

ICAO Frequency Finder Updates, the SSR module and the new NAV module

NACC/CAR/SAM Preparatory Workshop to ITU
World Radiocommunication Conference 2023
(WRC-23)

About the Frequency Finder tool

How did it all start?

How was it developed?

Frequency Finder has been developed with FileMaker 13 Pro Advanced

Implementation of Frequency assignment planning criteria

as per the ICAO Handbook on Radio Frequency Spectrum Requirements, Volume II



What does it do?

Calculation of interference areas, assessing compatibility between frequency assignments /searching for compatible II /SI codes

Visualize Mapping

- Graphical interface with Google Earth
- Plotting interference 2

Start page of Frequency Finder

Selection of Modules

Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help



Version **FF_2022_01**

VIEW ROUTES



SSR II



User Manual

Time Zone **-5**

Sync Manual

Application **State**

Server **https://frequency.icao.int/fflogin/**

User **State**

The server <http://frequency.icao.int/fflogin> is not operational until the compatibility issues with Windows 10 have been addressed.

Select from the field below the Region from which you are operating

==SAM

The ICAO Regional Offices are responsible for the coordination of frequency assignments.

Master copy Fabiola 21 January 2022
Updated 24 January 2022

Home pages of the VHF COM, NAV and SSR modules

VHF COM air/ground communication systems 117.975 - 137 MHz

Version: FF_2022_01 | Application: State | Connection status: Connected | Time Zone: -5

Server: <https://frequency.icao.int/flogin/>

Go to COM list 3:

- AFI
- APAC
- CAR
- EUR
- MID
- SAM
- GLOBAL

Check Sync

Synchronization (all times in UTC; dd/mm/yyyy hh:mm:ss):

Download COM: 19-03-2022 12:39:41 AM
Sync status COM: COM list 3 synchronized

Download ICAO FIR: 05/07/2019 1:32:24
Download Poly Safre: 24/01/2022 2:38:39 PM
Sync status Poly: Table of Polygons synchronized

Recent uploads to Global COM:

COM	AFI	APAC	CAR	EUR	MID	SAM	GLOBAL
COM AFI synchronized	08/09/2021 11:03:49 AM	UTC					
COM APAC synchronized	24/01/2022 7:56:04 AM	UTC					
COM CAR synchronized	08/11/2021 7:09:12 PM	UTC					
COM EUR synchronized	10/12/2019 6:45:05 PM	UTC					
COM MID synchronized	27/01/2022 10:19:40 PM	UTC					
COM SAM synchronized	11/02/2022 6:56:44 PM	UTC					
COM EUR/NAFIRE synchronized	10/12/2019 6:45:05 PM	UTC					
COM EUR/SAFIRE synchronized	10/12/2019 6:45:05 PM	UTC					
Polygons Safre synchronized	13/12/2019 2:17:08 AM	UTC					
All Polygons Safre reloaded:	13/12/2019 2:17:08 AM	UTC					

LOCAL BACK UP

Recover from local back-up: dd/mm/yyyy
21-01-2022 4:40:23 PM

VHF/UHF radio navigation systems. ILS (localizer and Glide Path), VOR, DME and GBAS

Version: FF_2022_01 | User: State | Application: State | Active Region: SAM | Connection status: Connected | Time Zone: -5

Server: <https://frequency.icao.int/flogin/>

Go to COM list 2:

- AFI
- APAC
- CAR
- EUR
- MID
- SAM
- GLOBAL

Check Sync

Synchronization (all times in UTC; dd/mm/yyyy hh:mm:ss):

Download MOD NAV list 2: 16/02/2022 18:44:41
Sync status MOD NAV list 2: Synchronized

Recent download from Global COM list 2: 16/02/2022 18:44:41

Synchronization NAV list 2 synchronized

Recent uploads to Global COM list 2:

NAV	AFI	APAC	CAR	EUR	MID	SAM	GLOBAL
NAV AFI synchronized	23/02/2021 22:03:25						
NAV APAC synchronized	08/02/2022 02:27:44						
NAV CAR synchronized	30/08/2021 22:55:47						
NAV EUR synchronized	23/09/2018 00:10:34						
NAV MID synchronized	14/12/2021 20:49:18						
NAV SAM synchronized	23/02/2021 16:12:48						
Summary NAV:	08/02/2022 02:27:44						

LOCAL BACK UP

Recover from local back-up: dd/mm/yyyy
21-01-2022 4:40:23 PM

For any question or comment, contact Fabiola Chouha at FChouha@icao.int or the CNS Officer at the ICAO Regional Office.
Frequency Finder version FF-2020-06R is available
12345 67890

Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help

SSR Mode S II/SI interrogators, SSR Mode A/C and ADS-B

Version: FF_2022_01 | User: State | Application: State | Active Region: SAM | Connection status: Connected | Time Zone: -5

Server: <https://frequency.icao.int/flogin/>

Go to SSR II/SI CODE list

- AFI
- APAC
- CAR
- EUR
- MID
- SAM
- GLOBAL

Check Sync

Last Download SSR Sync: 21-02-2022 5:20:11.421 PM
Sync status SSR Global List: Synchronized

Date format: dd/mm/yyyy hh:mm:ss (UTC)

Recent uploads to Global SSR:

SSR	AFI	APAC	CAR	EUR	MID	SAM	GLOBAL
SSR AFI synchronized	24-11-2021 4:47:59.919	UTC					
SSR APAC synchronized	31-01-2022 3:13:40.167	UTC					
SSR EUR synchronized	24-11-2021 5:17:20.222	UTC					
SSR CAR synchronized	24-11-2021 5:07:03.538	UTC					
SSR MID synchronized	11-02-2022 10:25:12.599	UTC					
SSR SAM synchronized	24-11-2021 5:24:04.729	UTC					

LOCAL BACK UP


Recover from local back-up: dd/mm/yyyy
21-01-2022 4:40:23 PM

Please coordinate SSR Mode S II/SI code assignments with your ICAO Regional Office

Home page of the VHF COM air/ground communications systems module

Exploration of the main functions (cont'd)

Start



VHF COM air/ground communication systems 117.975 - 137 MHz

User Manual

Sync Manual


Check Sync

Version

FF_2022_01

Application

State




Connection status

Connected

Not Connected. You can continue working OFF-LINE

Time Zone -5



Server

https://frequency.icao.int/flogin/

Download

Go to COM list 3:

