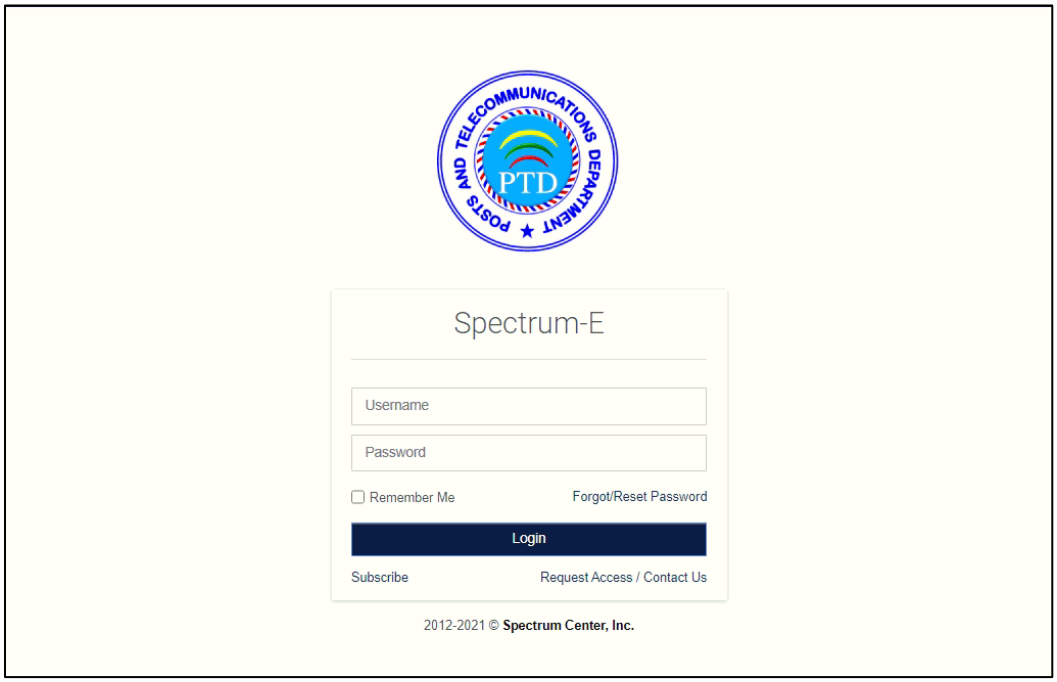
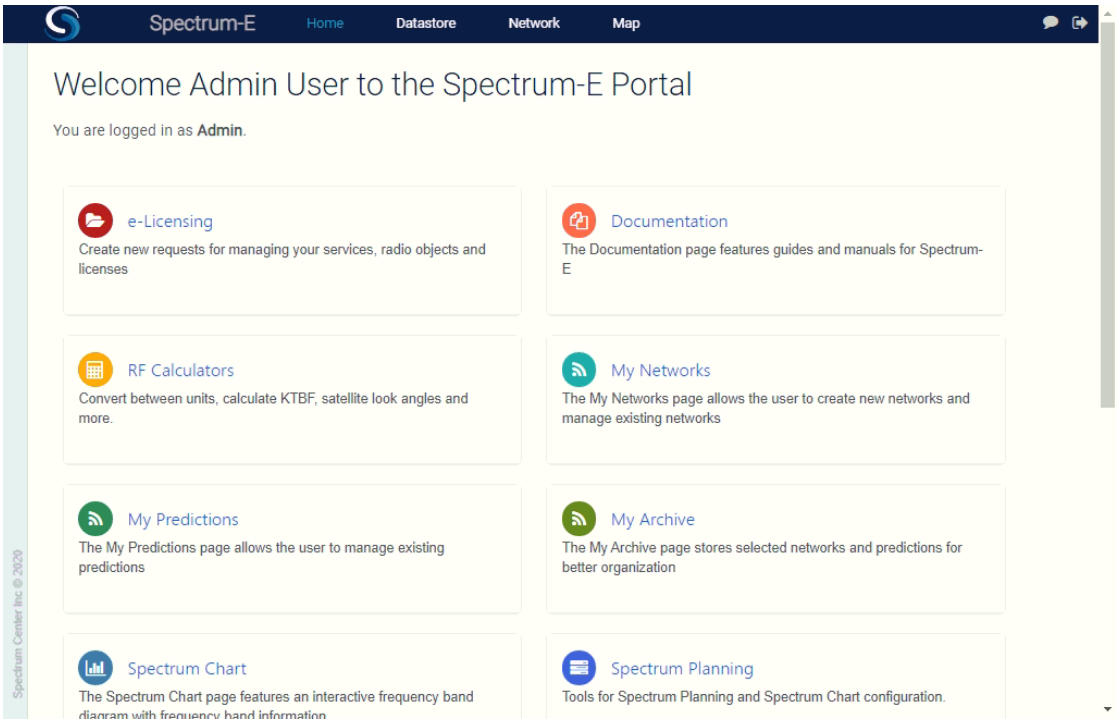
ASMS report

For phase 1

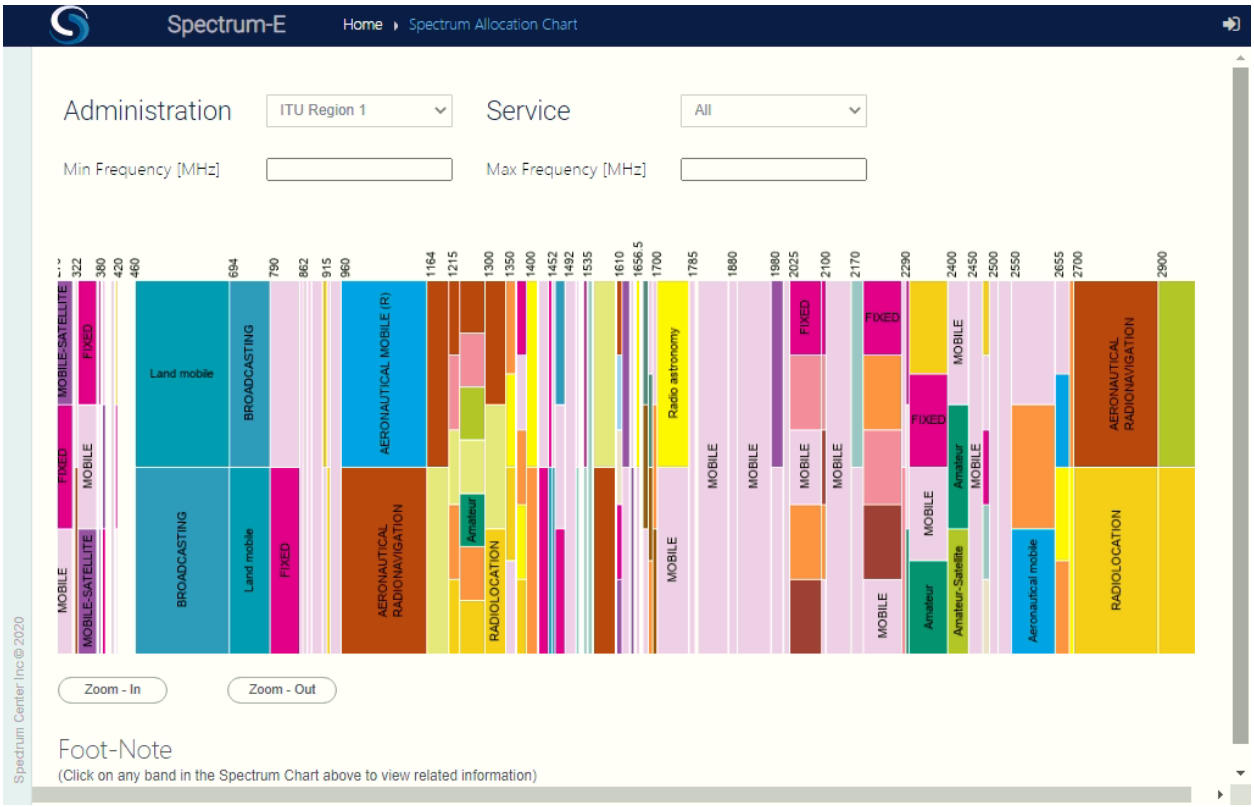
1. User interface for Automation Spectrum Management System:



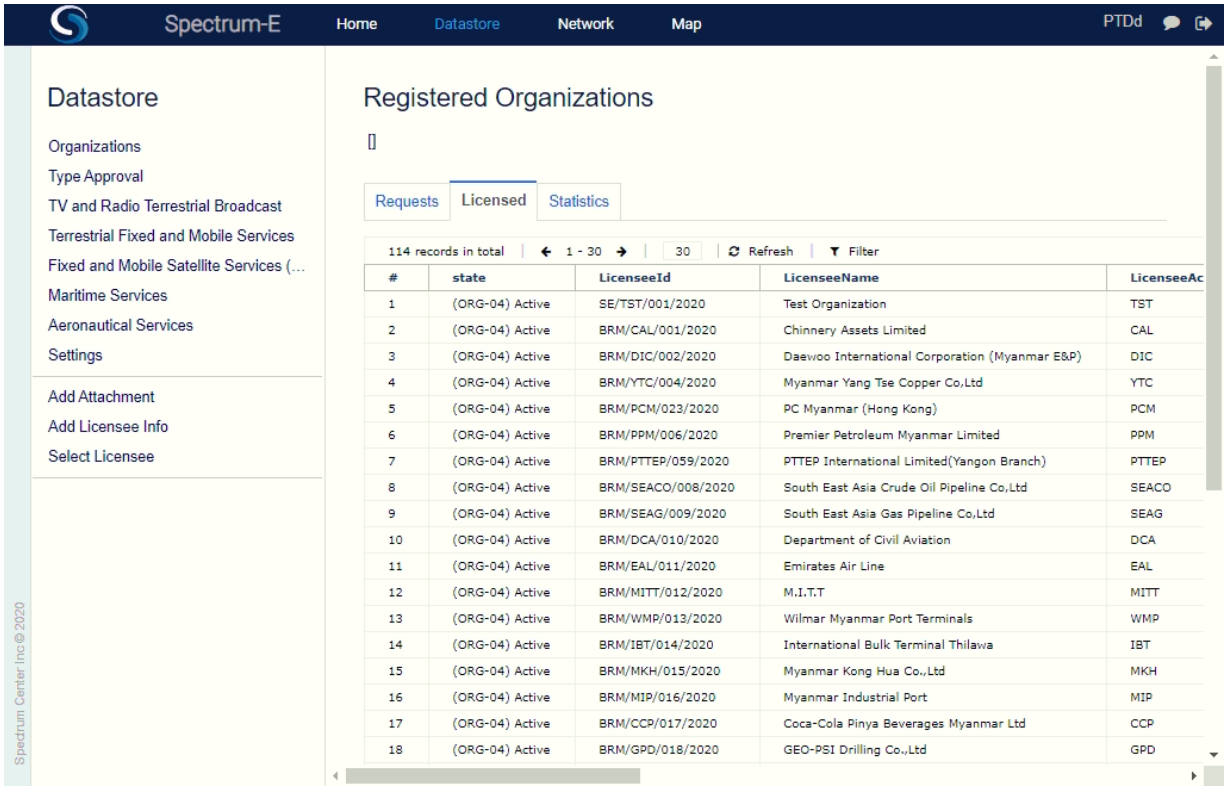
2. After log-in, the home page interface for user:



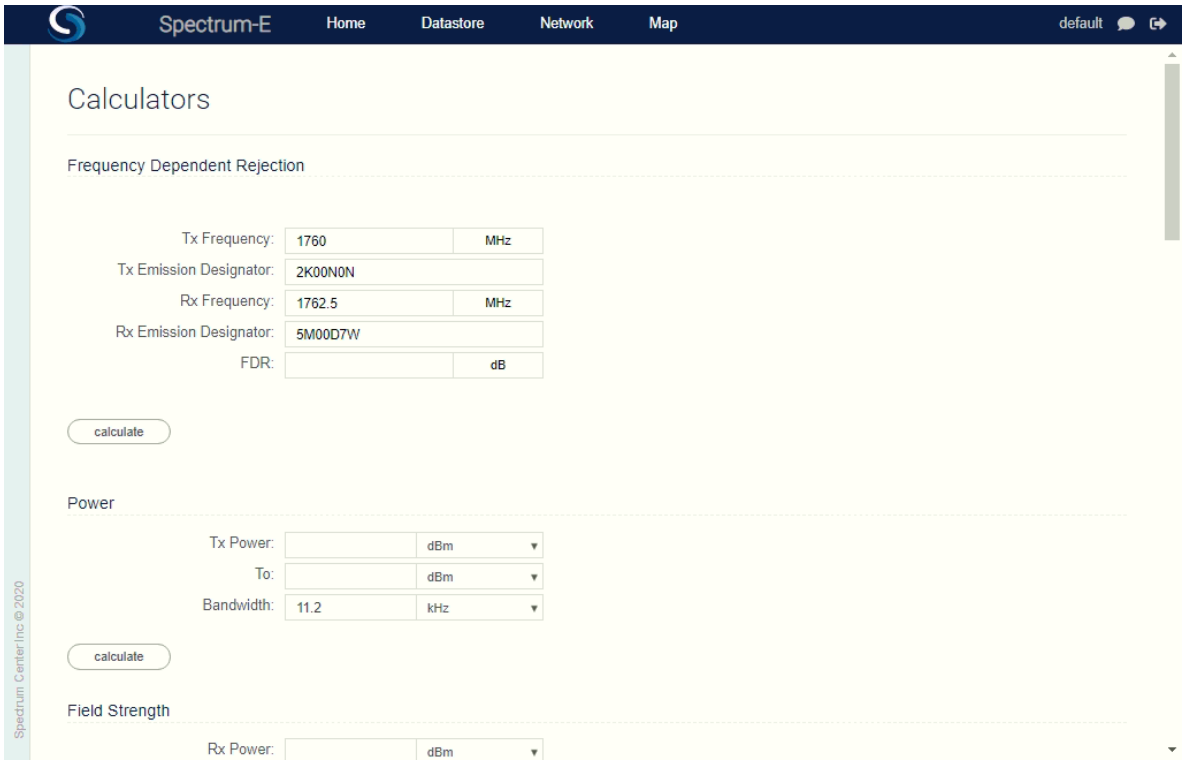
3. National Table Frequency Allocation



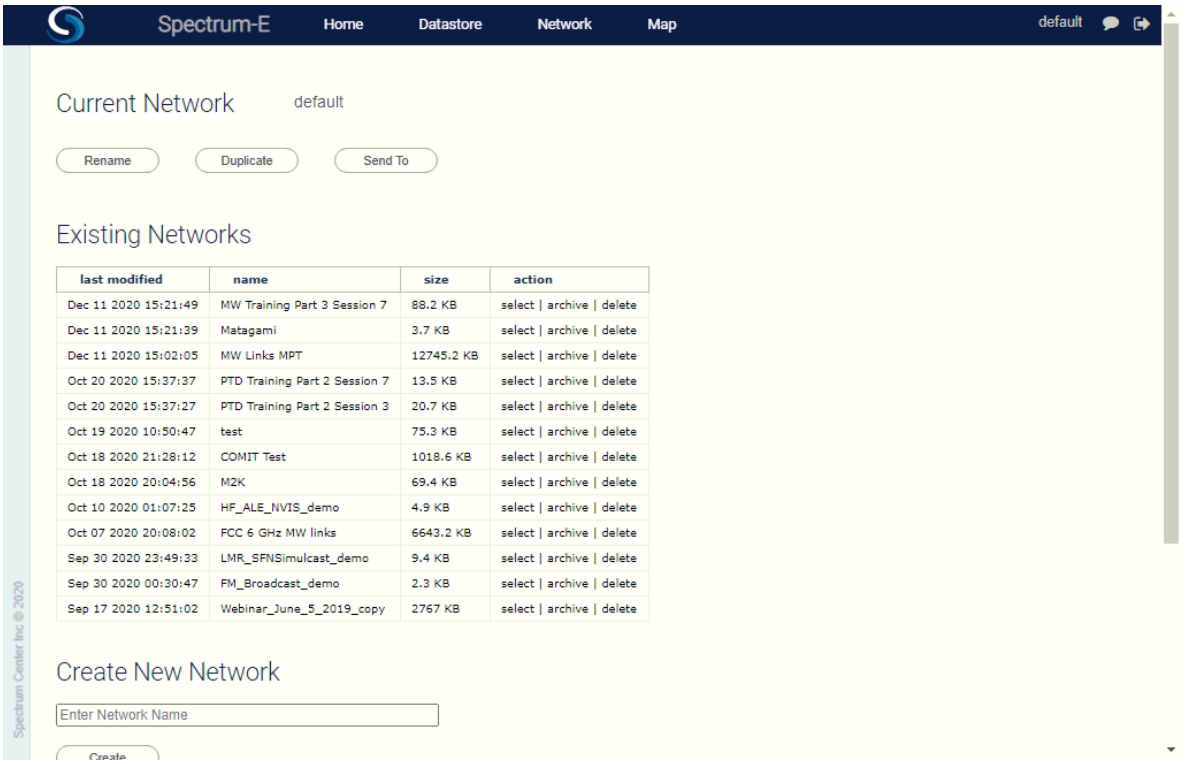
4. E-license on Datastore:



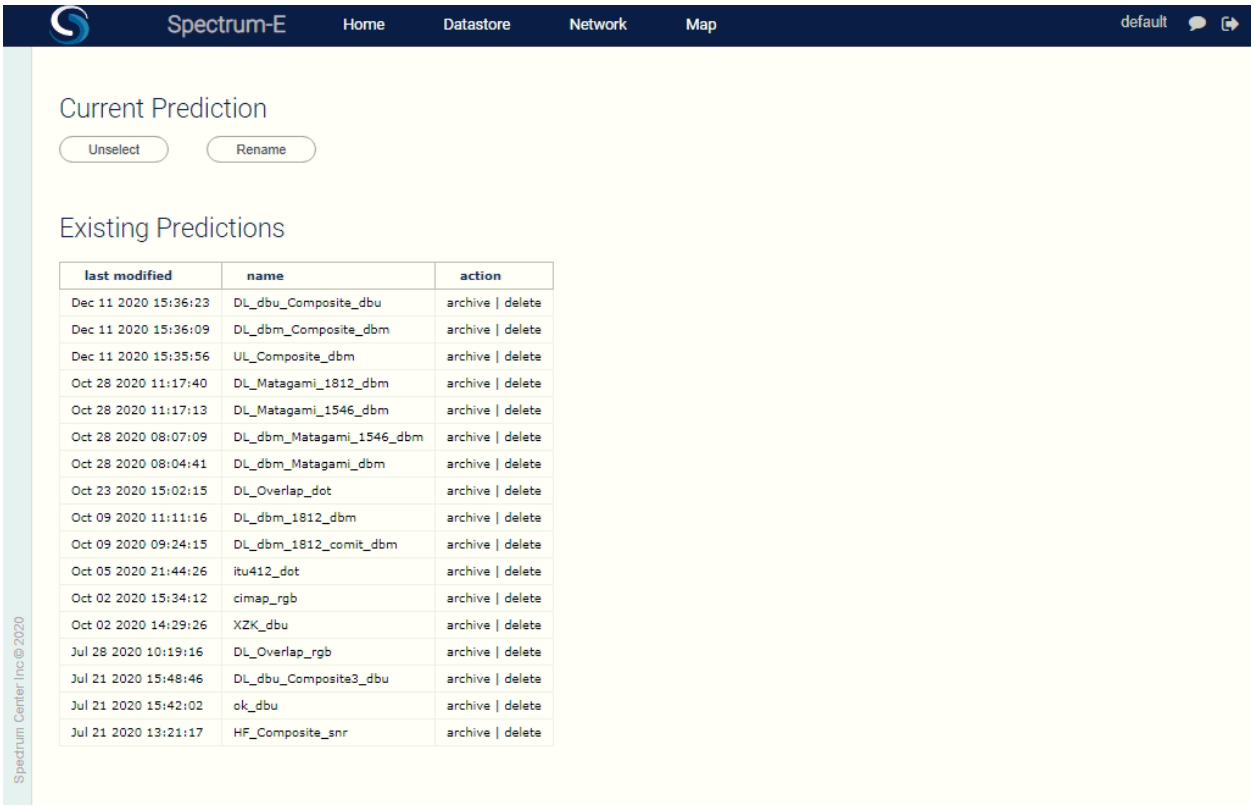
5. Calculation for RF signal



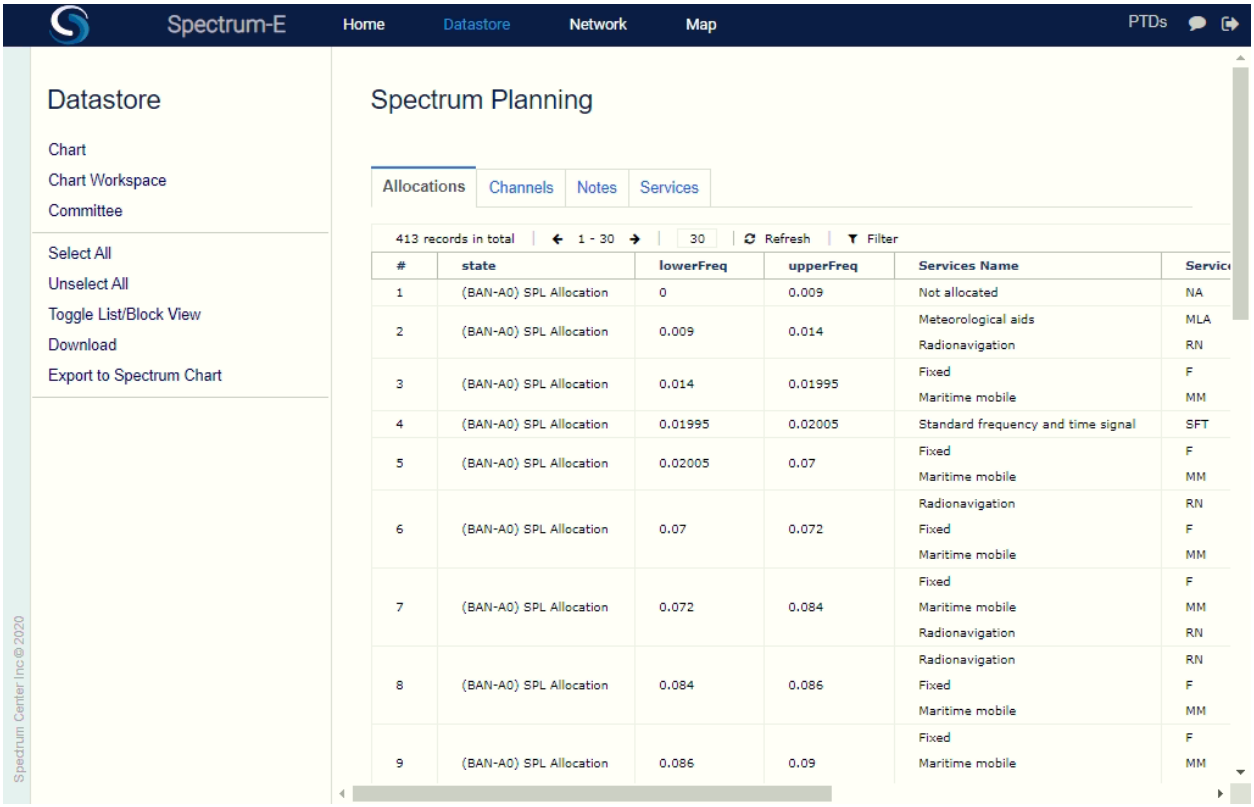
6. User can make the network data for checking and manage



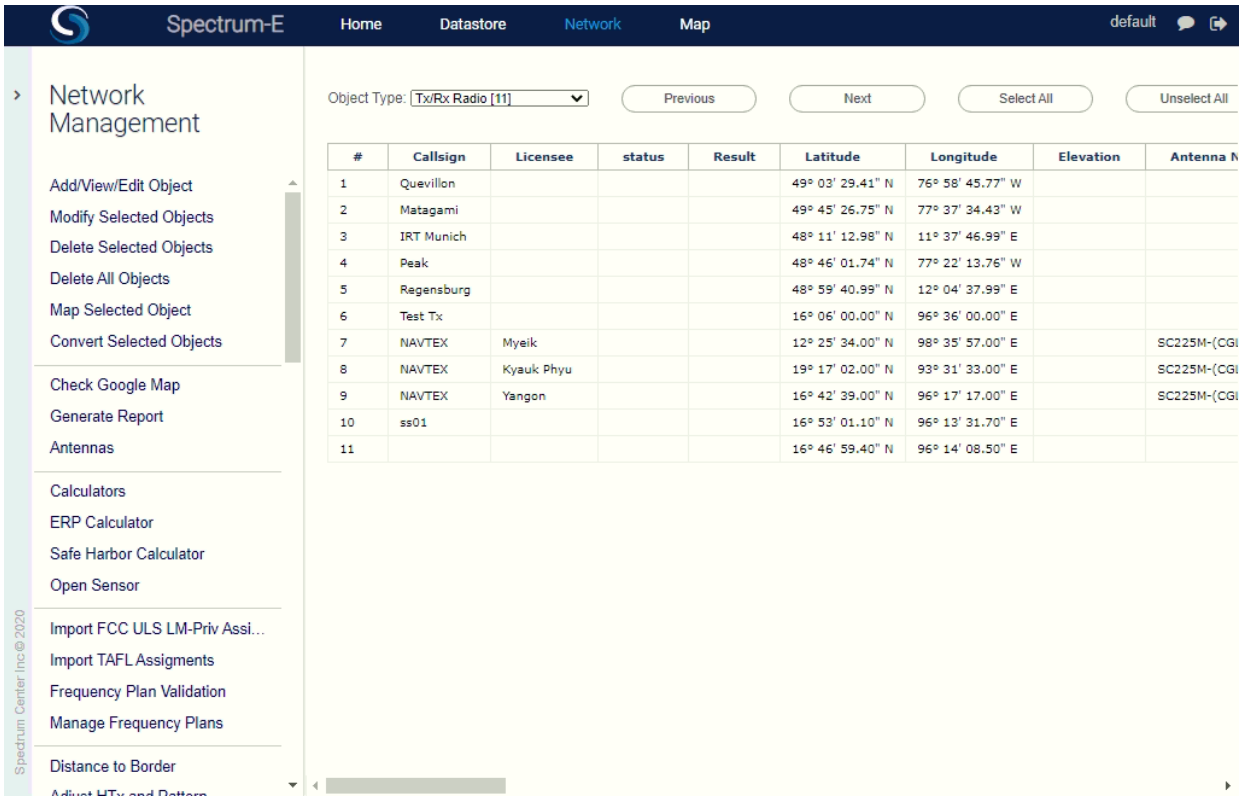
7. User can make the prediction or simulation for the network:

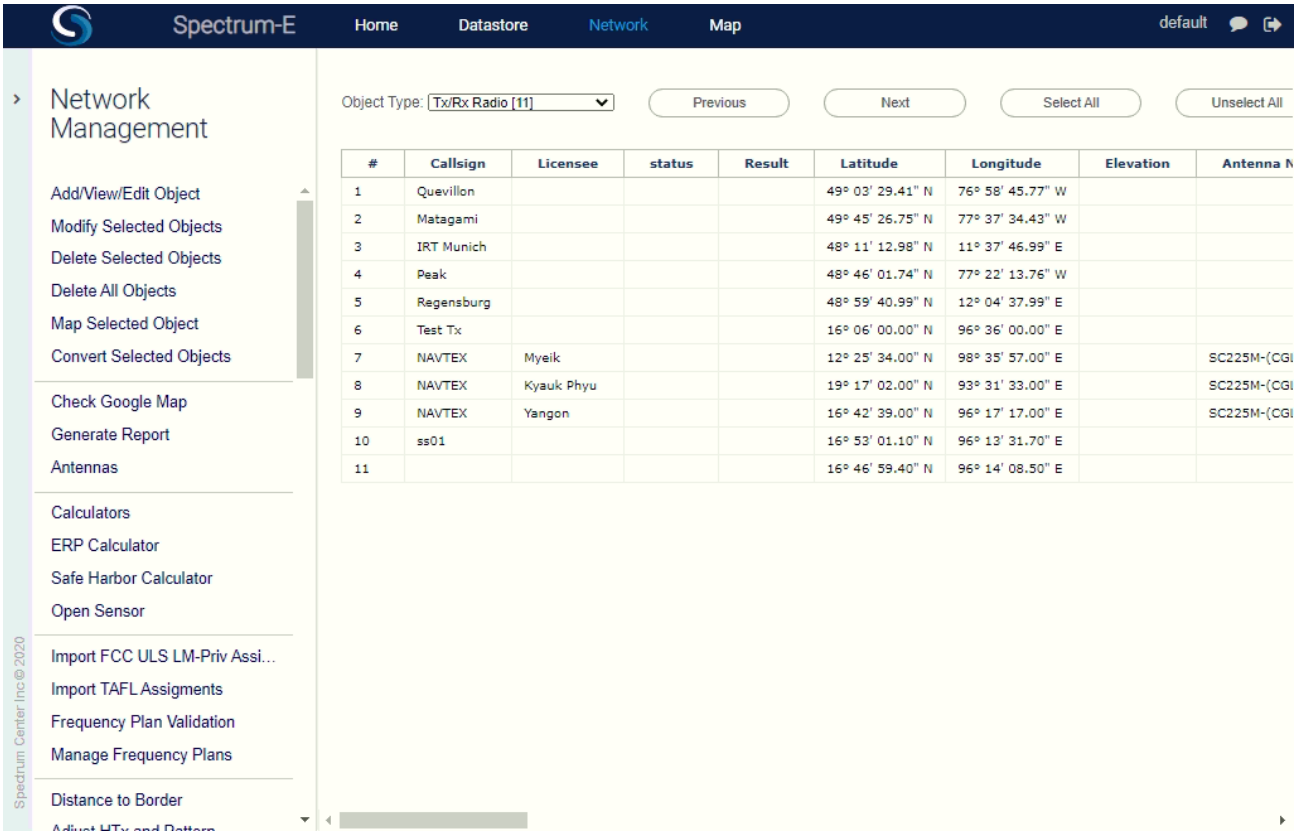


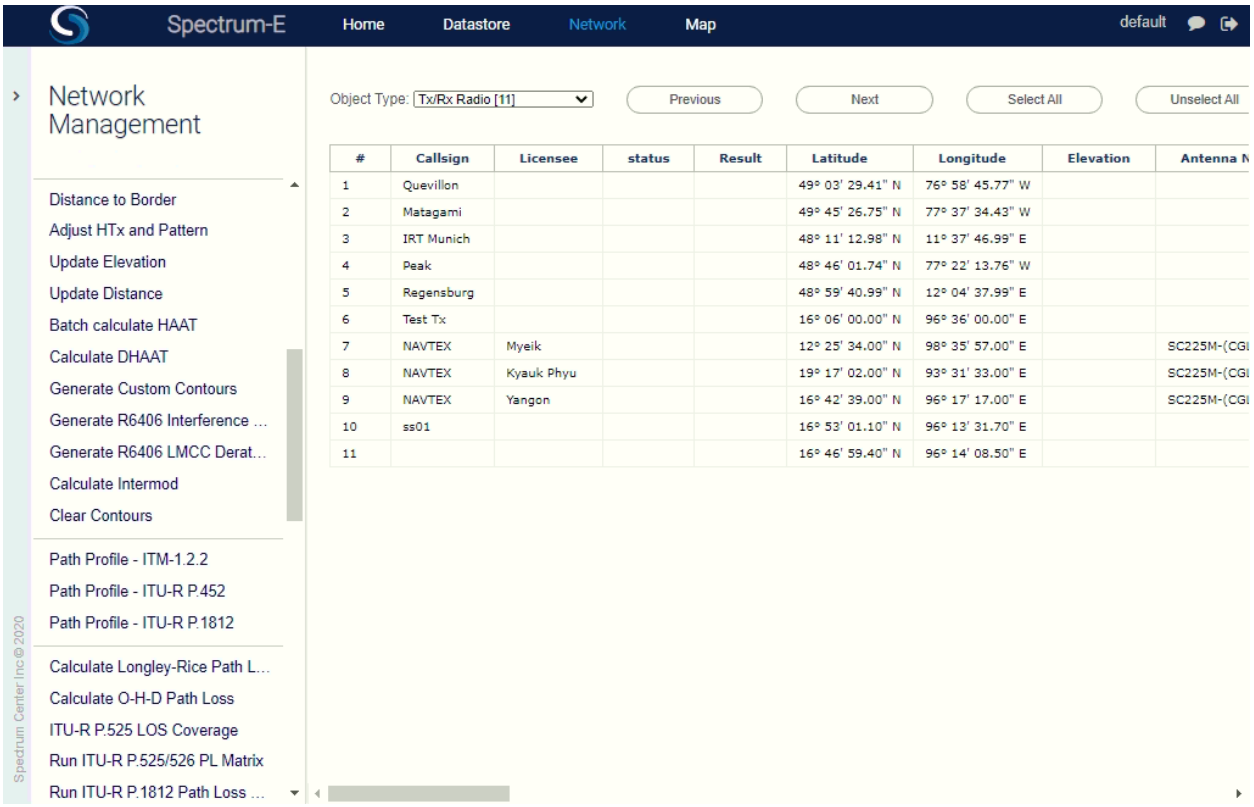
8. Can make frequency planning:



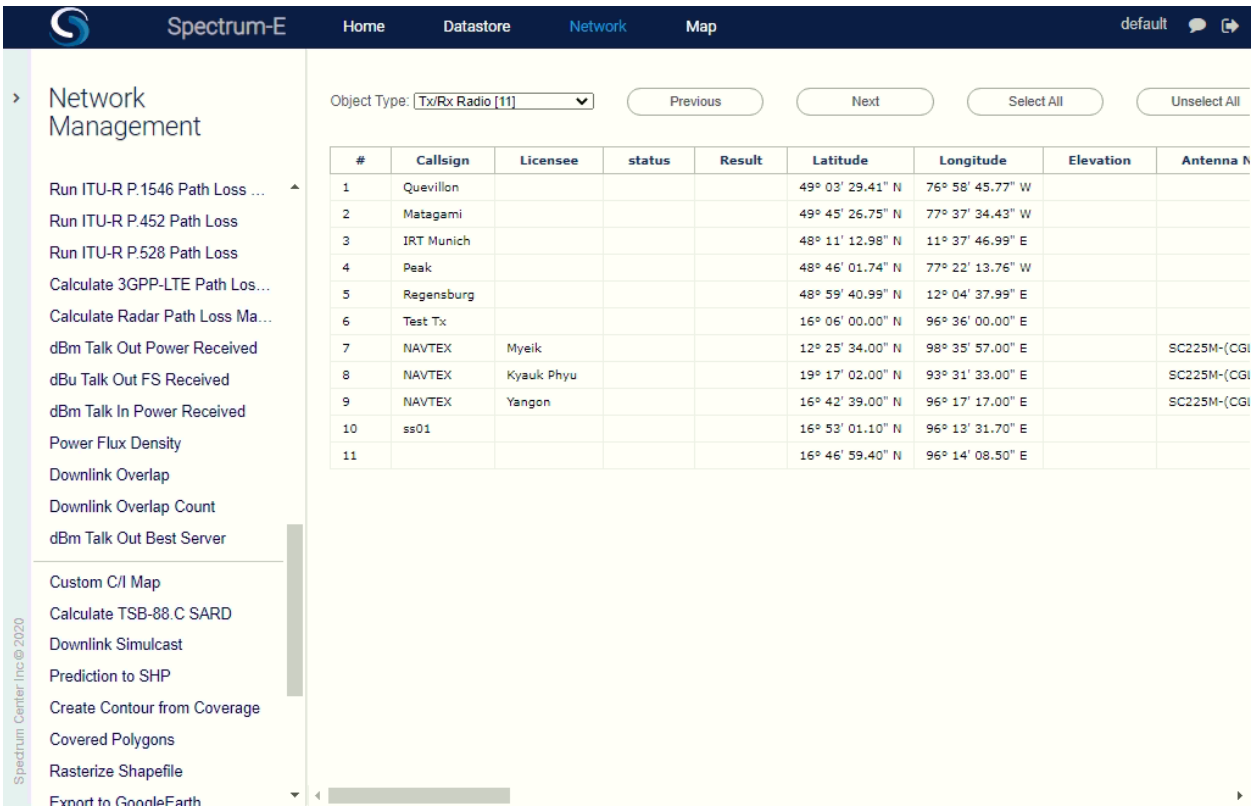
9. Engineering module







#	Callsign	Licensee	status	Result	Latitude	Longitude	Elevation	Antenna N
1	Quevillon				49° 03' 29.41" N	76° 58' 45.77" W		
2	Matagami				49° 45' 26.75" N	77° 37' 34.43" W		
3	IRT Munich				48° 11' 12.98" N	11° 37' 46.99" E		
4	Peak				48° 46' 01.74" N	77° 22' 13.76" W		
5	Regensburg				48° 59' 40.99" N	12° 04' 37.99" E		
6	Test Tx				16° 06' 00.00" N	96° 36' 00.00" E		
7	NAVTEX	Myeik			12° 25' 34.00" N	98° 35' 57.00" E		SC225M-(CGI
8	NAVTEX	Kyauk Phyu			19° 17' 02.00" N	93° 31' 33.00" E		SC225M-(CGI
9	NAVTEX	Yangon			16° 42' 39.00" N	96° 17' 17.00" E		SC225M-(CGI
10	ss01				16° 53' 01.10" N	96° 13' 31.70" E		
11					16° 46' 59.40" N	96° 14' 08.50" E		



#	Callsign	Licensee	status	Result	Latitude	Longitude	Elevation	Antenna N
1	Quevillon				49° 03' 29.41" N	76° 58' 45.77" W		
2	Matagami				49° 45' 26.75" N	77° 37' 34.43" W		
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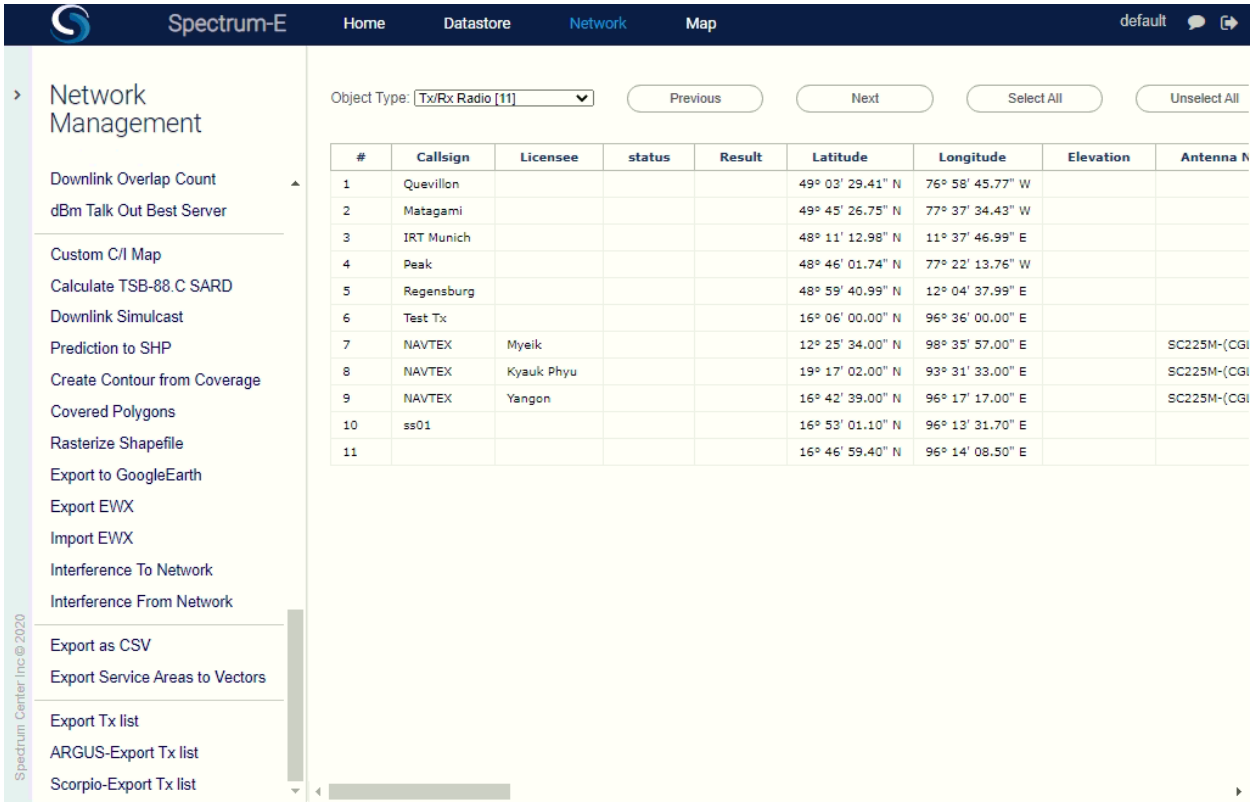
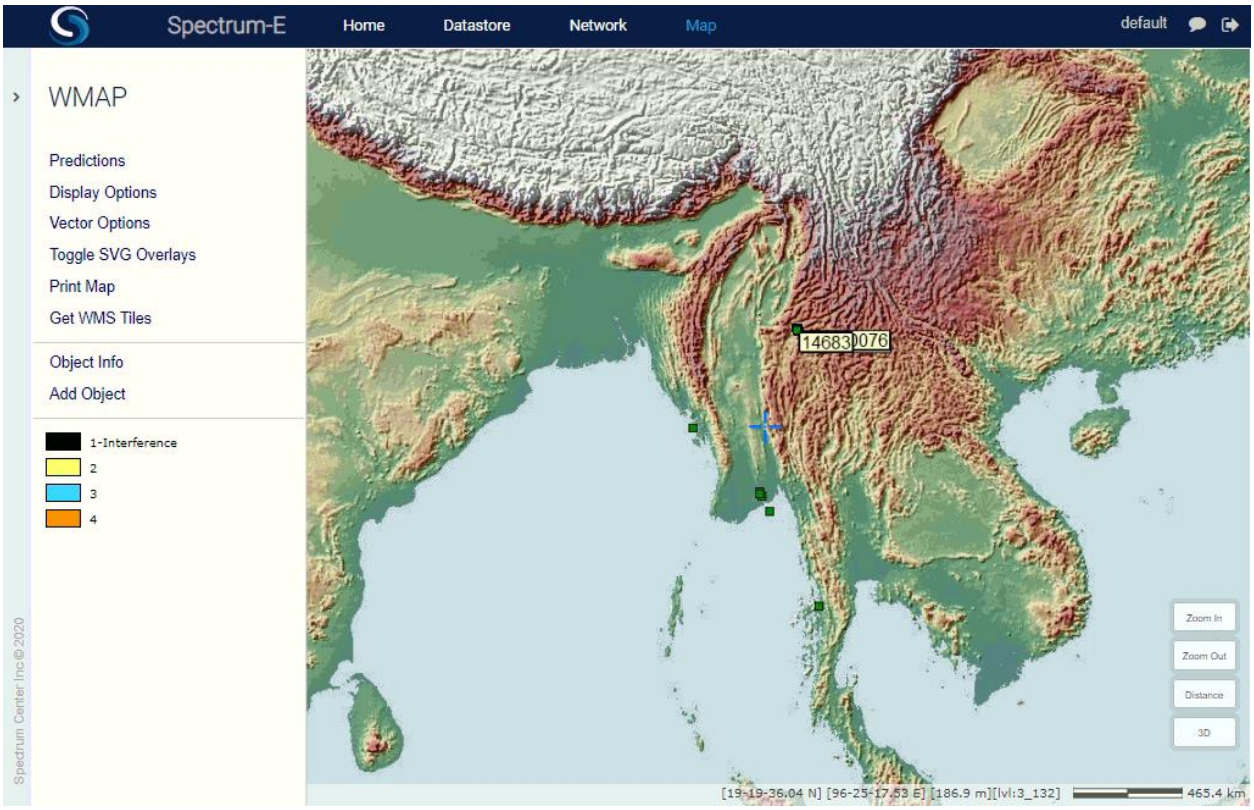
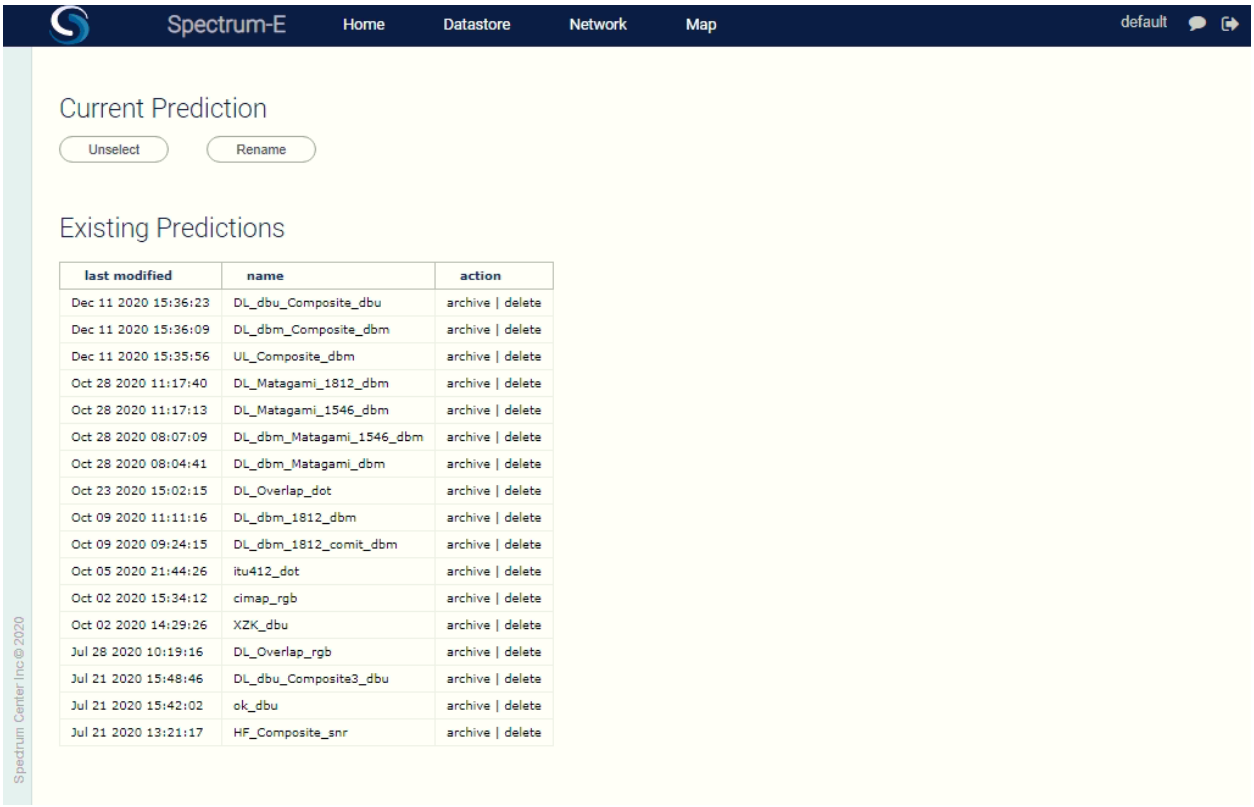
10	ss01				16° 53' 01.10" N	96° 13' 31.70" E		
11					16° 46' 59.40" N	96° 14' 08.50" E		

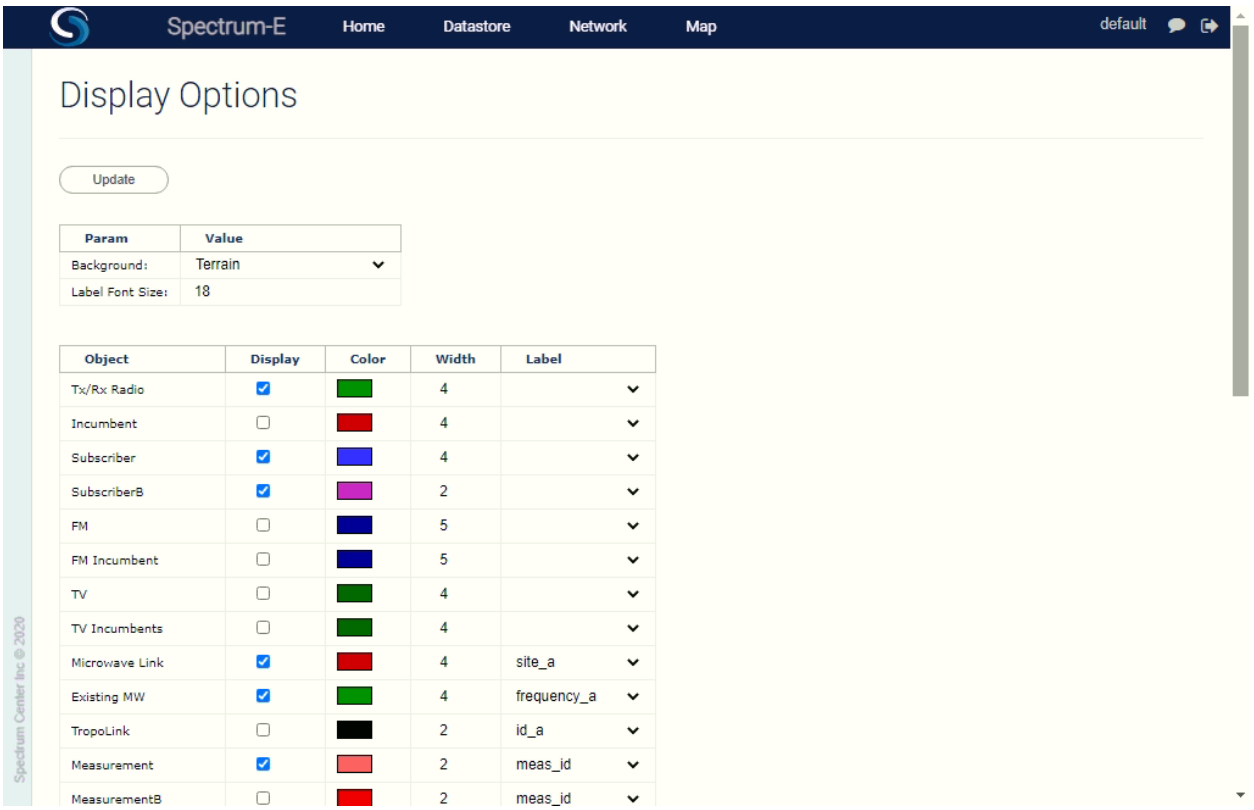

Spectrum-E
Home
Datastore
Network
Map
default
Network Management
Downlink Overlap Count
dBm Talk Out Best Server
Custom C/I Map
Calculate TSB-88.C SARD
Downlink Simulcast
Prediction to SHP
Create Contour from Coverage
Covered Polygons
Rasterize Shapefile
Export to GoogleEarth
Export EWX
Import EWX
Interference To Network
Interference From Network
Export as CSV
Export Service Areas to Vectors
Export Tx list
ARGUS-Export Tx list
Scorpio-Export Tx list
Spectrum Center Inc © 2020
Object Type: Tx/Rx Radio [11]
Previous
Next
Select All
Unselect All
Callsign Licensee status Result Latitude Longitude Elevation Antenna N
1 Quevillon 49° 03' 29.41" N 76° 58' 45.77" W
2 Matagami 49° 45' 26.75" N 77° 37' 34.43" W
3 IRT Munich 48° 11' 12.98" N 11° 37' 46.99" E
4 Peak 48° 46' 01.74" N 77° 22' 13.76" W
5 Regensburg 48° 59' 40.99" N 12° 04' 37.99" E
6 Test Tx 16° 06' 00.00" N 96° 36' 00.00" E
7 NAVTEX Myeik 12° 25' 34.00" N 98° 35' 57.00" E SC225M-(CGI
8 NAVTEX Kyauk Phyu 19° 17' 02.00" N 93° 31' 33.00" E SC225M-(CGI
9 NAVTEX Yangon 16° 42' 39.00" N 96° 17' 17.00" E SC225M-(CGI
10 ss01 16° 53' 01.10" N 96° 13' 31.70" E
11 16° 46' 59.40" N 96° 14' 08.50" E

