



FUNCTIONAL ACCEPTANCE TEST PLAN

Console Upgrade
City of Aurora, Illinois

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CUSTOMER APPROVAL

These Test Procedures have been read and approved for use as the Functional System Acceptance Test.

Customer Representative

Harris Corporation Representative

Signature and Date

Signature and Date

Printed name and title

Printed name and title

1. SYSTEM ACCEPTANCE

This Acceptance Test Procedure has been fully and successfully completed with all action items resolved.

Customer Representative

Harris Corporation Representative

Signature

Signature

Printed name and title

Printed name and title

Date

Date

FUNCTIONAL TESTING CLARIFICATION

Equipment inspection and testing in addition to staging acceptance testing is performed at the Harris staging facility. Staging tests as detailed in this matrix verifies basic equipment functionality in addition to its functionality as part of an overall system. Equipment as received from Harris and third party manufacturing suppliers is supplied with manufacturer test results, as applicable. Test results documentation will be that from the staging functional acceptance tests. Equipment tests will be performed in the field after installation both as part of equipment

commissioning and overall final functional acceptance testing. Test results documentation will be from the final functional acceptance tests.

2. Facility Test (Field Tests)

2.1 Visual Inspection (Field Tests)

Purpose: Verify the system has been installed following Harris installation standards.

Expected Results: The installation should look clean and the documentation should reflect the installation.

Setup: None

Execution:

- Verify the area is clean and that all cabinets and racks are both clear of debris and clean.
- Verify all equipment racks are spaced per the drawings, secured and grounded.
- Verify all nameplates and labels are in place.
- Verify all protective foam, tape, and packing material has been removed.
- Verify all punchblocks are labeled.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

2.2 Power Backup / UPS Verification (Field Tests)

- Purpose:** To verify that the site can run on the UPS without interruptions.
- Expected Results:** Radio communication should not be interrupted during the transition.
- Setup:** Prior to the execution of this test, ensure any computers or other devices with volatile memory are backed up or are on power circuits not affected by this test.
- Notes:** Harris will perform this test at all locations. Harris is not responsible for test failures due to inadequate backup power equipment that is under the City of Aurora's responsibility to provide. Any such failures of the City of Aurora provided backup power equipment will not delay system acceptance. Record in the comments section the names of locations tested and who has provided the backup power equipment (Harris or the City of Aurora).

Execution:

1. From the facility circuit breaker panel, disconnect main power.
 - Verify communication is uninterrupted.
2. After predetermined extent of designed backup power, reapply power.
 - Verify communication is uninterrupted.

Results	(Pass/Fail)	_____
Tester: _____	Date:	_____
Comments:	_____ _____ _____	

3. VIDA UNIVERSAL ADMINISTRATION SERVER (UAS)

3.1 Create an Agency Level Administrator Account in the UAS

Purpose: Demonstrate the capability to create Agency Admin Accounts in the UAS.

Expected Results: This test will demonstrate that a UAS user has the ability to create a new UAS user account.

Setup: The user will need system level access to an UAS.

Execution:

1. Browse to the UAS at the address of 'https://s0u1uas.vida.local:8443/nas'
2. Log in with UAS administrator level account.
 - Verify that default accounts are created (see list below) and verify a default agency administrative class exists by selecting System/Administration/Admin User.
3. Select "Add" to display the Administration User Detail screen.
4. Enter a name (e.g., TestUser) description, and password.
5. Select save to download, and click 'OK'
6. Log out of the default account.
7. Log in as the new TestAgencyAdmin
 - Verify access with TestAgencyAdmin
8. Log out of the Test AgencyAdmin.
9. Log in with the default account and delete the TestAgencyAdmin

Admin User	Admin Class	Description
agency998	Agency998	Agency 998 Access
Vida	RSA	RSA
ProvTool	RSA	Provtool
vida2	RSA	vida2
Hp	RSA	Hao for Testing
Provtool2	RSA	Provtool
Provtool3	RSA	Provtool
Provtool4	RSA	Provtool
Kc	RSA	Kc

Results	(Pass/Fail) _____
Tester: _____	Date: _____
Comments: _____	

3.2 Updating of OpenSky Radio Personalities from the UAS (Opensky)

Purpose: The purpose of this test is to demonstrate a download of system parameters from the UAS to the sites and OpenSky radios.

Expected Results: This test will verify dynamic personality allocation to OpenSky radios.