AFI

APAC

CAR

EUR

MID

SAM

GLOBAL

Active Region

Synchronization (all times in UTC; dd/mm/yyyy hh:mm:ss):

Check Sync

Download COM 16-02-2022 12:38:41 AM

Sync status COM COM list 3 synchronized

Download ICAOFIR 05/07/2018 1:32:24

Download Poly Safire 24/01/2022 2:38:39 PM

Sync status Poly Table of Polygons synchronized

Recent uploads to Global COM

COM AFI synchronized 08/09/2021 11:03:49 AM UTC

COM APAC synchronized 24/01/2022 7:56:04 AM UTC

COM CAR synchronized 08/11/2021 7:09:12 PM UTC

COM EUR synchronized 10/12/2019 6:45:05 PM UTC

COM MID synchronized 27/01/2022 10:19:40 PM UTC

COM SAM synchronized 11/02/2022 6:56:44 PM UTC

COM EUR/NAT synchronized 10/12/2019 6:45:05 PM UTC

COM EUR/SAFIRE synchronized 10/12/2019 6:45:05 PM UTC

Summary COM:

11/02/2022 6:56:44 PM

Polygons Safire synchronized 13/12/2019 2:17:08 AM UTC

All Polygons Safire reloaded: 13/12/2019 2:17:08 AM UTC

LOCAL BACK UP

Recover from local back-up dd/mm/yyyy

21-01-2022 4:40:23 PM

FileMaker Pro

Connection failed.

OK

VHF-COM module

Exploration of the main functions – Buttons of COM List 3

Start:
Go to Start Page FF

Go to Home Page COM list 3

Test compatibility of selected or found frequency assignments

FIR Sector:
Name of the FIR, ACC or other area sector(s)

Latitude/Longitude:
Coordinates of the ground station

Extended Range:
Name of the family of extended range facilities

Ch-date:
Date of the entry of the modification to the global COM list 3

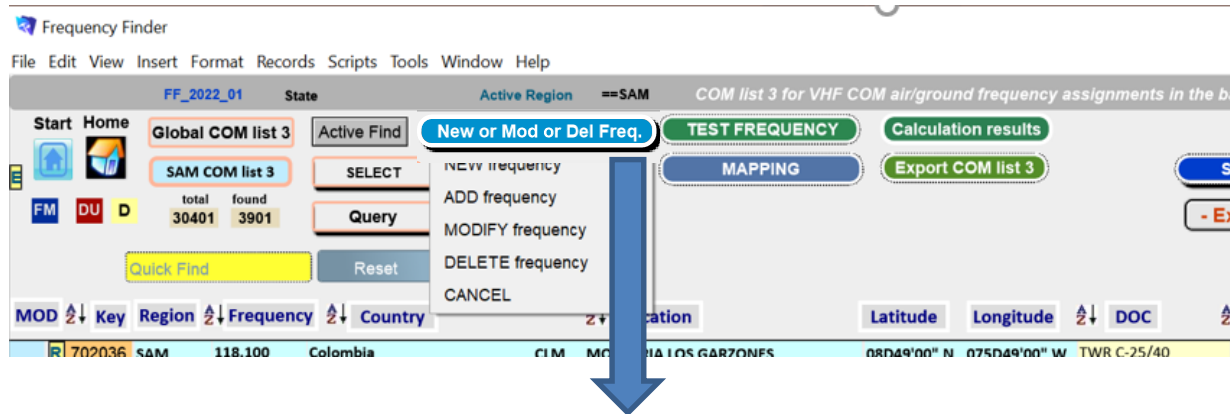
Annotations on the interface:

- MOD:** R = Registered frequency, D = Draft frequency, Yellow = Not tested, Green = Compatible, Red = Not compatible
- Key:** Query local COM list 3
- Region:** Name of the country the country responsible for the station (ICAO Name/Code)
- Frequency:** Export the selected frequency assignments in the format of the ICAO COM list 3 in different file formats
- Country:** Name of the country the country responsible for the station (ICAO Name/Code)
- Location:** Location name of the station
- DOC:** Designated Operational Coverage. Service type followed by the Designated Operational Range (NM) and Designated Operational Height (ft/100).
A=Area, B=Broadcast, C=Circular, U=Unprotected

MOD	Key	Region	Frequency	Country	Location	Latitude	Longitude	DOC	FIR Sector	PolyID	Extended Range	F	Cat	Stat	Remarks	Ch-date
R	702392	SAM	131.400	Suriname	SUR ZANDERY JOHAN A PENGEL	52D71'00" N	055D11'00" W	AOC U 100/100					NAT	OP	SURINAME AIRWAY	01/01/2000
R	702393	SAM	118.400	Uruguay	URG ANGEL S ADAMI	34D47'21" S	056D15'53" W	TWR C-30/40					ICAO		MONTEVIDEO	14/03/2017
R	702594	SAM	122.100	Uruguay	URG ANGEL S ADAMI	30D47'21" S	056D15'53" W	TWR C-30/40					ICAO			14/03/2017
R	702394	SAM	122.100	Uruguay	URG ARTIGAS	30D23'57" S	056D30'39" W	TWR C-25/40					NAT			14/03/2017
R	702395	SAM	126.200	Uruguay	URG CAP BOISO LANZA	34D41'00" S	056D09'00" W	TWR C-25/40					NAT	OP	TWR/GP	02/03/1999
R	702595	SAM	126.200	Uruguay	URG CAPITAN BOISO LANZA	34D41'45" S	056D09'50" W	TWR C-25/40					NAT			