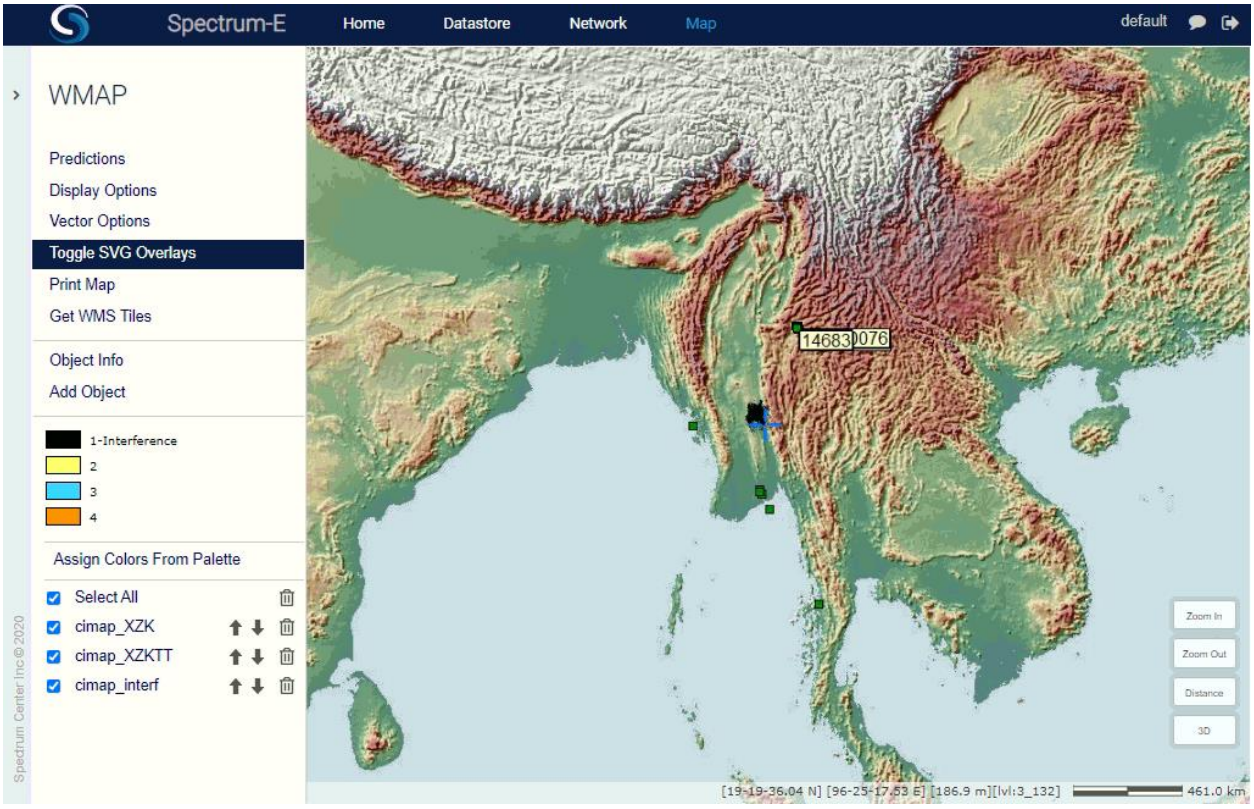
10. MAPs

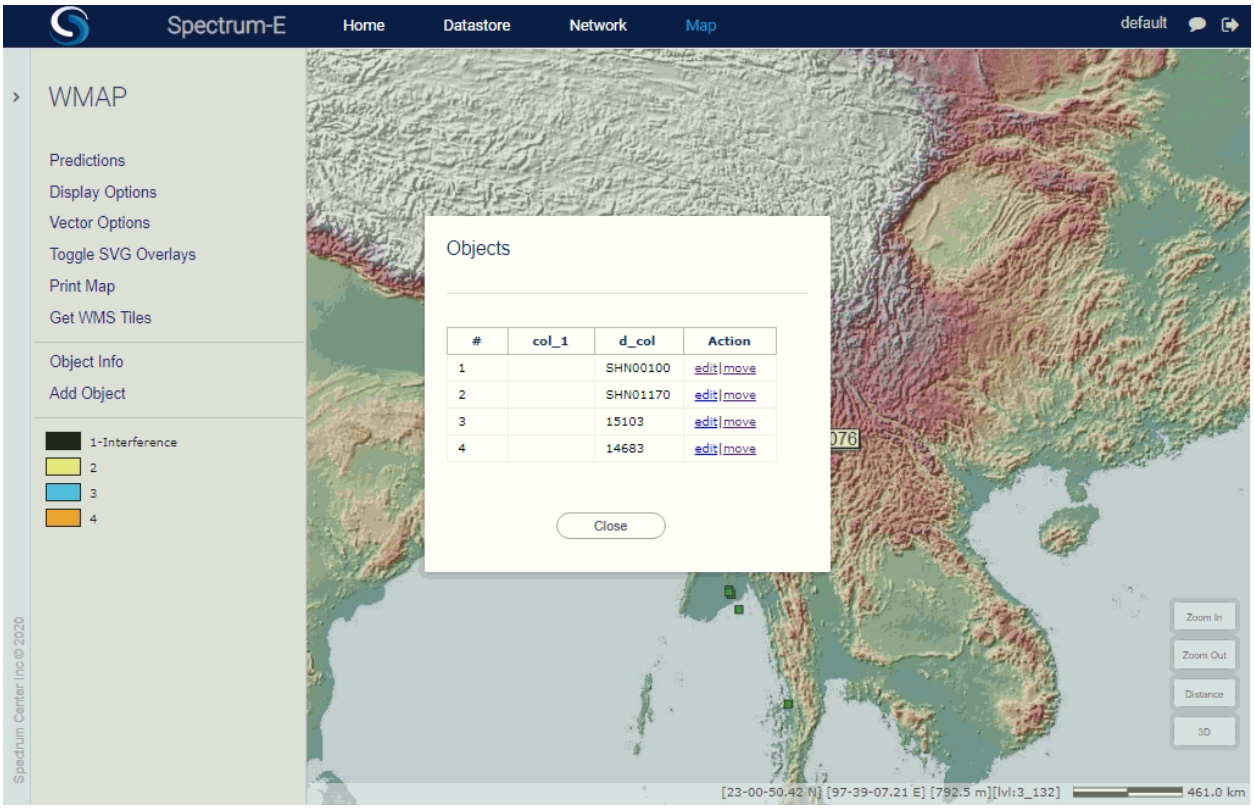

Spectrum-E
Home
Datastore
Network
Map
default
WMAP
Predictions
Display Options
Vector Options
Toggle SVG Overlays
Print Map
Get WMS Tiles
Object Info
Add Object
1-Interference
2
3
4
Spectrum Center Inc © 2020
14683076
Zoom In
Zoom Out
Distance
3D
[19-19-36.04 N] [96-25-17.53 E] [186.9 m][lvl:3_132]
465.4 km

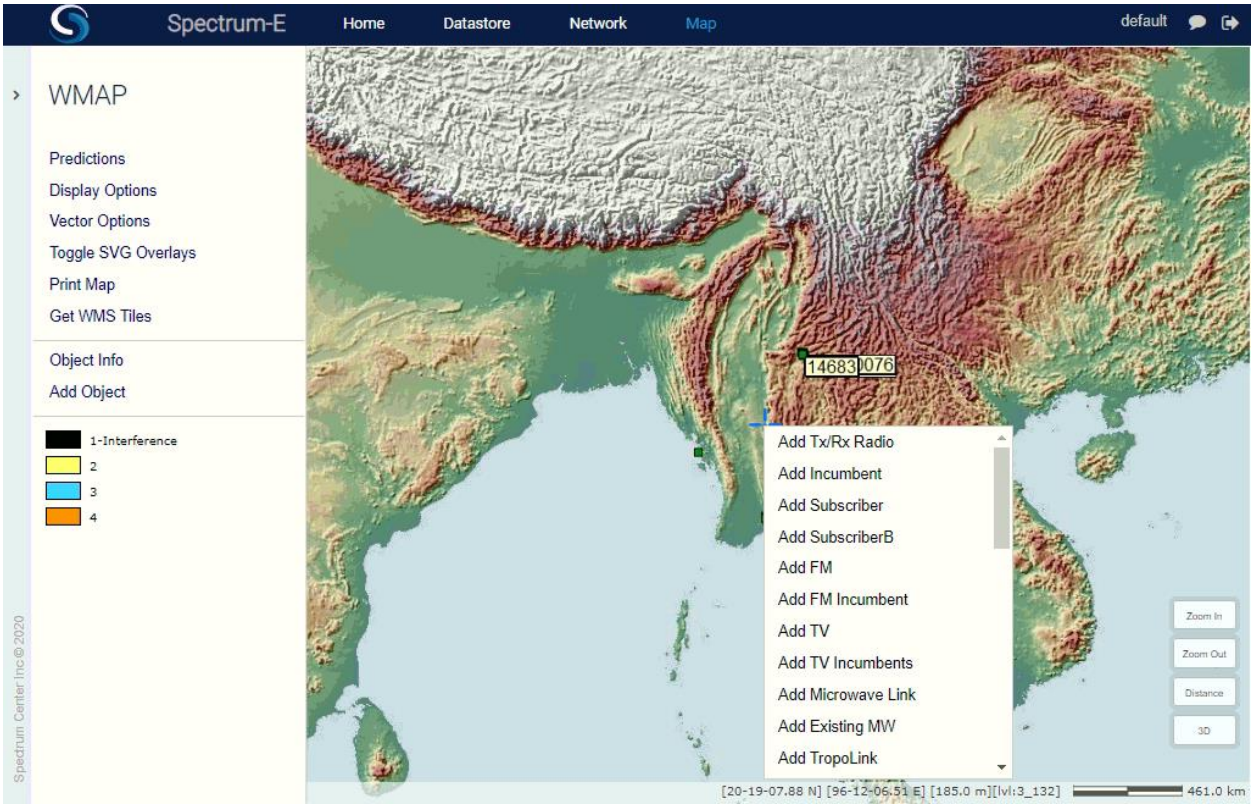
11. Prediction



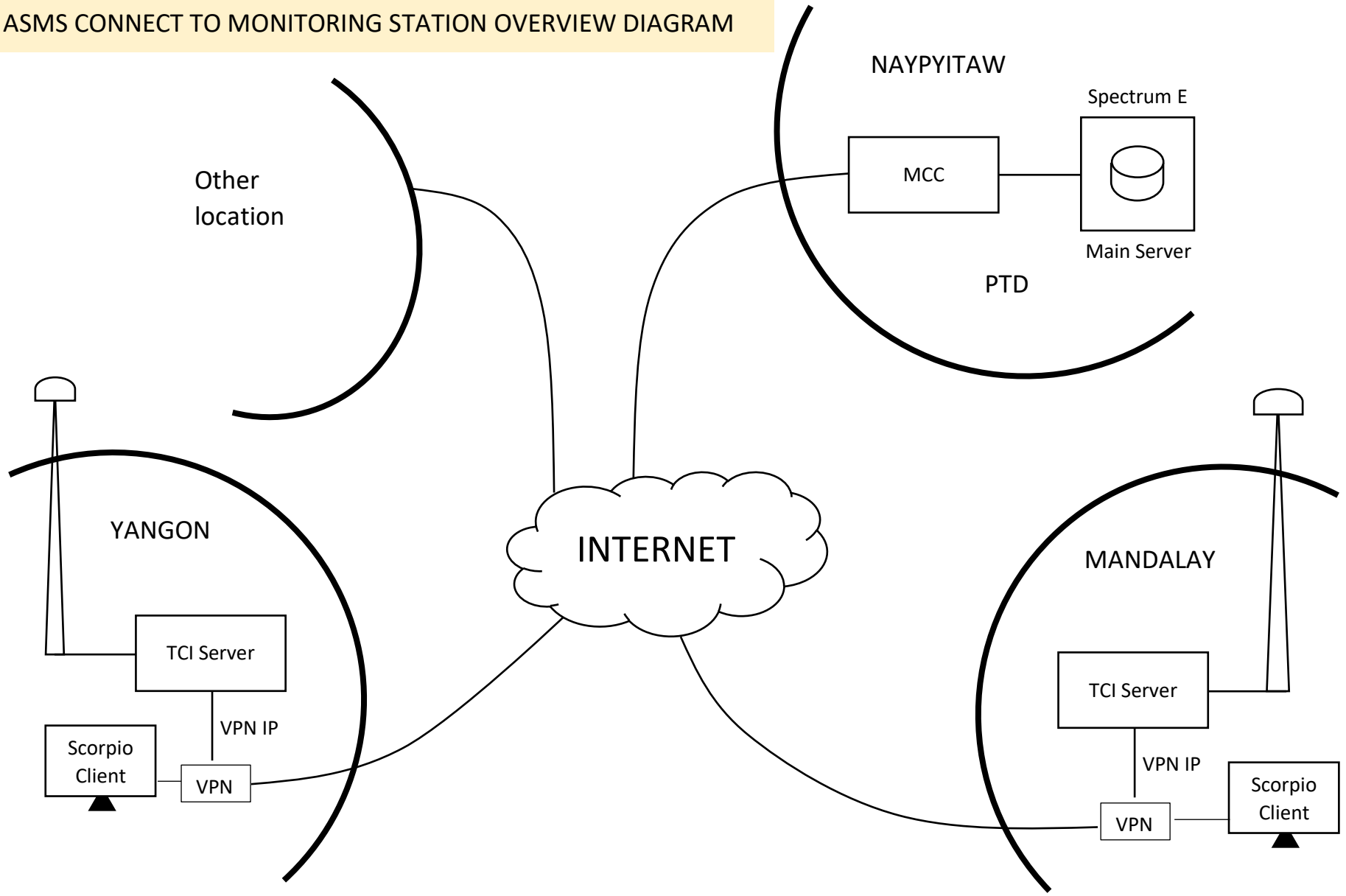



Spectrum-E
Home
Datastore
Network
Map
default
WMAP
Predictions
Display Options
Vector Options
Toggle SVG Overlays
Print Map
Get WMS Tiles
Object Info
Add Object
1-Interference
2
3
4
Assign Colors From Palette
Select All
cimap_XZK
cimap_XZKTT
cimap_interf
Spectrum Center Inc © 2020
14683 076
Zoom In
Zoom Out
Distance
3D
[19-19-36.04 N] [96-25-17.53 E] [186.9 m][lvl:3_132]
461.0 km

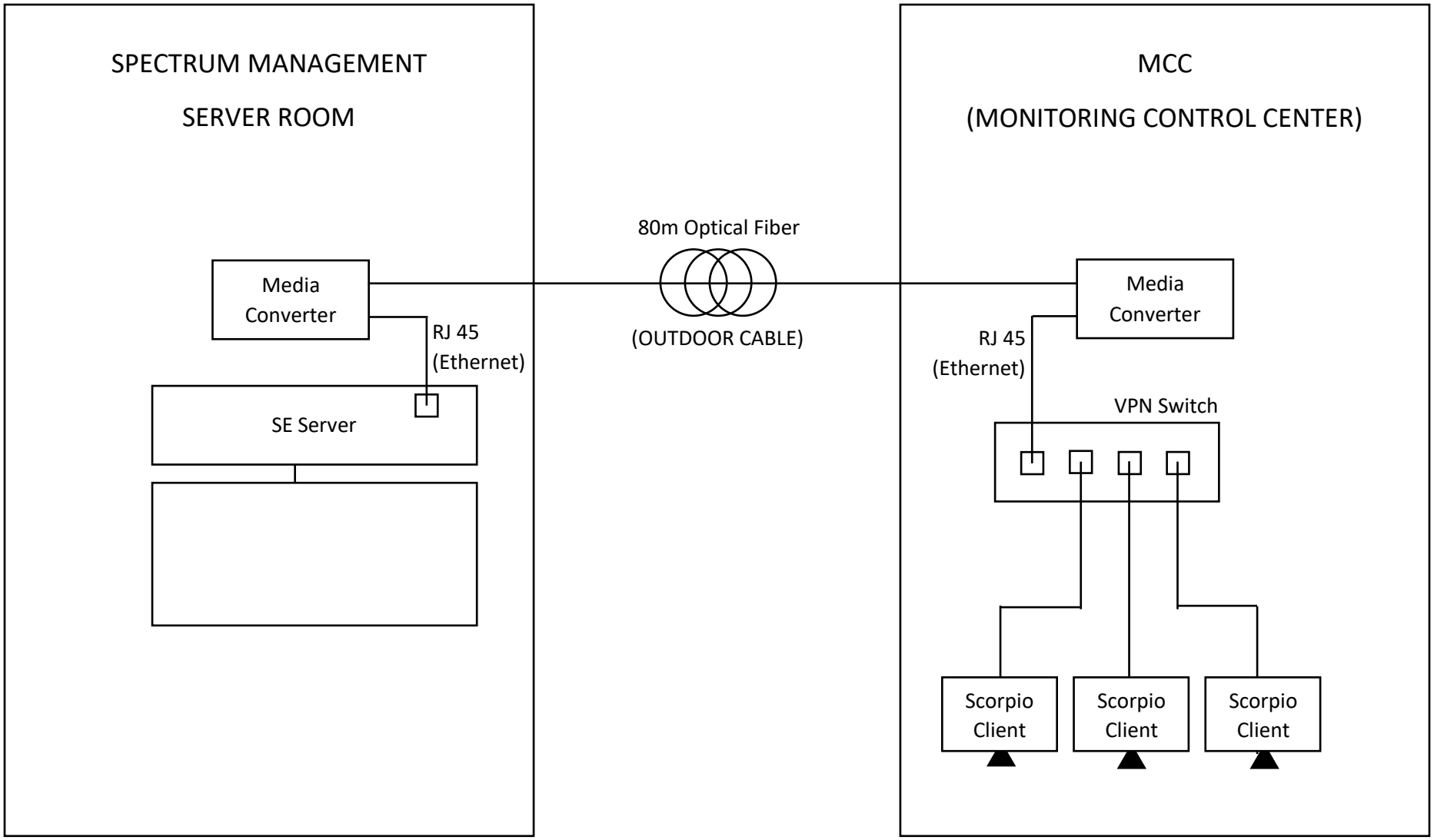

Spectrum-E
Home
Datastore
Network
Map
default
WMAP
Predictions
Display Options
Vector Options
Toggle SVG Overlays
Print Map
Get WMS Tiles
Object Info
Add Object
1-Interference
2
3
4
Objects
col_1 d_col Action
1 SHN00100 edit|move
2 SHN01170 edit|move
3 15103 edit|move
4 14683 edit|move
Close
Spectrum Center Inc © 2020
Zoom In
Zoom Out
Distance
3D
[23-00-50.42 N] [97-39-07.21 E] [792.5 m][lvl:3_132]
461.0 km