Setup: Use OS_Radio_02 as the test radio.

Execution:

1. Browse to the UAS using Internet Explorer and the address of 'https://s0u1uas.vida.local:8443/nas'
 2. Create a new voice group for the agency under test in the UAS.
 3. Select 'Personality' to bring up the radio personalities.
 4. Check the box next to 'OS_Pers' and select modify.
 5. On drop down 'Profile 05 Name' select 'Prof1' and select ok.
 6. Select 'Save' to download the new personality.
- Verify the test radio received the updated voice group in the designated profile and is able to place a call on the new voice group.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

3.3 UAS Site Adjacency Configuration

Purpose: Demonstrate the capability to configure site adjacencies in the UAS.

Expected Results: Site adjacencies will be successfully configured and modified.

Setup: UAS installed and functioning on System network.

Execution: Basic test is to follow the manual and SRN instructions to configure site adjacencies using the new graphical interface.

1. Log onto UAS.
2. Go to System > System Properties > Site adjacency.
3. Select a site on the left side to configure for adjacency information.
4. Use the left hand side to add adjacencies for the site.
 - Confirm the adjacent sites are removed from the non-adjacent site list and display correctly on the right side.
5. Use the right hand side to remove a site adjacency.
 - Confirm the removed adjacency disappears on the right side and is displayed as a non-adjacent site on the left side.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

3.4 Radio Detach

Purpose: Confirms the site will send a radio detach command when its configured registration timer expires.

Expected Results: The radio reregisters on the site in response to the radio detach command.

Setup Program site with a radio registration age timer (in UAS under system> Protocol timer > radio re registration timer) set to 5 minutes and two radios programmed for operation on the site.

Execution:

1. Power up site
2. Power up one radio
 - Confirm the radio registers on the site.
3. After two minutes power up the second radio
 - Confirm the radio registers on the site.
4. Wait three minutes
 - Confirm the first radio registers on the site again.
5. Wait two minutes
 - Confirm the second radio registers on the site.
6. Reprogram the site for the default registration timer setting.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

4. High Availability Wide Area Router Failure

Purpose: Demonstrate the capabilities of the system to work after a WAR failure

Expected Results: System components that are set-up with High Availability will continue to work after a WAR failure.

Setup: These tests are setup to be run twice, once on each router. So after completing step 4 restart the WAR router if not already running wait 20 minutes, and rerun the tests for the second router. These tests will simulate a WAR failure by disconnecting it from the Wide Area Network, so the WAR to WAN connection will need to be known.

1. Use Radio 1 to initiate a call
 - o Verify that the call is heard on the Radio 2. Keep the call active during fail-over.
2. Use Radio 3 to initiate a call
 - o Verify that the call is heard on Radio 4. Keep the call active during fail-over.
3. Log in to s0u1nss and s0u2nss, and change your user to the root user by typing 'su -' and entering the password.
4. Type 'HArunning' into both NSSs, one will report that it is the 'Stand By' and one will report that it is the 'Primary' log the information in the chart below.

	Name Of Primary NSS	Name of Primary WAR	Name of Primary RNM	Name of Primary RSM	Shutdown Time
Test 1					
Test 2					

5. Log into the 'Primary' WAR that is associated with the 'Primary' NSS. Shut off the connection to the WAN by performing a shut on the necessary ports.
 - o The call from Radio 3 to Radio 4 will be dropped.
 - o The call from radio 1 to 2 will continue and the console will lose connectivity to the VNIC.

- Verify that after a short delay, the Backup server NSS2 automatically takes over as the primary server.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____	

4.1 UAS Site Access Control for Invalid User ID

Purpose: This test will demonstrate access control for Subscriber units with invalid radio IDs and High Availability of the RSM.

Expected Results: This test will deny a radio with an invalid Subscriber ID access to the system. Once the radio is added to the system the primary RSM will download it to the sites and allow the radio access. When the primary RSM is turned off and the radio is deleted from the UAS the secondary RSM will delete the radio from the system. Once the radio is deleted from the system the radio will again be denied access.

