

# Frequency Finder

## 6 SSR Mode S II Codes



Workshop

Mexico City, Mexico, 6 – 10 November 2017

Presented by

Loftur Jonasson ICAO/HQ

Mie Utsunomiya ICAO/HQ

Robert Witzen

## SSR Mode S II Codes (1)

### Start (1)

- Functionality for the Mode S II module is similar to that for VHF COM frequency assignments
- Navigate to the Home Page for Mode S II Codes with the button SSR II on the Start Page
- Home Page is under development to include synchronization with the Global Mode S II Code list
- From the Home Page the user can navigation to the Table wit SSR Mode S II Codes

## SSR Mode S II Codes (2)

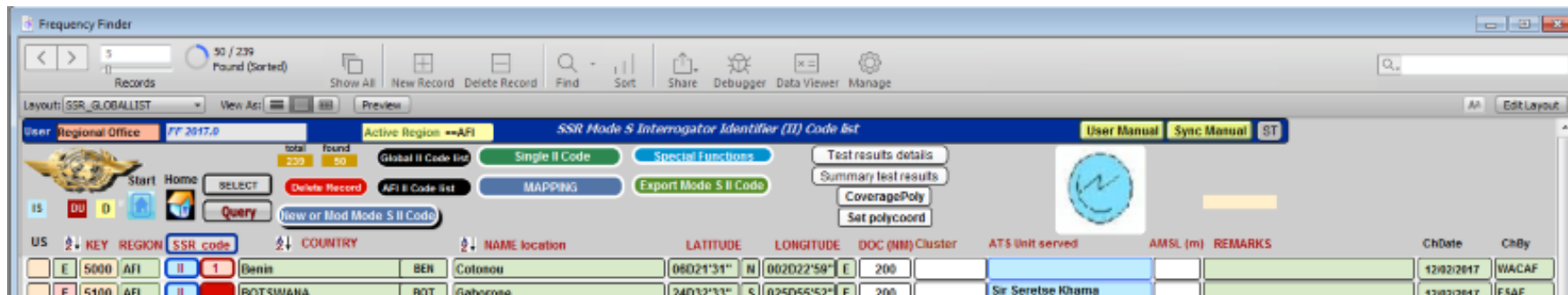
- Button **Go to SSR II** navigates to the Mode S II Code list and triggers the integrity check.
- The SSR II code list is the main page to:
  - Add, modify, delete Mode S II Codes
  - Browse and Query the Mode S II Code list
  - Test compatibility of Mode S II Codes
  - View calculation results
  - Export Mode S II Codes or parts of it
- These functions are the same as for COM list 3

# Home Page → Mode S II Code list

## Integrity Check

- Find records same Key (partially duplicates)
  - Request user which record to keep
- Find records with empty essential fields
  - User intervention (keep/repair)
- II Codes outside the range 1-16
  - User intervention (keep/repair)
- Find draft records
  - User intervention (keep/convert/delete)

## Mode S II Code list (1)



KEY	REGION	SSR code	COUNTRY	NAME location	LATITUDE	LONGITUDE	DOC (NM) Cluster	ATIS Unit served	AMSL (m)	REMARKS	ChDate	ChBy
E	5000	AFI	BEN	Cotonou	08021'31" N	002022'58" E	200				12/02/2017	WACAF
E	5100	AFI	BOTSWANA	Gaborone	24032'33" S	025055'52" E	200	Sir Seretse Khama			12/02/2017	ESAF

- The Navigation, Query/Select, Functions and Special Functions buttons provide for the same functionality as those for the VHF COM list 3.
- When clicking the field DOC, the coverage (range) for each of the 24 sectors is displayed
- When the field DOC reads “Sectorized”, the coverage is different in different directions