Spectrum-E
Home
Datastore
Network
Map
default
WMAP
Predictions
Display Options
Vector Options
Toggle SVG Overlays
Print Map
Get WMS Tiles
Object Info
Add Object
1-Interference
2
3
4
Spectrum Center Inc© 2020
14683 076
Add Tx/Rx Radio
Add Incumbent
Add Subscriber
Add SubscriberB
Add FM
Add FM Incumbent
Add TV
Add TV Incumbents
Add Microwave Link
Add Existing MW
Add TropoLink
Zoom In
Zoom Out
Distance
3D
[20-19-07.88 N] [96-12-06.51 E] [185.0 m][lvl:3_132]
461.0 km

ASMS CONNECT TO MONITORING STATION OVERVIEW DIAGRAM

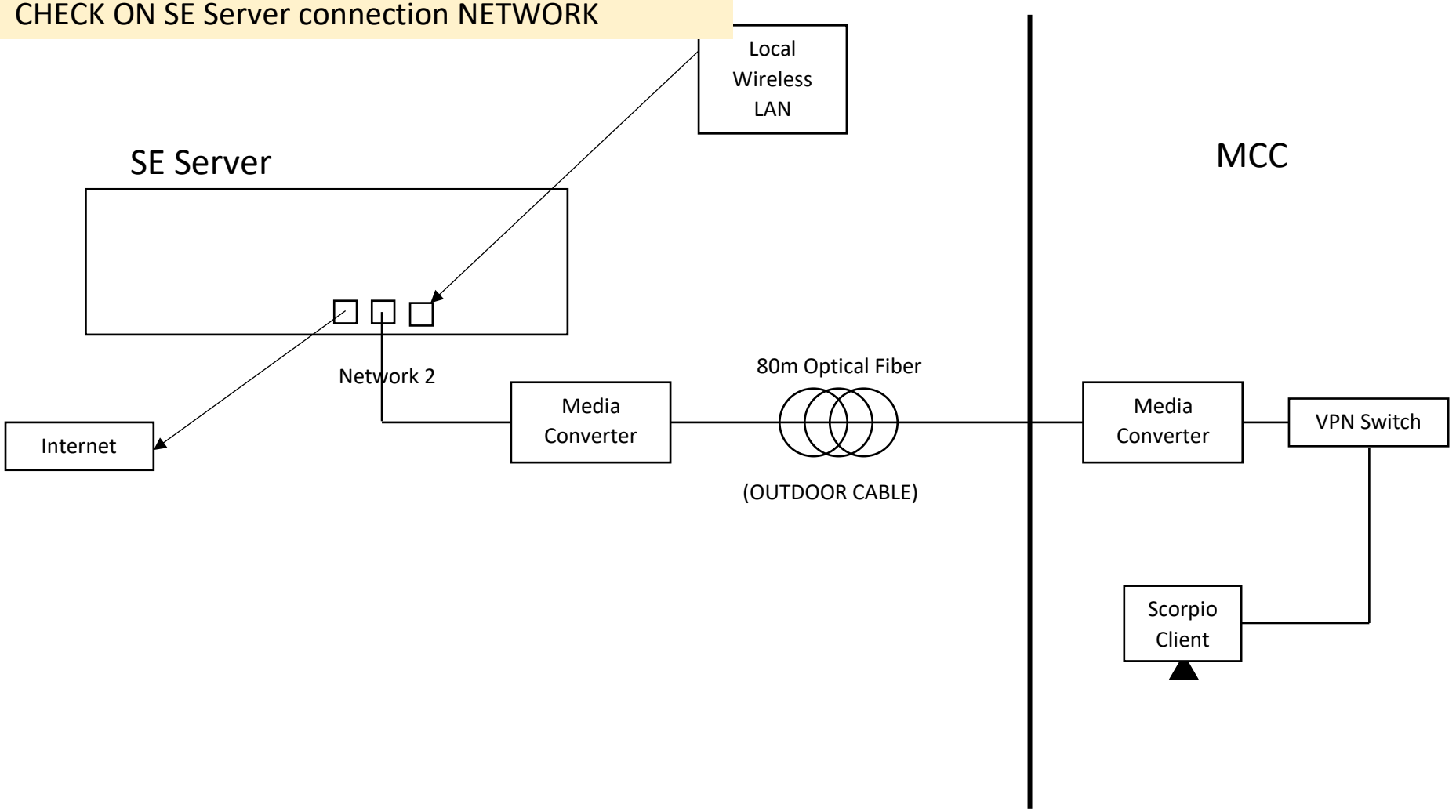


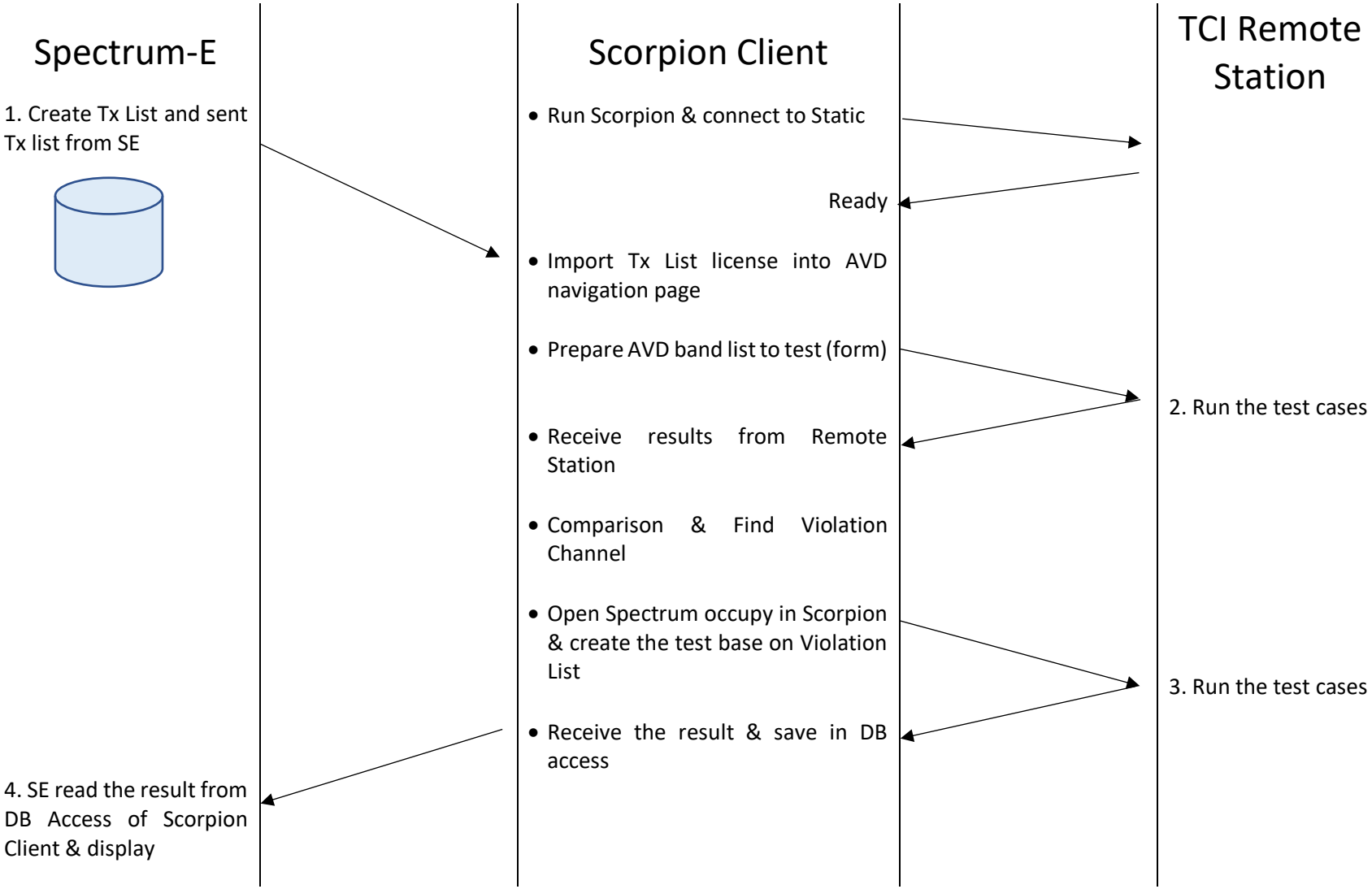
NAYPYITAW PTD OFFICE



FOR REMOTE CONNECTING TO MONITORING STATION

CHECK ON SE Server connection NETWORK



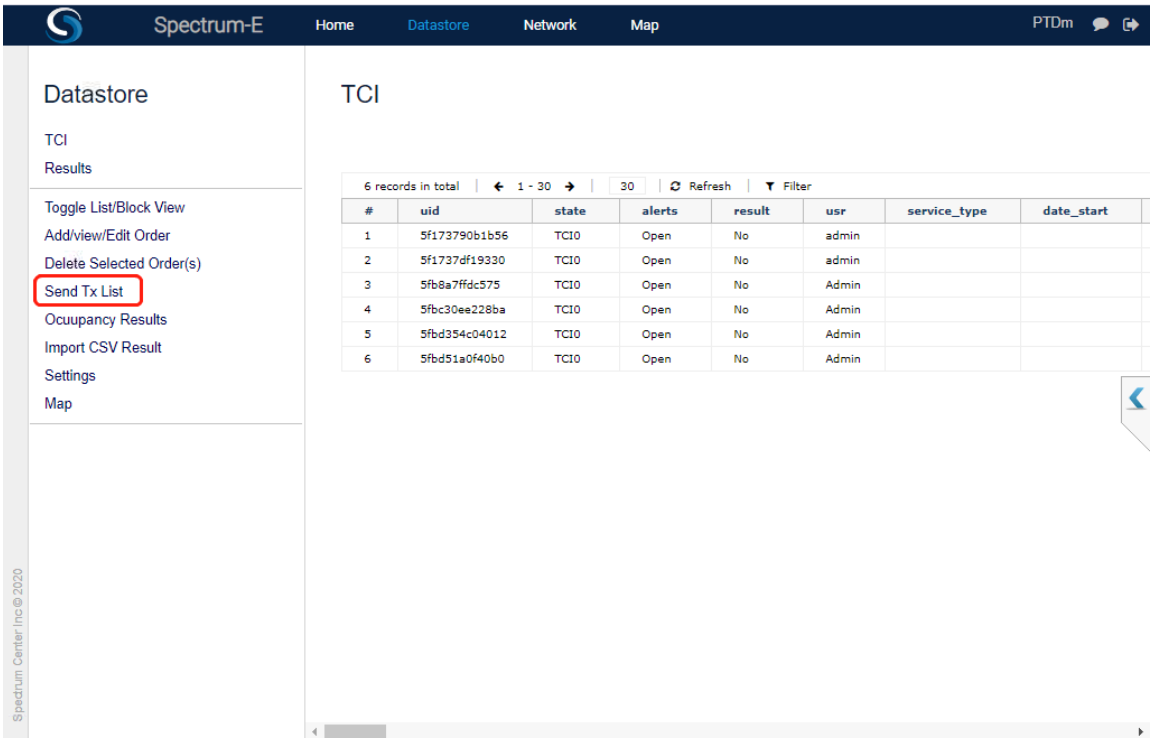


SPECTRUM-E – SCORPIO CLIENT – TCI REMOTE STATIONS PROTOCOL

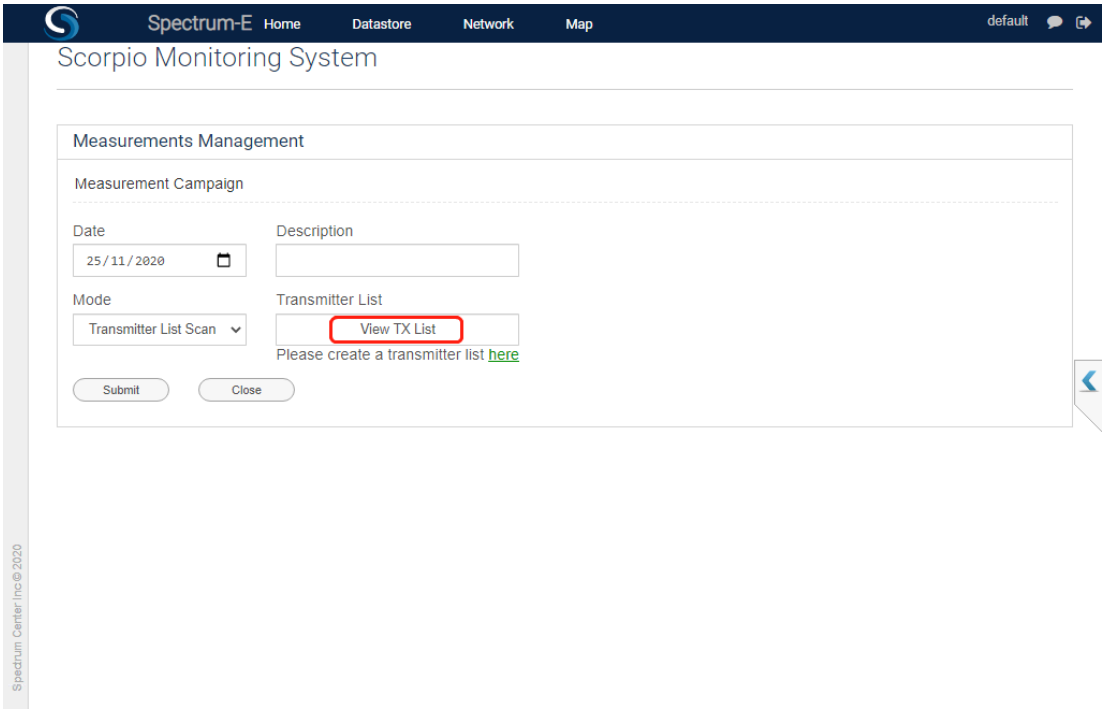
Remote Monitoring Module User Guide

1. Send Tx List (in Spectrum-E)

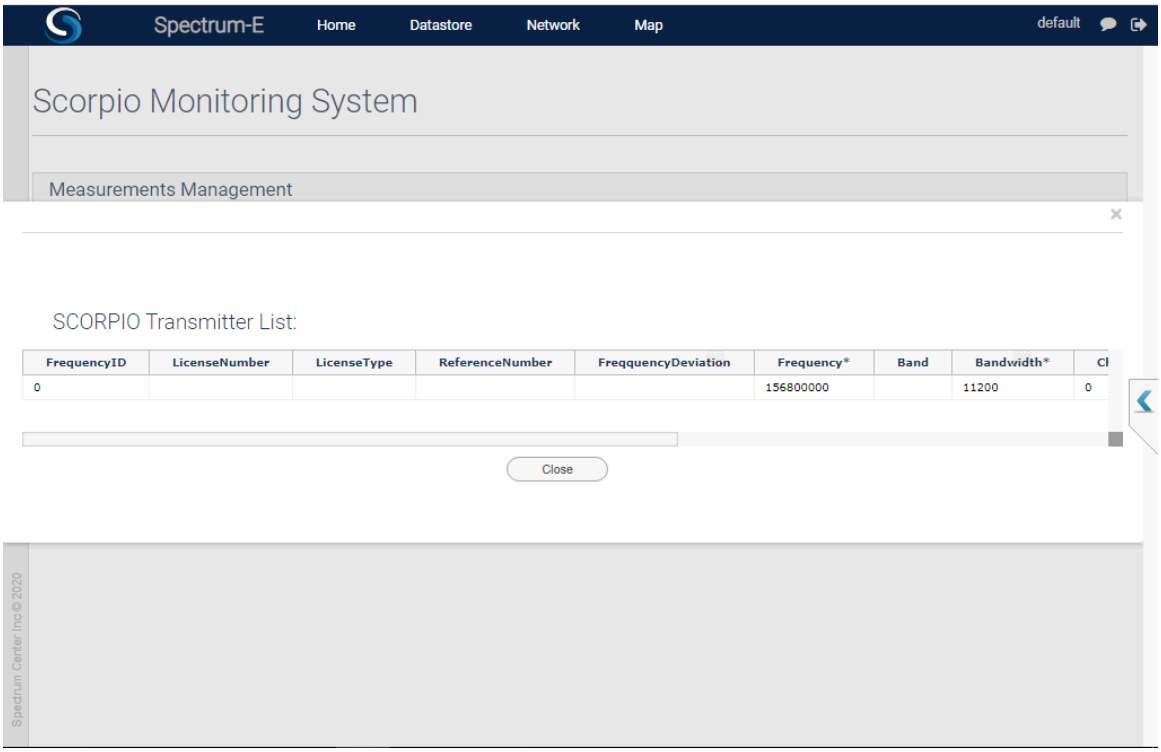
Step 1: To send transmitter list to the Scorpio Client folder, click on “Send Tx List”.