VHF-COM module

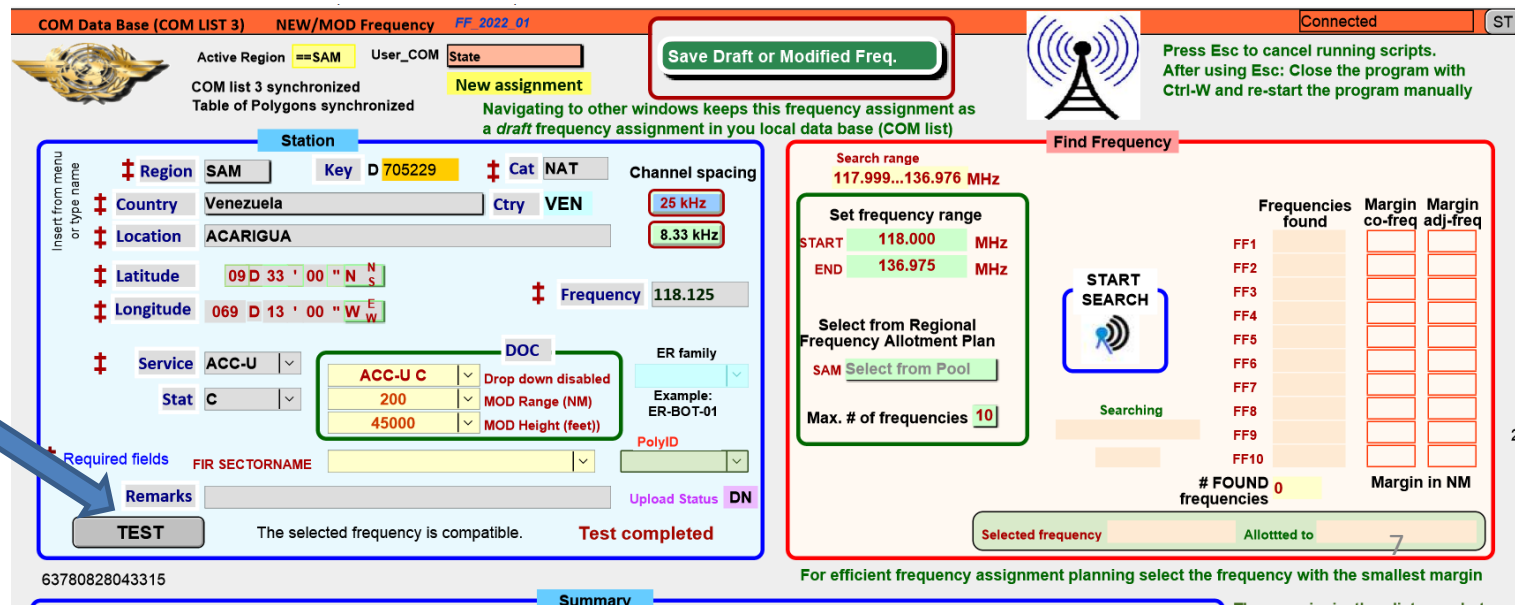
Exploration of the main functions – Introducing a new/modify an existing/delete a frequency assignment



In this example, add:
Frequency : 118.125
Service: ACC-U

Test result is displayed.

In this example, it said that : The selected frequency is compatible



VHF-COM module

Exploration of the main functions – Summary Calculations

File Edit View Insert Format Records Scripts Tools Window Help

FF_2022_01 State Active Region ==SAM COM list 3 for VHF COM air/ground frequency assignments in the band 117.975 - 137 MHz User Manual Sync Ma

Start Home Global COM list 3 New or Mod or Del Freq. TEST FREQUENCY Calculation results Export COM list 3 MAPPING Special Functions - Export submissions -

SAM COM list 3 SELECT Query

total found 30400 3900

Quick Find Reset

MOD	Key	Region	Frequency	Country	Location	Latitude	Longitude	DOC	FIR Sector	PolyID	Extended Range	F	Cat	Stat	Rema
R	702418	SAM	131.300	Uruguay	Aeropuerto Internacional Carrasco	34D50'00" S	056D01'00" W	AOC U 100/100					NAT	IBERIA;	
R	702419	SAM	131.400	Uruguay	Aeropuerto Internacional Carrasco	34D50'00" S	056D01'00" W	AOC U 100/100					NAT	LIMITED	



Delete all records:
Deletes all summary calculations from this window

Redo Calculations:
Starts new compatibility test for the selected frequency assignment

COM Data Base (COM LIST 3) Summary Calculations												
Active Region ==SAM		Regional COM list		Delete all records		Redo calculations		Co-frequency details		Adj. frequency details		
Date	Key	D	Frequency	Region	Country	Location	Doc	Result Co. freq.	Margin	Result Adj. freq.		
8_Feb_2022 19:45:52	702434	R	122.100	SAM	Uruguay	TACUAREMBO	ACC-U	Not compatible	167	Compatible		
7_Feb_2022 10:26:41	501223	R	123.950	CAR	Dominican Republic	Aeropuertos no controlados	ACC-U	Compatible	205	Compatible	161	Compatible

D (draft record):
Returns window New/Mod frequency (only for draft records)

Calculation details:
Co-frequency: navigates to window with detailed calculations for co-frequency compatibility
Adjacent frequency: navigates to window with detailed calculations for adjacent frequency compatibility

VHF-COM module

Exploration of the main functions – Summary Calculations – Calculation of co-frequency separation distance

4/2 records:
Total # records found (4)
#records displayed (2)

