFIED BYVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVA9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:16:08 AMCOMPLIANCE CHECKVA9/29/2005 10:16:08 AMCOMPLIANCE CHECKVA </td <td>1/4/2006 12:56:11 PM</td> <td>IMPORTED BY</td> <td>VA</td> <td></td>	1/4/2006 12:56:11 PM	IMPORTED BY	VA	
1/3/2006 10:55:21 AMEXPORTED BYVA1/3/2006 10:55:21 AMEXPORTED BYVA1/3/2005 12:22:02 PMMODIFIED BYVA9/29/2005 11:00:24 AMCOMPLIANCE CHECKVA9/29/2005 11:01:56 AMMODIFIED BYVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVA9/29/2005 11:01:44 AMMODIFIED BYVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVA9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:16:08 AMCOMPLIANCE CHECKVA9/29/2005 10:16:08 AMCOMPLIANCE CHECKVA9/29/2005 10:16:56 AMCOMPLIANCE CHECK </td <td>1/4/2006 12:39:16 PM</td> <td>EXPORTED BY</td> <td>VA</td> <td></td>	1/4/2006 12:39:16 PM	EXPORTED BY	VA	
12/30/2005 12:22:02 PMMODIFIED BYVA9/29/2005 11:10:02 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 1 FAILURES, 0 WARNINGS 0 NOTES9/29/2005 11:09:56 AMMODIFIED BYVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 1 FAILURES, 0 WARNINGS 0 NOTES9/29/2005 11:01:52 AMMODIFIED BYVA9/29/2005 11:01:44 AMMODIFIED BYVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVA9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA	1/3/2006 11:55:57 AM	IMPORTED BY	VA	
9/29/2005 11:10:02 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 1 FAILURES, 0 WARNINGS 0 NOTES9/29/2005 11:09:56 AMMODIFIED BYVA9/29/2005 11:01:52 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 1 FAILURES, 0 WARNINGS 0 NOTES9/29/2005 11:01:44 AMMODIFIED BYVA9/29/2005 10:16:15 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 0 FAILURES, 0 WARNINGS 0 NOTES9/29/2005 10:16:15 AMCOMPLIANCE CHECKVAIn categories NTIA Certifier,a: 0 FAILURES, 0 WARNINGS 0 NOTES9/29/2005 10:16:08 AMMODIFIED BYVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVA9/29/2005 10:15:56 AMCOMPLIANCE CHECKVAWARDINGS 0 NOTESNOTES	1/3/2006 10:55:21 AM	EXPORTED BY	VA	
9/29/2005 11:10:02 AM COMPLIANCE CHECK VA WARNINGS 0 NOTES 9/29/2005 11:09:56 AM MODIFIED BY VA In categories NTIA Certifier,a: 1 FAILURES, 0 9/29/2005 11:01:52 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 1 FAILURES, 0 9/29/2005 11:01:44 AM MODIFIED BY VA 9/29/2005 10:16:15 AM COMPLIANCE CHECK VA 9/29/2005 10:16:15 AM COMPLIANCE CHECK VA 9/29/2005 10:16:08 AM MODIFIED BY VA 9/29/2005 10:16:08 AM MODIFIED BY VA 9/29/2005 10:15:56 AM COMPLIANCE CHECK VA 9/29/2005 10:15:56 AM COMPLIANCE CHECK VA 9/29/2005 10:15:56 AM COMPLIANCE CHECK VA	12/30/2005 12:22:02 PM	MODIFIED BY	VA	
9/29/2005 11:01:52 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 1 FAILURES, 0 9/29/2005 11:01:44 AM MODIFIED BY VA 9/29/2005 10:16:15 AM COMPLIANCE CHECK VA 9/29/2005 10:16:15 AM COMPLIANCE CHECK VA 9/29/2005 10:16:08 AM MODIFIED BY VA 9/29/2005 10:16:08 AM COMPLIANCE CHECK VA 9/29/2005 10:16:08 AM MODIFIED BY VA	9/29/2005 11:10:02 AM	COMPLIANCE CHECK	VA	
9/29/2005 11:01:52 AM COMPLIANCE CHECK VA WARNINGS 0 NOTES 9/29/2005 11:01:44 AM MODIFIED BY VA In categories NTIA Certifier,a: 0 FAILURES, 0 9/29/2005 10:16:15 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 0 FAILURES, 0 9/29/2005 10:16:08 AM MODIFIED BY VA 9/29/2005 10:15:56 AM COMPLIANCE CHECK VA	9/29/2005 11:09:56 AM	MODIFIED BY	VA	
9/29/2005 10:16:15 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 0 FAILURES, 0 WARNINGS 0 NOTES 9/29/2005 10:16:08 AM MODIFIED BY VA 9/29/2005 10:15:56 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 0 FAILURES, 0 WARNINGS 0 NOTES 9/29/2005 10:15:56 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 0 FAILURES, 0 WARNINGS 0 NOTES	9/29/2005 11:01:52 AM	COMPLIANCE CHECK	VA	
9/29/2005 10:16:08 AM MODIFIED BY VA WARNINGS 0 NOTES 9/29/2005 10:16:08 AM MODIFIED BY VA In categories NTIA Certifier,a: 0 FAILURES, 0 9/29/2005 10:15:56 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 0 FAILURES, 0	9/29/2005 11:01:44 AM	MODIFIED BY	VA	
9/29/2005 10:15:56 AM COMPLIANCE CHECK VA In categories NTIA Certifier,a: 0 FAILURES, 0	9/29/2005 10:16:15 AM	COMPLIANCE CHECK	VA	
19/29/2005 10:15:56 AM COMPLIANCE CHECK VA WARNINGS ONOTES	9/29/2005 10:16:08 AM	MODIFIED BY	VA	

Step 2. Click the Add Comment button to add your own status entry.

The Add Comment window is displayed.

Add Comment	
	<u>O</u> K C <u>a</u> ncel

Step 3. In the window type EL-CID Training Class and then click OK.



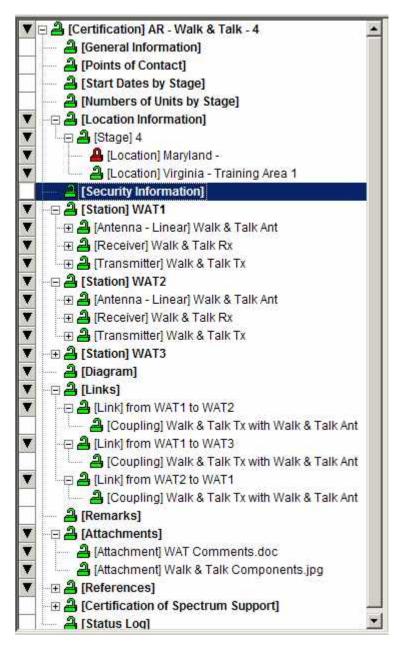
You will notice that your comment was added with the Status Code of **COMMENT BY**. Also notice that the latest status is displayed at the top of the log in chronological order.

<u>**HINT:</u>** This comment may be edited (using the **Edit** and **Delete** buttons until the record is exported).</u>

S	tatus Log				
	Timestamp	Status	Agency	Description	
	12/1/2004 9:57:04 AM	COMMENT BY	NTIA	EL-CID Training Class	
	12/1/2004 9:54:58 AM	MODIFIED BY	NTIA		
	11/22/2004 10:33:39 AM	CREATED BY	NTIA		
I					
I					
I					
I					
I					
[Add Comment Edit	Comment	<u>D</u> elete Ci	omment	<u>o</u> k

Step 4. Click OK to close the Status Log window.

This is what the Tree View should look like so far.



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6.0 RUNNING COMPLIANCE CHECKS

To be approved, a Certification application must meet standards set by the NTIA (and DoD and other national and international agencies). Most of these standards are published in the <u>NTIA Manual of</u> <u>Regulations & Procedures for Federal Radio Frequency Management</u> -- commonly referred to as the "Red Book". You can obtain a copy of the NTIA Manual on the Internet at

http://www.ntia.doc.gov/osmhome/redbook/redbook.html

EL-CID contains a powerful and flexible Compliance Check engine, which checks your records for compliance with many of these standards. The Compliance Checks are implemented as a series of SQL queries against the record. If a query returns any results, then the record is non-Compliant. There are 3 levels of non-Compliance:

- **FAILURE** The record is not compliant and must be fixed, or a waiver must be obtained.
- **WARNING** The record may not be compliant or there may be some other inconsistency or error in the data.
- **NOTE** These are messages to help you build more complete or more accurate data, but do not indicate a compliance failure.

From time to time, NTIA will update the Compliance Checks in EL-CID and distribute them to EL-CID users as export files, which you should import following the steps in **Appendix C**.

To run Compliance Checks against the Walk & Talk record we have built, proceed as follows.

Step 1. Click on the **Compliance Checks** button Molecular located on the tool bar.

The **Compliance** window is displayed.

Compliance	
A <u>v</u> ailable Categories: Database Integrity NTIA Certifier NTIA Special	 Categories to check: NTIA General NTIA Chapter 8 NTIA Chapter 5 RSEC NTIA Chapter 5 Other NTIA Chapter 5 FreqTol NTIA Chapter 10 DoD
Total available checks: 35	Total selected checks: 1158
<u>A</u> dvanced	<u>R</u> un Checks <u>C</u> lose

Items from the **Available Categories** list can be added to the **Categories to check** list by using the arrow buttons in the middle of the screen. We will select the categories shown above.

You can view all the checks by clicking the **Advanced** button.

Step 2. Click the Run Checks button. The following EL-CID Compliance Checks Running window is displayed.

E	L-CID Compliance Checks Running
	Progress
	4 FAILUREs, 2 WARNINGs
	0 NOTEs
	Cancel

When the compliance checks have run, the **Compliance** window is shown with the summary of the number of failures, warning, and notes.

Compliance	
Available Categories: Database Integrity NTIA Certifier NTIA Special	Categories to check: NTIA General NTIA Chapter 8 NTIA Chapter 5 RSEC NTIA Chapter 5 Other NTIA Chapter 5 FreqTol NTIA Chapter 10 DoD
Total available checks: 35	Total selected checks: 1158
Results: 9 FAILUREs, 3 WARNINGs, 2	
<u>A</u> dvanced	View <u>R</u> esults <u>C</u> lose

Step 3. To see the results, click the **View Results** button. The screen containing the first error will be displayed and the relevant compliance message will be shown at the bottom left of the screen.

) 🚅 🖶 🎒 M 👺 🖏 🗙	획 陷 🕂 🔢 🖉 🏢 🤫		9	
🗆 🛃 [Certification] AR - Walk & Talk - 4	Data Item	Class	Value Un	its
A [General Information]	Agency Code	U	AR	
A [Start Dates by Stage]	System Name (Nomenclature)	U	Walk & Talk	
🔒 [Numbers of Units by Stage]	Stage	U	4 - Operational	
⊞ 🔒 [Location Information]	Approval Status	U	Unapproved	
	Date/Time Last Modified		11/23/2010 7:04:40 PM loc	al
The A [Station] WAT	+ Coordination ID		J/F 12	
	JF12 Number			
🔤 [Diagram]	National Authority Coordination Required?		Yes	
	Title	U		
	Proxy Record?		No	
🕀 🔒 [References]	FROM	U		
[Certification of Spectrum Support]	то	U		
🔤 🛃 [Status Log]	Target Date for System Approval	U	10/30/2009 dat	te
	System Description	υ	This unit is a small, lightweight radio capable of provi	
	Target Date for System Activation	υ	10/30/2010 dat	te
	Target Date for System Termination	U	10/30/2020 dat	te
	Evtent of Lice	U		
	Number of Units	U		
ILURE NTIA Chapter 10: NTIA-CH10-8.1.02-F stem Description, System Relationship and	Number of Units in Same Environment	U		
sentiality, and Replacement Information must be	Estimated Initial Cost (\$)	U	\$	
ecified for all Certifications requiring coordination th NTIA at Stage 4. If coordination with NTIA is	System Cost Comments	U		
quired, but replacement information does not apply,	Information Transfer Requirement	U		
ter "Not Applicable" for Replacement Information. D systems not requiring coordination with NTIA	Suctom Dalationchin and Eccontiality			
ay leave Replacement Information blank.				
II URE NTIA Chapter 10: NTIA-CH10-8.1.08-F	-			Close

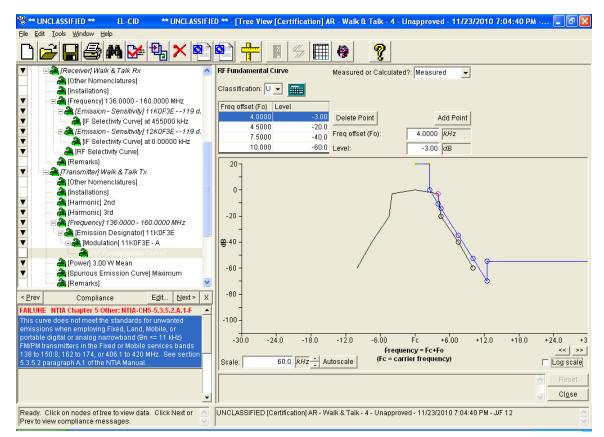
HINT: The **Compliance Result** panel may be enlarged by dragging the divider upwards.

Notice that we did not fill out the fields for **System Relationship and Essentiality** or **Replacement Information**. These are required fields in this case.

Normally you would correct these errors and re-run the compliance checks to verify that all errors have been corrected. However, we are not going to correct these results at this time.

NOTE: The messages do not disappear immediately upon correcting the error.

Step 4. To see the remaining compliance messages click the **Next** button. As you can see, the messages indicate the type of message (e.g., Failure, Warning, or Note), the reason for the message, and the reference document(s).



Notice how the **RF Fundamental Curve** fails the NTIA standard curve (shown in blue) in the picture below. To pass, the curve must be everywhere underneath the standard curve.

<u>HINT</u>: A common mistake is to have entered full bandwidths, rather than frequency offsets, when entering the curve. If this is the case, correct the curve by dividing the bandwidths in half.

Step 5. Click on the button in the lower left hand window (the **Compliance Results** window) to close it.

7.0 EXPORTING CERTIFICATION RECORDS

Once a certification is corrected, you will want to export the certification so it can be forwarded to the next higher organization that will review it. The next few steps will illustrate the exporting process.

Step 1. Click the Export button in the tool bar.

The **Export Certification** window is displayed. Navigate to your **D**: drive and select the folder **D:\ElcidData\User**.

Export Certification	
F <u>a</u> vorite folders	
D:\ElcidData\User	
Export <u>f</u> ilename	1
D:\ElcidData\User\export.cid	J
Description (optional)	
<u>Export</u>	

Notice that a default file name of export.cid is entered for you, but you should specify a different filename.

Step 2. Click the **Browse** button and enter **WalkandTalk** as the filename, as shown below.

Save As					? X
Save in:	🔄 User		• +	• 🖻 🖆 🗈	
History History Desktop My Documents My Computer	Query				
My Network P	File <u>n</u> ame:	WalkandTalk		-	<u>Save</u>
	Save as <u>t</u> ype:	EL-CID Export Files (*.cid)		•	Cancel

Step 3. Click **Save**. The **Export Certification** window is displayed again showing the path and filename that you selected.

Export Certification	
F <u>a</u> vorite folders	
D:\ElcidData\User	•
Export <u>f</u> ilename	
D:\ElcidData\User\WalkandTalk.cid	
Description (optional)	
	<u>E</u> xport <u>C</u> ancel

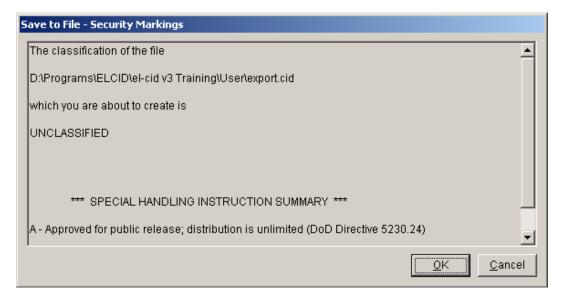
Step 4. Type **EL-CID Training** into the **Description** box.

Export Certification	
F <u>a</u> vorite folders	
D:\ElcidData\User	▼
Export filename	
D:\ElcidData\User\WalkandTalk.cid	
Description (optional)	
EL-CID Training	
	<u>E</u> xport <u>C</u> ancel

Step 5. Click Export. The Cover Sheet Classification Markings window is displayed.

	nclassif	sification — ied	C Confiden	tial	C <u>S</u> ecret					
las	sificatio	n Sou <u>r</u> ce –								
ecl	assifica	tion Instruc	tions ———							
Dec	lassify o	n : (date) 👘		7		Declassificatio	on <u>D</u> ate:		date	
_										
ror	Declas	s E <u>v</u> ent(s):	1							
0141	naradin	a Instructio	20							
UW	nyraum	j insu ucuo	15							
ow	ngrade <u>I</u>	evel:		Y		Downgrade I	Date:	1	date	
pec	cial <u>H</u> an	lling Instru	tions ———							
	Code	Description	I							
/	A	Approved for	or public releas	e: distributio	n is unlimited	I (DoD Directiv	e 5230.2	4)		
_			•					,	se, not releasat	le outside
	B		ernment in acc							
	E		able outside th							
							· ·		W Section 552	(h)(1) of
	_	INOT releas?	icie ili ilireilari i				. UP (PUM			

Step 6. Click OK. The Save to File – Security Markings window is displayed.



Step 7. Click **OK**. A **Progress** window is displayed. When it closes, the file has been saved and the Tree View will reappear.

EL	CID	×
[Progress-	
	Exporting Locations	
L		
		Cancel

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8.0 PRINTING A CERTIFICATION RECORD

The Print function can be used to preview and/or print a record in a variety of formats. Additionally, parts (or pages) of a record can also be displayed. The formatted and previewed record can also be saved to a file.

Step 1. Click the **Print** button in the tool bar.

The Print Options window is displayed.

Print Options
□ DD 1494
Entire Application
DoD General Information Page
Foreign Coordination Page
🗖]_ransmitter Page(s)
Receiver Page(s)
🗖 <u>A</u> ntenna Page(s)
🗖 <u>N</u> TIA Page
Eull Record Print
Include Compliance Check Results
🖾 <u>S</u> ummary Print
<u>Г М</u> ар
Certification of Spectrum Support
🗖 Status Log
🔚 Line Diagram
🗖 Include Frequency List
<u>O</u> K Cancel

Step 2. Check the DD 1494 check box and then you will see that additional options become active for the DD 1494 output.

Print Options
☑ <u>D</u> D 1494
Entire Application
DoD General Information Page
Foreign Coordination Page
☑ Transmitter Page(s)
Receiver Page(s)
🗖 <u>A</u> ntenna Page(s)
□ <u>N</u> TIA Page
Eull Record Print
Include Compliance Check Results
□ <u>S</u> ummary Print
□ Map
Certification of Spectrum Support
🗖 Status Log
🗖 Line Diagram
🗖 Include Frequency List
<u>O</u> K Cancel

🐃 Print Preview			
P <u>r</u> inter Setup	Page <u>S</u> etup <u>P</u> rint	P	
<u>≋</u>	Q • 🍠		
		_	
	UKCL4221ACC]	
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	The small doubled of the plants in 1992/22/99		
	False is you Taurify We with the design law us.		
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	7 autor per en antes Aj mulativa ulta ja minuta e		
			<u>C</u> lose

The **Print Preview** window is displayed showing the cover page.

HINT: It will be helpful to maximize the window.

Step 4. Click to go to the next page. Use the magnifying glass icon to zoom in on the **Transmitter Equipment Characteristics** page.