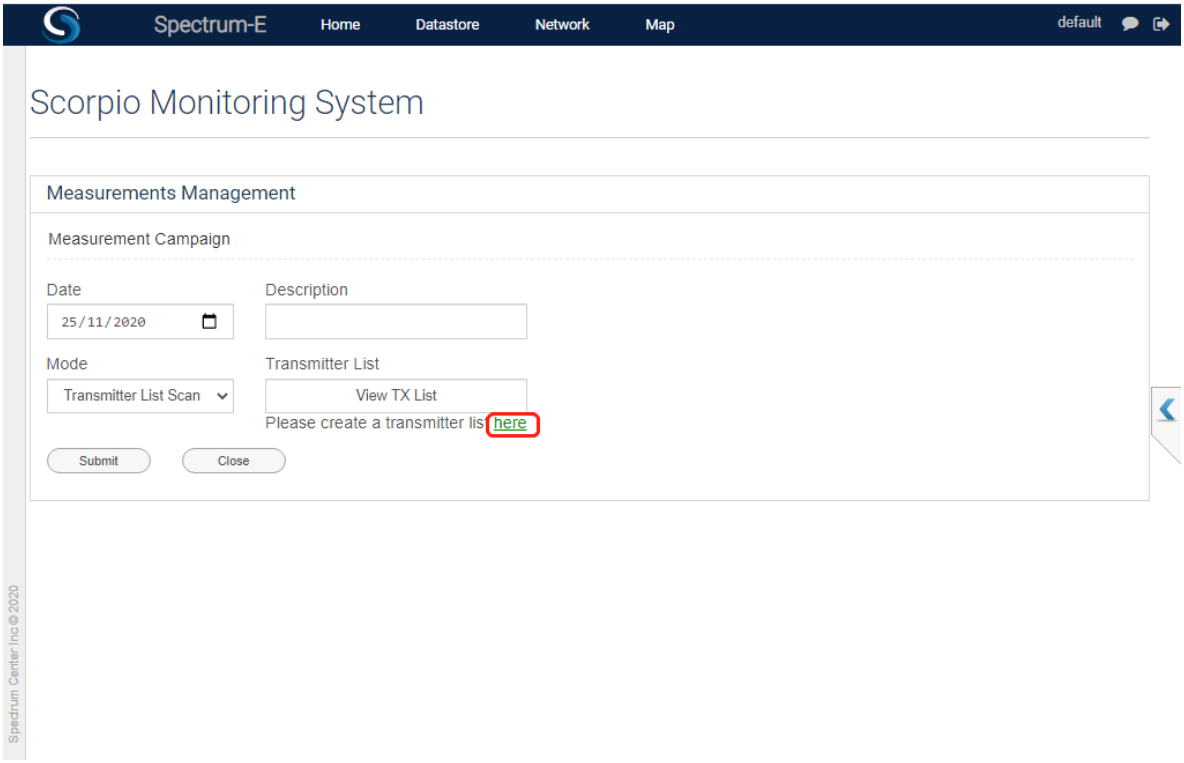
Step 2: User can click “View TX List” to preview the current transmitter list.



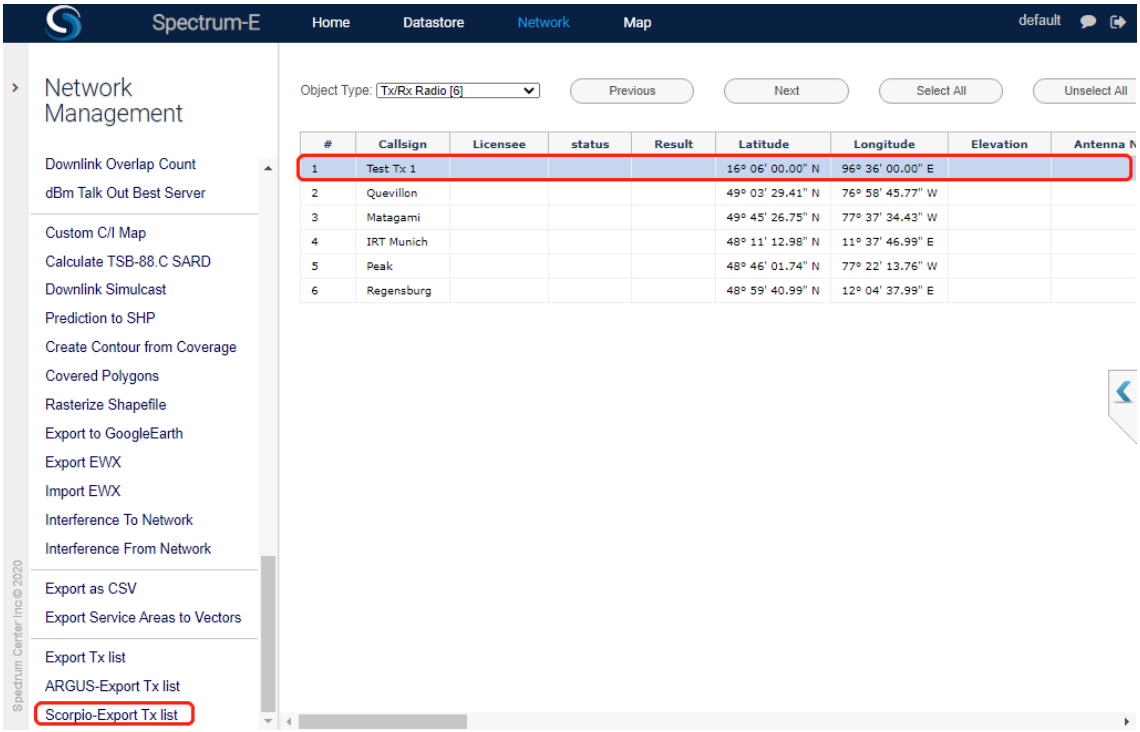
The screenshot below shows the Tx list preview page.



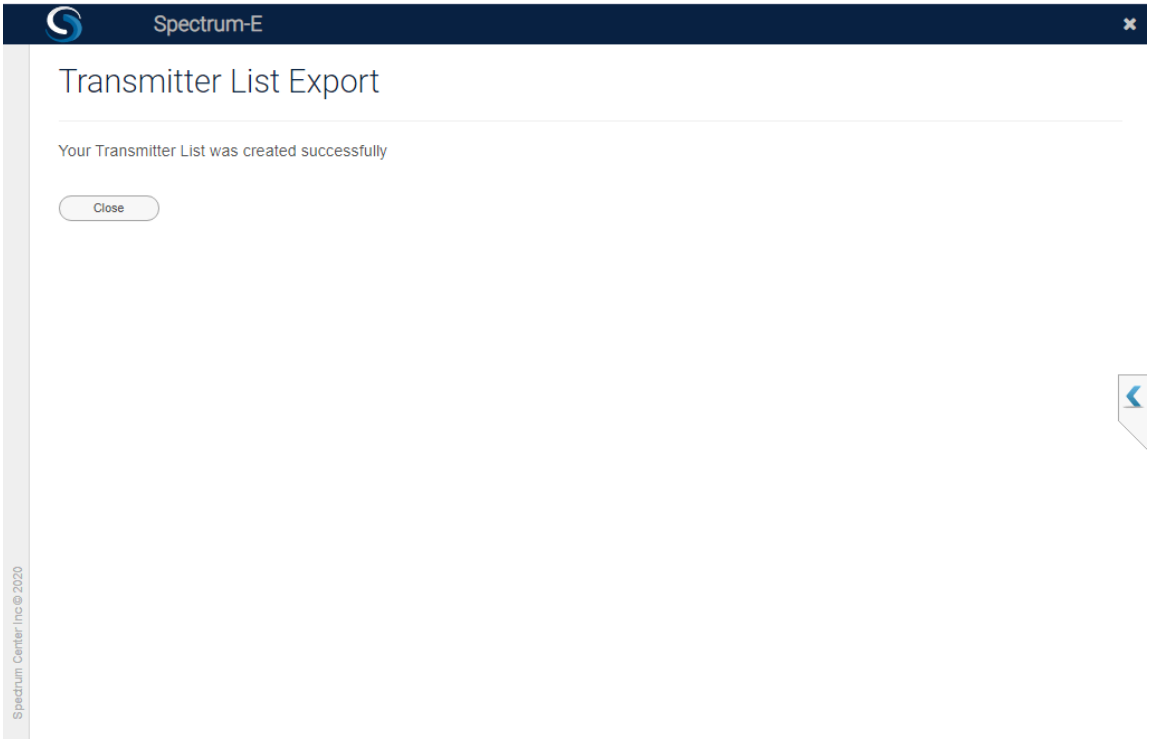
Step 3: If there is no transmitter list or user wants to create a new list, click the button that is marked red in the screenshot below. It will take the user to the Network page in Spectrum-E.



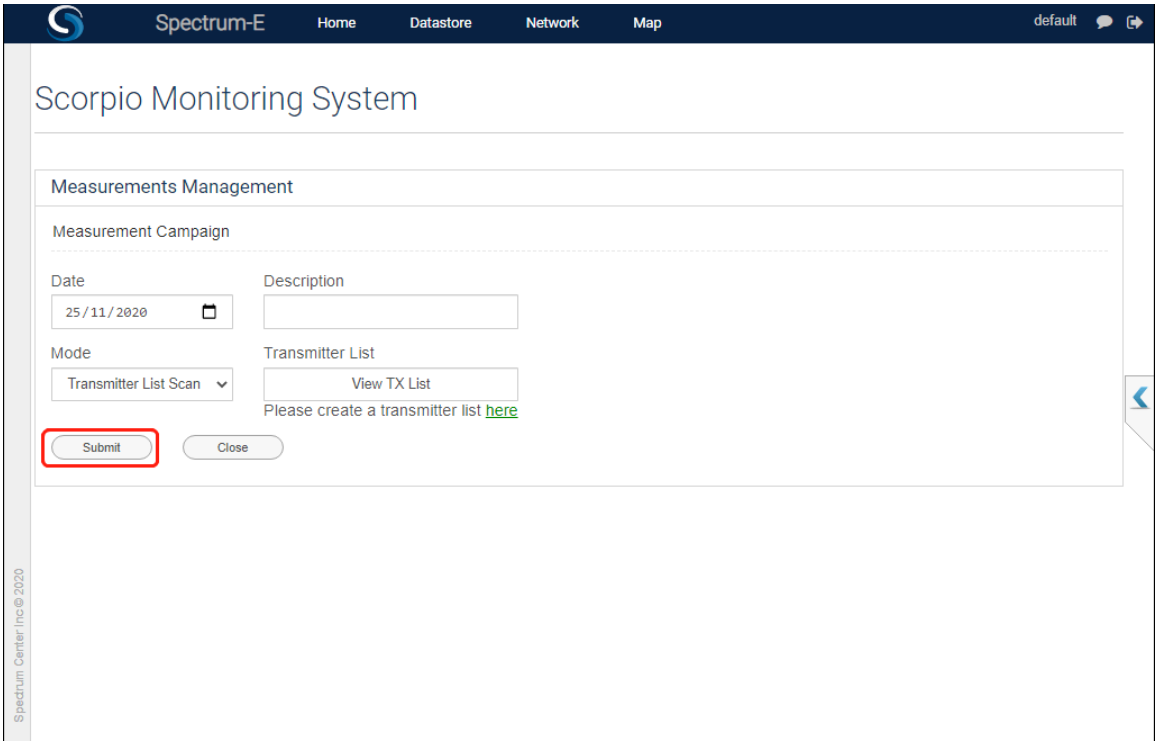
Step 4: User can create new Tx/Rx Radio objects or use existing objects. Next, select the objects that the user wants to put inside the transmitter list, and then click “Scorpio-Export Tx List” on the left-side menu bar.



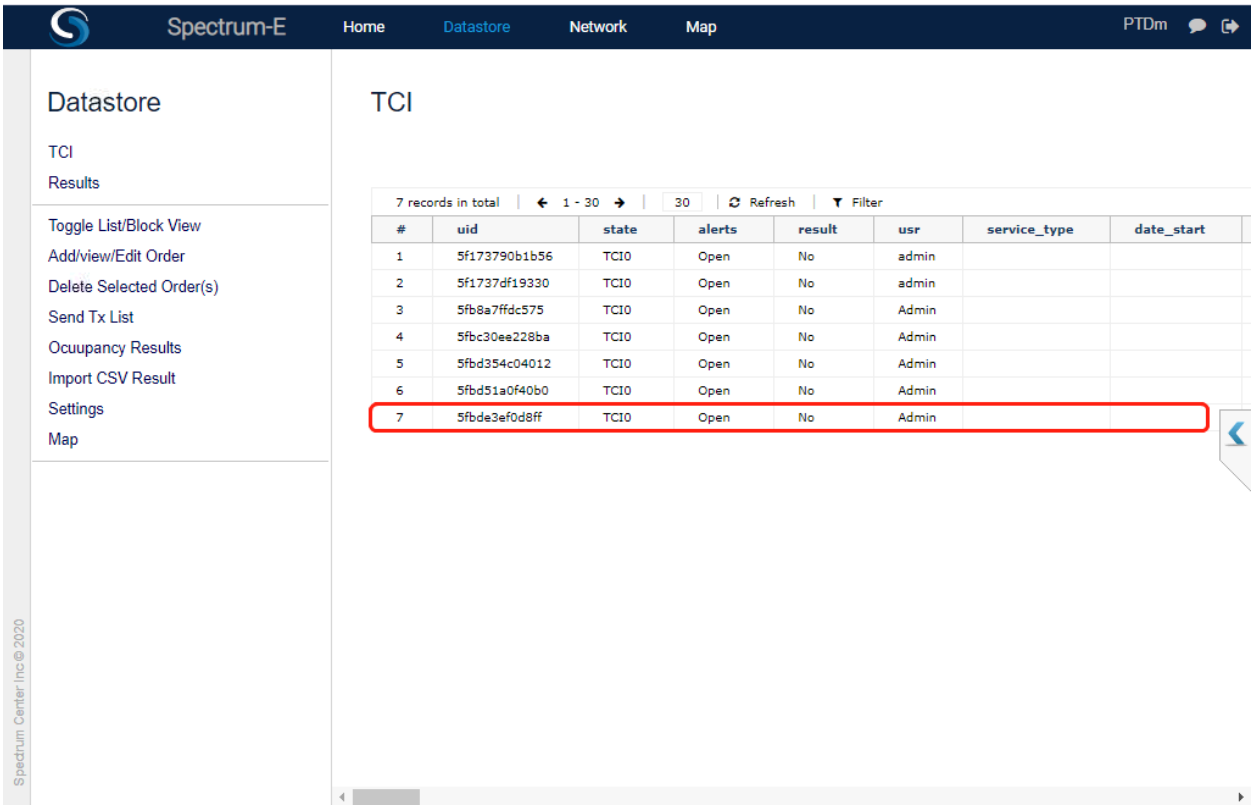
Step 5: If the transmitter list is created successfully, it will display the page below. Then user can go back to the monitoring datastore and go to “Send Tx List”.



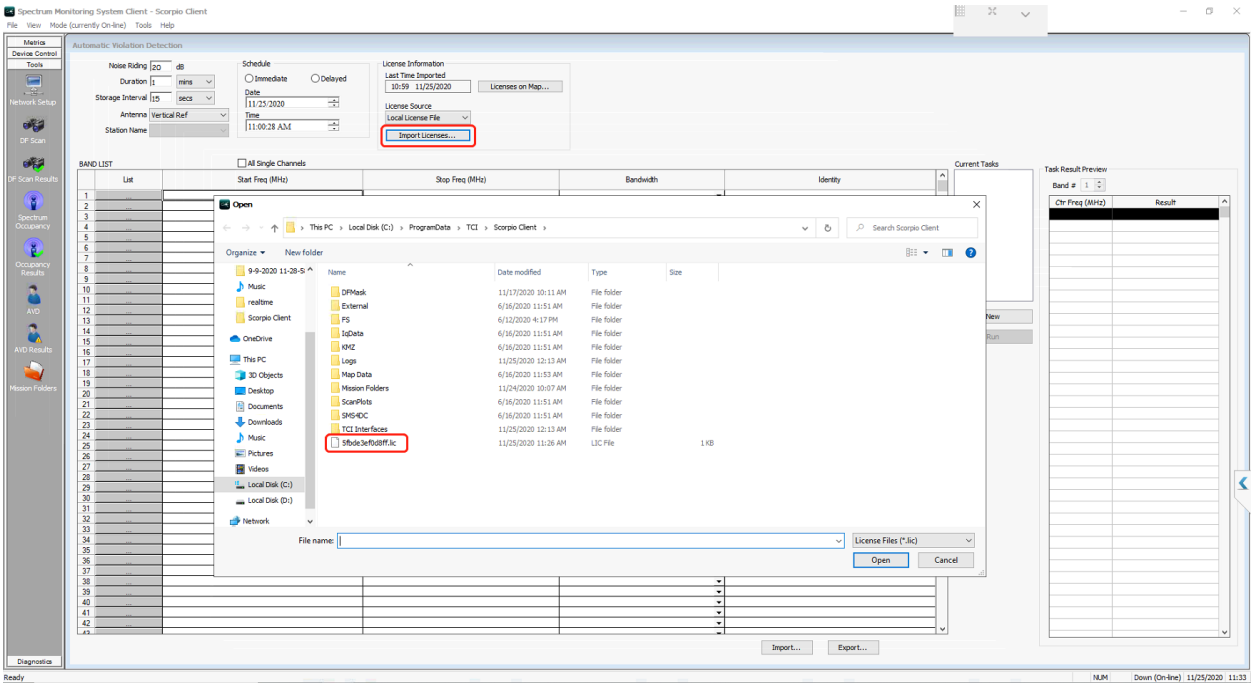
Step 6: User can check the newly created Tx list by following Step 2. If it's good, user can click Submit.