Setup: Use the table below to set up the new radio in the UAS

Voice End User								
User Id	Name	Description	Personality	User Privilege	Enable P25 AES OTAR	Manually -Keyed	P25 Voice Auth	Preferred Vocoder
010:998:9150	Rad9150	Radio9150	Pers1	998_10_supervisor	FALSE	FALSE	FALSE	P25 Full Rate
OS Voice Auth	Transc Allowed Flag							
FALSE	TRUE							
Subscriber Unit								
Description	RSI	Electronic Serial Number	Protocol Mask	Status	Sub Type	Assigned End User	Algorithm Support	
Radio9150	99899150	109989150	P25	Enabled Unit	Harris P5400	010:998:9105	AES	

Execution:

1. Login into a site traffic controller issue a “show udb 109989150”
 - Verify the radio is not present in the traffic controller database
2. Program Radio 9801 with an ID 9989150.
3. Attempt to PTT Radio 9150.
 - Verify access to the site is denied and audio is not heard on Radio 2.

- Verify the system is still functional by PTT Radio 2 and verify the audio is heard on Radio 3.

- 4. Use the supplied table to enter radio 109989150 in to the UAS database.
 - a. Select Agency/"agency name"/Voice End User. Click Add Entry and then on the End User Detail screen input the User ID, password- ("OpenSkyuser") Name, Description, etc. of the user. Click OK and download.
 - Verify the user ID has been added to the list of users
 - b. Select Agency/"agency name"/Subscriber Unit and enter the appropriate User ID, IP Address, and ESN for the user created in step 7. Click OK and download.

- 5. Loin into a site traffic controller issue a "show udb 109989150"
 - Verify the radio is now present in the traffic controller database

- 6. Key radio 9150
 - Verify access to the site is permitted and audio is heard on radio.

- 7. Restart radio 9150 and PTT the radio
 - Verify access to the site is permitted and audio is heard on radio 9012.

- 8. Delete 10998999150 from the UAS database

- 9. Key radio 9150 from UAS
 - Verify access to the site is not permitted and audio is not heard.

Results	(Pass/Fail)	_____
Tester: _____	Date:	_____
Comments:	_____	

4.2 Site Activity using the Activity Warehouse

Purpose: Demonstrate the capability to create various Agency level system usage reports.

Expected Results: This test will create an Agency level user reports.

Setup: Ensure radio traffic has occurred across the network recently. If necessary or desired, place some calls with a known radio ID on multisite talk groups prior to running the test for reference during the test.

Execution:

1. Log into the SMT PC as a System level administrator.
 2. Open Internet Explorer and Browse to 'https://*hostname of RSM*/reports' and log in with active directory credentials.
 3. Select 'Call Activity' enter the time to run the report for two hours before this test.
 4. Enter additional report information required.
 5. Click on "View Report"
- Check to make sure that there is call activity. These reports can be up to 2 hours behind.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

4.3 VIDA REGIONAL NETWORK MANAGER (RNM)

Purpose: Demonstrate the capability to monitor real-time call activity from the RNM.

Expected Results: This test will show active call traffic on specific talk groups and SIDs.

Setup: Administrator access to the RNM.

Execution:

1. On a client computer, open the windows Internet Explorer and browse to <https://s0u1rnm.vida.local/nmc> and log in with an Active Directory account.
2. Choose the system map and select the 'Launch Application' button.
3. Open the Realtime tab and Click Site Calls.
4. Select the site and expand.
5. Check the box next to the channels and select to add the channels to the target list. Select the 'ok' button to launch the application.
6. Place a group call from Radio 1 to Radio 2 on the site.
 - Verify that the event viewer displays the talkgroup ID and calling party ID.
 - Verify the state changes from Free to Talk.
 - Verify the TG Alias displays the Group Number.
7. Use Internet Explorer to browse to <https://s0u2rnm.vida.local/nmc> and repeat test steps 1-6 for the second RNM.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

4.4 Regional Network Manger Test

Purpose: Demonstrate the capability to monitor system alerts from the RNM.

Expected Results: This test will show system level equipment icons.

Setup: Administrator access to the RNM.

Execution:

1. On a client computer, open the windows Internet Explorer and browse to <https://s0u1rnm.vida.local/nmc> and log in with the active directory account.
2. Choose the system map and select the 'Launch Application' button. Select the 'Network' tab and expand the tree in the left hand panel until you can see a site in the right hand panel.
 - Verify the Infrastructure is presented.
 - Select an object and right click to select properties to view information related to the object.
3. Substitute <https://s0u2rnm.vida.local/nmc> and repeat test steps 1-3 for the second RNM.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

4.5 RF System Alarms Indications are reported to the RNM

Purpose: Demonstrate the capability to monitor system faults & alarms at the RNM.