; Print Preview		
Printer Setup Page Setup Print N 4 2/2 >) Q.		
CLASSIFICATION		^
UNCLASSIFIED	PAGE 2	
TRAN SMITTER EQ	UIPMENT CHARACTERISTICS	
1. NOMENCLATURE, MANUFACTURER'S MODEL NO. (U) Walk & Talk Tx, (U)Model 127A	2. MANUFACTURE R'S NAME (U) RELM COMMUNICATIONS, INC	
3. TRANSMITTER INSTALLATION	4. TRANSMITTER TYPE	
5. TUNING RANGE (U) 1 36.00 MHz - 160.00 MHz	6. METHOD OF TUNING (U) Synthesizer	
7. RF CHANNELING CAPABILITY (U)12.500 kHz Increments	8. EMISSION DESIGNATORS (U) 11K0F3E 12. EMISSION BANDWIDTH	
9. FREQUENCY TOLERANCE (U)5 ppm		ED I
10. FILTER EMPLOYED	a3 dB (U) 4.0000 kHz	
a. YES D. NO	b20 dB (U) 4.5000 kHz	
11. SPREAD SPECTRUM	c40 dB (U) 7.5000 kHz	
	d60 dB (U) 10.0000 kHz	
		Close

<u>*HINT:*</u> Hold down the **Ctrl** key and click with the left mouse button to zoom in. Hold down the **Ctrl** key and right-click to zoom out. Hold down the **Alt** key and right-click to page forward. Hold down the **Alt** key and click the left mouse button to page backwards.

- Step 5. Click the Close button.
- Step 6. Click the Print button again, and then select the Full Record Print check box and the OK button.
- Step 7. Review the various pages of the output. If you want to actually print the document you would click the **Print** button (but don't actually print the document.)

<u>HINT</u>: You can use the PDF button to send the printout to a Portable Document Format file.

- Step 8. Click Close.
- Step 9. Click the **Print** button again, and then select the **Summary Print** check box and the **OK** button.
- Step 10. Review the various pages of the output.
- Step 11. Click Close.
- Step 12. Click File | Close on the main menu or use the Close button to close the current certification application.

9.0 IMPORTING A CERTIFICATION APPLICATION

You may need to import a certification application that was prepared by someone else. The following steps will illustrate how to perform this import.

Step 1. Click the **Import** button in the tool bar.

The **Import** window is displayed.

Import	
F <u>a</u> vorite folders	
D:\ElcidData\User	▼
Import <u>fi</u> lename	
D:\ElcidData\User\export.cid	
	Import <u>C</u> ancel

Step 2. Click the browse button to select the file to import. Navigate to the Samples folder in the EL-CID data folder (For training, this will be the D:\ElcidData\Samples). Highlight the filename Manpack.cid and then click Open.

Open					? 🛛
Look jn:	🗀 Samples		•	🗢 🗈 💣 🎫	
My Recent Documents Desktop	Manpack.cid Bemote C&C.cid	I			
) My Documents					
My Computer					
- S					
My Network Places	File <u>n</u> ame:	Manpack.cid		<u> </u>	<u>O</u> pen
	Files of <u>t</u> ype:	EL-CID Export Files (*.cid)		_	Cancel

The Import window displays the selection.

Import	
F <u>a</u> vorite folders	
D:\ElcidData\Samples	•
Import <u>fi</u> lename	
D:\ElcidData\Samples\Manpack.cid	[]
	Import <u>C</u> ancel

Step 3. Click Import. The File Description window is displayed.

File Des	cription 🛛 🔀
?	Sample EL-CID Certification record. Do not use for production work. 1 Certifications Exported on 07/11/2007 1:25:37 PM GMT Highest Classification: UNCLASSIFIED Continue?
	Cancel

Step 4. Click OK. The Import Record List - Certification window is displayed.

Action	Туре	ID	Comparison Results
Add 🗉	Certification	NTIA - Manpack - 4 - Unapproved - 09/20/2006 11:33:53 AM - J/F 12	No matching record in database
Add	Antenna	Manpack Ant - Approved - 06/10/2004 12:14:51 PM - J/F 12	No matching record in database
- Skip	Location	Japan Approved - 05/23/2003 12:24:08 PM	IDENTICAL record found in database
Skip	Location	South Korea Approved - 05/23/2003 12:24:09 PM	IDENTICAL record found in databas
Add	Receiver	Manpack RX - Approved - 02/05/2004 2:43:39 PM - J/F 12	No matching record in database
Add	Transmitter	Manpack TX - Approved - 02/05/2004 2:59:13 PM - J/F 12	No matching record in database

Notice the locations that are marked **Skip**. This is because identical **Location** records already exist in the database. There is no point in importing such records and creating duplicates. Instead, when the **Manpack** certification is imported, it will be associated with the existing **Location** records already in the database.

Depending upon the **Comparison Results**, it is possible to override some of these actions. For example, to override adding a Certification record, click on **Add** in the **Action** column in the Certification row. In the list that drops down, select **Skip**. If a record is marked **Skip** because there is a **NEWER** record in the database, you can override it to **Add**. Notice that you cannot override **Skip** if the there is an **IDENTICAL** record in the database. Also, you cannot override an equipment or Location from **Add** to **Skip** if the Certification containing the equipment is **Add**, because doing so would modify the Certification record.

Step 5. Click Apply. The Progress window is briefly displayed and then the Import Record List -Certification window reappears. The rows marked Add have changed to ADDED and the rows marked Skip have changed to SKIPPED. At this point, the records have been imported into the database.

Action	Туре	ID	Comparison Results
ADDED	Certification	NTIA - Manpack - 4 - Unapproved - 09/20/2006 11:33:53 AM - J/F 12	No matching record in database
ADDED	Antenna	Manpack Ant - Approved - 06/10/2004 12:14:51 PM - J/F 12	No matching record in database
- SKIPPE	Location	Japan Approved - 05/23/2003 12:24:08 PM	IDENTICAL record found in databas
SKIPPE	Location	South Korea Approved - 05/23/2003 12:24:09 PM	IDENTICAL record found in databas
ADDED	Receiver	Manpack RX - Approved - 02/05/2004 2:43:39 PM - J/F 12	No matching record in database
ADDED	Transmitter	Manpack TX - Approved - 02/05/2004 2:59:13 PM - J/F 12	No matching record in database
			Service Market Market
<			1997A
Print List	1		OK Cano

- **Step 6.** Click **OK** to close the window.
- Step 7. Repeat the steps above to import the file named NTIA Landmobile System.cid, which you will find in the Training Material\Samples folder on your Training CD. We'll need this record in the next chapter.
- **Step 8.** Click the **Import** button **Step 8** on the tool bar.

The **Import** window is displayed.

Import	
F <u>a</u> vorite folders	
D:\ElcidData\User	•
Import filename	
D:\ElcidData\User\export.cid	
	Import <u>C</u> ancel

Step 9. Click the **browse** button to select the file to import. Navigate to the **Training Material\Samples** folder on your **Training CD** (For training, this will be the **E:\Training Materials\Samples**). Highlight the filename **NTIA Landmobile System.cid** and then click **Open**.

Open		? 🗙
Look jn:	Samples 💌 🗢 🖆 📰 -	
Ì	NTIA Landmobile System.cid Sample Radar.cid	
My Recent Documents	 Sample Satellite.cid Sample Walk and Talk.cid 	
Desktop		
My Documents		
My Computer		
		
My Network Places	File name: NTIA Landmobile System.cid	<u>]</u> pen
110000	Files of type: EL-CID Export Files (*.cid) Image: Compared to the second secon	ancel

The Import window displays the selection.

Import	
F <u>a</u> vorite folders	
E:\Training Material\Samples	•
Import filename	
E:\Training Material\Samples\NTIA Landmobile Syste	em.cid
	Import <u>C</u> ancel

Step 10. Click Import. The File Description window is displayed.

File Description				
1 Certifications Exported on 08/21/2009 4:31:52 PM GMT Highest Classification: UNCLASSIFIED				
Continue?				
OK Cancel				

Step 11. Click OK. The Import Record List - Certification window is displayed.

Action	Туре	ID	Comparison Results
a Add	Certification	NTIA - NTIA Landmobile System - 4 - Approved - 01/08/2008 3:17:59 PM - J/F 12	No matching record in database
Add	Antenna	NTIA Base VHF Antenna - Approved - 01/08/2008 3:18:04 PM - J/F 12	No matching record in database
- Add	Antenna	NTIA VHF Portable Antenna - Approved - 01/08/2008 3:18:03 PM - J/F 12	No matching record in database
— Skip	Location	USP (US & POSS) Approved - 07/02/2003 4:30:35 PM	IDENTICAL record found in database
Add	Receiver	NTIA Base Rx - Approved - 01/08/2008 3:18:02 PM - J/F 12	No matching record in database
Add	Receiver	NTIA Portable VHF Rx - Approved - 01/08/2008 3:18:01 PM - J/F 12	No matching record in database
- Add	Transmitter	NTIA Base Tx - Approved - 01/08/2008 3:18:00 PM - J/F 12	No matching record in database
Add	Transmitter	NTIA Portable Tx - Approved - 01/08/2008 3:17:59 PM - J/F 12	No matching record in database

Step 12. Click Apply. The Progress window is briefly displayed and then the Import Record List -Certification window reappears. The rows marked Add have changed to ADDED and the rows marked Skip have changed to SKIPPED. At this point, the records have been imported into the database.

Action	Туре	ID	Comparison Results
	Certification	NTIA - NTIA Landmobile System - 4 - Approved - 01/08/2008 3:17:59 PM - J/F 12	No matching record in database
ADDED	Antenna	NTIA Base VHF Antenna - Approved - 01/08/2008 3:18:04 PM - J/F 12	No matching record in database
- ADDED	Antenna	NTIA VHF Portable Antenna - Approved - 01/08/2008 3:18:03 PM - J/F 12	No matching record in database
SKIPPE	Location	USP (US & POSS) Approved - 07/02/2003 4:30:35 PM	IDENTICAL record found in database
ADDED	Receiver	NTIA Base Rx - Approved - 01/08/2008 3:18:02 PM - J/F 12	No matching record in database
ADDED	Receiver	NTIA Portable VHF Rx - Approved - 01/08/2008 3:18:01 PM - J/F 12	No matching record in database
ADDED	Transmitter	NTIA Base Tx - Approved - 01/08/2008 3:18:00 PM - J/F 12	No matching record in database
ADDED	Transmitter	NTIA Portable Tx - Approved - 01/08/2008 3:17:59 PM - J/F 12	No matching record in database
		III.)	

Step 13. Click **OK** to close the window.

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10.0 OPENING AND EDITING AN UNAPPROVED CERTIFICATION RECORD

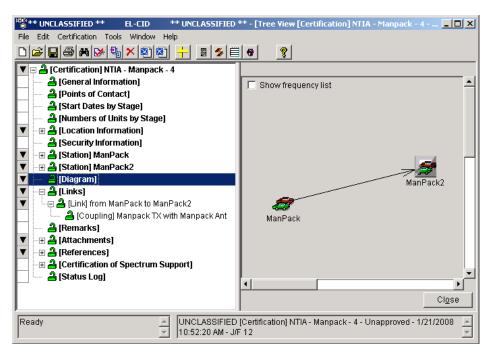
Once you have saved or imported a certification application that has not been approved you can open it and then edit it. The following steps show how you can do this.

Step 1. Click the **Open** button **E** to open a certification.

The Pick Existing Certification window is displayed.

Pick Existing Certification						
Search: Find <u>First</u> Find Ne <u>x</u> t						
Classification	Agency	System Name	Stage	Approval Status		
UNCLASSIFIED	AR	Walk & Talk	4 - Operational	Unapproved	1/17)	
UNCLASSIFIED	NTIA	Ericsson EDACS NB Trunk Template	4 - Operational	Approved	1/15/	
UNCLASSIFIED	NTIA	Manpack	4 - Operational	Unapproved	1/21/2	
UNCLASSIFIED	NTIA	Motorola Quantar Trunk Template	4 - Operational	Approved	1/15/	
UNCLASSIFIED	NTIA	NTIA Landmobile System	4 - Operational	Approved	1/8/	
UNCLASSIFIED	NTIA	Wireless Network Trunk Template	4 - Operational	Approved	1/15/	
					Þ	
				<u>o</u> k <u>c</u>	ancel	

- Step 2. Highlight the Manpack system and then click OK. The Certification's Tree View is displayed.
- Step 3. Click [Diagram]. The Diagram node is displayed.



Step 4. To add an existing Station to a Certification, including its equipments and locations, right-click on the [Certification] NTIA – Manpack – 4 node and select Add Station | Get Existing Station (Platform) in the menu that pops up.

*** UNCLASSIFIED ** EL-CID **	UNCLASSIFIED ** - [Tree	View [Certification] NTIA - Manpack					
File Edit Certification Tools Window Help							
▼ = A [Certification] NTIA - Manpack - 4	Add Trunking						
A [Points of Contact]	Add Legacy Data	l					
	Add Station 🔹 🕨	Add New Station					
[International States by Stage]	Compliance Check	Get Existing Station (Platform)					
[[Numbers of Units by Stage]	Display on Map	Add Repeater					
▼ ⊕ 🔁 [Location Information]	View Links Summary						
Security Information]	View Links Summary						
💌 🕀 🖴 (Station) ManPack	ITU						
💌 🕀 🔁 [Station] ManPack2	Show Similar Versions						
🔽 🔤 🔁 [Diagram]	Delete Certification						
🔻 🖳 🚑 [Links]	Delete Certification						
🔽 🖳 🖂 (Link) from ManPack to ManPa	Stations Palette						
🔲 👘 🚑 (Coupling) Manpack TX with	Link Mode						
🔲 📖 🕰 (Remarks)		3					

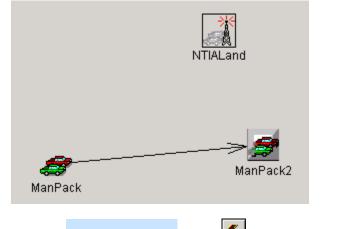
The Select Existing Station (Platform) window appears.

elect Existing Station (Platform)						
19 rows Vord wrap						
Station Name	Equipment Nomenclatures	Proxy	Classification	Agency	System Name 🔺	
ManPack	TX: Manpack TX RX: Manpack RX ANT: Manpack Ant	No	UNCLASSIFIED	NTIA	Manpack	
ManPack2		No	UNCLASSIFIED	NTIA	Manpack	
Mobile Orion	TX: ORION MOBILE RX: ORION MOBILE ANT: EDACS Generic Mobile	Yes	UNCLASSIFIED	NTIA	Ericsson EDACS NB Trunk Templat	
NTIALand	TX: NTIA Base Tx RX: NTIA Base Rx ANT: NTIA Base VHF Antenna	Yes	UNCLASSIFIED	NTIA	NTIA Landmobile System	
NTIAMobile	TX: NTIA Portable Tx RX: NTIA Portable VHF Rx ANT: NTIA VHF Portable Antenna	Yes	UNCLASSIFIED	NTIA	NTIA Landmobile System	
•		1				
<u>O</u> K <u>C</u> ancel						

Step 5. Select the row with **NTIALand** in the **Station Name** column and click **OK**. The Tree View window reappears with the NTIALand station added to the Certification record.

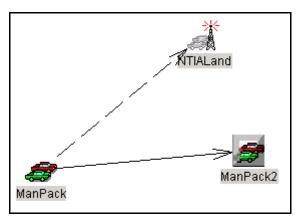
*** UNCLASSIFIED *** EL-CID *** UNCLASSIFIED	** - [Tree View [Certifica	tion] NT	(A - Manpack - 4		×
File Edit Station Tools Window Help					
<u>Dĕ∎⊜m≽®,×®® <u>+</u> ∎≶≣</u>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
🔻 🖃 🐣 [Certification] NTIA - Manpack - 4	Data Item	Class	Value	Units	Г
General Information]	Station Name	U	NTIALand		1
Points of Contact]	+ Type of Station (icon)		Land		
A [Numbers of Units by Stage]	Generic	U	No		
💌 🚈 🖴 [Location Information]					'
Security Information]					
▼					
▼					
▼ -== 2 [Station] NTIALand ▼					
▼ ···					
T A [Link] from ManPack to ManPack2					
📕 🔚 [Coupling] Manpack TX with Manpack Ant					
- A [Remarks]					
🔻 🖅 🗄 [Attachments]					
▼ … ⊕ 🔒 [References]					
E Certification of Spectrum Support]			A	Reset	
🖾 [Status Log]				Close	-1
J			<u></u>		
Ready. Click on nodes of tree to view AURICLASSIFIED data. Right-click node for options.	(Certification) NTIA - Manp 12	iack - 4 -	Unapproved - 1/2	1/2008	*

- Step 6. Expand the NTIALand node to see that all the equipments from the NTIALand station were copied as well.
- **Step 7.** Click on the **Diagram** node and **drag** the **NTIALand** node so that your diagram looks something like this.

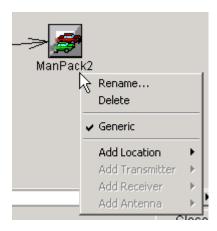


Step 8. Click the Create New Links button **to switch to LINK MODE!!**.

Step 9. Click on the **ManPack** icon, and then click on the **NTIALand** icon. A link from the **ManPack** Station to the **NTIALand** Station will be drawn, as shown below.

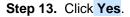


- **Step 10.** Click on the **NTIALand** icon, and then click on the **ManPack** icon. A link from the **NTIALand** Station to the **ManPack** Station will be drawn (i.e., the link will be drawn with arrows at both ends of the link).
- Step 11. Click the Create New Links button again to turn the LINK MODE!! off.
- Step 12. To delete the ManPack2 Station and its associated link information, right-click on the ManPack2 Station and select Delete.

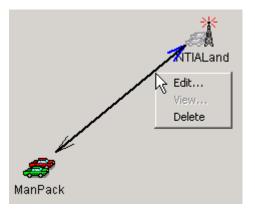


The Delete Station window appears.

Delete Station	×
Are you sure you want to delete	e this station and all related data?
Yes	No



Step 14. Right-click on the link line near the NTIALand end of the line and select Edit.



The Link Information window is displayed.

	> −−−>	1 Alexandre	Radio Service:	Station Class(es):	
-0-0	(Reverse Link)	🖘	Land Mobile	223	
rom Station	: ManPack To	- Station: NTIALand	i [
			Se	lect Radio Service / Station Class	
ansmitter.	Manpack TX		★ Transmitte	er antenna: Manpack Ant	
	Coupling L	295: 🚺 💌	dB		
eceiver: N	TIA Base Rx	5 10	Receiver a	ntenna: NTIA Base VHF Antenna	
		_			Could.
ailable Mo	507/57	Story (Star	Children and Chi	d Modes:	<u>S</u> plit
ower (W)	Frequency (MHz)		pand? > Power	(W) Frequency (MHz) Emission In-bai	nd?
.00 Mean	136.0000 - 160.0000	11K0F3E No			
			140 C		
			*		
			*		
			*	for out-of-band Modes	
			*	for out-of-band Modes	Policies
			*	for out-of-band Modes	Policies
			*	for out-of-band Modes	Policies U.
	Allocation Table		<	for out-of-band Modes	Policies U.

Step 15. Click the Select Radio Service / Station Class button.

Select Radio Service / Station Class ...

Sele	ect Radio	Service and Station Class			
		<i>a</i> —	÷	*	
		From Station: ManPack		o Station: \TIALand	
				Radio Service	Ш
				Land Mobile	
		ML - Land Mobile			
	Station Class	MLD - Telecommand Land Mobile			
	61033	MLP - Portable Land Mobile			
Γ					<u>^</u>
					-
				<u>O</u> K <u>C</u> and	el

The Select Radio Service and Station Class window is displayed.