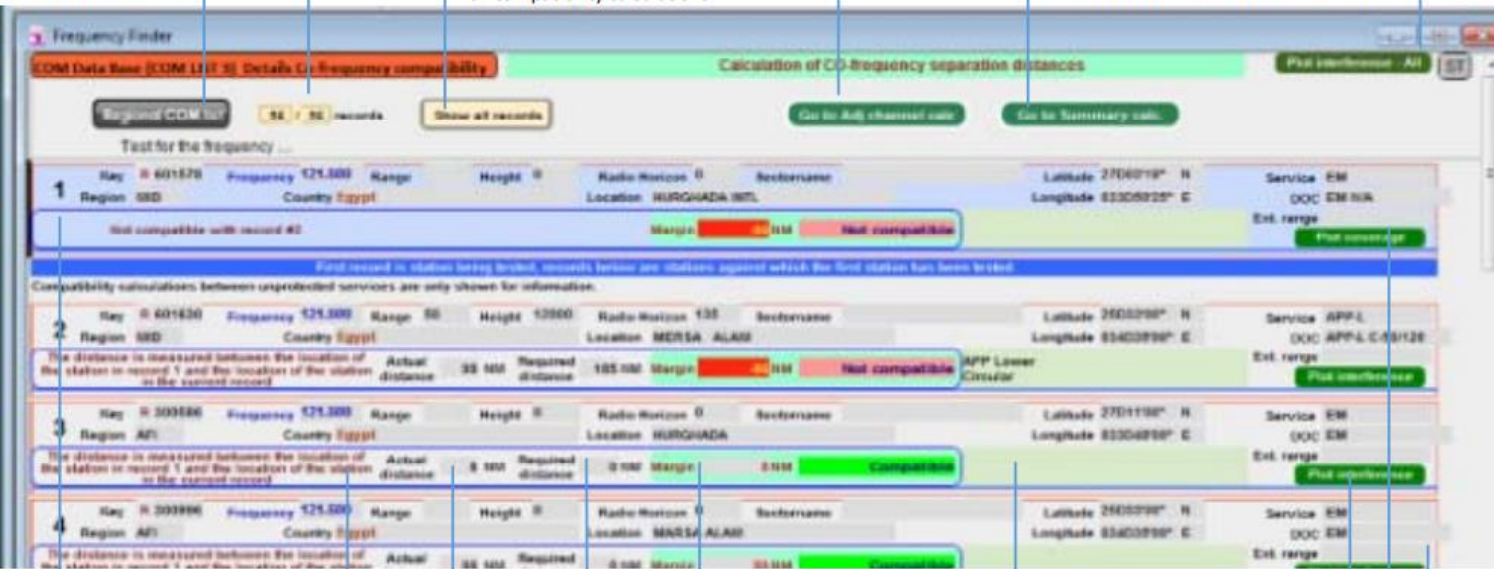
Regional COM list:
Returns the COM list 3

Calculation details – adjacent frequency
Navigate to the window with the detailed adjacent frequency compatibility calculations

Show all records
Click to show the results of all compatibility calculations

Plot interference – all:
Plot coverage and result of compatibility assessment, including interference contours for all records in the table

Summary calculations:
Navigate to the window with the summary of compatibility calculations



Reg	Frequency	Range	Height	Radio	Location	Service	Latitude	Longitude	Ext. range
1 Region: EGD Country: Egypt	121.500			Radio: Horizon 0	Location: MURGHADA INTL	Service: EM	27060719° N	3306925° E	DOO EM N/A
2 Region: EGD Country: Egypt	121.500	55	12000	Radio: Horizon 130	Location: MERSA ALAM	Service: APP/L	2600390° N	3340399° E	DOO APP/L C.05128
3 Region: AFI Country: Egypt	121.500			Radio: Horizon 0	Location: MURGHADA	Service: EM	2701130° N	3306925° E	DOO EM
4 Region: AFI Country: Egypt	121.500			Radio: Horizon 0	Location: MERSA ALAM	Service: EM	2600390° N	3340399° E	DOO EM

Message 1; §4.9.6.2.4
For record 1: Indicates incompatibilities with records 2 and higher (if any)
For record 2 and higher: Indicates how the required distance is calculated/measured

Margin; §4.9.6.2.5
Difference between the actual distance and the required distance of the first and the current record.
A negative value indicates potential interference

Actual distance:
Distance between station in record 1 and current record measured as in Message 1

Required distance:
Minimum required distance between the station in record 1 and the current record measured as in Message 1.

Plot interference; §4.9.6.2.6
Plot the results of the compatibility assessment for the current record. The current record is the record against which the first record is being tested.

Plot coverage:
Plot the coverage for the first record. The first record is the record that is being tested.

VHF-COM module

Exploration of the new/improved functions – Export submission

FF_2022_01 State Active Region ==SAM COM list 3 for VHF COM air/ground frequency assignments in the band 117.975 - 137 MHz

Start Home Global COM list 3 Active Find New or Mod or Del Freq. TEST FREQUENCY Calculation results

SAM COM list 3 SELECT Query

total found 30399 1

Quick Find Reset

MOD Key Region Frequency Country Location Latitude Longitude DOC

N	R	501267	CAR	118.175	Cuba	CUB	SCARABEO 9	23D22'30" N 082D29'34" W	ACC-U C-200/450
---	---	--------	-----	---------	------	-----	------------	--------------------------	-----------------

Special Functions - Export submissions -

1

2

3

<110> Open Excel file

An Excel file will be created containing your submissions, which you can attach later to an email message to be sent to the Regional Office.

Click "Open" to look at the Excel file,
Click "Cancel" to cancel.

Note: From this folder, attach, later, to your email the file you want to submit.

Cancel Open

File Home Share View

Pin to Quick access Copy Paste Cut Copy path Paste shortcut Move to Copy to Delete Rename New folder Easy access Properties Edit History

Clipboard Organize New Open

This PC > Windows (C:) > frequencyfinder > SaveSubmissions

Name	Date modified	Type
Inno Setup Ex...		
Vanbreda		
VHFCOM CHL 17-02-2022 94730 AM.xlsx	17/02/2022 10:15 AM	Micros...

Other ongoing improvements (cont'd)

NAV module – plotting interference contours

File Edit View Insert Format Records Scripts Tools Window Help

NAV Data Base (COM List 2) NAV Data Base (COM List 2) Full ST

Start Home Global COM list 2 Active Find Delete Record New or Mod or Del Test Frequency Calculation results Mapping Export COM list Special Functions

total 6438 1 found D ID Query

Query active.
To return query click button "Active Find"

MOD Key Region Country Ctry Location test Latitude Longitude Facility ID Freq. Gl. P. Ch. TRD VHFDOC VHFnew DMFDOC DMFP



Summary of CO- and ADJ frequency calculations							Calculation details				ST	
Delete all records							Co freq. compatibility		ADJ freq. compatibility			
Show all records							Calculation details		Calculation details			
Details of station tested							Co freq. compatibility	ADJ freq. compatibility				
Date	Key	D	Frequency	UHF ch	Region	Country	Location	Co freq. compatibility	ADJ freq. compatibility			
								Result VHF	Result DME	Result VHF	Result DME	
								-16 Not Compatible	-88 Not Compatible	352.11 Compatible	xxx Compatible	
								-16 Not Compatible	-88 Not Compatible	352.11 Compatible	xxx Compatible	
								-16 Not Compatible	-88 Not Compatible	352.11 Compatible	xxx Compatible	