If the Tx list is successfully sent to the Scorpio Client folder, it will go back to the monitoring datastore and a new row of record is added to the table suggesting the "Send Tx List" task is performed.

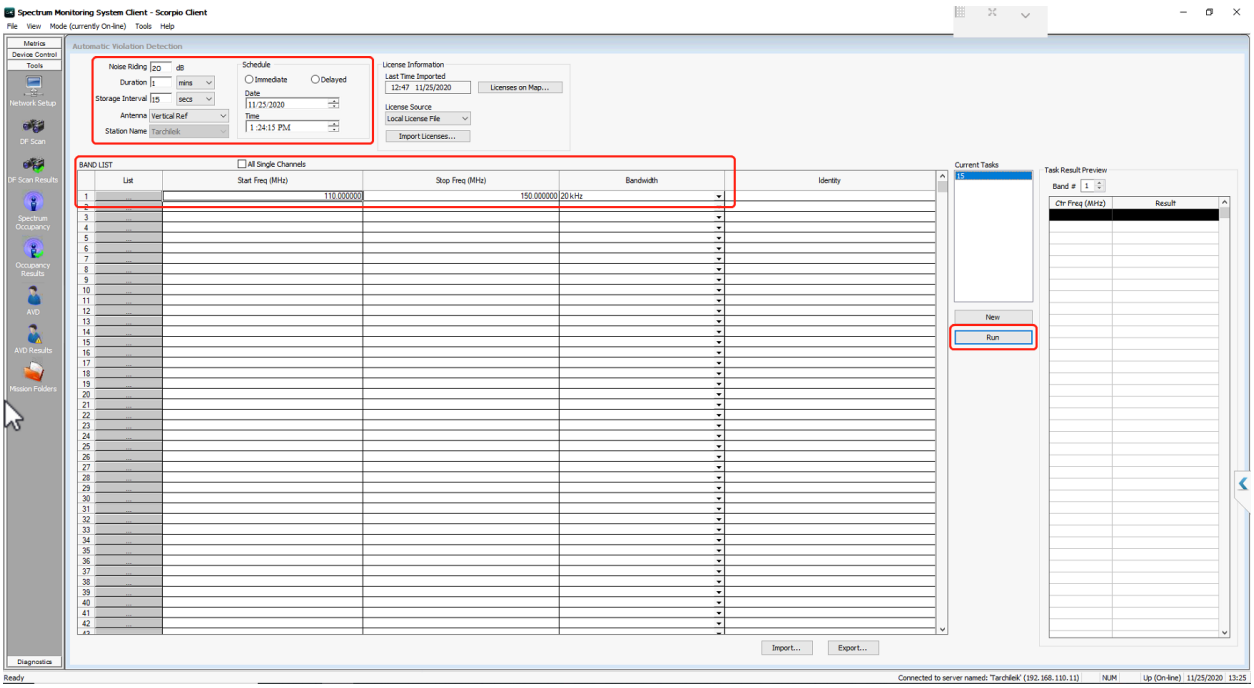


Step 7: In the Scorpio Client PC, user can find the .lic file in the Scorpio Client folder (C:\ProgramData\TCI\Scorpio Client) and import it to the Scorpio Client AVD window.

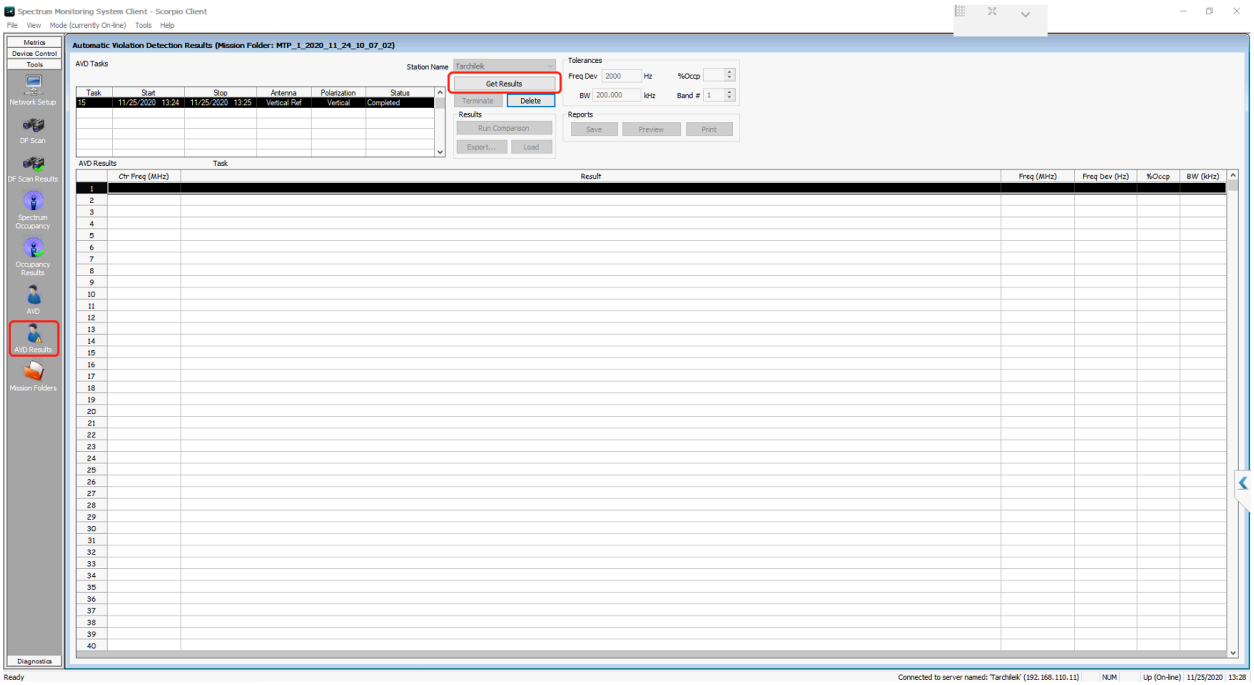


2. Run AVD analysis (in Scorpio Client)

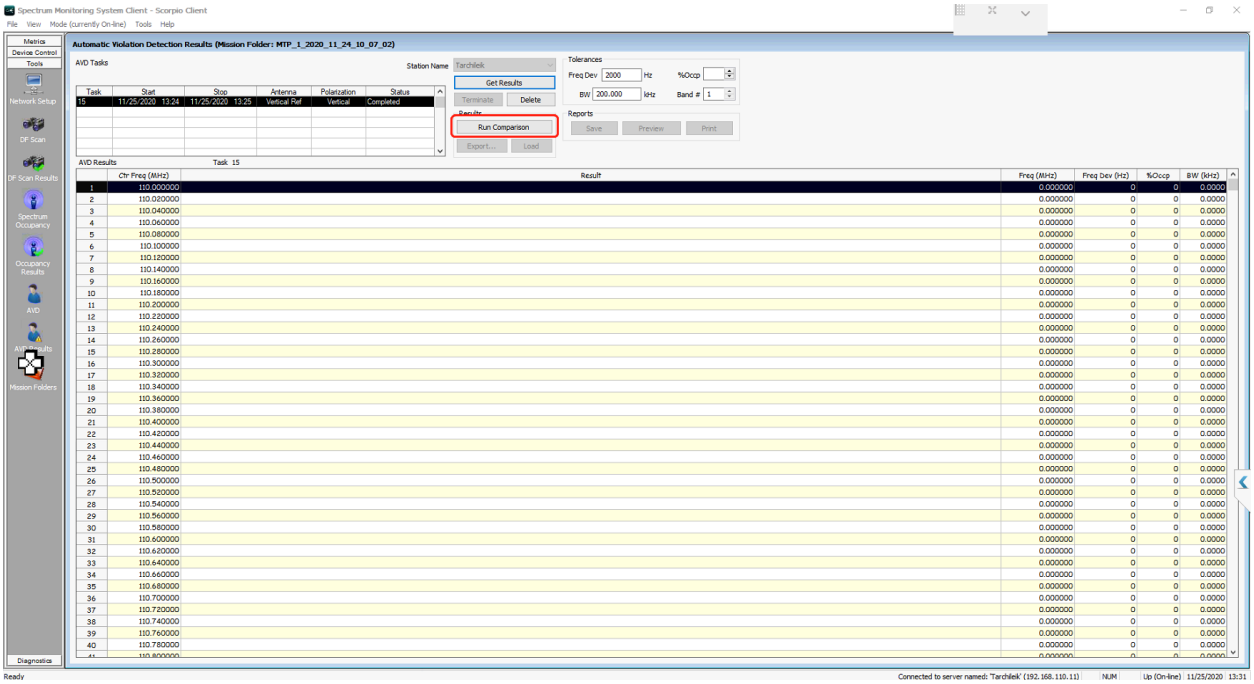
Step 1: After importing the .lic file, user can change settings at the top, input Start Freq, Stop Freq and Bandwidth information in the “BAND LIST” table and click “Run”.



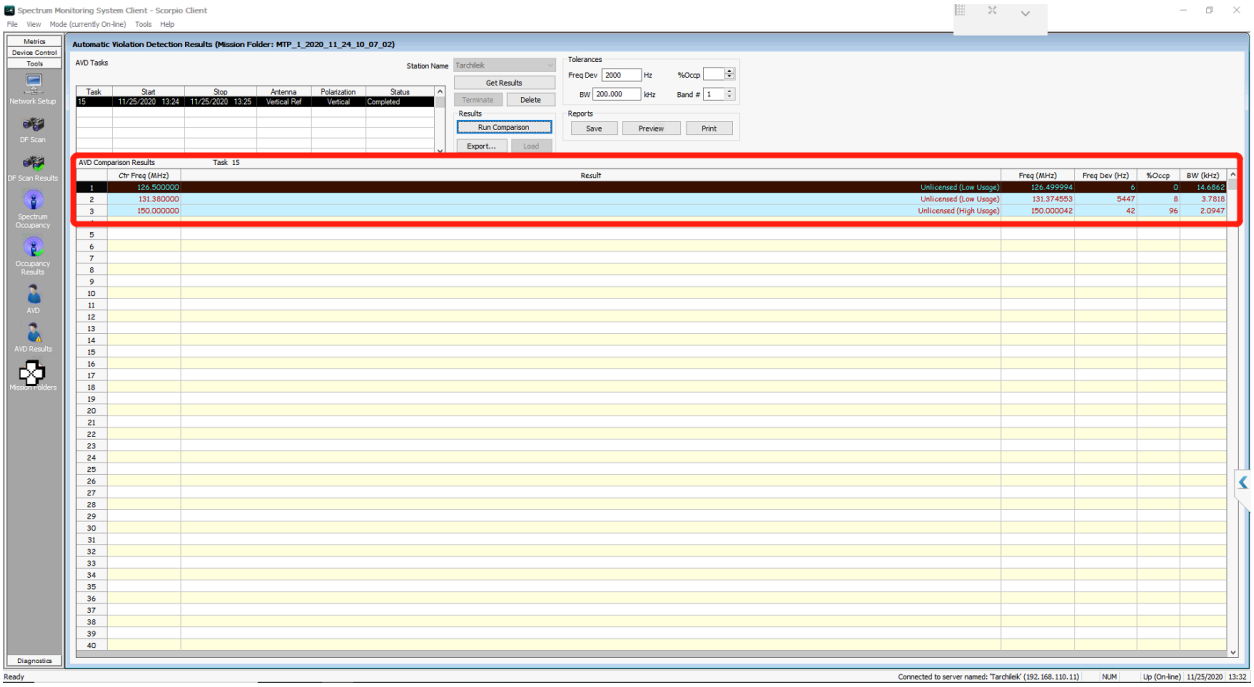
Step 2: Then the user can go to “AVD Results”. If the task is completed, user can click “Get Results” button to get analysis results.



After results are shown, the “Run Comparison” button becomes available.

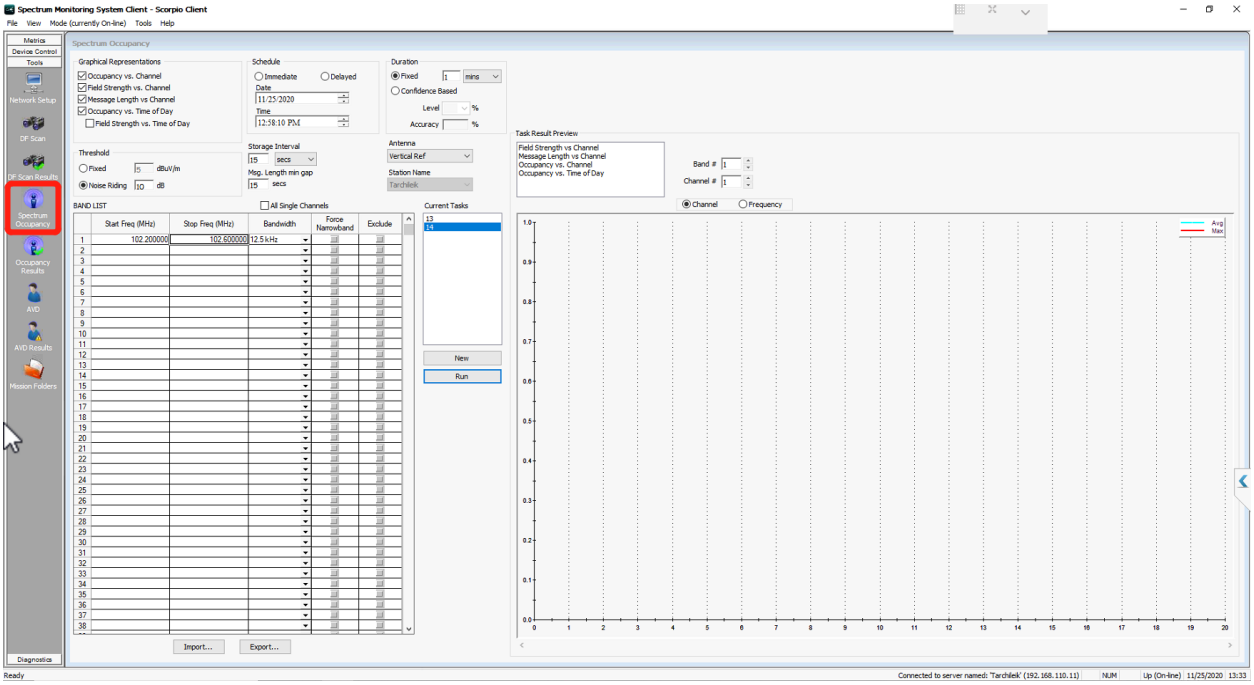


Step 3: Click the “Run Comparison” button to view comparison results.