Step 16. Select station class **ML** and **MLP** by checking the respective check boxes, and then click **OK**. The **Link Information** window will be redisplayed.

2	·	÷¥€	Rad	tio Service:			Station Class(es):	
	Reverse Link	- A	La	nd Mobile			ML - Land Mobile	
rom Statior	Internet and the second se	Station: NTIA	Land				MLP - Portable Land Mot	bile
					Select F	Ra <u>d</u> io Servio	e / Station Class	
ransmitter.	Мапраск ТХ		14	* T	ransmitter a <u>n</u> f	enna: Mani	pack Ant	
	Coupling Lo	ss: U 💌		dB				
acoluor D	TIA Base Rx				lacolucy option		ase VHF Antenna	1
Tenerver. 114	TIA Base RX				eceiver anten	Ha. INTIA Ba	ase ver Antenna	
vailable Mo	des:	ſ	In-band	only	Selected Mo	des:		<u>S</u> plit.
Power (W)	Frequency (MHz)	Emission	In-band?		Power (W)	Frequency	(MHz) Emission In-ba	and?
3.00 Mean	136.0000 - 138.0000	11K0F3E	No	>			com data dita	
3.00 Mean	138.0000 - 144.0000	11K0F3E	PRI		Ê			
3.00 Mean	144.0000 - 148.0000	11K0F3E	No					
3.00 Mean	148.0000 - 149.9000	11K0F3E	PRI	>>	f I			
3.00 Mean	149.9000 - 150.0500	11K0F3E	No		÷.			
3.00 Mean	150.0500 - 150.8000	11K0F3E	PRI	<<				
3.00 Mean	150.8000 - 160.0000	11K0F3E	No	1.000				
					stification for o	ut-of-band N	lodes	Policies
								11
				J				

Since we only have one transmitter, receiver, and only one antenna at each station, all the pick lists are disabled. If you had more than one to choose from you could select from the lists by using the down arrow button beside each field.

Notice that you could change the classification and coupling loss fields.

Step 17. Select from the available modes the modes that you want to certify. Hold down the Ctrl key and then click the 3 rows of available modes that have a PRI in the In-band? column.

Available Mo	des:		🔲 In-band only
Power (W)	Frequency (MHz)	Emission	In-band?
3.00 Mean	136.00 - 138.00	11K0F3E	No
3.00 Mean	138.00 - 144.00	11K0F3E	PRI
3.00 Mean	144.00 - 148.00	11K0F3E	No
3.00 Mean	148.00 - 149.90	11K0F3E	PRI
3.00 Mean	149.90 - 150.05	11K0F3E	No
3.00 Mean	150.05 - 150.80	11K0F3E	PRI
3.00 Mean	150.80 - 160.00	11K0F3E	No

Step 18. Click the **right arrow** button to transfer the highlighted mode to the **Selected Modes** list.

Selected Mod	ies:		
Power (W)	Frequency (MHz)	Emission	In-band?
3.00 Mean	150.05 - 150.80	11K0F3E	PRI
3.00 Mean	148.00 - 149.90	11K0F3E	PRI
3.00 Mean	138.00 - 144.00	11K0F3E	PRI

- **Step 19.** Click **Apply** to save your choices, and then click **OK** to acknowledge that the changes have been saved.
- **Step 20.** Click the **View Link** button to see the link information that you have saved.

				8	Reverse					
				From Statio ManPaci		To Statio NTIALar			Erequency Al	location Table
Radio Service	Transmitter	Power (W)	Frequency (MHz)	Em. Des.	EIRP (W)	TX Antenna	RX Antenna	Receiver	In-band?	Justification for
			138.0000 - 144.0000		1					-
Land Mobile	Manpack TX	3.00 Mean	148.0000 - 149.9000	11K0F3E	3.00	Manpack Ant	NTIA Base VHF Antenna	NTIA Base Ra	PRI	
			150.0500 - 150.8000							
4										•
Radio Service	Station Class									
	ML - Land Mot									
	MLP - Portable								Link is Valid	<u>O</u> K

- **Step 21.** Click **OK** to close the window.
- Step 22. Click the **Reverse Link** button **Reverse Link** to edit the reverse link data.

The reverse link information will appear.

Link Informa	tion				
To Station:	(Reverse Link)	From Station:	Radio Servio Land Mobil		Station Class(es):
		NHALand		Select Ra <u>d</u> io S	ervice / Station Class
Transmitter.	NTIA Base Tx		*	Transmitter antenna:	NTIA Base VHF Antenna
	Coupling Lo	ss: U 👻	dB		
Receiver: M			*	Receiver antenna: Ma	onack Ant
Teccurrent	anpaoritor				
Available Mo			in-band only	Selected Modes:	<u>B</u> plit
Power (W)	Frequency (MHz)	(And the Antise Section 1997)	In-band?	Power (W) Frequ	ency (MHz) Emission In-band?
125 Mean	138.0000 - 174.0000		No _	_	
35.0 Mean	138.0000 - 174.0000	1 11,440,2414	No	e [
100 Mean	138.0000 - 174.0000	11K0F3E	No		
			~	>	
			-		
			4	<	
				Justification for out-of-ba	nd Modes
				usincation for out-or-ba	Edicies
<u>F</u> requency	Allocation Table			Link is Invalid	View Link

- Step 23. Click the Select Radio Service / Station Class button.
- Step 24. On the Select Radio Service and Station Class window select station classes FB and FL and then click OK.

Step 25. On the Link Information window, check the In-band only check box right in-band only, then select all the available In-band modes by clicking the select all button.

	\leftarrow	*	Radio Service		Station Cla	ss(es):	
	Reverse <u>L</u> ink	the second second	Land Mobil	e	FB - Base FL - Land		
o Station: ManPac	ж	From Station: NTIALand					
				Select F	Radio Service / Station C	Class	
ansmitter: NTIA B	lase Tx		Ŧ	Transmitter ante	enna: NTIA Base VHF /	Antenna	
	Coupling	Loss: U 💌	dB				
celver: Manpack	RX	S (12)	-	Receiver antenr	na: Manpack Ant		
Internation	1.413				Indipation		
ailable Modes:		v	In-band only	Selected Mo	des:		Sp
ower (W) Freque	ency (MHz)	Emission In-ba	and?	> Power (W)	Frequency (MHz)	Emission	In-band?
				35.0 Mean	138.0000 - 144.0000	11K0F3E	PRI
				< 125 Mean	173.4000 - 174.0000	11K0F3E	PRI
			-	125 Mean	162.0125 - 173.2000	11K0F3E	PRI
			5	> 125 Mean	150.0500 - 150.8000	11K0F3E	PRI
			-	125 Mean	148.0000 - 149.9000	11K0F3E	PRI
						In the second	PRI
				< 125 Mean	138.0000 - 144.0000	11K0F3E	
			-	< 125 Mean	138.0000 - 144.0000	111K0F3E	
			-		138.0000 - 144.0000 ut-of-band Modes	16160535	
			-			111K0E3E	Eolicie
			-			111K0535	

- **Step 26.** Click **Apply** to save your choices, and then click **OK** to acknowledge that the data has been saved.
- Step 27. Click the View Link button to see the link information that you have saved.

				From Station NTIALand	12	To Station: ManPack		E	requency Al	location Table.
adio Service	Transmitter	Power (W)	Frequency (MHz)	Em. Des.	EIRP (W)	TX Antenna	RX Antenna	Receiver	In-band?	Justification for
			138.0000 - 144.0000		1		0			
			148.0000 - 149.9000		398					
		100 Mean	150.0500 - 150.8000							
		162.0125 - 173.2000								
		173.4000 - 174.0000								
			138.0000 - 144.0000	11K0F3E	498	NTIA Base VHF Antenna			K PRI	
		Base Tx 125 Mean	148.0000 - 149.9000							
and Mobile	NTIA Base Tx		150.0500 - 150.8000				Manpack Ant	Manpack RX		
			162.0125 - 173.2000							
			173.4000 - 174.0000							
			138.0000 - 144.0000							
			148.0000 - 149.9000							
		35.0 Mean	150.0500 - 150.8000		139					
			162.0125 - 173.2000							
			173.4000 - 174.0000							

Step 28. Click OK to close the View Link window.

Step 29. Click Close to close the Link Information window.

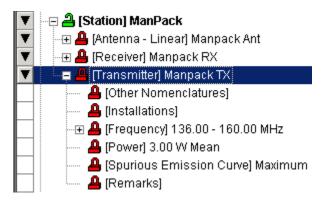
(This page intentionally left blank.)

11.0 CLONING RECORDS

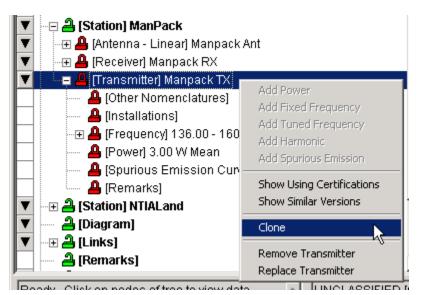
You can clone a Certification, Transmitter, Receiver, Antenna, or Location from the Tree View.

<u>**HINT**</u>: You can also clone a Certification, Transmitter, Receiver, Antenna, Location, or Compliance Check record from the **Query Results** window. See Section 13.

Step 1. Expand the **[Station] ManPack** node. **Click** on the **[Transmitter] Manpack TX** node to expand it as well. Note that the transmitter node is red padlocked (Approved). We want to create a new model of this transmitter with a dual power selector. Because it is locked, we will clone this transmitter and make the changes to the cloned record.



Step 2. Right-click on the [Transmitter] Manpack TX node and select Clone.



The **Clone** window is displayed.



🕞 🖬 🎒 🛤 烃 🗞 🗙 🗐 💽 🕂		01	Value	L In the
[Other Nomenclatures]	Data Item Nomenclature	Class U	Value Manpack TX	
a [Installations]	Manufacturer	-		
···· ⊕ 🚑 [Frequency] 136.00 - 160.00 MHz		U	RELM COMMUNICATIONS, INC	
🗕 [Power] 3.00 W Mean	Model Name and Number	U		
Spurious Emission Curve] Maxin	Approval Status	U	Unapproved	
📖 🖴 [Remarks]	Date/Time Last Modified		1/21/2008 4:19:35 PM	local
	Coordination ID	U	J/F 12	
	Туре	U		
	Filter Type	U		
	Proxy Record?		No	
	FCC Acceptance Number	U		
			A	Rese Cl <u>o</u> se

Step 3. Click **Yes** to clone the record. The cloned transmitter is displayed.

<u>**HINT:</u>** When you clone a record you are adding it to the database and not to the active certification. Notice that the **Red** locks have turned to **Green** locks. When you close this window you will return to the active application.</u>

Step 4. Click on the Nomenclature field, and change the name to Manpack TX Two.

Data Item	Class	Value	Units
Nomenclature		Manpack TX Two	
Manufacturer	U	RELM COMMUNICATIONS, INC	

<u>*HINT:*</u> Click on the **[Transmitter] Manpack TX** node to save the change and note that the node name will change to **Manpack TX Two**.

Step 5. Now we are going to edit the new transmitter. Save the transmitter. Right-click on [Transmitter] Manpack TX Two and select Add Power.

Set UNCLASSIFIED ** EL-CID ** UNC File Edit Transmitter Tools Window Help	LASSIFIED ** - [Tree Viet	w (Transmit	1 1	ack
Tansmitter] Manpack TX Two	Add Power		Class	
[Other Nomenclatures] [Installations]	Add Fixed Frequency		U	
▼	Add Tuned Frequency Add Multiple Harmonics		U	
Power] 3.00 W Mean	Add Harmonic	lumber	U	
 A [Spurious Emission Curve] Maximu A [Remarks] 	Add Spurious Emission		U	
	Show Using Certifications Show Similar Versions	dified		
	Clone		U	
	Remove Transmitter Replace Transmitter	-	U	
-	FCC Acceptance	e Number	U	
	Frequency Stab	lity (+/-)	U	
	Frequency Stab	lity Units		
	Output Davica		ii.	

The **Power** data grid is displayed.

Data Item	Class	Value	Units
Power Type			
Power Lower Limit	U		W
Power Upper Limit	U		W

Step 6. Enter the following data.

Field	Value
Power Type	Mean
Power Upper Limit	50W

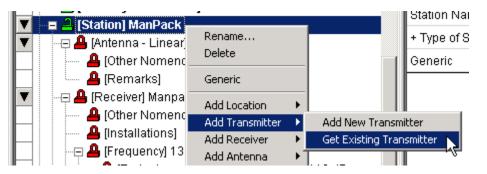
Step 7. Save the data.

🗉 🚑 [Location Information]	Data Item	Class	Value	Units
B (Security Information)	Nomenclature	U	Manpack TX	
	Manufacturer	U	RELM COMMUNICA	
	Model Name and Number	U		
🖾 🤷 [Remarks]	Approval Status	U	Approved	
	Date/Time Last Modified	Ň	2/5/2004 1:59:13 PM	local
🐣 [Other Nomenclatures]				local
A [Installations]	Coordination ID	U	J/F 12	
	Туре	U		
IIF Selectivity Curvel at 0.00000 kHz	Filter Type	U		
- A [Emission - Sensitivity] 12K0F3E119 dBm	Proxy Record?		No	
[IF Selectivity Curve] at 0.00000 kHz	FCC Acceptance Number	U		
🛄 🚨 [RF Selectivity Curve]	Frequency Stability (+/-)	U	2.5	
🖳 🚨 [Remarks]	Frequency Stability Units		ppm	
	Output Device	U	Transistor	
A [Installations]	Tuning Method	U	Synthesizer	
- 🖃 🐣 (Frequency) 136.00 - 160.00 MHz	Suppression of Harmonic	U	No	
	Radar or Communications?	U	Communications	
Imodulation Trous - A	Date/Time Imported		1/17/2008 10:33:41	local
▲ [Power] 3.00 W Mean ▲ [Spurious Emission Curve] Maximum ▲ [Remarks] ■ ▲ [Station] NTIALand ▲ [Diagram]			A	Rea Cl <u>o</u>

Step 8. Click the Close button. The Original Certification window is displayed.

Now that we have a new transmitter record which was cloned (or copied) from an existing transmitter, we are going to add this new transmitter to the ManPack Station.

Step 9. Right-click on the [Station] ManPack node and select Add Transmitter | Get Existing Transmitter.



The **Pick Existing Transmitter** window is displayed. Notice how the original **ManPack TX** Transmitter does not appear in the list because it is already associated with the **ManPack** Station.

omenclature	Approval Status	Timestamp	Coordination ID	Proxv	Manufa
VN Base Transmitter	Approved			No	
VN Mobile Transmitter		8/15/2003 1:49:17 PM	J/F 12	No	
VN Portable Transmitter	Approved	1/7/2004 9:21:46 AM	J/F 12	No	
anpack TX Two		12/19/2006 4:09:00 PM	J/F 12	No	RELM
ASTR III REPEATER	Approved	9/16/2002 12:26:37 PM	J/F 12	No	ERICS
odel T 5365 Quantar Base Tx	Approved	8/21/2003 10:44:22 AM	J/F 12	No	мото
odel XTS 5000 Quantar Portable Tx	Approved	8/15/2003 10:58:42 AM	J/F 12	No	мото
RKPORTABLE	Approved	9/16/2002 12:48:35 PM	J/F 12	No	ERICS
RION MOBILE	Approved	9/16/2002 12:32:45 PM	J/F 12	No	ERICS
alk & Talk Tx	Unapproved	12/20/2006 4:45:59 PM	J/F 12	No	RELM
	IN Base Transmitter IN Mobile Transmitter IN Portable Transmitter Inpack TX Two STR III REPEATER del T 5365 Quantar Base Tx del XTS 5000 Quantar Portable Tx RK PORTABLE RION MOBILE	IN Base Transmitter Approved IN Mobile Transmitter Approved IN Portable Approved RION MOBILE Approved	IN Base Transmitter Approved 8/15/2003 1:44:30 PM IN Mobile Transmitter Approved 8/15/2003 1:49:17 PM IN Portable Transmitter Approved 8/15/2003 1:49:17 PM IN Portable Transmitter Approved 1/7/2004 9:21:46 AM Inpack TXTwo Unapproved 12/19/2006 4:09:00 PM STR III REPEATER Approved 9/16/2002 12:26:37 PM del T 5365 Quantar Base Tx Approved 8/21/2003 10:44:22 AM del XTS 5000 Quantar Portable Tx Approved 8/15/2003 10:58:42 AM RK PORTABLE Approved 9/16/2002 12:48:35 PM RION MOBILE Approved 9/16/2002 12:32:45 PM	IN Base Transmitter Approved 8/15/2003 1:44:30 PM J/F 12 IN Mobile Transmitter Approved 8/15/2003 1:49:17 PM J/F 12 IN Portable Transmitter Approved 1/7/2004 9:21:46 AM J/F 12 Inpack TXTwo Unapproved 12/19/2006 4:09:00 PM J/F 12 STR III REPEATER Approved 9/16/2002 12:26:37 PM J/F 12 del T 5365 Quantar Base Tx Approved 8/15/2003 10:44:22 AM J/F 12 del XTS 5000 Quantar Portable Tx Approved 8/15/2003 10:58:42 AM J/F 12 RK PORTABLE Approved 9/16/2002 12:32:45 PM J/F 12 RION MOBILE Approved 9/16/2002 12:32:45 PM J/F 12	IN Base Transmitter Approved 8/15/2003 1:44:30 PM J/F 12 No /N Mobile Transmitter Approved 8/15/2003 1:49:17 PM J/F 12 No /N Portable Transmitter Approved 1/7/2004 9:21:46 AM J/F 12 No npack TXTwo Unapproved 1/7/2004 9:21:46 AM J/F 12 No strain Fill REPEATER Approved 9/16/2002 12:26:37 PM J/F 12 No del T 5365 Quantar Base Tx Approved 8/21/2003 10:44:22 AM J/F 12 No del XTS 5000 Quantar Portable Tx Approved 8/15/2003 10:58:42 AM J/F 12 No RK PORTABLE Approved 9/16/2002 12:28:35 PM J/F 12 No

Step 10. Highlight Manpack TX Two and then click OK.

The Manpack TX Two transmitter is added to your certification for the Station ManPack.



Step 11. Save the data.

Next we will use the Copy and Paste capability of EL-CID.

Step 12. Right-click on the [Transmitter] ManPack TX Two node and select Add Tuned Frequency

	1360		U
 Transmitter] Manpack TX Hall (Transmitter) Manpack TX Two 	Filter Type		U
 T → A [Station] NTIAL and T → A [Diagram] 	Add Power Add Fixed Frequency	lumber	U
I — ⊕ ♣ [Links]	Add Tuned Frequency Add Multiple Harmonics	y (+/-)	υ
····· ♣ [Remarks] 【 -···· ♣ [Attachments]	Add Harmonic Add Spurious Emission	y Units	IJ
 Image: Provide the second sector of the sect	Show Using Certifications		U
🔤 🖴 [Status Log]	Show Similar Versions	armonic	U
	Clone	ications?	υ
	Remove Transmitter Replace Transmitter	d	
-	T.		_

The Frequency data grid will be displayed.

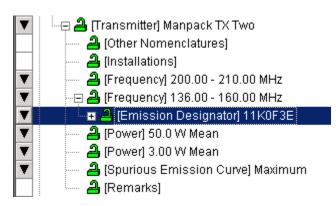
Data Item	Class	Value	Units
+ Fixed Frequency?		No	
Lowest Tuned Frequency	U		MHz
Highest Tuned Frequency	U		MHz
Tuning Increment	U		kHz
# of Frequencies Required for Operation	U		
Minimum Required Frequency Separation	U		MHz
Frequency Blocking Indicator	U	No	
Lowest Usable Channel	U		MHz

Step 13. Enter the following data.