Other ongoing improvements (cont'd)

NAV module – plotting interference contours

Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help

Calculation of CO-CHANNEL separation distances **Calculation of CO-CHANNEL separation distances** ST

Summary calculation **Calculation details** Map interference all

Calculates compatibility with any DME facility (Go to Prop Curve)

Key R 928182 Region MID Country Qatar Location Hamad International

Frequency VHF 108.100 Height 6250 Range 25 PWRD 17

DME 018X Height 10000 Range 80 PWRD 27

Minimum transmission loss between the location of the facility in that record and the facility in record 1

Frequency 108.100 DME channel 018X

This field calculates the minimum transmission loss between the location of the facility in record 1 and the facility in record 2

frdeglatg 25.2527778 frdeglongg 51.6063889

VHF Marging -16 NM Not Compatible

DME Marging -88 NM Not Compatible

Key R 928033 Region MID Country Saudi Arabia Location DAMMAM

Frequency VHF 108.100 Height 6250 Range 25 PWRD 17

DME 018X Height 6250 Range 25 PWRD 27

Measured from location to test points

L xx to 1	Dist to 1	L 1 to xx	Dist to xx	Minimum Required Separation
153	112	153	112	137
146	129	146	105	209

Actual Separation 121

The fields Dist to 1 and Dist to xx present the minimum separation distance between any undesired facility to the edge of the DOC of the desired facility

frdeglat 26.4500000 frdeglong 49.7930556

VHF Margin -16 NM Not Compatible

DME Margin -88 NM Not Compatible

Key R 928217 Region MID Country Saudi Arabia Location SWAIHAN AIRPORT

Frequency VHF 108.100 Height 6250 Range 25 PWRD 17

DME 018X Height 10000 Range 80 PWRD 27

Measured from location to test points

L xx to 1	Dist to 1	L 1 to xx	Dist to xx	Minimum Required Separation
153	112	153	112	137
146	129	146	129	209

frdeglat 26.4500000 frdeglong 49.7930556

VHF Margin 52 NM Compatible

DME Margin -20 NM Not Compatible

Map interference VHF

Map interference DME

Other ongoing improvements (cont'd)

NAV module – plotting interference contours – Map interference VHF and DME



Main functions on the window SSR Table

Regular and new functions – NewMod Facility

Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help

State

FF_2022_01

Active Region

==SAM

SSR Table

SSR Table

SSR Table

SSR Table

SSR Table

State

User Manual

Sync Manual

Halt

Return Mode S code list:

18 record #

545 total

58 found

NEW

SELECT

Query

Start

Home

GLOBAL

SAM

Delete Record

New/Mod Facility

TEST Mode S Facility

Summary test results

Special Functions

- Export submissions -

US

KEY REGION

SSR code

COUNTRY

NAME location

LATITUDE

LONGITUDE

DOC (NM)

Cluster

ATS Unit served

Interrogator

E	4001	SAM	II	06	Colombia	CLM	Arauca	07D03'59"	N	070D45'02"	W	250			Il only	Ro
E	4002	SAM	II	00	Colombia	CLM	Bahia Solano	03D59'32"	N	077D19'40"	W	250			Il only	
E	4003	SAM	II	12	Colombia	CLM	Carepa	07D49'42"	N	076D43'06"	W	250			Il only	
E	4004	SAM	II	14	Colombia	CLM	Cerro Maco	09D53'09"	N	075D11'41"	W	250			Il only	
E	4005	SAM	II	00	Colombia	CLM	Cerro Verde	06D11'51"	N	075D28'58"	W	250			Il only	

Main functions on the window SSR Table (cont'd)

Regular and new functions - Mapping

Agency Finder

Edit View Insert Format Records Scripts Tools Window Help

State: **FF_2022_01** Active Region: **==SAM** SSR Table SSR Table SSR Table SSR Table SSR Table State User Manual Sync Manual ST

Halt Return Mode S code list: 2 record #
 Start Home GLOBAL 546 total SELECT
 DU D SAM 59 found Query
 Delete Record

New/Mod Facility TEST Mode S Facility Summary test results
 Export facilities to file Special Functions
 - Export submissions -

MAPPING
 Cancel
 Single Station
 Found Stations

US	KEY	REGION	SSR code	COUNTRY	LATITUDE	LONGITUDE	DOC (NM)	Cluster	ATS Unit served	Interrogator	RI
E 4000	SAM	II	00	Colombia	00D36'13"	S 072D23'49"	W 200			II only	
E 4001	SAM	II	06	Colombia	CLM Arauca	07D03'59"	N 070D45'02"	W 250		II only	Route
E 4002	SAM	II	00	Colombia	CLM Bahia Solano	03D59'32"	N 077D19'40"	W 250		II only	
E 4003	SAM	II	12	Colombia	CLM Carepa	07D49'42"	N 076D43'06"	W 250		II only	
E 4004	SAM	II	14	Colombia	CLM Cerro Maco	09D53'09"	N 075D11'41"	W 250		II only	
E 4005	SAM	II	00	Colombia	CLM Cerro Verde	06D11'51"	N 075D28'58"	W 250		II only	
E 4006	SAM	II	02	Colombia	CLM Concepcion	00D00'00"	N 000D00'00"	E 200		II only	Coord
E 4007	SAM	II	07	Colombia	CLM El Dorado	04D41'45"	N 074D08'21"	W 250		II only	
E 4008	SAM	II	10	Colombia	CLM El Tablazo	00D00'00"	N 000D00'00"	E 200		II only	Coord
E 4009	SAM	II	06	Colombia	CLM Flandes	04D11'28"	N 074D51'54"	W 250		II only	
E 4010	SAM	II	00	Colombia	CLM La Flor	11D49'40"	N 071D24'56"	W 250		II only	
E 4011	SAM	II	00	Colombia	CLM Palanquero	05D29'54"	N 074D39'06"	W 250		II only	
E 4012	SAM	II	14	Colombia	CLM Punta Arena	00D00'00"	N 000D00'00"	E 200		II only	Coord
E 4013	SAM	II	05	Colombia	CLM Santana	02D41'54"	N 076D52'19"	W 250		II only	
E 4014	SAM	II	01	Colombia	CLM Santiago	00D00'00"	N 000D00'00"	E 200		II only	Coord

findlat findlong SSR Mode S Interrogator Identifier (II) Code and Surveillance Identifier (SI) code list, SSR Mode A/C and ADS-B