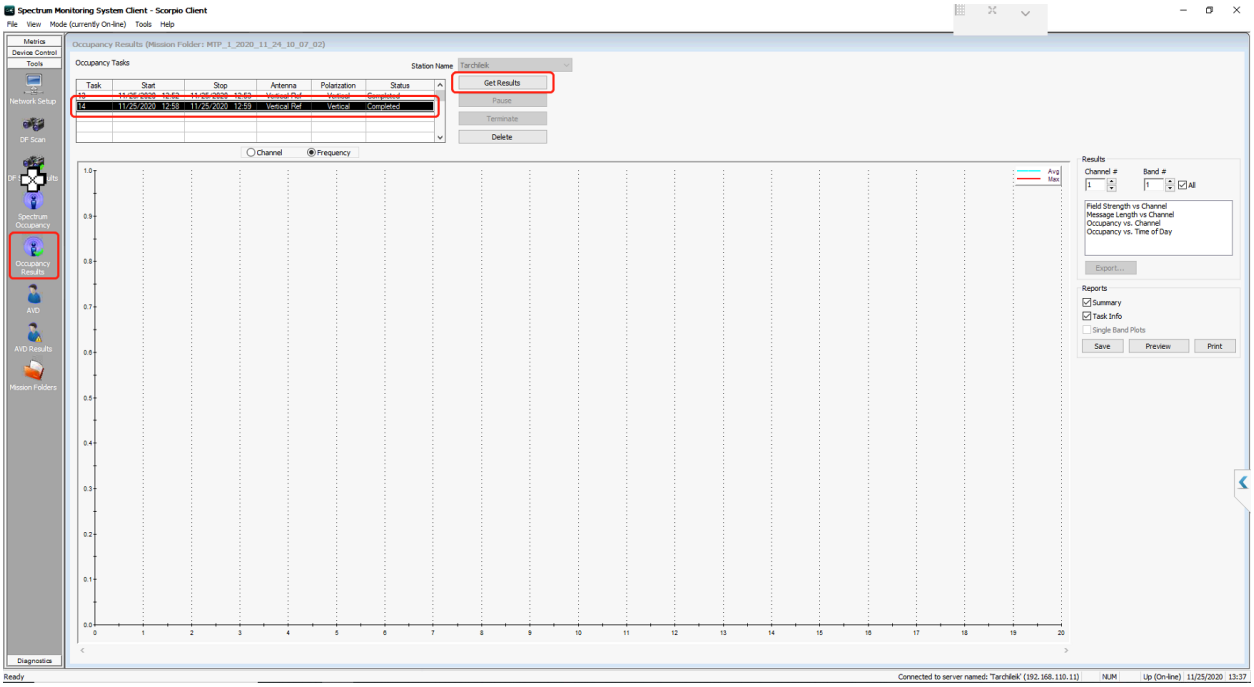


3. Run Occupancy analysis (in Scorpio Client)

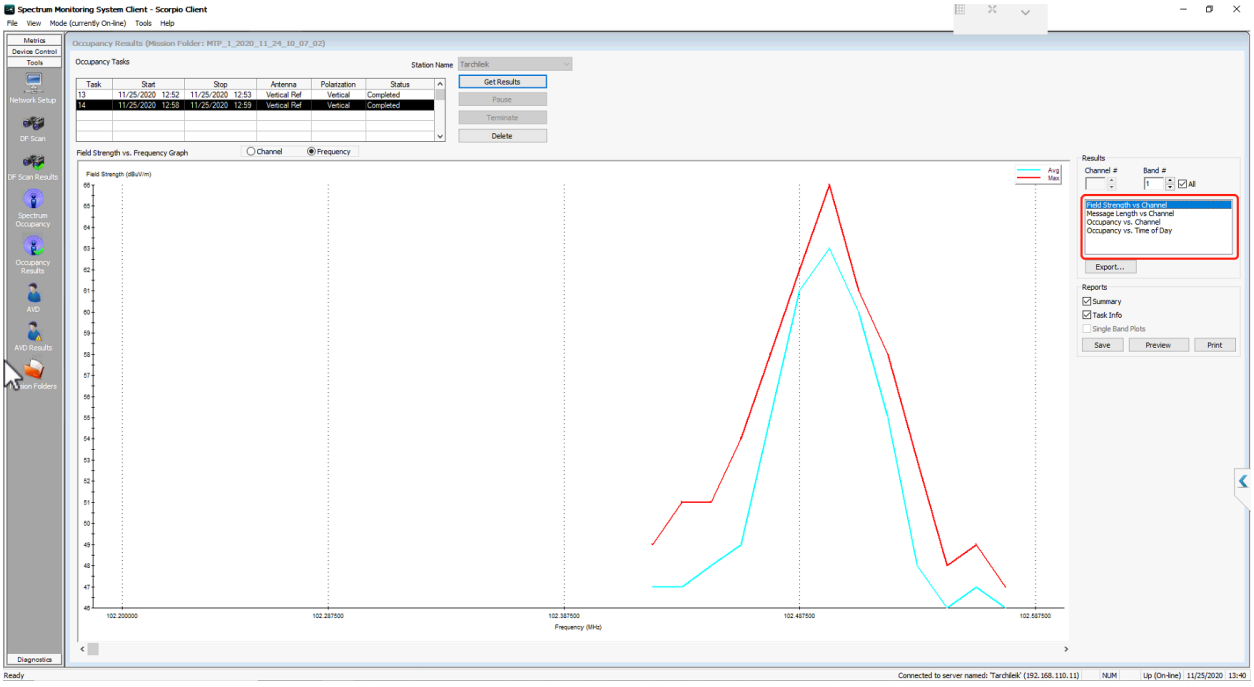
Step 1: Go to “Spectrum Occupancy” to run Occupancy analysis, user can change settings, input Start Freq, Stop Freq and Bandwidth information in the “BAND LIST” table and click “Run”.



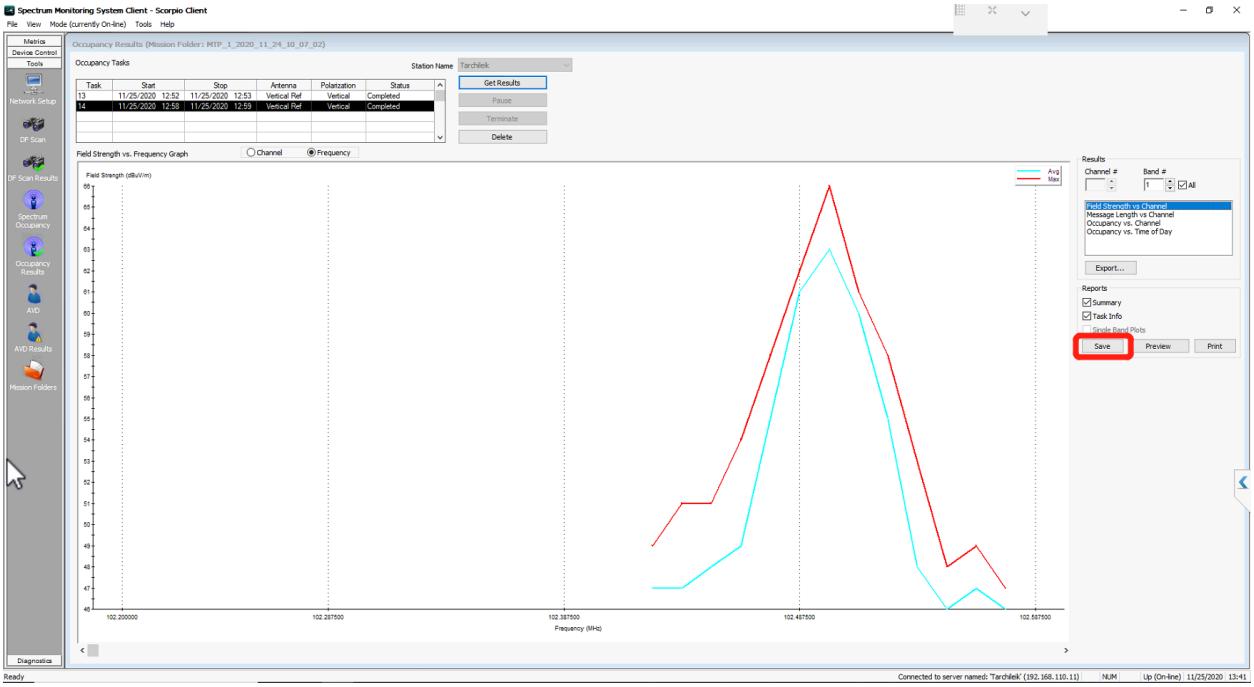
Step 2: User can go to “Occupancy Results”. After a task is completed, user can click on a completed task in the task list at the top and click “Get Results”.



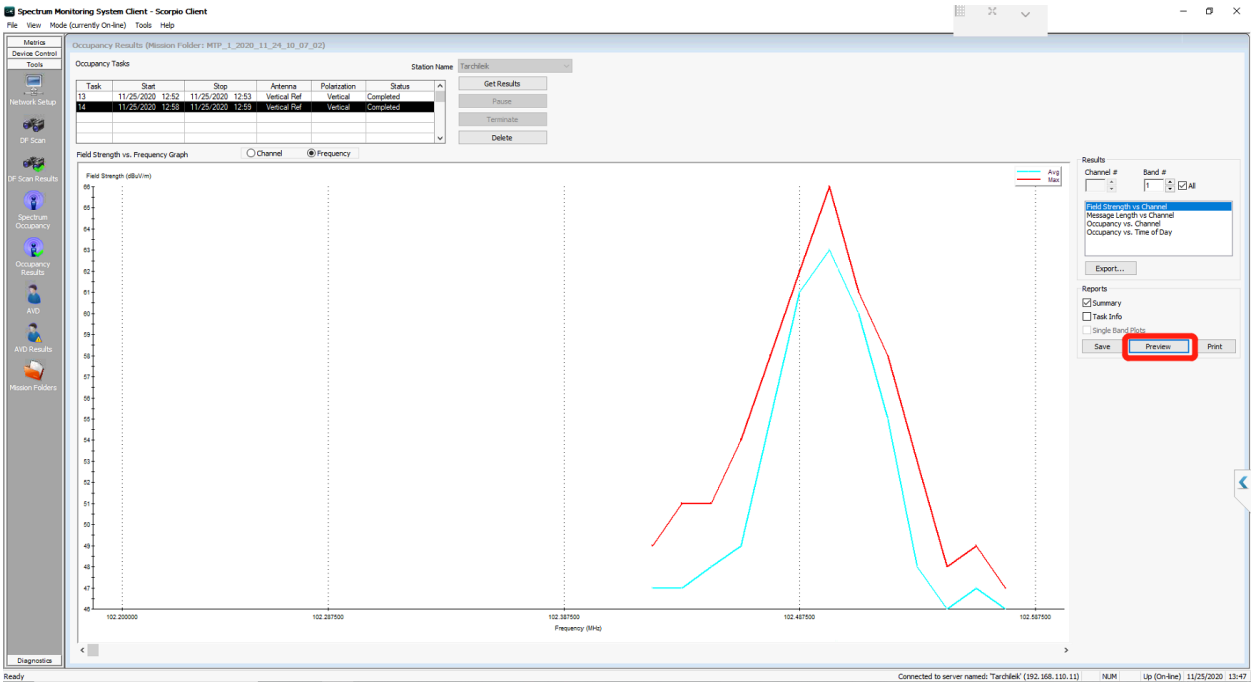
Step 3: Then user can select the type of result graph to view in the selection box marked red in the screenshot below.



Step 4: Click the “Save” button to save results as reports in PDF.

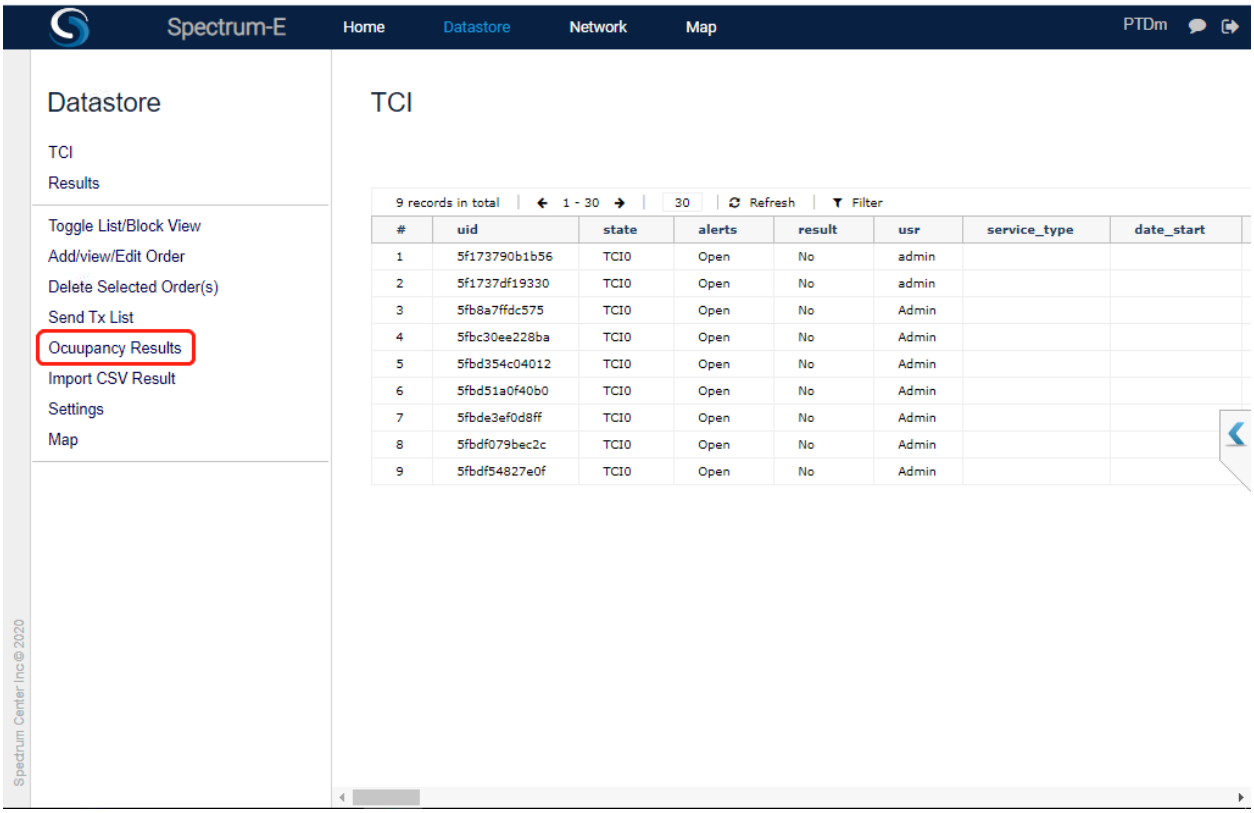


User can also preview reports by clicking the “Preview” button.



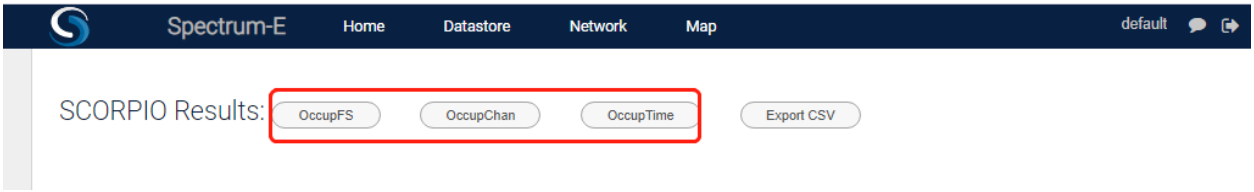
4. View Occupancy Results (in Spectrum-E)

Step 1: In the Remote Monitoring datastore, click “Occupancy Results” on the left menu bar.

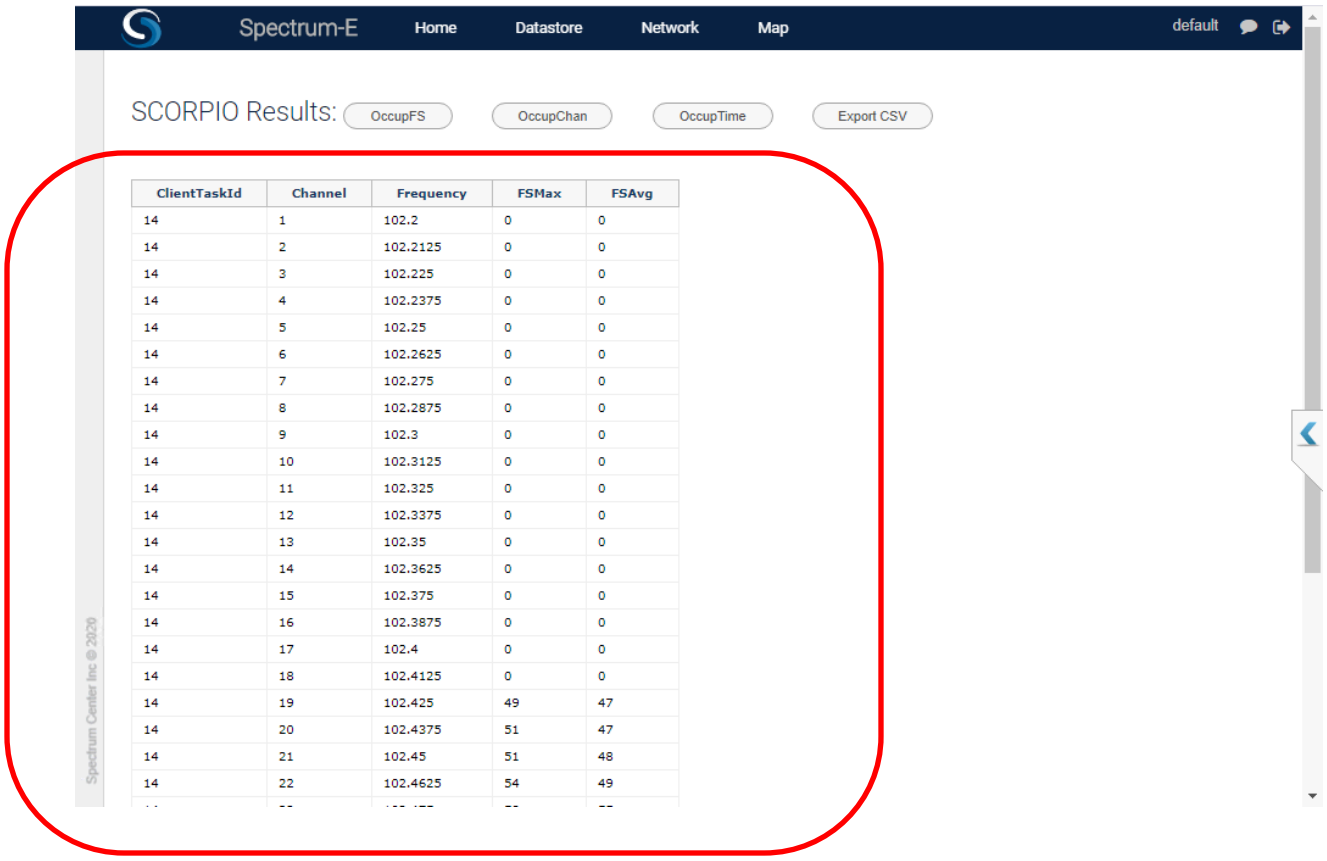


Step 2: The user will be shown a page with three buttons for each type of result from the analyses ran above:

- Field Strength (occupFS)
- Channel Occupancy (OccupCan)
- Time Occupancy (OccupTime)



User can click on any of these 3 buttons to view results. An example is shown below. To customize the results, the user can export results to CSV file pressing the “Export CSV” button.



ClientTaskId	Channel	Frequency	FSMax	FSAvg
14	1	102.2	0	0
14	2	102.2125	0	0
14	3	102.225	0	0
14	4	102.2375	0	0
14	5	102.25	0	0
14	6	102.2625	0	0
14	7	102.275	0	0
14	8	102.2875	0	0
14	9	102.3	0	0
14	10	102.3125	0	0
14	11	102.325	0	0
14	12	102.3375	0	0
14	13	102.35	0	0
14	14	102.3625	0	0
14	15	102.375	0	0
14	16	102.3875	0	0
14	17	102.4	0	0
14	18	102.4125	0	0
14	19	102.425	49	47
14	20	102.4375	51	47
14	21	102.45	51	48
14	22	102.4625	54	49