Field	Value
Lowest Tuned Frequency	200 MHz
Highest Tuned Frequency	210 MHz
Tuning Increment	5 kHz
# of Frequencies Required for Operation	3
Minimum Required Frequency Separation	1 kHz

Step 14. Save the data.

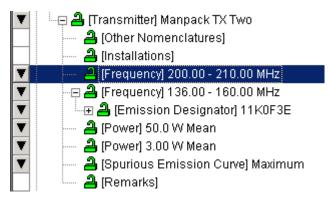
Step 15. If not already done, expand the [Frequency] 136.00 – 160.00 MHz node underneath node [Transmitter] Manpack TX Two. Click the [Emission Designator] 11K0F3E node to highlight it.



Step 16. Hold down the CTRL key and hit the C key

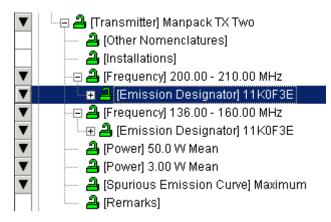
HINT: There will be no feedback on the screen.

Step 17. Click on the [Frequency] 200.00 – 210.00 MHz node we created a moment ago.





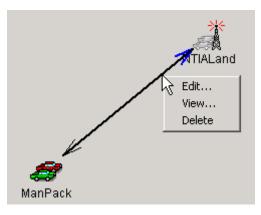
The emission designator 11K0F3E will be copied to the 200 MHz frequency node.



HINT: Expand the emission node to see that the modulation was also copied.

This concludes the Copy and Paste introduction.

Step 19. Click on the Diagram node. Highlight the link from Manpack to NTIALand. Right-click and select Edit



Step 20. Click the button on the transmitter and notice that two transmitters are now shown for this link.

пк штогта	tion					
2	≥>	*	Rad	dio Service		Station Class(es):
	Reverse Link	<=R		Land Mobi	ile	ML - Land Mobile
rom Statior	n: ManPack To S	Station: NTIA	Land			MLP - Portable Land Mobile
			Í.		Select Radio Ser	vice / Station Class
[ransmitter:	Manpack TX Two			•	Transmitter agtenna: M	anpack Ant
	Coupling Lo	ss 🔳 🚽		dB		
				loss l		
Receiver: N	ITIA Base Rx			7	Receiver antenna: NTIA	Base VHF Antenna
vailable Mo	ides:	I	In-band	only	Selected Modes:	<u>B</u> plit
Power (W)	Frequency (MHz)	Emission	In-band?		Power (W) Freque	ncy (MHz) Emission In-band?
3.00 Mean	136.0000 - 138.0000	11K0F3E	No	>		
3.00 Mean	144.0000 - 148.0000	11K0F3E	No	<	1	
3.00 Mean	149.9000 - 150.0500	11K0F3E	No			
3.00 Mean	150.8000 - 160.0000	11K0F3E	No	>>	1	
3.00 Mean	200,0000 - 210,0000	Advocat				
5.00 Wear	200.0000 - 210.0000	11K0F3E	No	10		
	136.0000 - 138.0000	11K0F3E	No No	<<		
50.0 Mean		A CONTRACTOR OF THE OWNER]	
50.0 Mean 50.0 Mean	136.0000 - 138.0000	11K0F3E	No		stification for out-of-ban	d Modes
50.0 Mean 50.0 Mean 50.0 Mean	136.0000 - 138.0000 144.0000 - 148.0000	11K0F3E 11K0F3E	No No		- <u> </u>	and a second
50.0 Mean 50.0 Mean 50.0 Mean 50.0 Mean 50.0 Mean 50.0 Mean	136.0000 - 138.0000 144.0000 - 148.0000 149.9000 - 150.0500	11K0F3E 11K0F3E 11K0F3E	No No No		- <u> </u>	d Modes

Choose the **ManPack TX Two** transmitter. Complete this link, select the 6 available modes with the word **PRI in the In-band? column**. Move them to the **Selected Modes list.**

HINT: The link for each Transmitter, Receiver, and Antenna combination must be defined.

Step 21. Click **Apply** to save your choices, and then click **OK** to acknowledge that the data has been saved.

Step 22. Click the View Link button to see the link information (two transmitters) that you have saved.

				n Station: anPack		To Station: NTIALand		Erequ	ancy Allocat	ion Table
Radio Service	Transmitter	Power (W)	Frequency (MHz)	Em. Des.	EIRP (W)	TX Antenna	RX Antenna	Receiver	In-band?	Justificatio
	Manpack TX 3.00 Mea		138.0000 - 144.0000	-	3.00 JF3E Manpack Ant	Manpack Ant	NTIA Base VHF Antenna	NTIA Base Rx	PRI	
		anpack TX	148.0000 - 149.9000							
		2.00 Moon	150.0500 - 150.8000							
		3.00 Mean	138.0000 - 144.0000							
Land Mobile				11K0F3E						
	Manpack TX Two		150.0500 - 150.8000							
	Manpack IA IWU		138.0000 - 144.0000							
		50.0 Mean	148.0000 - 149.9000		50.0					
			150.0500 - 150.8000							

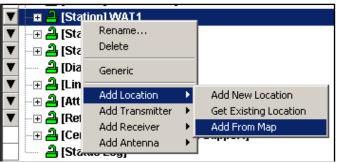
- Step 23. Click OK to close the View Link window.
- Step 24. Click Close to close the Link Information window.
- **Step 25.** Click **Close** to close the current certification application.

(This page intentionally left blank.)

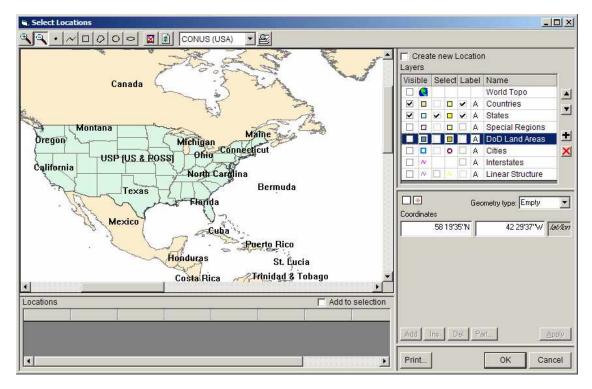
12.0 ADDING LOCATIONS FROM THE MAP

If you want to add a location to your certification record but do not know the detailed information, you may be able to find the location by using the Map to find the desired location. If it is a city already in the database, follow the steps below to select the city and add its location data to your certification.

- **Step 1.** Open the **Walk & Talk** certification. We are going to add Annapolis, Maryland to the certification.
- Step 2. Right-click [Station] WAT1 and select Add Location | Add From Map.

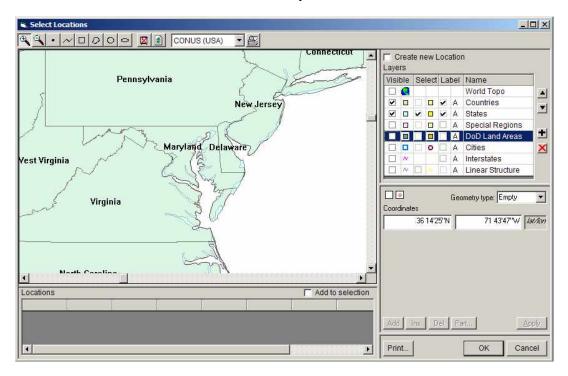


The Select Locations window is displayed.



In the **Layers** grid on the right check or uncheck boxes (if needed) to make your settings match those you see in the screen above.

Step 3. Click on the **Magnify** button and then place the mouse over the letter "y" in Maryland and click several times. You will zoom in on the Maryland area.



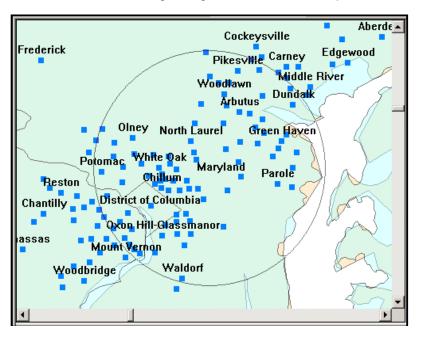
Step 4. Highlight the Cities Name in the Layers window. Click the check boxes for Visible, Select, and Label.

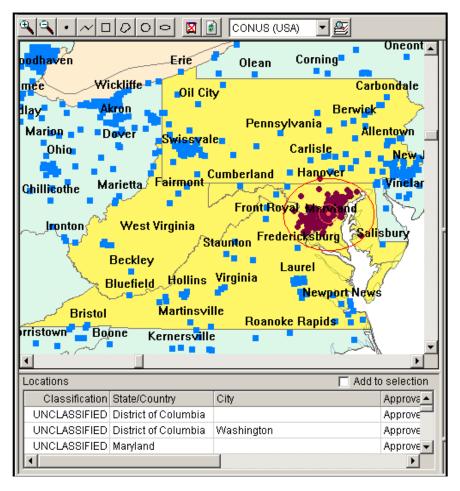
Visi	sible Sele		/isible		Select		bel	Name	
	0					World Topo			
					А	Countries			
•				~	А	States			
					А	Special Regions			
		11			A	DoD Land Areas	±		
		~	0	~	A	Cities	×		
	N	l	1		A	Interstates			
	N		R		А	Linear Structure			

Select Locations	×
New Castle Berwick Pennsylvania Easton New Castle Pennsylvania Lebanon New Lersey Morgantown Martinshurg Edgewood Vireland Front Royat Martinshurg Vest Virginia Harrisonburg Waynesboro Wallops Kley Mechanicsville Portsmouth Henderson Elizabeth-City Thomasville Wilson	Create new Location Layers Visible Select Label Name Vorld Topo A Countries A Countries A States A DoD Land Areas A DoD Land Areas A Interstates A Linear Structure Geometry type: Empty Coordinates 37 28'24'N 71 44'49'W fat/lar
A Matthe Corollink	
Locations	
	Add Ins Del Part
	Print OK Cancel

The Select Locations window will be displayed as shown below.

- Step 5. Zoom in on the word Maryland several times.
- **Step 6.** Click the **Circle** button. Place the cursor over the **"a" in Maryland** and drag the mouse while holding down the left mouse button to create a **small circle**. Release the **mouse button**. Make sure the circle is big enough to encircle the Annapolis, MD area.





The Select Locations window displays the selections

Step 7. Highlight Maryland | Annapolis in the location box and then click OK.

Locations		Add to selection
Classification State/Country	City	Approva 🔺
UNCLASSIFIED Maryland	Andrews AFB	Approve
UNCLASSIFIED Maryland	Annapolis	Approve
UNCLASSIFIED Maryland	Arbutus	Approve 🗸
•		•

The Annapolis, MD location information is added to the WAT1 record.

Data Item	Class	Value	Units
Approval Status	U	Approved	
State, Country, or Location Name Part 1	U	Maryland	
City or Location Name Part 2	U	Annapolis	
Date/Time Last Modified		5/23/2003 10:08:12 AM	local
+ Location Type	U	Single Point	
Geographic Coordinates	U	385818N0763010W	lat/lon
Map Layer		Cities	
Date/Time Imported		5/23/2003 11:27:47 AM	local

Step 8. Click the **Close** button.

13.0 PERFORMING QUERIES

You can select records (Certifications, equipments, Locations, Policies, Transmitters, Compliance Checks, and etc.) from the database using any of the database fields.

Step 1. Click the New Query button in the tool bar.

The **Build Query** window appears and (assuming that you have not disabled it in the Preferences) the **Select Data Item** window automatically appears.

Tree Node	Data Item (Field)	1494 Pa
[Certification]		
- Special	Frequency Select	
Special	Geographic Select	
🔁 [General Information]		
[General Information]	Agency Code	Certifica
[General Information]	System Name	NTIA Ge
[General Information]	Stage	NTIA Ge
[General Information]	Approval Status	
[General Information]	Date/Time Last Modified	
[General Information]	Coordination ID	
[General Information]	JF12 Number	
[General Information]	SPS Docket Number	
[General Information]	SIN Number	
	ODO Ananyta Munahan	

HINT: If the Select Data Item window does not automatically appear, click the Browse button at the end of the Field box.

Data Item (Field) Nomenclature Manufacturer	1494 Pa Transm
	Transm
	Transm
	Transm
Manufacturer	
	Transm
Model Name and Number	Transm
Approval Status	
Date/Time Last Modified	
Coordination ID	
FCC Acceptance Number	Transm
Frequency Stability (+/-)	Transm
Frequency Stability Units	Transm
Output Device	Transm
	Date/Time Last Modified Coordination ID FCC Acceptance Number Frequency Stability (+/-) Frequency Stability Units Output Device

Step 2. Highlight Transmitter Nomenclature and click OK.

- **Step 3.** Select **\$\$Contains** using the **dropdown** list button **for the Operator** box.
- Step 4. Type manpack in the Expression box.

<u>*HINT:*</u> You can use the <u>Sample...</u> button to get a listing of the entries in this field from the database.

<u>*HINT:*</u> Upper- or lowercase does not matter for this particular field. You can tell this because the **Ignore case** check box is grayed out.

Step 5. Select **Transmitter** using the **dropdown** list button **t** for the **Select Record** box.

- <u>S</u> elect Record	
Transmitter	•

The Build Query window should resemble the following:

Select Record	Query Condi	iions	
Transmitter	F <u>i</u> eld:	TransmitterNomenclature	
	<u>O</u> perator:	\$\$ (Contains)	▼ <u>N</u> ot
Old versions of records only	E <u>x</u> pression:	manpack	Sa <u>m</u> ple
			🔽 Ignore case

Step 6. Click the **Run Query** button, or click the **Query Results** tab to execute the query.

Two records are found.

*** UNCLASSIFIED ** EL-CID	** UNCLASSIFI	ED ** - [Query Transmit	ters on Transmit:	ter\Non	nenclature]
File Edit Query Tools Window Help					
 _ _ _ _ _ 	<u>o e</u>				
<u>B</u> uild Query	Ĭ	Query <u>R</u> esults			
Search:	Find <u>F</u> irst	Find Next			
Classification Nomenclature	Approval Status	Timestamp	Coordination ID	Proxy	Manufacturer
UNCLASSIFIED Manpack TX	Approved	2/5/2004 1:59:13 PM	J/F 12	No	RELM COMMUNICATIONS, INC
UNCLASSIFIED Manpack TX Two	Unapproved	1/21/2008 4:56:05 PM	J/F 12	No	RELM COMMUNICATIONS, INC
•					
Highlighted records: 0					Total records found: 2
Run Query Print					<u>C</u> lose
Ready. Click on rows to highlight. Right-click for options.	<u>_</u>				<u>^</u>

Step 7. Highlight the two rows, right-click and select Compare.

*** UNCLASSIFIED *** EL-CID	** UNCLASSIFI	ED *** - [Query Transmil	tters on Transmit	ter\Nor	nenclature]
File Edit Query Tools Window Help					
D 🛩 🖬 🛎 🛤 🖉 🕂	Q 🗄 💡				
<u>B</u> uild Query	ľ	Query <u>R</u> esults			
Search:	Find <u>F</u> irst	Find Ne <u>x</u> t			
Classification Nomenclature	Approval Status	Timestamp	Coordination ID	Proxy	Manufacturer
UNCLASSIFIED Manpack TX	Approved	2/5/2004 1:59:13 PM		No	RELM COMMUNICATIONS, INC
UNCLASSIFIED Manpack TX Two	Unapproved	4/24/2000 A:56:05 DM Edit in Tree View	VE 12	No	RELM COMMUNICATIONS, INC
		Display/Edit			
		Export			
		Print,			
		Clone			
Highlighted records: 2		Delete			Total records found: 2
Due Queru District		Replace			01000
Run Query Print		Show Using Certifications			<u>C</u> lose
, Ready. Click on rows to highlight.		Show Similar Versions			
Right-click for options.	-	Compare			- -
,		Compliance Check	K		

The **Comparison Details** window will be displayed showing the differences in the two records.

earch: Find	Find Next	
Entity/Data Item	Source: Manpack TX - Approved - 2/5/2004 1:59:13 PM - J/F 12	Target: Manpack TX Two - Unapproved - 1/21/2008 4:56:05 PM - J/F 12
🛛 [Transmitter]	[Transmitter] Manpack TX	[Transmitter] Manpack TX Two
Nomenclature	Manpack TX	Manpack TX Two
Approval Status	Approved	Unapproved
Date/Time Last Modified	2/5/2004 6:59:13 PM	1/21/2008 9:56:05 PM
…⊒ [Frequency]		[Frequency] 200.00 - 210.00 MHz
Fixed Frequency?		False
Lowest Tuned Frequency		20000000
- 🖂 Highest Tuned Frequency		21000000
Tuning Increment		5000
		3
- Minimum Required Frequency Separation		1000000
Frequency Blocking Indicator		False
		[Emission Designator] 11K0F3E
⊡ [Power]		[Power] 50.0 W Mean
Power Type		M
Power Upper Limit		50

- Step 8. Click OK to close the Comparison Details window.
- Step 9. Click on the **Query Builder** tab to return to the query conditions window.
- Step 10. In the previous query, we selected Transmitter records whose nomenclature contains manpack. This time, we'll select Certification records having any transmitter whose nomenclature contains manpack. Select Certification using the dropdown list button for the Select Record box.

Select Record	1
Certification	

Your query should now resemble this.

Select Record	Query Conditions			
Certification	F <u>i</u> eld:	Transmitter/Nomenclature		
	<u>O</u> perator:	\$\$ (Contains)	▼ <u>N</u> ot	
Old versions of records only	E <u>x</u> pression:	manpack	Sa <u>m</u> ple	
			🔽 Ignore case	

Step 11. Run the query. You'll get one Certification record in the Query Results.

Step 12. This time, let's query for Transmitters belonging to a Certification record whose System Name is Manpack. Return to the Query Builder screen and make your query look like this.

- Select Record	- Query Condi	tions	
Transmitter	Field:	General Information\System Name (Nomenclature)	
	Operator:	== (Exactly Equals)	▼
Old versions of records only	E <u>x</u> pression:	Manpack	Sa <u>m</u> ple
			🔽 Ignore case

Step 13. When you **run the query**, you should get results like this.

Classification	Nomenclature	Approval Status	Timestamp	Coordination ID	Proxy	Manufacturer
UNCLASSIFIED	Manpack TX	Approved	2/5/2004 1:59:13 PM	J/F 12	No	RELM COMMUNICATIONS, INC
UNCLASSIFIED	Manpack TX Two	Unapproved	1/21/2008 4:56:05 PM	J/F 12	No	RELM COMMUNICATIONS, INC

Step 14. Close the Query window.

<u>**NOTE:</u>** The Query feature may be used to back up one or more certifications or the entire EL-CID Database. This process is illustrated in **Appendix D**.</u>

(This page intentionally left blank.)

14.0 CREATING A TRUNKING SYSTEM CERTIFICATION USING A TEMPLATE

Step 1. Click the <u>Create New Certification</u> button U on the tool bar. The New Certification Application window is displayed.

New Certification Application	
System <u>n</u> ame:	
1	
<u>Trunking?</u>	Number of <u>R</u> epeater Stations:
Choose from Trunking Templates	
Stage	
I - Conceptual	
C <u>2</u> - Experimental	
C <u>3</u> - Developmental	
C <u>4</u> - Operational	
	<u>O</u> K C <u>a</u> ncel

Step 2. Click the <u>**Trunking?**</u> Checkbox. If there are no Trunking Templates in your database, the following message is displayed.



Click **OK**. There will be no Trunking Templates from which to choose. These must be imported from your Training CD. Click **Cancel** to close this window.