Main functions on the window SSR Table

Regular and new functions – NewMod Facility

File Edit View Insert Format Records Scripts Tools Window Help

State **FF 2022 01**
Active Region **==SAM**
NEW/MOD SSR NEW/MOD SSR NEW/MOD SSR NEW/MOD SSR
User Manual Sync Manual ST

Start Home

Go to Regional SSR list
Delete draft facility

View Summary calculations
Save as draft facility

Mapping
Save as registered facility

NEW/MOD SSR
Mode S II, Mode S SI, A/C, ADS-
Calculation of test point for the modified or new records that were imported is in progress

Go to SSR Codes

KEY
D 4065 US DN
New assignment

REGION SAM
COUNTRY Enter Country name
NAME location Enter Location name
LATITUDE DD D MM ' " E
LONGITUDE DDD D ' "
REMARK
Cluster
Select Text_SSR
Calculation of test point for the modified or
Test
FIR

STATION
DOC
COVERAGE
Enter DOC NM
Sector1 Sector13
Sector2 Sector14
Sector3 Sector15
Sector4 Sector16
Sector5 Sector17
Sector6 Sector18
Sector7
Sector8
Sector9
Sector10
Sector11
Sector12

SEARCH
Mode S II
Search Range Start End
1 15
START SEARCH
Mode Code Margin
FF1
FF2
FF3
FF4
FF5
FF6
Matching codes
SI-A
SI-B
SI-C
SI-D

SSR/ADS Mode
Mode S II code
SSR II or SI Code
Enter Code
Interrogator capability
Re-calculate test points
PolyID

ATS Unit 1
ATS Unit 2
ATS Unit 3
ATS Unit 4
ChBy
ChDate
Submission# 63780839160116

Insert the SSR Mode of the interrogator
Is the Mode S interrogator
-II only capable or
-II/SI capable
Click "II only" if the Mode S interrogator is only capable for Mode S II codes
Click "II/SI" if the Mode S interrogator is capable for II codes AS WELL AS SI codes.

II/SI
II only

If the interrogator is only capable of using Mode S II codes, a search is undertaken for II codes that do overlap with matching SI codes.

If the interrogator is capable of using II/SI codes, a search is undertaken for SI codes that do not overlap with a Mode S II-only interrogator operating on the matching II code.

SSR Mode S Interrogator Identifier (II) and Surveillance Identifier (SI) Code list

Main functions on the window SSR Table

Regular and new functions – Mod / Add Facility

Start Home
 Mode S code list: 35 record #
 GLOBAL
MID
SELECT
Query
New/Mod Facility
TEST Mode S Facility
Summary test results
Upload Regional Office
Import submissions

DU D
 Delete Record

US KEY REGION **SSR code** **COUNTRY** **NAME location** **LATITUDE** **LONGITUDE** **DOC (NM)** **Cluster** **ATS Unit served** **Interrogator** **RE**

E 7130 II 02 33D45'48" N 035D33'23" E 245 II only MICA

Regional Office FF 2022 01 Active Region ==MID NEW/MOD SSR NEW/MOD SSR NEW/MOD SSR NEW/MOD SSR User Manual Sync Manual ST

Start Home
 Go to Regional SSR list
Delete draft facility
NEW/MOD SSR
Mode S II, Mode S SI, A/C, ADS-
Calculation of test points completed

total 540 found 1
 View Summary calculations
Save as draft facility
Mapping
Save as registered facility

KEY D 7240 US DN **STATION** **DOC**

REGION **COUNTRY** **NAME location** **LATITUDE** 33 D 45 48 N **LONGITUDE** 035 D 33 23 E **REMARK**

SSR/ADS Mode **Mode S II code** **SSR II or SI Code** 15 **Interrogator capability** II only

Cluster **Select Text_SSR** **Calculation of test points completed** **Test** **Margin (NM)**

FIR **PolyID** **Re-calculate test points**

COVERAGE 245 NM

Sector1	245	Sector13	245
Sector2	245	Sector14	245
Sector3	245	Sector15	245
Sector4	245	Sector16	245
Sector5	245	Sector17	245
Sector6	245	Sector18	245
Sector7	245	Sector19	245
Sector8	245	Sector20	245
Sector9	245	Sector21	245
Sector10	245	Sector22	245
Sector11	245	Sector23	245
Sector12	245	Sector24	245

SEARCH
Mode S II **Search Range** **Start** **End** **01** **15** **START SEARCH**

Mode Code **Margin** **FF1** II 14 379 **FF2** II 15 **FF3** **FF4** **FF5** **FF6** **FF7** **FF8** **FF9** **FF10**

MAX II/SI codes 10 **FOUND II/SI codes** 2 **Searching** **Search completed** **Selected II code** 15 **Test II/SI Code** **Test completed**

Matching code **SI-A** 15 **SI-B** 31 **SI-C** 47 **Print on map**

Do you want to print to results of the compatibility calculations on a map with Google Earth.
 Click "Print" to print the calculation results on a map.
 Click "No Print" in case no calculation results are to be printed on a map.
 Click "Terminate" to terminate the compatibility calculations

ATS Unit 1 **MID** **ChBy** **Date** 11-09-2021 2:30:50.611 PM **Submission#** 63778225511521

7 / 7 records

If the interrogator is only capable of using Mode S II codes, a search is undertaken for II codes that do overlap with matching SI codes.
 If the interrogator is capable of using II/SI codes, a search is undertaken for SI codes that do not overlap with a Mode S II only interrogator operating on the matching II code.