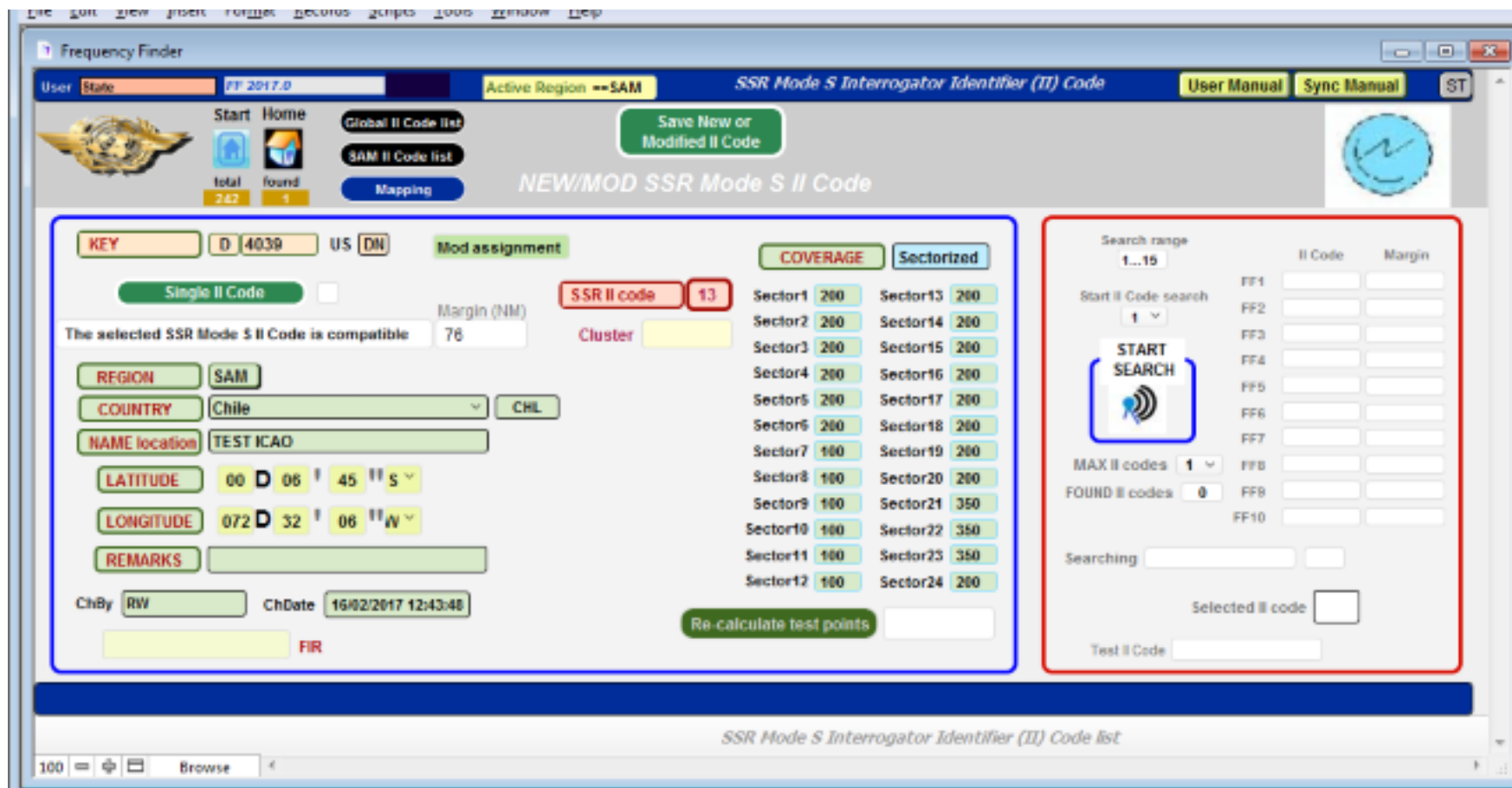
## Mode S II Code

### Add new or modify SSR Mode S II Code

- Click the button new or Mode Mode S II Code on the II Code list
- This window allows the user to enter the characteristics for the new or modified II Code assignment
- Click the button *COVERAGE* to enter the circular coverage for the Mode S station
- Each of the 24 sectors can be modified in cases where the coverage is sectorized
- After entering the coverage, click the button *Re-calculate test points*
- Click the button *Test* to test the compatibility of the new or modified II Code

# Mode S II Code list (1)

Add, modify or search for a compatible Mode S II Code



The screenshot shows the 'Frequency Finder' application window. The title bar includes 'User: State', 'FF 2017.0', 'Active Region: SAM', and 'SSR Mode S Interrogator Identifier (II) Code'. The interface is divided into several sections:

- Navigation and Tools:** Includes 'Start', 'Home', 'Global II Code list', 'SAM II Code list', 'Mapping', and 'Save New or Modified II Code' buttons.
- Search and Filter Section (Left):** Contains fields for 'KEY' (D 4039), 'US DN', 'Mod assignment', 'Single II Code', 'Margin (NM)' (76), 'REGION' (SAM), 'COUNTRY' (Chile), 'NAME location' (TEST ICAO), 'LATITUDE' (00 D 06 ' 45 '' S), 'LONGITUDE' (072 D 32 ' 06 '' W), 'REMARKS', 'ChBy' (RW), and 'ChDate' (16/02/2017 12:43:48).
- Coverage Table (Center):** A table showing coverage for 24 sectors. The 'SSR II code' field is set to 13.
 

Sector	Coverage	Sector	Coverage
Sector1	200	Sector13	200
Sector2	200	Sector14	200
Sector3	200	Sector15	200
Sector4	200	Sector16	200
Sector5	200	Sector17	200
Sector6	200	Sector18	200
Sector7	100	Sector19	200
Sector8	100	Sector20	200
Sector9	100	Sector21	350
Sector10	100	Sector22	350
Sector11	100	Sector23	350
Sector12	100	Sector24	200
- Search Range and Results (Right):** Includes 'Search range' (1..15), 'Start II Code search' (1), 'START SEARCH' button, 'MAX II codes' (1), 'FOUND II codes' (0), and a list of II codes (FF1-FF10) with corresponding 'Margin' fields.

The status bar at the bottom indicates 'SSR Mode S Interrogator Identifier (II) Code list'.