<u>*Hint*</u>: If the **NTIA Data.cid** has already been imported in Section 4, the Trunking Templates should be in your database and you can Skip to **Step 8**.

Step 3. Insert the Training CD in the CD drive. Click the Import button on the tool bar, or from the menu File | Import.

Step 4. Click the **browse button** to select the file to import. The folder we are using is on the **Training CD** and called **Database Update** (For training, this will be the **E:\Database Update**). Highlight the filename **NTIA Data.cid** and then click **Open**.

Open					?×
Look jn:	🗀 Database Upo	late	•	⇐ 🗈 📸 💷 -	
My Recent Documents Desktop	NTIA Data.cid				
My Documents					
My Computer					
My Network	File <u>n</u> ame:	NTIA Data.cid		▼	<u>D</u> pen
Places	Files of type:	EL-CID Export Files (*.cid)			Cancel

The **Import** window displays the selection.

Import	
F <u>a</u> vorite folders	
E:\Database Update	▼
Import filename	
E:\Database Update\NTIA Data.cid	
	Import <u>C</u> ancel

Step 5. Click Import. A progress window is displayed followed by the File Description.

File Des	cription 🛛 🔀		
NTIA Data Records 3 Certifications Exported on 01/15/2008 8:51:44 PM GM Highest Classification: UNCLASSIFIED			
	Continue?		
	Cancel		

Step 6. Click OK. The Import Record List - Certification window is displayed.

Action	Туре	ID	Comparison Results
Add	Certification	NTIA - Ericsson EDACS NB Trunk Template - 4 - Approved - 01/15/2008 2:46:57 PM - J/F 12	No matching record in database
Add	Antenna	EDACS Generic Mobile - Approved - 06/08/2004 12:33:32 PM - J/F 12	No matching record in database
Add	Antenna	EDACS Generic Base - Approved - 06/08/2004 12:33:17 PM - J/F 12	No matching record in database
Add	Antenna	EDACS Generic Portable - Approved - 06/08/2004 12:33:40 PM - J/F 12	No matching record in database
Add	Receiver	MASTR III REPEATER - Approved - 08/05/2003 3:05:01 PM - J/F 12	No matching record in database
Add	Receiver	M-RK PORTABLE - Approved - 08/05/2003 3:14:39 PM - J/F 12	No matching record in database
Add	Receiver	ORION MOBILE - Approved - 08/05/2003 3:11:38 PM - J/F 12	No matching record in database
Add	Transmitter	MASTR III REPEATER - Approved - 09/16/2002 1:26:37 PM - J/F 12	No matching record in database

Step 7. Click **Apply**. The **Progress** window is briefly displayed and then the **Import Record List - Certification** window is again displayed.

Action	Туре	ID	Comparison Results
ADDED	Certification	NTIA - Ericsson EDACS NB Trunk Template - 4 - Approved - 01/15/2008 2:46:57 PM - J/F 12	No matching record in database
ADDED	Antenna	EDACS Generic Mobile - Approved - 06/08/2004 12:33:32 PM - J/F 12	No matching record in database
ADDED	Antenna	EDACS Generic Base - Approved - 06/08/2004 12:33:17 PM - J/F 12	No matching record in database
ADDED	Antenna	EDACS Generic Portable - Approved - 06/08/2004 12:33:40 PM - J/F 12	No matching record in database
ADDED	Receiver	MASTR III REPEATER - Approved - 08/05/2003 3:05:01 PM - J/F 12	No matching record in database
ADDED	Receiver	M-RK PORTABLE - Approved - 08/05/2003 3:14:39 PM - J/F 12	No matching record in database
ADDED	Receiver	ORION MOBILE - Approved - 08/05/2003 3:11:38 PM - J/F 12	No matching record in database
ADDED	Transmitter	MASTR III REPEATER - Approved - 09/16/2002 1:26:37 PM - J/F 12	No matching record in database

Notice that **Add** changes to **ADDED** in the **Action** column. At this point, the records have been added to the local EL-CID database.

Step 8. Repeat **Step 1**. Click the **Trunking?** Checkbox. Three trunking templates will be available for you to select.

New Certification Application	n
System name: Trunking D	emo
,	
✓ Trunking?	Number of <u>R</u> epeater Stations: 2
Choose from Trunking Te	mplates
NTIA - Wireless Network	Trunk Template - 4 - Approved - 1/15/2008 2:47:30
Stage	
C 1 - Conceptual	
O 2 - Experimental	
O 3 - Developmental	
• 4 - Operational	
	<u>O</u> K C <u>a</u> ncel

Step 9. Enter the information shown in the screen above and listed in the table below and then click <u>OK</u>.

Field	Value
System Name	Trunking Demo
Trunking?	Checked
Number of Repeater Stations	2
Choose from Trunking Templates	NTIA-Wireless Network Trunk Template
	- 4
Stage	4- Operational

<u>_ | | ×</u> EL-CID ** UNCLASSIFIED ** - [Tree Vie 10 - 4 - Unapproved - 9/7/2010 12:03:44 PM - J/F 1 Edit Certification Station Tools Window q 4 1 🖃 🐣 [Certification] AR - Trunking Demo - 4 Show frequency list [General Information] [Points of Contact] [Start Dates by Stage] [Numbers of Units by Stage] 8 - [Location Information] JWN [Security Information] Portabl A [Station] JWN Base E
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 🕀 🔒 [Station] JWN Portable 1 🕀 🔒 [Station] JWN Repeater JWN Istation Repeater 1 Base 🗄 🔒 [Trunking Information] JWN Mobile 🗆 🔒 [Links] 📮 🛃 [Link] from JWN Base to JWN Mobile Ŧ Coupling] JWN Base Transmitter with JWN Repeate S ÷ 1 a 1 Land Mobile Airborne Fixed Transport Land Sea Ř A state P \mathbb{Z} 0 Mobile Second Targe Satellit Rada Earth Earth Ra P ø Ť METAIDS METAIDS METAIDS adiosonde Radar Ground Linkable Tx Station Linkable Tx and Bx ۲ Linkable Bx Station Non-linkable Station Cl<u>o</u>se Display available Radio Service/Station Classe: Drag a station to diagram. UNCLASSIFIED [Certification] AR - Trunking Demo - 4 - Unapproved - 9/7/2010 12:03:44 PM - J/F 12 A 7 *

The Tree View is displayed with the template filled.

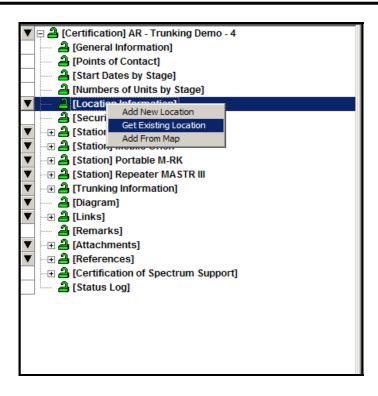
- Step 10. Close the palette using the X in the upper right or by clicking the Stations Palette button on the tool bar.
- - <u>*Hint:*</u> To expand the Tree View, highlight a node in the Tree View and press All nodes under the highlighted node will be expanded.



To collapse the Tree View, highlight a node in the Tree View and press

All nodes under the highlighted node will be collapsed.

Step 12. Right-click on the Location Information node in the Tree View, then click Get Existing Location. Select Stage 4 on the Select Stage screen and click OK.

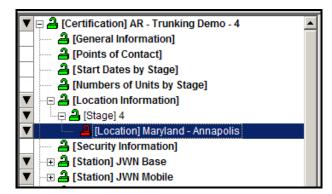


The Pick Existing Location screen will appear.

Step 13. Type Annapolis and click Find First.

Classification State/Country	City	Approval Status	Timestamp	1
UNCLASSIFIED Afghanistan		Approved	5/23/2003 12:24:08 PM	T
UNCLASSIFIED Afghanistan	Asadabad	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Aybak	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Baghlan	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Bamian	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Baraki Barak	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Chaghcharan	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Charikar	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Farah	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Feyzabad	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Gardez	Approved	5/23/2003 11:03:53 AM	5
UNCLASSIFIED Afghanistan	Ghazni	Approved	5/23/2003 11:03:53 AM	5

Step 14. When the Annapolis location appears, click <u>OK</u> and the location will be added to the Location Information node.



Note that the location is added for the whole certification, not under a particular station.

Step 15. Expand the **References** node using the **D** button.



<u>**HINT</u></u>: When you create a Trunking System from a Trunking Template, EL-CID automatically adds a Reference** to the Trunking Template for you. Since the Trunking Template typically also has a reference to the original Certification for the system, it automatically appears as a **Reference** as well. (See <u>Referencing Documents and Other Certifications</u> in the Help File for further information.) Delete any references not appropriate to your certification.</u>

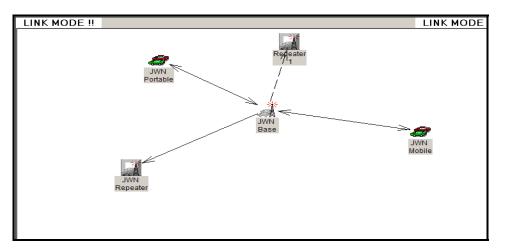
Step 16. Click on the **Trunking Information** node in the Tree View.

Certification] AR - Trunking Demo - 4 General Information]	Data Item	Class	Value	Units
A [Points of Contact]	Number of Repeaters		2	
[Start Dates by Stage]	+ Dispatcher?	U	No	
🔒 [Numbers of Units by Stage]	Required Frequency Lower	U		MHz
Image: A state of the state	Required Frequency Upper	U		MHz
 Stage] 4 Location] Maryland - Annapolis 	# of Frequencies Required for Operation	U		
a [Security Information]	Total Number of Users	U		
🔻 🖅 🛃 [Station] JWN Base	Separate System Justification	U		
▼	+ Request for Expansion/Additional Channels?	U	No	
▼ → ⊕ 🔒 [Station] JWN Portable ▼ → ⊕ 🔒 [Station] JWN Repeater	NSEP Use	U		
▼				
[Trunking Information]				

Step 17. Enter the information shown in the table below and then **Save**.

Field	Value
Dispatcher?	Yes
Dispatcher Explanation	To coordinate with mobile users
Required Frequency Lower	150 MHz
Required Frequency Upper	160 MHz
# of Frequencies Required for	20
Operation	
Total Number of Users	50
Request for Expansion/Additional	No
Channels?	
NSEP Use	Coordinate with local authorities

Step 18. Click on the [Diagram] node in the Tree View. Click the Create New Links button for the tool bar to enter LINK MODE!! and draw a link from JWN Base to Repeater 1.



NOTE: You cannot draw a return link from the repeater station to the base station as the repeater is a generic station.

- Step 19. Click the Create New Links button again to turn the LINK MODE!! off.
- Step 20. Click on each station in the Tree View and enter a Site Elevation and Antenna Height for each of the four stations and then Save.

JWN Base

Field	Value
Site Elevation	100 m
Antenna Height	50 m

JWN Mobile

Field	Value
Site Elevation	40 m
Antenna Height	30 m

JWN Portable

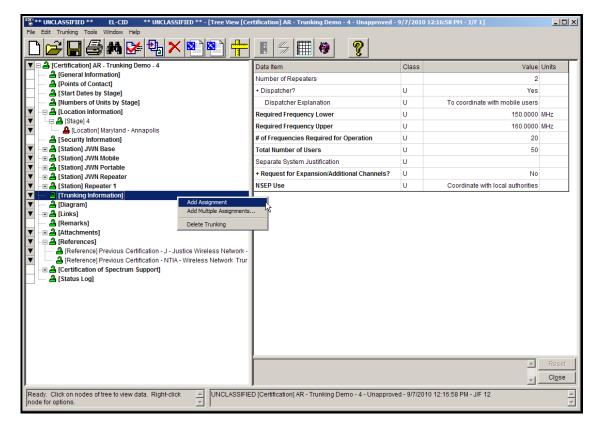
Field	Value
Site Elevation	50 m
Antenna Height	25 m

JWN Repeater

Field	Value
Site Elevation	100 m
Antenna Height	50 m

Repeater 1

Field	Value
Site Elevation	100 m
Antenna Height	50 m



Step 21. Right-click on the Trunking Information node in the Tree View and select Add Assignment.

Step 23. Enter the information shown in the screen above and the table below and then Save.

Field	Value
Relinquished or Used	Used
Assignment Frequency (lower or discrete)	150 MHz
Assignment Frequency Upper	155 MHz
Agency Serial Number	APD 1234

Step 24. Select the General Information node in the Tree View and enter \$200,000 for the Estimated Initial Cost field and then Save.



<u>**HINT**</u>: In the Help File, (under Trunking Systems | Creating a New Trunking System) A table is shown (<u>NTIA Manual Section 10.9.1 to EL-CID Cross-reference</u>), that will give a cross-reference between the NTIA requirements in Section 10.9.1 and where they can be found in EL-CID.

Step 25. Click on the Close button Close. This will save your data and close the Certification.

(This page intentionally left blank.)

STUDENT INFORMATION SHEET

Date:			Training Location:	
Name:(Last)	(First) (N	ЛІ)	Job Title/Rank:	
Government Agency: _				
Company (Contractor):				
Address:				
City/State/Zip:				
E-mail NIPRNET:				
E-mail SIPRNET:				
Telephone:				
Voice: CML:				
Fax: CML:			DSN:	
Secure: CML:				
Access to: SIPRNET	STU-III/STE 🗌			
Area Hotel:				
Room Number:				

STUDENT CRITIQUE SHEET

Dates of Training:	From:		То:	
Training Location:				
Name & Grade:				
Job Title/Rank:				
Government Agency:				
Company (Contractor)	:			
	Со	urse Material		
Information Received:		Some Help	🗌 No I	Help
Technical Value:	About Right	Too Hard		Easy
Course Is:	Too Long	Too Short		g Enough
Course Material:	Outstanding	Adequate		Adequate
	-	e Presentation		
Lessons:	 ☐ Well Presen		quate	Poor
Instructor's Presentatio			Difficult to F	—
Instructor's Presentatio	_ ,		Difficult to Understand	
Instructors:	Time to Ask			Ask Questions
Practice:	Too Much		ut Right	Not Enough
		of Training Aids	Ū	
Training Aids:	Very Good	Good	- E Fair	Poor
		Opinion		
Opinion Overall:	Very Good	Good	☐ Fair	Poor
Remarks/Recommenda	ations:			

Additional Critique Comments:

APPENDIX A - QUICK REFERENCE GUIDE

(This page intentionally left blank.)

APPENDIX B – INSTALLING EL-CID

Please Note: Users must have read and write privileges to the ElcidData directory and ALL its subdirectories.

<u>NOTE:</u> The following instructions are tailored for installing EL-CID on the course training machines. More complete instructions for installing EL-CID are available on the Training CD.

<u>NOTE:</u> Do not work ahead of the Instructor when performing the procedures below. In particular, do not go beyond Step 4 until instructed to!

- **Step 1.** Login using the Admin username and password on the PC.
- Step 2. Insert the CD labeled "Equipment Location Certification Information Database" into your CD drive. The Welcome window will appear. (If the Welcome window does not appear, use Windows Explorer to find your CD drive. Then double click the file Setup.exe.)
- **Step 3.** Click the **Next >** button. The **Information** window will appear.
- **Step 4.** Click the **Next >** button. The **Select Components** window will appear. Leave the top two boxes checked to install the EL-CID User Training Manual as well as icons and shortcuts.
- Step 5. Click the **Next >** button. The **Choose Program Folder** window will appear. The **Destination**

Folder should default to C:\Program Files\EL-CID. If it does not, use the Browse button to select this directory.

<u>*HINT:*</u> Notice the difference between the window title in the step above – **Choose** <u>**Program**</u> **Folder** – and the window in the next step – **Choose** <u>**Data**</u> **Folder**.

- Step 6. Click the Next > button. The Choose Data Folder window will appear. The Destination Folder should default to C:\ElcidData. STOP! Click the Browse button to display the Choose Folder window. Erase the drive letter C: and replace it with D: as we will be installing to D:\ElcidData. (Do NOT select the D: drive from the drive letter combo box!)
- Step 7. Click the OK button. A window will appear stating that directory does not exist and asking if the program should create it. Click the Yes button. You will return to the Choose Data Folder window and the correct directory should be selected.
- Step 8. Click the Next> button. The Choose Program Shortcut Folder window will appear with the folder ELCID selected. (<u>HINT:</u> Although the window calls this the "Program Shortcut Folder", it is actually where the menu entries on the Windows Start menu will be created and should not be confused with the Program Folder in Step 4 above.)
- Step 9. Click the Next > button. The Start Copying Files window will appear. Confirm that the correct Destination Folders are selected.
- **Step 10.** Click the **Next >** button. Progress bars will be displayed during the install. When the install is complete you will be prompted to make sure the system date, time and time zone are correct.
- Step 11. Click Ok. The Setup Complete window will appear.
- Step 12. Make sure the Yes, I want to launch ELCID now check box is NOT checked. Then click the **Finish** button. You have completed installing the ELCID program.
- **Step 13.** Log out of the Admin account.

Step 14. After installing the EL-CID software, you would normally install data updates. You will do this in Section 4.

APPENDIX C - IMPORTING UPDATED COMPLIANCE CHECKS

The following steps will illustrate how to perform the import of the updated Compliance Checks in <u>the</u> <u>purge and replace</u> mode. The updates are in two parts -- Compliance Checks and Snippets.

Step 1. If needed, start the EL-CID program.

Step 2. Click the Import button

The **Import** window is displayed.

Import		
F <u>a</u> vorite folders		
E:\Pre-loaded DB\Data		-
Import <u>f</u> ilename		
E:\Pre-loaded DB\Data\export.cid		
	Import	<u>C</u> ancel

Note: This illustration shows the **Installation CD** located on the **E**: drive. If your CD-ROM drive is not assigned to drive letter **E**, you must navigate to the correct drive.

Step 3. Click the **Browse** button to select the file to import. The folder we are using is on the E: drive. Go to E:\Pre-loaded DB\Data. Highlight the filename All Compliance Checks.cid and then click Open.

Open		? 🗙
Look jn:	🔁 Data 💽 🗲 🗈 📸 📰 -	
My Recent Documents Desktop My Documents My Computer	 All Agencies.cid All Antenna Types.cid Special Regions.cid States.cid All Compliance Checks.cid All Compliance Mandatory Categories.cid All Compliance Mandatory Categories.cid All Compliance Mandatory Categories.cid All Compliance Mandatory Categories.cid All Compliance.cid All Manufacturers.cid All Policies.cid All Recommendations.cid All Snippets.cid Cities.cid Countries.cid DoD Land Areas.cid DoD Test Ranges.cid Foreign Import Compliance Checks.cid 	
My Network Places		pen Incel

The Import window displays the selection.

Import	
F <u>a</u> vorite folders	
E:\Pre-loaded DB\Data	•
Import <u>fi</u> lename	
E:\Pre-loaded DB\Data\All Compliance Checks.cid	
	Import <u>C</u> ancel

Step 4. Click Import. The File Description window is displayed.

File Description				
1330 ComplianceChecks Exported on 2/7/2011 6:42:33 PM GMT Highest Classification: UNCLASSIFIED Intended for Purge/Replace. Continue?				
Cancel				

Step 5. Click OK. The Purge/Replace on Import window is displayed.

Purge/R	leplace on Import 🛛 🔀		
1	This import file is intended for Purge/Replace. Clicking Yes will delete ALL existing ComplianceChecks from the database before importing all the records in the import file. You may wish to export existing records in the database before proceeding. Purge/Replace is generally faster than a normal import.		
Purge ALL existing ComplianceChecks from database and import all records in the import file?			
	<u>Y</u> es <u>N</u> o Cancel		

- Step 6. Click Yes. The Progress window is briefly displayed and then disappears.
- Step 7. Repeat the process, but this time choose All Snippets.cid from the import location.