Expected Results: System level equipment will indicate faults & alarms at the RNM.

Setup: Access to the site under test and the regional RNM. The alarm will need to be generated by equipment being physically powered-down. Note the time of the alarm condition for later tests. Call up the RNM Domain screen and verify that all map icons are either green or blue. On the Fault Browser screen delete any prior alarms. Internal Note: Harris should create a comprehensive table of specific system alarms to verify.

Execution:

1. On a client computer, open the windows Internet Explorer and browse to <https://s0u1rnm.vida.local/nmc> and log in with an Active Directory account.
2. Choose the system map and select the 'Launch Application' button.
3. Select the 'Network' tab and expand the tree in the left hand panel until you can see a site in the right hand panel.
4. Generate an alarm on a device (see chart) by powering down or otherwise disabling the device.
 - Verify that the RNM indicates a site alarm for the affected device.
5. Turn the device back ON.
 - Verify that the device alarm clears and displays green.
6. Review alarm details by performing a Right Mouse Click on an Object. Select the desired menu option.
7. Repeat steps 1-4 for all equipment listed in the below chart.

8. Substitute <https://s0u2rnm.vida.local/nmc> and repeat test steps 1-5 for the second RNM.

Record the results below for each site. (Note: This form can be modified to reflect actual as-built alarms)

Tester:		Results:	Date:	
Alarm #	Name	Pass/Fail	Remarks	
1	Traffic Controller (N/A)			
2	Router			
3	Switch			
4	Network Sentry			
5	MME (N/A)			

Results	(Pass/Fail) _____
Tester: _____	Date: _____
Comments: _____	

4.6 Network Sentry Site Alarm Indications are reported to the RNM

Purpose: Demonstrate the capability to monitor site faults & alarms at the RNM.

Expected Results: Site level equipment will indicate faults & alarms at the RNM.

Setup: This test verifies that the Site & Shelter Alarms are connected to the new system and alarm names are programmed to show the alarm types and locations. Site specific digital alarm inputs connected to the alarm management system (Network Sentry or NetGuardian) alarm unit. **Internal Note:** This is a field test. Should we configure a single simple site alarm for general test purposes?

Execution:

1. On a client computer, open the windows Internet Explorer and browse to <https://s0u1rnm.vida.local/nmc> and log in with the Active Directory account.
2. Choose the system map and select the 'Launch Application' button.
3. Select the 'Network' tab and expand the tree in the left hand panel until you can see a site in the right hand panel.
4. Select a physical site to test alarm inputs.
5. Create a condition that will either simulate an alarm (jumper alarm contacts) or the actual event to trigger each alarm
 - Verify that the alarm is detected and displayed in the RNM Network Viewer and is listed in the Fault Browser
6. Clear the alarm condition
 - Observe that the alarm indication has cleared in both the Network Viewer and the Fault Browser
7. Repeat for each alarm and for each site in the system

8. Record the results below for each site. (Note; This form can be modified to reflect actual as-built alarms).

Site #:			Site Name	
Tester:		Results:	Date:	
Alarm #	Name	Pass/Fail	Remarks	
1	Door			
2	Smoke Detector			
3	Heat Detector			
4	Building Low Temp			
5	Building High Temp			
6	Main Power Fail			
7	ATS Normal			
8	ATS Emergency			
9	Generator Low Oil			
10	Generator Over Temp			
11	Generator Over Crank			
12	ACH1 L.O.			
13	ACH2 L.O.			
14	Surge Arrestor 1			
15	Surge Arrestor 2			
16	Multicoupler Top			
17	Multicoupler Bottom			

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

5. SYMPHONY DISPATCH FEATURE SET

All Testing done in this section should be done with a user that is in the 'Console' User Group.

5.1 Transmitting With a Microphone (Group Calls, I Calls)

Purpose: Confirms the console operator can initiate communication with a terminal radio using the console select functions and foot pedal, for both Group and I Calls.