E 7130 II only II 02 Cluster MID Country Lebanon 245NM Margin

MICA 467

Sector1	245	Sector3	245	Sector5	245	Sector7	245	Sector9	245	Sector11	245
Sector2	245	Sector4	245	Sector6	245	Sector8	245	Sector10	245	Sector12	245

First record is station being tested, records below are stations against

LATITUDE 33 D 45 48 N **LONGITUDE** 035 D 33 23 E **REMARK** **Mode S II code** **SSR II or SI Code** 15 **Interrogator capability** II only

Cluster **Select Text_SSR** **Test** **Margin (NM)**

The selected SSR Mode S II Code is compatible

Main functions on the window SSR Table (cont'd)

Regular and new functions - Query

Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help

State **FF_2022_01**
Active Region **==CAR**

Halt

Return to Mode S code list:

GLOBAL **CAR**

Delete Record

9 record #

543 total

65 found

Query

New/Mod Facility

MAPPING

Not tested

Export facilities to file

Summary test results

Special Functions

US	KEY REGION	SSR code	COUNTRY	NAME location	LATITUDE	LONGITUDE	DOC (N)	
DR	D	3034	CAR	ADS	04	Anguilla	XAGL test icao	18D13'32" N 077D32'04" W 56

1

User State **FF_2022_01**
Active Region **==CAR**

Start **Home**

Return to Mode S code list:

Global **CAR**

SSR Query

Query the data base for SSR or ADS-B facilities

Find

New Query

QUERY DATABASE

QUERY DATABASE

QUERY DATABASE

QUERY DATABASE

QUERY

Enter your QUERY

Query Database

REGION **==CAR** Country code:

COUNTRY

NAME location

Select SSR Mode **Enter**

Select SSR Code **ADS**

Select criteria for the query from the fields in the box Query Database:

1. Select geographic parameters (Region, Country Location) first, if required
2. Select SSR Mode (II or SI or A/C or ADS-B), if required
3. Select SSR Code, if required
4. Click **FIND**

Use this window to only enter criteria for your query

==APAC

N/A

N/A

N/A

N/A

Region

Country

Location

SSR Mode (II, SI, A/C or ADS-B)

SSR Mode S Code

Last Query - parameters

[Modify/redo] last find

Click here to use the parameters of your most recent query; you can modify these parameters in the box "Query Database"

2

Main functions on the window SSR Table (cont'd)

Regular and new functions – Export submissions

File Edit View Insert Format Records Scripts Tools Window Help

State: **FF_2022_01** Active Region: **==CAR** SSR Table SSR Table SSR Table SSR Table SSR Table State: **User Manual Sync Manual ST**

Return **Mode S code list:** 1 record # **Active Find** **New/Mod Facility** **TEST Mode S Facility** **Summary test results**

Start **Home** **GLOBAL** 544 total **SELECT** **MAPPING** **Export facilities to file** **Special Functions**

DU **D** **Home** **CAR** 1 found **Query** **- Export submissions -**

Delete Record

US **KEY REGION** **SSR code** **COUNTRY** **NAME location** **LATITUDE** **LONGITUDE** **DOC (NM)** **Cluster** **ATS Unit served** **Interrogator** **REM**

N	E	6378	CAR	II	09	Anguilla	XAGL	test icao	18D13'32"	N	077D32'04"	W	250		II only	Test ICA
<div> <p><110> Open excel file</p> <p>An Excel file will be created containing your submissions which you can attach later to an email message to the Regional Office.</p> <p>Click "Open" to look at and save the Excel file</p> <p>Click "Cancel" to cancel.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. The Excel file is saved in the folder C:/Frequency Finder/Save Submissions of your computer. 2. From this folder you can attach the Excel file to your email to the Regional Office. <p>Cancel Open</p> </div>																

SaveSubmissions

Share View

Paste Cut Copy path Move to Copy to Delete Rename New folder

Clipboard Organize

This PC > Windows (C:) > frequencyfinder > SaveSubmissions

Name

SSR CAR XAGL 18-02-2022 111232 PM.xlsx

File Home Insert Page Layout Formulas Data Review View Tell r

Paste Font Alignment Number Conditional Formatting Format as Table Cell Styles

Clipboard Styles

A1 Sector1

	A	B	C
1	Sector1	Sector2	Sector3
2	250	250	

Main functions on the window SSR Table (cont'd)

Regular and new functions – Export facilities to file

Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help

State: **FF_2022_01** Active Region: **==CAR** SSR Table SSR Table SSR Table SSR Table SSR Table State: **User Manual Sync Manual**

Halt Return Mode S code list: 10 record # 544 total 66 found

Start Home GLOBAL CAR Delete Record

Active Find New/Mod Facility MAPPING TEST Mode S Facility Summary test results

Export facilities to file

Cancel Ctry/Loc/II Code II Code/Ctry/Loc

- Export submissions -

US	KEY REGION	SSR code	COUNTRY	NAME location	LONGITUDE	DOC (NM)	Cluster	ATS Unit served	Interrogator				
E	3034	CAR	ADS	04	Anguilla	XAGL	test icao	18D13'32"	N 077D32'04"	W 56			II only
DR	D	3034	CAR	ADS	04	Anguilla	XAGL	test icao	18D13'32"	N 077D32'04"	W 56		II only
SN	E	6378	CAR	II	09	Anguilla	XAGL	test icao	18D13'32"	N 077D32'04"	W 250		II only
E	3039	CAR	II	00	Antigua and Barbuda	ANT	Test ICAO	48D13'32"	N 077D32'04"	W 76			II only

Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help

SSR Mode S Interrogator Identifier (II) Code list

Select Sort Order

Filename_SSR: 2022 2 18 CAR 232056

Date_SSR: 18 February 2022

Go to Regional SSR Table

Sort order: Country-Location-II/SI Code

Print Set printer to landscape printing

Select Export Format

Export FMP (FileMaker 12)