Step 8. Click the Import button

The Import window is displayed.

Import	
F <u>a</u> vorite folders	
E:\Pre-loaded DB\Data	▼
Import <u>f</u> ilename	
E:\Pre-loaded DB\Data\export.cid	
	Import <u>C</u> ancel

Step 9. Click the **Browse** button to select the file to import. The folder we are using is on the E: drive. Go to **E:\Pre-loaded DB\Data.** Highlight the filename **All Snippets.cid** and then click **Open**.

Open						? 🗙
Look jn:	🗀 Data		•	+ 🗈 💣		
My Recent Documents Desktop My Documents My Computer	 All Locations.cid All Manufacture All Policies.cid All Recommendation All Snippets.cid All TOAs.cid Cities.cid Countries.cid DoD Land Areas DoD Test Range 	es.cid Thecks.cid Aandatory Categories.cid rs.cid ations.cid	 ***) NATO ***) Special ***) States. ***) US&P.c 	Regions.cid .cid		
🧐 My Network		Compliance Checks.cid				Open
Places	File <u>n</u> ame: Files of <u>typ</u> e:	All Snippets.cid EL-CID Export Files (*.cid)				Cancel

The **Import** window displays the selection.

Import	
F <u>a</u> vorite folders	
E:\Pre-loaded DB\Data	▼
Import <u>fi</u> lename	
E:\Pre-loaded DB\Data\All Snippets.cid	
	Import <u>C</u> ancel

Step 10. Click Import. The File Description window is displayed.

File Description					
2 179 ComplianceSnippets Exported on 2/7/2011 6:43:19 PM GMT Highest Classification: UNCLASSIFIED Intended for Purge/Replace. Continue?					
OK Cancel					

Step 11. Click OK. The Purge/Replace on Import window is displayed.

Purge/R	urge/Replace on Import								
!	This import file is intended for Purge/Replace. Clicking Yes will delete ALL existing ComplianceSnippets from the database before importing all the records in the import file. You may wish to export existing records in the database before proceeding. Purge/Replace is generally faster than a normal import.								
	Purge ALL existing ComplianceSnippets from database and import all records in the import file?								
	Yes No Cancel								

Step 12. Click Yes. The Progress window is briefly displayed and then disappears.

The Compliance Checks and Snippets have now been updated.

APPENDIX D - BACKING UP THE EL-CID DATABASE

The following steps will illustrate how to backup certifications in the EL-CID database. This process may be used to export one or more certifications, or the complete database.

Step 1. Start the EL-CID program. If the Startup EL-CID Wizard window is displayed, click **Cancel** to dismiss this screen.



Step 2. The main screen appears.

** UNCLASSIFIED ** EL-CID ** UNCLASSIFIED **	
File Edit Maintenance Iools Help	
	<u>+</u> <u>8</u>

Step 3. Click the **New Query** button **M** on the tool bar.

The **Build Query** window appears and (assuming that you have not disabled it in the Preferences) the **Select Data Item** window automatically appears. If the **Select Data Item** window is displayed, click **Cancel**.

Select Data Item		
Search: Find First F	ind Ne <u>x</u> t 🗌 🕞 Show <u>D</u> esc	riptions
Tree Node	Data Item (Field)	149 📉
😑 [Certification]		
Special	Frequency Select	
Special	Geographic Select	
-🖃 [General Information]		
[General Information]	Agency Code	Cer
[General Information]	System Name (Nomenclature)	NTI
[General Information]	Stage	NTI
[General Information]	Approval Status	
[General Information]	Date/Time Last Modified	
[General Information]	Coordination ID	
[General Information]	JF12 Number	
[General Information]	National Authority Coordination Required?	
[General Information]	Title	NTL
<pre></pre>		>
		~
		~
Expand All		<u>Cancel</u>

*** UNCLASSIFIED **	EL-CID *** UNCLASSIFIED ** - [Query Unnamed1]						
<u>File Edit Query Tools Windo</u>							
	Meta <u>r</u> <u>f</u> <u>r r r r r r r r r r r r r r r r r r r</u>						
Build Query Query Results							
Query name: Unnamed1		Loa <u>d</u> Saye					
<u>Select Record</u>	Cuery Conditions						
Certification	Fjeld:						
	Operator:	<u> ∏</u> <u>N</u> ot					
Cld versions of records only	Expression:	Sa <u>m</u> ple					
,		🗖 Ignore case					
		Accepted: Both 👻					
		Added by Certifier: Both 💌					
	Conditions list:						
		71					
		<u>/</u>					
Run Query Print		<u>C</u> lose					
Ready. Choose Select Recor conditions on right, and click F	rd on left, enter query A	<u>~</u>					

Step 4. The Build Query window appears.

Step 5. Select **Certification** using the dropdown list button **T** for the **Select Record** box.



Step 6. Click the **Run Query** button, or click the **Query Results** tab to execute the query. All Certifications in your Database will appear.

Build Query Query Results							
Search: Find Eirst Find Negt							
Classification	Agency	System Name	Stage	Approval Status	Timestamp	Coordination ID	J/F 1 🗖
UNCLASSIFIED	AF	A-10 Test Record - FC	4 - Operational	Unapproved	6/22/2009 11:32:07 AM	J/F 12	
UNCLASSIFIED	AF	AN/APN-241 Low Power Color Radar (LPCR-130-1B) Set	4 - Operational	Unapproved	12/14/2009 3:31:58 PM	DoD	0678
UNCLASSIFIED	AF	AN/GPQ-11(V)1-8 (TRES)	4 - Operational	Unapproved	5/28/2008 7:19:25 AM	DoD	663C
JNCLASSIFIED	AF	ARIA Telemetry Test System	3 - Developmental	Unapproved	4/6/2009 12:27:02 PM	J/F 12	604C
JNCLASSIFIED	AF	JTRS Test	1 - Conceptual	Unapproved	12/2/2010 1:31:51 PM	J/F 12	
JNCLASSIFIED	AF	Motorola Narrow Band VHF Trunked System (07139)	4 - Operational	Unapproved	11/8/2010 1:27:16 PM	J/F 12	7139
JNCLASSIFIED	AF	Motorola Narrow Band VHF Trunking System (7140)	4 - Operational	Unapproved	11/8/2010 1:28:48 PM	J/F 12	7140
JNCLASSIFIED	AF	P-01-027 AN/ARC-234(C)(V)1 & 2	4 - Operational	Unapproved	7/14/2010 10:40:21 AM	DoD	0763
JNCLASSIFIED	AF	P-01-028 AN/GPQ-11(V)1-8 (TRES)	4 - Operational	Unapproved	5/27/2009 2:59:53 PM	DoD	663C
JNCLASSIFIED	AF	P-01-031 AN/PRC-148(V)1(C) Maritime	4 - Operational	Unapproved	5/27/2009 3:00:47 PM	DoD	0736
JNCLASSIFIED	AF	P-01-032 AN/MPS-T1 (04460)	4 - Operational	Unapproved	5/29/2009 2:45:28 PM	J/F 12	0446
JNCLASSIFIED	AF	P-01-033 RADAR SURVEILLANCE TECHNOLOGY EXP	2 - Experimental	Unapproved	6/23/2009 11:05:27 AM	J/F 12	0596
JNCLASSIFIED	AF	P-01-034 Sensor Concepts SCI-2000 Diagnostic Radar	4 - Operational	Unapproved	5/29/2009 2:48:30 PM	J/F 12	9080
JNCLASSIFIED	AF	P-01-035 Orbital Express (08233)	4 - Operational	Unapproved	5/29/2009 2:49:00 PM	J/F 12	0823
JNCLASSIFIED	AF	Tactical Beyond Line of Site	3 - Developmental	Unapproved	11/18/2010 4:10:24 PM	J/F 12	9869
JNCLASSIFIED	AF	Test Locations	1 - Conceptual	Unapproved	11/30/2010 2:56:10 PM	J/F 12	
JNCLASSIFIED	AF	Test Long names	4 - Operational	Unapproved	4/23/2009 10:30:36 AM	J/F 12	1234
JNCLASSIFIED	AF	Test Overflow Printing	1 - Conceptual	Unapproved	6/26/2009 1:00:09 PM	J/F 12	
JNCLASSIFIED	AF	Test Prints	4 - Operational	Unapproved	8/23/2007 9:56:20 AM	J/F 12	1234
JNCLASSIFIED	AR	A-16 Test Record	4 - Operational	Unapproved	6/24/2009 8:42:33 AM	J/F 12	1234
JNCLASSIFIED	AR	AN/ARC-220(V) & AN/VRC-100(V)	4 - Operational	Unapproved	12/30/2009 3:04:06 PM	J/F 12	6808
JNCLASSIFIED	AR	B Test	4 - Operational	Unapproved	6/23/2009 2:36:39 PM	J/F 12	1234
JNCLASSIFIED	AR	EF Johnson 5310 Mobile Radio	4 - Operational	Unapproved	4/5/2006 9:31:59 AM	C/F299	S196
JNCLASSIFIED	AR	Manpack Clone	4 - Operational	Unapproved	9/10/2010 6:16:38 PM	J/F 12	0732
							>
iahliahted record:						Total records	

Step 7. Highlight all rows by selecting **Query** on the tool bar, then select **Grid** and **Highlight All** from the drop down list.

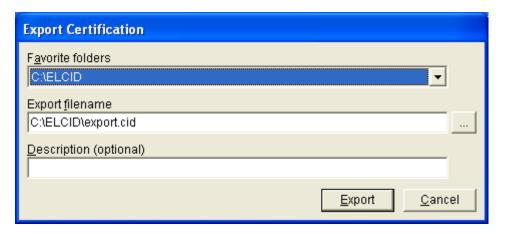
Load.		M& 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	? '			
Print		IId Query C	uery <u>R</u> esults			
Search: View S	QL	Find First Find Next				
Classifi under		System Name	Stage	Approval Status	Timestamp Coordination ID	JUE 1
UNCLA: Gold	hted →	Write to tab-delimited file	4 - Operational	Unapproved	12/21/2010 2:12:01 PM J/F 12	-
UNCLASSIFIED	- 41	Print r Radar (LPCR-130-1B) Set		Unapproved	12/14/2009 3:31:58 PM DoD	0676
	AF	Hgage Al	4 - Operational	Unapproved	5/28/2008 7:19:25 AM DoD	6630
UNCLASSIFIED	AF	ARIA Telemetry Test System	8 - Developmental	Unapproved	12/21/2010 2:13:17 PM J/F 12	604C
	AF	JTRS Test	1 - Conceptual	Unapproved	12/2/2010 1:31:51 PM J/F 12	
	AF	Motorola Narrow Band VHF Trunked System (07139)	4 - Operational	Unapproved	11/8/2010 1:27:16 PM J/F 12	7139
UNCLASSIFIED	AF	Motorola Narrow Band VHF Trunking System (7140)	4 - Operational	Unapproved	11/8/2010 1:28:48 PM J/F 12	714C
UNCLASSIFIED	AF	P-01-027 AN/ARC-234(C)(V)1 & 2	4 - Operational	Unapproved	7/14/2010 10:40:21 AM DoD	0765
	AF	P-01-028 AN/0PQ-11(V)1-8 (TRES)	4 - Operational	Unapproved	5/27/2009 2:59:53 PM DoD	6630
UNCLASSIFIED	AF	P-01-031 AN/PRC-148(V)1(C) Maritime	4 - Operational	Unapproved	5/27/2009 3:00:47 PM DoD	0736
	AF	P-01-032 ANMPS-T1 (04480)	4 - Operational	Unapproved	6/29/2009 2:45:28 PM J/F 12	0446
UNCLASSIFIED	AF	P-01-033 RADAR SURVEILLANCE TECHNOLOGY EXP	2 - Experimental	Unapproved	6/23/2009 11:05:27 AM J/F 12	0595
UNCLASSIFIED	AF	P-01-034 Sensor Concepts SCI-2000 Diagnostic Radar	4 - Operational	Unapproved	5/29/2009 2:48:30 PM J/F 12	2080
UNCLASSIFIED	AF	P-01-035 Orbital Express (08233)	4 - Operational	Unapproved	5/29/2009 2:49:00 PM J/F 12	0823
UNCLASSIFIED	AF	Tactical Beyond Line of Site	3 - Developmental	Unapproved	11/22/2010 11:54:27 AM J/F 12	9869
UNCLASSIFIED	AF	Test Locations	1 - Conceptual	Unapproved	11/30/2010 2:58:10 PM J/F 12	
UNCLASSIFIED	AF	Test Long names	4 - Operational	Unapproved	4/23/2009 10:30:36 AM J/F 12	1234
UNCLASSIFIED	AF	Test Overflow Printing	1 - Conceptual	Unapproved	6/26/2009 1:00:09 PM J/F 12	
UNCLASSIFIED	AF	Test Prints	4 - Operational	Unapproved	8/23/2007 9:56:20 AM J/F 12	1234
UNCLASSIFIED	AR	A-16 Test Record	4 - Operational	Unapproved	6/24/2009 8:42:33 AM J/F 12	1234
UNCLASSIFIED	AR	AN/ARC-220(V) & AN/VRC-100(V)	4 - Operational	Unapproved	12/30/2009 3:04:06 PM J/F 12	6808
UNCLASSIFIED	AR	8 Test	4 - Operational	Unapproved	6/23/2009 2:36:39 PM J/F 12	1234
UNCLASSIFIED	AR	bug1077	3 - Developmental	Unapproved	11/22/2010 1:23:18 PM J/F 12	
UNCLASSIFIED	AR	EF Johnson 5310 Mobile Radio	4 - Operational	Unapproved	4/5/2008 9:31:59 AM C/F299	S198
<		and a second				2
lighlighted record	ls: 0				Total records	found

<u>NOTE</u>: If only one or more Certifications are to be exported, highlight only those rows that you wish to export. You can hold down the **<u>Ctrl key</u>** and click each row individually.

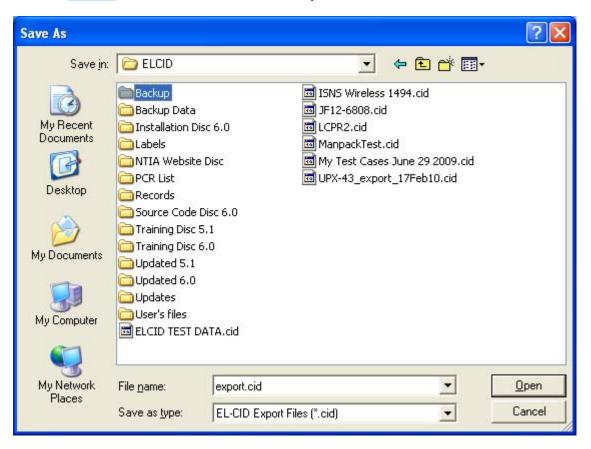
	B	ulid Query	Query	Results			
arch:		Find Eirst Find Negt					
lassification	Agency	System Name		Stage	Approval Status	Timestamp Coordination IE	JUF 1
NCLASSIFIED	AF	A-10 Test Record - FC		4 - Operational	Unapproved	6/22/2009 11:32:07 AM J/F 12	
NCLASSIFIED	AF	AN/APN-241 Low Power Color Radar (LPI	CR-130-16) Set	4 - Operational	Unapproved	1.2/14/2009 3:31:58 PM DoD	0676
NCLASSIFIED		AN/OP 0-11 (V)1-8 (TRES)		4 - Operational	Unapproved	5/28/2008 7:19:25 AM DoD	6630
NCLASSIFIED	AF	ARtA Telemetry Test System		3 - Developmental	Unapproved	4/6/2009 12:27:02 FM J/F 12	6040
NCLASSIFIED	AF	JTRS Test		1 - Conceptual	Unapproved	12/2/2010 1:31:51 PM J/F 12	
NOLASSIFIED	AF	Motorola Narrow Band VHF Trunked Byst		4 Operational	Unapproved	11/8/2010 1:27:16 PM J/F 12	7139
NCLASSIFIED	AF	Motorola Narrow Band VHF Trunking Syst	Edit in Tree View	ational.	Unapproved	11/8/2010 1:28:48 PM UF 12	7140
NCLASSIFIED	AF	P-01-027 AN/ARC-234(C)(V)1 & 2	Display/Edit Export	ational	Unapproved	7/14/2010 10:40:21 AM DoD	0763
NCLASSIFIED	AF	P-01-028 AN/0PQ-11(V)1-8 (TRES)	Print	ational	Unapproved	5/27/2009 2:59:53 PM DoD	6630
NCLASSIFIED	AF	P-01-031 AN/PRC-148(V)1(C) Maritime	Gone	ational	Unapproved	5/27/2009 3:00.47 PM DoD	073
NCLASSIFIED	AF	P-01-032 AN/MPS-T1 (04480)	Delete	ational	Unapproved	5/28/2009 2:45:28 PM J/F 12	0440
NCLASSIFIED	AF	P-01-033 RADAR SURVEILLANCE TECH	Replace	rimental	Unapproved	6/23/2009 11:05:27 AM J/F 12	0595
NCLASSIFIED	AF	P-01-034 Sensor Concepts SCI-2000 Dia		ational	Unapproved	5/29/2009 2:48:38 PM J/F 12	0800
NCLASSIFIED	AF	P-01-035 Orbital Express (08233)	Show Using Certifica	CALL PLAT LOAD	Unapproved	5/29/2009 2:49:00 PM UF 12	0873
NCLASSIFIED	AF	Tactical Beyond Line of Site	Show Similar Version	s lopmental	Unapproved	11/18/2010 4:10:24 PM J/F 12	9869
NCLASSIFIED	AF	Test Locations	Conpare	eptual	Unapproved	11/30/2010 2:56:10 PM J/F 12	
NCLASSIFIED	AF	Test Long names	Compliance Check	ational	Unapproved	4/23/2009 10:30:36 AM J/F 12	1234
NCLASSIFIED	AF	Test Overflow Printing		1 - Conceptual	Unapproved	6/26/2009 1:00:09 PM J/F 12	
NCLASSIFIED	AF	Test Prints		4 · Operational	Unapproved	8/23/2007 9:56:20 AM J/F 12	123
NCLASSIFIED	AR	A-16 Test Record		4 - Operational	Unapproved	6/24/2009 8:42:33 AM J/F 12	1234
NCLASSIFIED	AR	ANIARC-220(V) & ANIARC-100(V)		4 - Operational	Unapproved	12/30/2009 3:04:06 PM J/F 12	680
NCLASSIFIED	AR	8 Test		4 - Operational	Unapproved	6/23/2009 2:36:39 PM J/F 12	123
NCLASSIFIED	AR	EF Johnson 5310 Mobile Radio		4 - Operational	Unapproved	4/5/2006 9:31:59 AM C/F299	S19
NCLASSIFIED		Manpack Clone		4 - Operational	Unapproved	9/10/2010 6:16:38 PM J/F 12	073
							2
						Total record	

Step 8. Right-click and select Export from the drop down list.

Step 9. The Export Certification window appears.



Step 10. Click the **Browse** button to select the directory in which the files will be saved.



Step 11. Select a file folder and provide a distinct name in the File name.

<u>NOTE:</u> In this example, the **Backup** folder is selected, and a file name of **All Files 12-17-10.cid** is entered for the File <u>n</u>ame.