Expected Results: Confirms communication with the terminal radio

Setup: (Radio set to TG64001 OpenSky and console programmed with talk group TG64001 OpenSky)

Execution:

1. Press the INSTANT TX function (for example right mouse button) on the module with the test group. Verify
 - that a channel access tone is heard, a
 - ripple effect on the 'TX' indicator is displayed
 - that the call is heard on the radio.
2. Release the Instant TX key
3. Right click on the gear symbol for TG64002 and select 'Select' to make TG64002 the selected talk group. Verify
 - that the module for TG64002 is highlighted indicating that it is the selected talk group
 - the module at the top center of the screen changes to 'TG64002'

- 4. Make call on 64002TG by:
 - a. Press the PTT foot pedal.
 - verify that a channel access tone is heard,
 - the halo around the 'TX' indicator is displayed
 - that the call is heard on the radio
 - verify audio is heard at a radio on talk group 64002TG
 - i. Release the foot pedal to end the call
 - b. Press the headset button.
 - verify that a channel access tone is heard
 - the halo around the 'TX' indicator is displayed
 - that the call is heard on the radio
 - verify audio is heard at a radio on talk group 64002TG
 - i. Release the headset button to end the call.
 - c. Select the 64002TG button with the mouse.
 - verify that a channel access tone is heard
 - the halo around the 'TX' indicator is displayed
 - that the call is heard on the radio
 - verify audio is heard at a radio on talk group 64002TG
 - i. Release the mouse button to end the call.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

5.2 Receiving Calls (Unit ID Display, Talk group ID Display, Aliasing)

Purpose: Confirm the console operator can receive communications from a terminal radio, using both talkgroup and individual calling.

Expected Results: Communications are initiated and received on the appropriate speaker (select or unselect) and the radio's ID is displayed.

Setup: Console should have talk groups 64001TU and 64002TU programmed with 64002TU selected and Radio set to TG64001 [OPENSKY]

5.2.1 Talk Group Call

Execution:

1. Key the radio and verify
 - That the call is heard at the unselect speaker
 - That the calling radio ID is displayed on the module for TG64001
 - A green light id displayed indicating an incoming call on module TG64001
2. Switch the radios talk group to 64002TU and key the radio.
 - That the call is heard at the select speaker
 - That the calling radio ID is displayed on the module for TG64002
 - A green light id displayed indicating an incoming call on module TG64002

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

5.2.2 Individual Call (Unit – Unit)

Execution:

1. Right click on the 'Harris' box on the top left hand side of the screen.
2. Select 'Open Directory' this will open a pop up window for the 'Directory'
3. Select the 'Users' tab
4. Select 'Radio 1' under the "ALIAS' column
5. Press the 'Radio 1' button the right side to the screen to place an individual call to radio 1.
 - Verify the ripple effect on the 'TX' indicator is displayed
 - Verify a ringing tone will be heard at the console and the radio
 - Verify radio displays 'INDV' and consoles 'ID'
6. Respond to the console by PTTing the radio
 - Verify that the call is heard on the console and that the calling radio's ID and the Call Indicator are displayed.

Results	(Pass/Fail) _____
Tester: _____	Date: _____
Comments: _____	

5.3 Emergency Call and Emergency Alarm

Purpose: Confirms the console indicates an emergency declared by a terminal radio and can reset and clear the emergency.

Expected Results: The console indicates and can clear the emergency.

Setup: This test requires a test radio capable of generating and clearing an emergency (i.e. Supervisor Radio).

Radio Description	Radio Lid	Talk Group Description	Talk Group ID
Radio 1	998001	TG64001 [OPENSKY]	64001

Execution:

1. Select the 64002TG in the console. Using the test radio, declare an emergency on 64001TG.
 - Verify the module for '64001TG' turns red,
 - Verify the ID/Name of the test radio is displayed
 - Verify emergency alert tone is heard on the console.
2. Select the triangle with a '!' to access the emergency menu.
 - the acknowledge 'Ack' button is red
 - the check box is red
3. Using the radio, transmit on the talk group
 - Verify that the call is received by the console.
4. With the console, transmit on the group with the emergency.
 - Verify the test radio receives the call, and is still in emergency mode.
5. Acknowledge the emergency by selecting the 'Ack' button
 - Verify the button changes from 'Ack' to clear
 - verify the radio and the console are still in emergency mode
6. Clear the emergency by selecting the 'Clear X' button

- Verify the console clears the emergency
- Verify the radio clears the emergency
- 7. Transmit on the radio
- 8. Verify the emergency is cleared and normal group calls have resumed.
- 9. Select 64001TG group selected on the console, declare an emergency on the test group by pressing the 'Emer Declare'.
 - Verify the console and radio have the same indications as steps 2 to 4.
- 10. Acknowledge by hitting 'Ack' in step 4
- 11. Clear the emergency with the console.