Export Excel

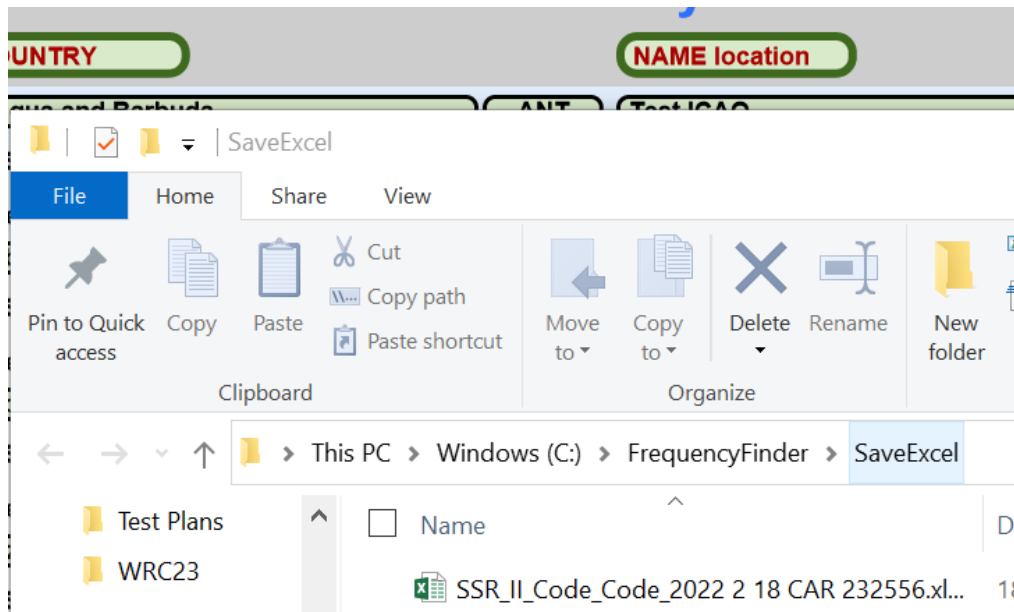
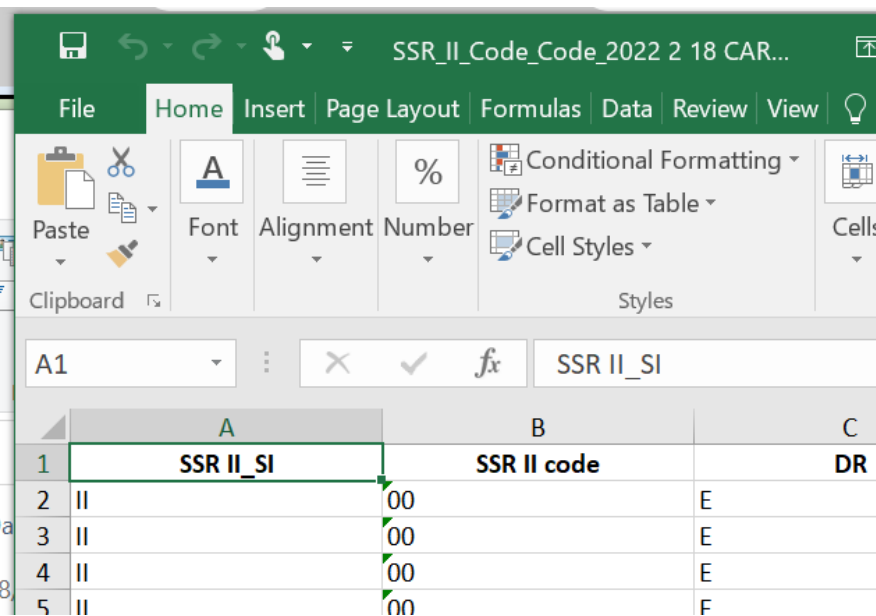
Export XML

Export CSV

REGION	SSR II/SI code	COUNTRY	NAME location	LATITUDE	LONGITUDE
CAR	AD	04	Anguilla	XAGL	test icao
CAR	AD	04	Anguilla	XAGL	test icao
CAR	II	09	Anguilla	XAGL	test icao
CAR	II	00	Antigua and Barbuda	ANT	Test ICAO
CAR	II	00	Aruba	ABW	Test ICAO

Main functions on the window SSR Table (cont'd)

Regular and new functions – Export facilities to file

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C
1	SSR II_SI	SSR II code	DR
2	II	00	E
3	II	00	E
4	II	00	E
5	II	00	F

Main functions on the window SSR Table (cont'd)

Regular and new functions – Summary test results

File

Edit

View

Insert

Format

Records

Scripts

Tools

Windows

Help

State

FF_2022_01

Active Region

==CAR

SSR Table


SSR Table

SSR Table

SSR Table

SSR Table

State



Halt

Return

Mode S code list:

10 record #

Start

Home

GLOBAL

544 total

SELECT

DU

D

#

Home

CAR

66 found

Query

Delete Record

New/Mod Facility

MAPPING

TEST Mode S Facility

Export facilities

Summary test results

Special Functions

- Export

US

KEY REGION

SSR code

COUNTRY

NAME location

LATITUDE

LONGITUDE

DOC (NM)

Cluster

E

3001

CAR

II

06

Bahamas

BAH

Nassau Radar 2

25D02'22"

N

077D28'01"

W

200

E

3040

CAR

II

00

Barbados

BBB

Test 1000


18D43'22"

N

077D28'01"

W

75

 Frequency Finder

File Edit View Insert Format Records Scripts Tools Window Help

SSR Mode S Data Base Details same and matching Mode S II/SI code compatibility **Calculation of same and/or matching Mode S II/SI Code separation distances** ST Plot interference - All

CAR Show all records **SSR same II/SI Code** Summary calculation sort Go to CoveragePoly

48 / 48 records

Draft I 3034 II only AD Cluster CAR Country Anguilla Location testicao Margin to 1 NM Margin from 1 NM Not compatible Plot coverage Latitude

Sector1	56	Sector3	56	Sector5	56	Sector7	56	Sector9	56	Sector11	56	Sector13	56	Sector15	56	Sector17	56	Sector19	56	Sector21	56
Sector2	56	Sector4	56	Sector6	56	Sector8	56	Sector10	56	Sector12	56	Sector14	56	Sector16	56	Sector18	56	Sector20	56	Sector22	56

First record is station being tested, records below are stations against which the first station has been tested.

E 3000 II only II 04 Cluster CAR Country Bahamas Location Nassau radar Margin to 1 NM Margin from 1 NM Not compatible Plot interference Latitude

MSSR-S Co-mounted with PSR 200NM

Sector1	200	Sector3	200	Sector5	200	Sector7	200	Sector9	200	Sector11	200	Sector13	200	Sector15	200	Sector17	200	Sector19	200	Sector21	200
Sector2	200	Sector4	200	Sector6	200	Sector8	200	Sector10	200	Sector12	200	Sector14	200	Sector16	200	Sector18	200	Sector20	200	Sector22	200

Questions