Save As					? 🔀
Save jn:	C Backup		•	🗢 🗈 💣 💷 •	
My Recent Documents Desktop					
My Documents					
My Computer					
My Network Places	File <u>n</u> ame:	All Files 12-17-10.cid		.	Save
1 10000	Save as <u>t</u> ype:	EL-CID Export Files (*.cid	ł)	•	Cancel

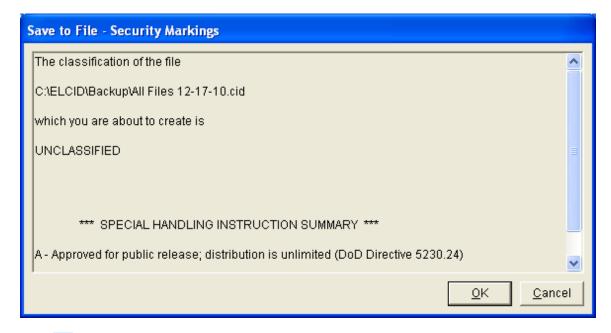
Step 12. Click **Save**. The **Export Certification** window is displayed again showing the path and filename that you selected. Additional information may be entered in the **Description** box.

Export Certification	
F <u>a</u> vorite folders	
C:\ELCID\Backup	▼
Export <u>f</u> ilename	
C:\ELCID\Backup\All Files 12-17-10.cid	
Description (optional)	
	<u>E</u> xport <u>C</u> ancel

Step 13. Click **Export**. The **Cover Sheet Classification Markings** window is displayed. Select the appropriate Special <u>H</u>andling Instructions.

Cover	Sheet	Classification Markings					
10000	all Clas Inclassi	ssification Ified Confidential CSecret					
Classification Source							
-		ation Instructions					
Dec	lassify	on : (date) Declassification <u>D</u> ate: date					
<		· · · · · · · · · · · · · · · · · · ·					
oror	Declas	ss Event(s):					
		ng Instructions					
Dow	ngrade	Level: Downgrade Date: date					
Cnor	nial Llan	ndling Instructions					
Oper	Code						
		Approved for public release; distribution is unlimited (DoD Directive 5230.24)					
B Releasable to soil country and the North Atlantic Treaty Organization (NATO); otherwise, not releasable outside the US Government in accordance with (IAW) Section 552 (b)(1) of Title 5 of the US Code.							
	с	Releasable to soil country and coalition operation organizations; otherwise, not releasable outside the US					
		<u>Q</u> K C <u>a</u> ncel					

Step 14. Click OK. The Save to File – Security Markings window is displayed.



Step 15. Click **OK**. A **Progress** window is displayed while EL-CID is exporting Certifications, Antennas, Locations, Receivers, and Transmitters. The time it takes depends upon the size of your Database.

ELCID	
Progress	
Exporting Certifications	
	Cancel

S ** UNCLASSIFIED **	EL-CID ** UNCLASSIFIED ** - [Qu	ery Unnamed1]		- 7 ×
<u>File Edit Query Tools Windo</u>	ow <u>H</u> elp			
	₩ 6≠ % 1 1 1 <u>+</u> <u>4</u>	F: 🥐		
Build	Query	Query <u>R</u> esults		
Query name: Unnamed1				Loa <u>d</u> Saye
Select Record	Query Conditions			
Certification	Fjeld:			
	Operator:			Not
Cld versions of records only	Expression:		8	a <u>m</u> ple
only			Г	Ignore case
				epted: Both 👻
			Adı	ded by Certifier: Both 💌
	Conditions list:			
				<u>^</u>
				v
Run Query Print				Close
Ready. Choose Select Recor conditions on right, and click F	d on left, enter query 🔼 🦳 Run Query button.			

Step 16. The Build Query window appears again.

Step 17. Click Close to return to the main screen and then Exit the EL-CID program.

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APPENDIX E - FREQUENTLY ASKED QUESTIONS

E.1 What do the non-compliance messages mean when running compliance checks?

There are three levels of non-Compliance:

Failure – The record is not compliant and must be fixed, or a waiver must be obtained. **Warning** – The record may not be compliant or there may be some other inconsistency or error in the data.

Note – These are messages to help you build more complete or more accurate data, but do not indicate a compliance failure.

E.2 I have failed compliance checks; what do I do?

Determine the cause of the failure. If the failure cannot be rectified, attach a document to the application to explain to NTIA why you should be granted a waiver from the standard.

E.3 I think that a compliance check is incorrect.

Send an email to the EL-CID Help Desk. Give the compliance check number and include a description of the problem. If possible, send the unclassified certification to the Help Desk. The Help Desk will notify NTIA that a potential problem exists. The Help Desk will further coordinate with NTIA to determine if the compliance check is accurate. If the compliance check is found to be inaccurate, a new one will be issued. If the user must submit the application before resolution of the issue, indicate to NTIA that a compliance check is in question and under review (you can do this by using an attachment document). The user will be notified of the action taken.

E.4 I just have one radio, how do I draw a link?

The link information that is gathered on the link node is most beneficial to NTIA. The link information gives the relationship between the transmitter, the transmitting antenna, transmitter power, and emission code. The applicable frequency bands are also listed.

The link can be drawn in three different ways.

1. Terminate the link with a generic icon. This allows the link to be drawn and the transmitter information to be entered with no receiver information. This represents that you are probably communicating with similar equipment in the same frequency range.



2. Drag an identical icon to the screen and put the radio receiver characteristics on the second icon. This will allow you to give the receiver and receiver antenna data in the link.

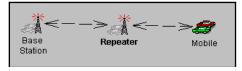


3. Drag an identical icon to the screen and put the full radio characteristics on the second icon. This will allow you to draw a link in the opposite direction. This represents that the radio will communicate with identical models of this radio.

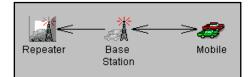
_	
- *	
WAT1	WAT2

E.5 I don't understand how repeaters are represented on the trunking diagram.

The typical trunking system consists of a base station communicating through a repeater to the mobile.



Since the repeater is usually the same radio equipment as the base station we have decided to ease the burden of repeating the transmitter information by calling it a generic station. Including the repeater icon is important, since the requirement exists to give the geographical location for each repeater; therefore we make a place holder of the repeater stations in order that they may be assigned geographic locations.



E.6 I have a change that I would like to be made to the EL-CID model.

In the documents directory under the EL-CID directory, you will find an EL-CID PCR (Program Change Request) Form. Fill this form out and email it to the EL-CID Help Desk. The Help Desk will coordinate the change with NTIA to determine if it is appropriate for use in EL-CID. If it is appropriate, the change will be included on the development schedule.

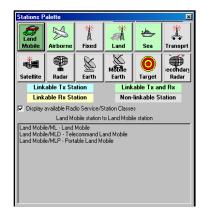
E.7 The frequency allocation table does not list the operating frequencies of my transmitter as being valid.

This situation can be caused by several reasons:

- 1. The frequency allocation table frequencies are linked to the service station and radio class. Check to see if you have the correct icon on the diagram. The radio class is set on the link information page.
- 2. Changes may have been made to the frequency allocation table and not updated in the EL-CID Model. If you see the frequency band for which you are interested and it is marked as being not in-band, you may still choose the band and give a reason for wanting to use the frequency band.

E.8 Why can't I draw links between some of the station icons?

The station icons represent Radio Service/Station Classes and according to NTIA rules only certain Radio Service/Station Classes may communicate with each other. The station icons are color coded to show which icons can be linked together. The radio service and station classes are listed in the expanded station palette.



E.9 What frequency range do I use for the transmitter, the operating range or the range I want to use?

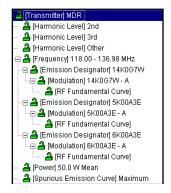
You should enter the operating range of the transmitting equipment. EL-CID will scan the frequency allocation table using the station class and radio service and display on the link information window the applicable frequency ranges that are available to use.

E.10 I have a range of power values; what do I do?

Enter the minimum and maximum power values.

E.11 May I have multiple emission codes for a single transmitter?

Yes, you may. You may also have multiple power values, and harmonic levels.



E.12 When is NTIA going to require the use of EL-CID?

Certifications using EL-CID can be submitted to NTIA immediately. NTIA has already received several submissions from agencies. NTIA has required the use of EL-CID for submission of certifications to NTIA as of 1 November 2009.

E.13 How can I get any data that NTIA has in EL-CID format?

EL-CID files are FOR U.S. GOVERNMENT USE ONLY. The National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce, authorizes only Government frequency assignment personnel (including Spectrum Planning Subcommittee representatives) and approved supporting contractors to have access to and utilize the EL-CID files pursuant to the following limitations.

The EL-CID files are authorized for U.S. Government Use Only. Reproduction of the EL-CID files is prohibited without the prior written approval of NTIA. The EL-CID files shall not be sold or otherwise made available for commercial purposes. If an authorized user needs additional copies of the EL-CID files, requests should be directed to:

Department of Commerce NTIA ATTN: B. Tadesse, Room 4600 1401 Constitution Avenue, N.W. Washington, DC 20230

Or

email: btadesse@ntia.doc.gov

Government frequency assignment personnel (including Spectrum Planning Subcommittee representatives) are authorized to distribute the EL-CID files to supporting contractors only with the prior approval of the controlling U.S. Government Contracting Officer and only for the stated purposes of the contract. All copies of the EL-CID files must be returned to the Contracting Officer or NTIA at the conclusion of the work or the contract. Any other use of the EL-CID files by the supporting contractor is prohibited. The EL-CID files are intended for domestic U.S. Government use only. The EL-CID files shall not be made available to foreign governments or used in any contract with a foreign government without prior written approval by NTIA. An authorized user shall immediately notify NTIA or the controlling U.S. Government Contracting Officer of any violation of these limitations on the use of the EL-CID files.

E.14 How can I represent an antenna that has multiple gains or multiple frequencies?

EL-CID only allows one gain and one frequency range in an antenna record. You can create several antenna records with a different name showing the explicit data (i.e., myantenna 136-160, myantenna 180-200, myantenna 3db, myantenna 5db).

E.15 Why is it possible to put location data on a station node?

For satellite and trunking systems, NTIA requires that you provide location data for each station.

E.16 Do I have to draw the line diagram first?

No. You may create equipment records first (file|new|transmitter, receiver, antenna). You can export these equipment records and send them to someone else. When you create the new certification, you can draw the line diagram, right click on the Tree View station node and (add| get existing ...) from the data base.

E.17 What receiver IF data do I put in the model?

NTIA is interested in the most restrictive (narrowest) IF curve data. Only one set of IF data is needed for each emission-sensitivity node.

E.18 How do I assign multiple radio services to a station icon?

EL-CID only allows one radio service to be assigned to a station icon, except for Space which allows multiple radio services to be assigned to the Space Station Icon. If you need to represent more than one radio service for your station, drag the appropriate station icon to the diagram and indicate that it is the same transmitter (through the station name (i.e., my transmitter/1, my transmitter/2). You can then add the appropriate equipment data to the new station and update the link information. Additional information can be represented in the attachment node using additional text or diagrams.

E.19 How do I represent a shipboard mobile earth station?

When you drag out the mobile earth station icon you have the choice of ship, air, or land based.

E.20 How do I represent an airborne radar station?

When you drag out the radar station icon you have the choice of ship, air, or land based.

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APPENDIX F – SAMPLE SATELLITE SYSTEM

<u>NOTE:</u> Perform these exercises while logged in as **AR – Department of the Army**. Otherwise, you'll get different compliance results at the end.

Step 1. Draw a diagram and enter the following data to create a sample satellite system.

This example is a description of a system that has two way communications between an earth station (named "Earth" and a satellite (named "Satellite"). Each station transmits and receives through a different antenna. This is a developmental system (stage 3) called "Sample Satellite".

General Information		
Field	Value	
Target Date for System Approval	10/30/2012	
System Description	The sample satellite will provide a	
	platform for scientific data collected by	
	onboard experiments.	
Target Date for System Activation	06/30/2013	
Target Date for System Termination	06/30/2023	
Number of Units	1	
Estimated Initial Cost (\$)	260000	
Information Transfer Requirement	Telemetry data GMSK/9.6 kbps ;	
	Experiment data BPSK/38.4 kbps	
System Relationship and Essentiality	System is designed to detect and	
	characterize plasma bubbles in the	
	atmosphere.	
Replacement Information	Not Applicable	



Earth Station	
Field	Value
Minimum Point Angle	0.0 Degrees

Antenna – Aperture		
Field	Value	
Nomenclature	Earth Antenna Receiving	
Manufacturer	Direction Corp	
Model Name and Number	DC-Aperture-1	
Antenna Horizontal Beamwidth	4 Degrees	
Antenna Vertical Beamwidth	4 Degrees	
Antenna Lower Frequency Limit	2200 MHz	
Antenna Upper Frequency Limit	2290 MHz	
Polarization	Lefthand Circular	
Antenna Main Beam Gain	26 dBi	
1 st Sidelobe Level Plane Attenuation	Actual dBi	
Rel/Act		
1 st Sidelobe Level Plane Attenuation	8 dB	
Horiz		
1 st Sidelobe Level Plane Attenuation Vert	8 dB	
1 st Sidelobe Plane Position Horizontal	32 Degrees	
1 st Sidelobe Plane Position Vertical	32 Degrees	
Vertical Scan Characteristics Type	Electronic Scan Sector	
Vertical Scan Speed (degrees per)	2.0 per second	
Vertical Scan Rate (scans per)	1.33 per minute	
Antenna Vertical Scan Maximum	90 Degrees	
Elevation		
Antenna Vertical Scan Minimum	0 Degrees	
Elevation		

Antenna – Linear		
Field	Value	
Nomenclature	Earth Antenna Transmitting	
Manufacturer	Mirage System	
Model Name and Number	MS-Linear-1	
Antenna Horizontal Beamwidth	34 Degrees	
Antenna Vertical Beamwidth	78 Degrees	
Antenna Lower Frequency Limit	2025 MHz	
Antenna Upper Frequency Limit	2035 MHz	
Polarization	Linear	
Antenna Main Beam Gain	3 dBi	
1 st Sidelobe Level Plane Attenuation	Actual dBi	
Rel/Act		
1 st Sidelobe Level Plane Attenuation	6 dB	
Horizontal		
1 st Sidelobe Level Plane Attenuation	6 dB	
Vertical		

Location	
Field	Value
State, Country, or Location Name Part 1	Colorado
City or Location Name Part 2	Colorado Springs-USAF Academy
Location Type	Single Point
Geographic Coordinates	390021N 1043534W
Map Layer	Cities

Earth Receiver		
Field	Value	
Nomenclature	Earth Receiver	
Manufacturer	Kenwood	
Model Name and Number	K-Ground-Rx	
Frequency Stability	15	
Frequency Stability Units	ppm	
Image Rejection Level	60 dB	
Local Oscillator Tuned Indicator	Below	
Tuning Method	Synthesizer	

Earth Receiver Frequency		
Field	Value	
Lowest Tuned Frequency	2200 MHz	
Highest Tuned Frequency	2290 MHz	
Tuning Increment	5.0 kHz	

Earth Receiver Frequency Emission Sensitivity		
Field	Value	
Emission Designator	80K0G2D	
Performance Criteria	BER – Bit Error Rate	
Performance Value	0.0001	
Sensitivity	-124 dBm	
Noise Figure	4.0 dB	
Noise Temperature	438 K (use the calculator button)	
Spurious Rejection Level	50 dB	

Field	Value	
leasured or Calculated	Measured	
F Frequency	70 MHz	
dB Bandwidth / (Frequency Offset)	130 kHz / (65 kHz)*	
0 dB Bandwidth / (Frequency Offset)	210 kHz / (105 kHz)*	
0 dB Bandwidth / (Frequency Offset)	1380 kHz / (690 kHz)*	
db Bandwidth? (Frequency Onset)	1360 KHZ / (090 KHZ)	

*Remember that the curve editor wants frequency offset as an input (frequency offset =½ bandwidth)

Earth Receiver Frequency RF Selectivity Curve		
Field	Value	
Measured or Calculated	Measured	
3 dB Bandwidth / (Frequency Offset)	5 MHz / (2.5 MHz)*	
20 dB Bandwidth / (Frequency Offset)	20 MHz / (10 MHz)*	
60 dB Bandwidth / (Frequency Offset)	30 MHZ / (15 MHz)*	

*Remember that the curve editor wants frequency offset as an input (frequency offset =½ bandwidth)

Earth Transmitter	
Field	Value
Nomenclature	Earth Transmitter
Manufacturer	Kenwood
Model Name and Number	K-Ground-Tx
Frequency Stability	3
Frequency Stability Units	ppm
Output Device	Transistor
Tuning Method	PLL Synthesizer
Suppression of Harmonic	Yes
Radar or Communications?	Communications

Earth Transmitter Harmonic	
Field	Value
2 nd Harmonic	-70 dB
3 rd Harmonic	-70 dB
Other Harmonic	-80 dB

Earth Transmitter Frequency	
Field	Value
Lowest Tuned Frequency	2025 MHz
Highest Tuned Frequency	2035 MHz
Tuning Increment	2.0 kHz
# of Frequencies Required for Operation	2
Minimum Required Frequency Separation	10 MHz

Earth Transmitter Frequency Emission Designator		
Field	Value	
Necessary Bandwidth	30 kHz	
Emission Designator	30K0F2D	

Earth Transmitter Frequency Emission Designator Modulation		
Field	Value	
Occupied Bandwidth	30 kHz	
Measured or Calculated	Measured	
Modulation Type	Digital Modulation	
Digital Modulation Type	MSK – Minimum Shift Keying	
Number of Digital States	2	
Transmission Bit Rate	9600 bps	

Digital Peak Deviation	4.8 kHz
Digital Deviation Ratio	0.500
Digital Maximum Modulation Frequency	9.6 kHz
Digital Pulse Format	Non-Return to Zero

Earth Transmitter Frequency Emission Designator Modulation RF Fundamental
Curve

Field	Value	
Measured or Calculated	Measured	
-3 dB Bandwidth / (Frequency Offset)	7 kHz / (3.5 kHz)*	
-20 dB Bandwidth / (Frequency Offset)	32 kHz / (16 kHz)*	
-40 dB Bandwidth / (Frequency Offset)	57 kHz / (28.5 kHz)*	
-60 dB Bandwidth / (Frequency Offset)	90 kHz / (45 kHz)*	

Earth Transmitter Power	
Field	Value
Power Type	Mean
Power Upper Limit	100 Watts

Earth Transmitter Spurious Emission Curve	
Field	Value
Maximum Spurious Emission	Checked
Attenuation	-80 dB

Satellite Station

Antenna – Linear	
Field	Value
Nomenclature	Satellite Antenna Transmitting
Manufacturer	OMNI Tronix
Model Name and Number	OT-Linear-1
Antenna Horizontal Beamwidth	8 Degrees
Antenna Vertical Beamwidth	8 Degrees
Antenna Lower Frequency Limit	2200 MHz
Antenna Upper Frequency Limit	2290 MHz
Polarization	Lefthand Circular
Antenna Main Beam Gain	28 dBi
1 st Sidelobe Level Plane Attenuation	Actual dBi
Rel/Act	
1 st Sidelobe Level Plane Attenuation	6 dB
Horizontal	
1 st Sidelobe Level Plane Attenuation	6 dB
Vertical	

A	
Antenna – Linear Field	Value
Nomenclature	Satellite Antenna Receiving
Manufacturer	OMERA(FRANCE)
Model Name and Number	O-Linear-1
Antenna Horizontal Beamwidth	34 Degrees
Antenna Vertical Beamwidth	78 Degrees
Antenna Lower Frequency Limit	2025 MHz
Antenna Upper Frequency Limit	2035 MHz
Polarization	Vertical
Antenna Main Beam Gain	4.0 dBi
1 st Sidelobe Level Plane Attenuation	Actual dBi
Rel/Act	
1 st Sidelobe Level Plane Attenuation	6 dB
Horizontal	
1 st Sidelobe Level Plane Attenuation	6 dB
Vertical	