Results	(Pass/Fail)	_____
Tester: _____	Date:	_____
Comments:	_____ _____ _____	

5.4 System Wide Call (All Call & Announcements)

Purpose: Confirm the console can initiate system wide calls.

Expected Results: The console can initiate both All Calls and Announcement Calls.

Setup: Program console modules with the 'TG64000 OPENSKY' talk group

Radio Description	Radio Lid	Talk Group Description	Talk Group ID
Radio 1	998001	TG64051 [OPENSKY]	64051
Radio 2	998002	TG64052 [OPENSKY]	64052
Radio 3	998003	TG64001 [OPENSKY]	64001
Radio 4	998004	TG64001 [OPENSKY]	64002

Execution:

1. Press INSTANT TX on the module with 'TG64000 OPENSKY'.
 - Verify that a channel access tone is heard,
 - Verify the ripple effect on the 'TX' indicator is displayed
 - Verify that the call is heard at all radios
2. Release the Instant TX key.
3. Press INSTANT TX on the module with 'TG64051 OPENSKY'.
 - Verify that a channel access tone is heard,
 - Verify the ripple effect is displayed
 - Verify the call is heard at Radios 1. Verify Radios 2, 3
 - Verify radio 4 did not hear the audio.
4. Release the Instant TX key.

Press INSTANT TX on the module with 'TG64001 OPENSKY'.

- Verify that a channel access tone is heard,
 - The ripple effect is displayed,
 - The call is heard at Radios 3.
 - Verify that Radios 1 2
 - Radio 4 did not hear the audio.
5. Release the Instant TX key.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

5.5 Alert Tones

Purpose: Confirm the console can initiate alert tones which can be heard at the terminal radio.

Expected Results: The tones can be initiated and heard.

Setup: Console 1 programmed with TG64052 and TG64051 selected.

Radio Description	Radio Lid	Talk Group Description	Talk Group ID
Radio 1	998001	TG64001 [OPENSKY]	64001
Radio 2	998002	TG64002 [OPENSKY]	64002

Execution:

1. Make TG64001 OPENSKY the selected talk group.
2. Select the tones tab on the talk group module.
3. Key the console with a method other than the mouse.
4. Radio 1 will receive the call.
 - While still transmitting, select one of the three ALERT TONE keys by selecting the drop down list next to the orange button.
5. Test that all three alert tones can be heard on the radio.
 - Verify the ALERT TONE is received by Radio 1 and also heard on the console (to hear the tones on the console, press and hold the foot pedal and listen for the tone on the SELECT speaker).
6. While not transmitting, press and hold one of the ALERT TONE keys.
 - Verify the console transmits on talkgroup, TG64051 OPENSKY, Radio 1 receives the call, and the alert tone is heard by Radio 1 and the console (to hear the tone on the console, press and hold one of the alert tone keys and listen for the tone on the SELECT speaker).
 -
7. When the ALERT TONE key is released
 - Verify the call on Radio 1 drops

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

5.6 Console Pre-Empt

Purpose: Confirm the console can pre-empt an ongoing call between terminal radios.

Expected Results: The call started by the radio will be interrupted by the console.

Setup: Console 1 programmed with talk-group TG64051 [OPENSKY]

Radio Description	Radio Lid	Talk Group Description	Talk Group ID
Radio 1	998001	TG64001 [OPENSKY]	64001
Radio 2	998001	TG64001 [OPENSKY]	64001

Execution:

1. Key Radio 1 on the TG64001 and hold the call up. Verify that audio is heard at Radio 2 and the console.
2. Key the console on TG64001 and hold the while continuing to hold the call up on Radio 1
 - Verify the console pre-empts
 - Verify that the transmit indicator is displayed along with the pre-empted caller LID and CALL indicator
 - Verify that the second radio begins to hear the console audio and not the first radio call.
 - Verify that the pre-empted radio audio is still heard on the pre-empting console.
3. Un-key the first Radio.
 - Verify that the pre-empted caller LID and CALL indicators are removed and the pre-empted radio audio is no longer heard on the pre-empting console.
4. Un-key the console.

Results	(Pass/Fail) _____
Tester: _____	Date: _____
Comments: _____	

5.7 Simulselect

Purpose: Confirms operation of the console Simulselect feature, which allows multiple talk groups to be selected for communication simultaneously.

Expected Results: The console can select multiple talk groups and communication is allowed.