Location	
Field	Value
State, Country, or Location Name Part 1	Space
City or Location Name Part 2	Sample Satellite
Location Type	Non-geostationary Satellite
Altitude at Apogee	375 km
Altitude at Perigee	370 km
Equatorial Inclination	51.6 Degrees
Period of Orbit	5520 Seconds

Satellite Receiver	
Field	Value
Nomenclature	Satellite Receiver
Manufacturer	SUR-TEC INC
Model Name and Number	S-Satellite-Rx
Frequency Stability	5
Frequency Stability Units	ppm
Image Rejection Level	60 dB
Local Oscillator Tuned Indicator	Below
Tuning Method	Fixed Crystal

Satellite Receiver Frequency	
Field	Value
Lowest Tuned Frequency	2025 MHz
Highest Tuned Frequency	2035 MHz
Tuning Increment	1.0 kHz

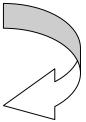
Satellite Receiver Frequency Emission Sensitivity	
Value	
30K0F2D	
BER – Bit Error Rate	
0.0001	

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Sensitivity	-130 dBm
Noise Figure	2 dB
Noise Temperature	230 K (do <u>not</u> use the calculator button)
Spurious Rejection Level	50 dB

Satellite Receiver Frequency Emission Sensitivity IF Selectivity Curve		
Field	Value	
Measured or Calculated	Measured	
IF Frequency	455 kHz	
3 dB Bandwidth / (Frequency Offset)	60 kHz / (30 kHz)*	
20 dB Bandwidth / (Frequency Offset)	80 kHz / (40 kHz)*	7
60 dB Bandwidth / (Frequency Offset)	120 kHz / (60 kHz)*	7 /

Satellite Receiver Frequency RF Selectivity Curve	
Field	Value
Measured or Calculated	Measured
3 dB Bandwidth / (Frequency Offset)	30 MHz / (15 MHz)*
20 dB Bandwidth / (Frequency Offset)	40 MHz / (20 MHz)*
60 dB Bandwidth / (Frequency Offset)	60 MHZ / (30 MHz)*



*Remember that the curve editor wants frequency offset as an input (frequency offset =½ bandwidth)

Satellite Transmitter	
Field	Value
Nomenclature	Satellite Transmitter
Manufacturer	SUR-TEC INC
Model Name and Number	ST-Satellite-1
Frequency Stability	10
Frequency Stability Units	ppm
Output Device	Transistor
Tuning Method	Fixed Crystal

Satellite Transmitter Harmonic	
Field	Value
2 nd Harmonic	-60 dB
3 rd Harmonic	-60 dB
Other Harmonic	-60 dB

Satellite Transmitter Frequency	
Field	Value
Lowest Tuned Frequency	2200 MHz
Highest Tuned Frequency	2290 MHz
Tuning Increment	0.0 kHz
# of Frequencies Required for Operation	2
Minimum Required Frequency Separation	0.5 MHz

Satellite Transmitter Frequency Emission Designator	
Field	Value
Necessary Bandwidth	80 kHz
Emission Designator	80K0G2D

Satellite Transmitter Frequency Emission Designator Modulation	
Field	Value
Emission Designator	80K0G2D
Occupied Bandwidth	80 kHz
Measured or Calculated	Measured
Modulation Type	Digital Modulation
Digital Modulation Type	PSK – Phase Shift Keying
Number of Digital States	2
Transmission Bit Rate	38400 bps
Digital Peak Deviation	60.288 kHz
Digital Deviation Ratio	1.57
Digital Maximum Modulation Frequency	38.400 kHz
Digital Pulse Format	Non-Return to Zero

Satellite Transmitter Frequency Emission Designator Modulation RF Fundamental Curve		
Field	Value	
Measured or Calculated	Measured	
-3 dB Bandwidth / (Frequency Offset)	60 kHz / (30 kHz)*	
-20 dB Bandwidth / (Frequency Offset)	90 kHz / (45 kHz)*	
-40 dB Bandwidth / (Frequency Offset)	130 kHz / (65 kHz)*	/
-60 dB Bandwidth / (Frequency Offset)	188 kHz / (94 kHz)*	

Satellite Transmitter Power	
Field	Value
Power Type	Mean
Power Upper Limit	0.5 Watts

Satellite Transmitter Spurious Emission Curve	
Field	Value
Maximum Spurious Emission	Checked
Level	-60 dB

Link Information: Earth to Satellite	
Field	Value
Radio Service/Station Class	Space Operation / TT – Earth Space Research / TH – Earth
Coupling Loss	0.0 dB
Selected Modes	Select the one PRI mode

Link Information: Satellite to Earth	
Field	Value
Radio Service/Station Class	Space Operation / ET – Space
	Space Research / EH – Space
Coupling Loss	0.0 dB
Spectral Power Density	-48.8 dBW/Hz
Selected Modes	Select the one PRI mode

Step 2. Run the compliance checks. A sample of compliance check results is below:

🔻 🚽 📮 [Antenna - Aperture] Earth Antenna Receiving

FAILURE DoD: DoD-0004

Horizontal Scan Characteristics Type is required for Aperture antennas in DoD systems at all stages.

WARNING NTIA Chapter 10: NTIA-CH10-8.9.10-A-W

Scan Characteristics (horizontal and vertical) should be specified for each Aperture antenna in a Stage 1 through 3 Certification.

💌 🛛 😐 🚑 [Receiver] Earth Receiver

🔻 🚽 🚑 [Receiver] Satellite Receiver

WARNING NTIA General: NTIA-Gen-0087-W

Receiver Conducted Undesired Emission is required at Stage 4 and should be specified at Stages 2 and 3.

💌 🛛 😐 🚑 [Transmitter] Earth Transmitter

🔻 🔄 🕂 🔁 [Transmitter] Satellite Transmitter

NOTE NTIA Chapter 10: NTIA-CH10-8.7.23

If this transmitter has been type accepted by the FCC, enter the FCC Acceptance Number.

🔻 💶 🚑 [Emission - Sensitivity] 30K0F2D - -130 dBm

WARNING NTIA General: NTIA-Gen-0083

Calculated Noise Figure differs from the entered Noise Figure by more than 5%. Noise Figure[dB] = 10Log((Noise Temperature[K]/290) + 1)

🔻 😐 🔒 [Attachments]

NOTE NTIA Chapter 10: NTIA-CH10-8.3.05

Stage 2 and above space systems are generally required to submit notification to the Radiocommunication Bureau (BR). See Section 3.3 of the NTIA Manual. If not installed on your system, install the ITU software. In EL-CID Preferences, General tab, enter the path to the ITU program. Use the ITU program to prepare the notification and attach it to the EL-CID Certification. If this system is exempt from BR notification, set ITU Waiver to Yes in the General Information node.

NOTE NTIA Chapter 10: NTIA-CH10-8.5

For all stages, submit reports of any previous EMC studies, predictions, analyses, and prototype EMC testing that are relevant to the assessment of the system (right-click Attachments in Tree View). You may reference documents previously provided to the IRAC/SPS, including references to previous stages of this system (right-click References in Tree View).

A [Coupling] Satellite Transmitter with Satellite Antenna Transmitting

WARNING NTIA Chapter 8: NTIA-CH8-8.2.36.1.a-04-1-W

This Satellite (to Earth) link exceeds the Power Flux Density Limits of Table 8.2.36 (1525-1530, 1670-1710, 1761-1842, and 2200-2300 MHz). Click the [Coupling] node to display the Link Info screen, click Power Flux Density, and click Calculate to see the calculated PFD and limits. If this is a Satellite to Earth link at 2210 MHz, and you are failing by less than 16 dB, you may request a waiver from NTIA pursuant to SPS-12308/IRAC 31015/1.

- **Step 3.** Follow the instructions on the above WARNING to see why the PFD is failing. (You can do "what if" analysis to see how varying the parameters will change the PFD result.)
- Step 4. Import the Sample Satellite.cid file from the training CD (under Training Materials/Samples). Its System Name will be Sample Satellite for Training to distinguish it from the record you created.
- **Step 5.** Use the Query Builder to query on Certifications with System Name containing "Sample Satellite", and then compare the two records in the Query Results to compare your record with the one on the Training CD.

APPENDIX G – SAMPLE RADAR SYSTEM

Step 1. Draw a diagram and enter the following data to create a sample radar system.

This example is a description of a land based radar system that has a station named "Radar" (select the Land option button) transmitting to a target named "Target". This is a developmental system (stage 3) called "Sample Radar".

General Information	
Field	Value
System Description	Radar to detect targets and weather.
Target Date for System Activation	06/30/2013
Target Date for System Termination	06/30/2023
Number of Units	1
Estimated Initial Cost (\$)	1250000
Information Transfer Requirement	Unmodulated and Linear FM pulses.
System Relationship and Essentiality	Improved dangerous weather detection.
Replacement Information	Replace existing system.

Location	
Field	Value
State, Country, or Location Name Part 1	USP (US & POSS)
City or Location Name Part 2	
Location Type	Polygon
Map Layer	Countries

Radar Station

Antenna – Aperture		
Field	Value	
Nomenclature	Radar Antenna	
Manufacturer	ANDREW ANTENNA CORPORATION	
Model Name and Number	A-Aperture-1	
Antenna Type	Biconical	
Antenna Horizontal Beamwidth	1.45 Degrees	
Antenna Vertical Beamwidth	4.8 Degrees	
Antenna Lower Frequency Limit	1215 MHz	
Antenna Upper Frequency Limit	1260 MHz	
Polarization	Right and Left Hand Circular	
Antenna Main Beam Gain	34 dBi	
1 st Sidelobe Level Plane Attenuation Rel/Act	Relative dBi	
1 st Sidelobe Level Plane Attenuation Horizontal	21 dB	
1 st Sidelobe Level Plane Attenuation Vertical	21 dB	
1 st Sidelobe Plane Position Horizontal	3.5 Degrees	
1 st Sidelobe Plane Position Vertical	3.5 Degrees	
Horizontal Scan Characteristics Type	360 Degrees Rotating	
Horizontal Scan Speed (degrees per)	70 per second	
Horizontal Scan Rate (scans per)	12.5 per minute	
Capable of Blanking	No	

Antenna – Aperture	
Field	Value
Vertical Scan Characteristics Type	Electronic Scan Sector
Vertical Scan Speed (degrees per)	1.0 per second
Vertical Scan Rate (scans per)	8.0 per minute
Antenna Vert. Scan Maximum Elevation	5 Degrees
Antenna Vert. Scan Minimum Elevation	-3 Degrees
Antenna Horizontal Dimension	5 meters
Antenna Vertical Dimension	2.75 meters

Radar Receiver		
Field	Value	
Nomenclature	Radar Receiver	
Manufacturer	RAYTHEON CO. OR RAYTHEON MANUFACTURING CO.	
Model Name and Number	R-Radar-Rx	
Frequency Stability	10	
Frequency Stability Units	ppm	
Image Rejection Level	60 dB	
Local Oscillator Tuned Indicator	Above	
Tuning Method	Crystal Controlled	

Radar Receiver Frequency	
Field	Value
Lowest Tuned Frequency	1215 MHz
Highest Tuned Frequency	1260 MHz
Tuning Increment	5.0 kHz

Radar Receiver Frequency Emission Sensitivity		
Field	Value	
Emission Designator	4M20Q3N	
Necessary Bandwidth	4.2 MHz	
Performance Criteria	S/N – Signal to Noise Ratio (dB)	
Performance Value	10	
Sensitivity	-110 dBm	
Noise Figure	2.90 dB	
Noise Temperature	275 K (use the calculator button)	
Spurious Rejection Level	65 dB	

IF Frequency 27.180 MHz 3 dB Bandwidth / (Frequency Offset) 6.4 kHz / (3.2 kHz)* 20 dB Bandwidth / (Frequency Offset) 9 kHz / (4.5 kHz)*	Field	Value	
3 dB Bandwidth / (Frequency Offset)6.4 kHz / (3.2 kHz)*20 dB Bandwidth / (Frequency Offset)9 kHz / (4.5 kHz)*	Measured or Calculated	Measured	
20 dB Bandwidth / (Frequency Offset) 9 kHz / (4.5 kHz)*	IF Frequency	27.180 MHz	
	3 dB Bandwidth / (Frequency Offset)	6.4 kHz / (3.2 kHz)*	
60 dB Bondwidth / (Fragueney Offect) 18.2 kHz / (0.1 kHz)*	20 dB Bandwidth / (Frequency Offset)	9 kHz / (4.5 kHz)*	
	60 dB Bandwidth / (Frequency Offset)	18.2 kHz / (9.1 kHz)*	

Radar Receiver Frequency Emission Sensitivity		
Field	Value	
Emission Designator	7M30P0N	
Necessary Bandwidth	7300 kHz	
Performance Criteria	MDS – Minimum Discernable Signal (dB)	
Performance Value	10	
Sensitivity	-109 dBm	
Noise Figure	3 dB	
Noise Temperature	289 K (use the calculator button)	
Spurious Rejection Level	65 dB	

Radar Receiver Frequency Emission Section	ensitivity IF Selectivity Curve	
Field	Value	
Measured or Calculated	Measured	
IF Frequency	75 MHz	
3 dB Bandwidth / (Frequency Offset)	5.8 MHz / (2.9 MHz)*	
20 dB Bandwidth / (Frequency Offset)	8 MHz / (4 MHz)*	\neg
60 dB Bandwidth / (Frequency Offset)	21.8 MHz / (10.9 MHz)*	

Radar Receiver Frequency RF Selective	vity Curve	
Field	Value	
Measured or Calculated	Measured	
3 dB Bandwidth / (Frequency Offset)	568 MHz / (284 MHz)*	
20 dB Bandwidth / (Frequency Offset)	904 MHz / (452 MHz)*	
60 dB Bandwidth / (Frequency Offset)	2700 MHZ / (1350 MHz)*	

*Remember that the curve editor wants frequency offset as an input (frequency offset =1/2 bandwidth)

Radar Transmitter		
Field	Value	
Nomenclature	Radar Transmitter	
Manufacturer	RAYTHEON CO. OR RAYTHEON	
	MANUFACTURING CO.	
Model Name and Number	R-Radar-Tx	
Frequency Stability	30	
Frequency Stability Units	ppm	
Output Device	Transistor	
Tuning Method	Crystal Controlled	
Suppression of Harmonic	Yes	
Radar or Communications?	Radar	

Radar Transmitter Harmonic	
Field	Value
2nd Harmonic	-74 dB
3rd Harmonic	-80 dB
Other Harmonic	-80 dB

Radar Transmitter Frequency	
Field	Value
Lowest Tuned Frequency	1215 MHz
Highest Tuned Frequency	1260 MHz
Tuning Increment	0.0 kHz
Number of Frequencies Required for	2
Operation	
Minimum Required Frequency Separation	30 MHz

Radar Transmitter Frequency Emission Designator	
Field	Value
Necessary Bandwidth	4200 kHz
Emission Designator	4M20Q3N

Radar Transmitter Frequency Emission Designator Modulation	
Field	Value
Emission Designator	4M20Q3N
Occupied Bandwidth	4200 kHz
Measured or Calculated	Measured
Radar Type	FM Pulse Radar
Pulse Repetition Rate	1391 pps
Pulse Rise Time	0.000150 ms
Pulse Fall Time	0.000150 ms
Pulse Width	0.0256 ms
Pulse Duty Cycle	3.561 %
Pulse Compression Ratio	74
Radar Processing Gain	10 dB
Radar Pulse Frequency Deviation	2890 kHz
Number of Radar Subpulses	5

Radar Transmitter Frequency Emission Designator Modulation RF Fundamental Curve

Field	Value	
Measured or Calculated	Measured	
-3 dB Bandwidth / (Frequency Offset)	2630 kHz / (1315 kHz)*	
-20 dB Bandwidth / (Frequency Offset)	4200 kHz / (2100 kHz)*	
-40 dB Bandwidth / (Frequency Offset)	9500 kHz / (4750 kHz)*	
-60 dB Bandwidth / (Frequency Offset)	30000 kHz / (15000 kHz)*	

*Remember that the curve editor wants frequency offset as an input (frequency offset =1/2 bandwidth)

Radar Transmitter Frequency Emission Designator	
Field	Value
Necessary Bandwidth	7300 kHz
Emission Designator	7M30P0N

Radar Transmitter Frequency Emission Designator Modulation	
Field	Value

Emission Designator	7M30P0N
Occupied Bandwidth	7300 kHz
Measured or Calculated	Measured
Radar Type	Non-FM Pulse Radar
Pulse Repetition Rate	1391 pps
Pulse Rise Time	0.000150 ms
Pulse Fall Time	0.000150 ms
Pulse Width	0.00200 ms
Pulse Duty Cycle	0.2782 %

Radar Transmitter Frequency Emission Designator Modulation RF Fundamental
Curve

Field	Value	
Measured or Calculated	Measured	
-3 dB Bandwidth / (Frequency Offset)	3500 kHz / (1750 kHz)*	
-20 dB Bandwidth / (Frequency Offset)	7300 kHz / (3650 kHz)*	
-40 dB Bandwidth / (Frequency Offset)	11000 kHz / (5500 kHz)*	
-60 dB Bandwidth / (Frequency Offset)	150000 kHz / (75000 kHz)*	

Radar Transmitter Power	
Field	Value
Power Type	Peak Envelope
Power Upper Limit	45000 Watts

Radar Transmitter Spurious Emission Curve	
Field	Value
Maximum Spurious Emission	Checked
Level	-80 dB

Link Information: Radar to Target	
Field	Value
Radio Service/Station Class	Radiodetermination / LR - Land
Available Modes	Both in-band modes

Step 2. Run the compliance checks. A sample list of compliance check results is below:

🔻 🔚 🛄 📕 [IF Selectivity Curve] at 75000 kHz

FAILURE NTIA Chapter 5 RSEC: NTIA-CH5-5.5.3.7-1

Group C radar receivers must have IF Selectivity characteristics commensurate with or narrower than the corresponding transmitter bandwidth. The receiver IF Selectivity curve is wider than the corresponding transmitter's RF Fundamental curve. See secion 5.5.3 paragraph 7 of the NTIA Manual.

🔻 🐘 🖶 [Transmitter] Radar Transmitter

NOTE NTIA Chapter 10: NTIA-CH10-8.7.23

If this transmitter has been type accepted by the FCC, enter the FCC Acceptance Number.

🔜 🔑 [RF Fundamental Curve]

FAILURE NTIA Chapter 5 RSEC: NTIA-AnnexJ-Radar-Non-FM-Pulse

The necessary bandwidth (-20 dB point) on this RF Fundamental curve of this non-FM pulse radar does not meet the formula as given in ANNEX J of the NTIA Manual.

FAILURE NTIA Chapter 5 RSEC: NTIA-CH5-5.5.3.3.1-2

This Group C non-FM pulsed radar transmitter does not meet the standard emission bandwidth curve as required in section 5.5.3 paragraphs 3.1 and 4.1 of the NTIA Manual. Note that Pavg = Peak Power * Pulse Repetition Rate * Pulse Width is used for Pt in the curve formula.

🔻 😐 🚑 [Attachments]

NOTE NTIA Chapter 10: NTIA-CH10-8.5

For all stages, submit reports of any previous EMC studies, predictions, analyses, and prototype EMC testing that are relevant to the assessment of the system (right-click Attachments in Tree View). You may reference documents previously provided to the IRAC/SPS, including references to previous stages of this system (right-click References in Tree View).

- **Step 3.** Import the **Sample Radar.cid** file from the training CD (under Training Materials/Samples). Its System Name will be **Sample Radar for Training** to distinguish it from the record you created.
- **Step 4.** Use the Query Builder to query on Certifications with System Name containing "Sample Radar", then compare the two records in the Query Results to compare your record with the one on the Training CD.