Setup Console 1 programmed with talk groups TG64051 [OPENSKY], TG64052 [OPENSKY], TG64053 [OPENSKY], and TG64054 [OPENSKY].

Radio Description	Radio Lid	Talk Group Description	Talk Group ID
Radio 1	998001	TG64051 [OPENSKY]	64051
Radio 2	998002	TG64052 [OPENSKY]	64052
Radio 3	998003	TG64001 [OPENSKY]	64001
Radio 4	998004	TG64001 [OPENSKY]	64002

Execution:

1. Create simulselect group on the 4 test group modules
2. Place a call from the console on the simulselect group
 - Verify that the call is heard all four radios
3. Place a call from each radio
 - Verify that only the console hears the calls
 - Verify only the radios on similar talk groups here the call
4. Deactivate the simulselect group.

Results	(Pass/Fail) _____
Tester: _____	Date: _____
Comments: _____	

5.8 Patch

Purpose: Confirms the console patch feature creates shared communication between multiple selected talk groups.

Expected Results: The patched talk groups can communicate.

Setup Console 1 programmed with talk groups TG64051 [OPENSKY], TG64052 [OPENSKY], TG64053 [OPENSKY], and TG64054 [OPENSKY].

Radio Description	Radio Lid	Talk Group Description	Talk Group ID
Radio 1	998001	TG64051 [OPENSKY]	64051
Radio 2	998002	TG64052 [OPENSKY]	64052
Radio 3	998003	TG64001 [OPENSKY]	64001
Radio 4	998004	TG64001 [OPENSKY]	64002

Execution:

1. Create patch on PATCH 1 with all four groups above.
2. Place a call from the newly created patch
 - Verify that the call is heard on all the radios
3. Place a call from each radio
 - Verify that the call is heard on the console and each radio.
4. Deactivate the patch.

Results	(Pass/Fail) _____
Tester: _____	Date: _____
Comments: _____	

5.9 Console to Console Cross-mute

Purpose: Confirm creation of a cross-mute of another console to quiet the muted consoles audio on the local console.

Expected Results: The cross-muted console's audio cannot be heard on the local console.

Setup: Establish two consoles (A and B) to test the Crossmute function. The Consoles must be on the same NSC. Program and select a test group on both consoles.

Execution:

1. Place a call on console A on the test group.
 - Verify that console B can hear console A.
2. Open the Symphony Configuration Utility for console B in the 'General' section add the ID for console A to the 'Cross Mute' list.
3. Select 'Apply' to save the changes.
4. Place a call on console A on the test group
 - Verify the call can't be heard at console B.
5. Restore the desired cross mute setup.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

5.10 Call History

Purpose: Confirms a history of calls processed at the console.

Expected Results: The history is accessible and valid.

Setup: This test compares programmed module call activity to the history scroll lists. Utility page, dispatch menu will be selected. Select either the “Select History” or “Unselect History”.

Execution:

1. Press the ‘Scroll Up’ and ‘Scroll Down’ buttons to scroll through the Unselect call history list.
 - Compare these calls with known activity.
2. Press the ‘Scroll Up’ and ‘Scroll Down’ buttons to scroll through the selected call history list.
 - Compare these calls with known activity.
3. Press the ‘Esc’ button to exit the history scroll mode.
4. To monitor call history on a single group use the ‘module history’ button on the ‘module modify’ menu.
5. Use the ‘scroll up’ and ‘scroll down’ buttons to scroll through the calls for the picked module.
 - Compare these calls with known activity.

Results	(Pass/Fail)	_____
Tester:	_____	Date: _____
Comments:	_____ _____ _____	

6. VIDA INTER-OPERABILITY GATEWAY TEST

6.1 Local Interoperability

Purpose: The purpose of this test is to verify correct functionality of the Interoperability Gateway.

Expected Results: Verify that the Gateway audio is properly routed to radio units

Setup: The Interoperability Gateway connects via 4-wire audio connections in its Universal Access Cards(UAC) cards to interoperability radio units (mobile or desktop). The Gateway also connects to a router and the Network Switching Center (NSC) to provide call functionality across the network.

Execution:

1. Select Inter-op group 1 on the radio.
2. Initiate a call from the radio to group 1
 - Verify that audio is heard on inter-op group 1 radio.
3. Initiate a call from the inter-op group 1 radio to group 1
 - Verify that audio is heard on the radio.

Results	(Pass/Fail)	_____
Tester: _____	Date:	_____
Comments:	_____ _____ _____	

