



MICA website presentation

MICA Workshop for ICAO MID States Agenda Item #5

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MICA website overview



- The MICA (Mode S Interrogator Code Allocation) Website is used to coordinate and manage the allocation of Interrogator Codes (IC) and coverage maps to Mode S radars in the ICAO European region and in the ICAO Middle-East region.
 - Submit <u>IC applications</u> (IC allocation request)
 - **⚠**

IC applications have to be submitted a least one year before the planned date of first Mode S
transmission

- Review the <u>IC allocation proposals</u>
 - To accept/reject IC allocation proposals during the review period (MICA Cycle or Ad-Hoc)
- Retrieve <u>issued IC allocations</u> with coverage maps
- Display the coverage maps provided with IC allocations
 - online on Google Map, or kml download for display in Google Earth.
- Report <u>IC conflicts</u>
- Download general documentation and information related to MICA cycles

MICA website access

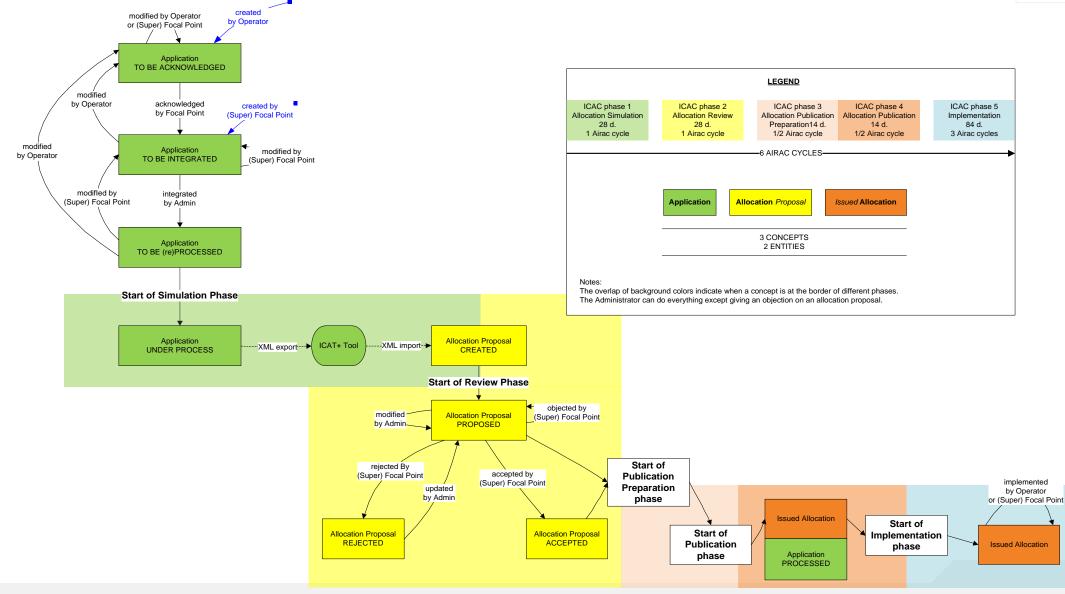


- The access to the MICA website is managed through the EUROCONTROL OneSkyOnline portal.
 - Direct link to MICA website: https://ext.eurocontrol.int/mica/
- Who can be registered
 - State Focal Points
 - Mode S Operators representing either civil or military organizations
- Steps to be registered on the MICA website
 - Send a request to the responsible MID Focal Point(s) and State Focal Point(s), if any
 - Self-register on the EUROCONTROL OneSkyOnline portal (see link below)
 - https://ext.eurocontrol.int/elsh/registerNewUserForApplication.do?eurocontrolresourceid=circa
 - MID Focal Point(s) will transmit to the MICA Cell the MICA website registration requests they have received and accepted.

Mode S Surveillance Principle 3

Mode S IC Allocation Flow

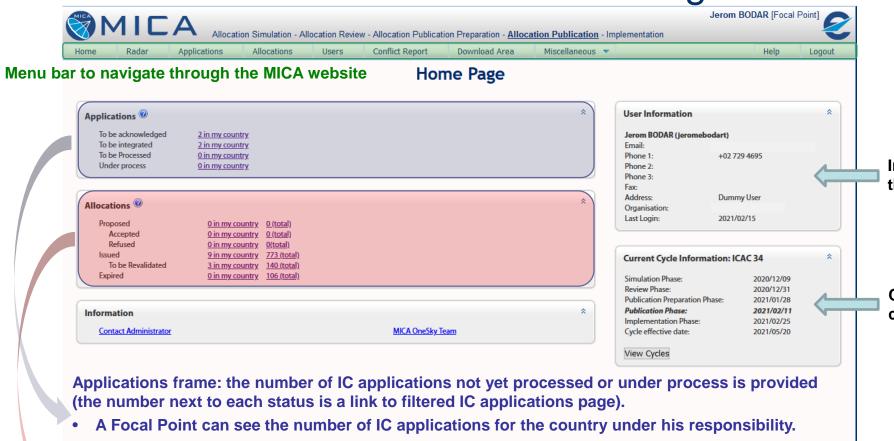




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MICA Website Home Page





Information of user connected on the MICA website

Current MICA Cycle number and current phase/period in the Cycle

• An Operator can see the number of IC applications for his own organisation.

Allocations frame: the number of IC allocations and their status (the number next to each status is a link to filtered IC allocations page).

- A Focal Point can see the number of IC allocations for the country under his responsibility and the total number of IC allocations.
- An Operator can see the number of IC allocations for his own organisation.

Mica v2.15.1.0 Powered by Julsar

Navigation in the MICA Website





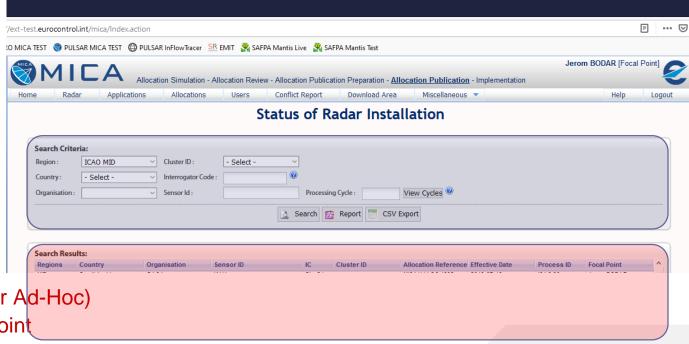
- The Menu bar is used to navigate through the MICA website:
 - 'Radars': to access the list of Mode S radars for which an IC allocation is issued
 - 'Applications': to access the existing IC applications or to create a new one
 - 'Allocations': to access the existing IC allocations (proposed, issued, expired...)
 - <u>'Users'</u>: to access the contact details of users registered on the MICA website
 - <u>'Conflict Report'</u>: to access the IC conflict report mechanism in order to report a new IC conflict, to add information about an existing IC conflict, or to consult current and past IC conflicts
 - <u>'Download Area'</u>: to download documents stored on the MICA web application, e.g. the MICA Conflict Contact List.
 - 'Miscellaneous': FAQ and Forum not used for the being
 - <u>'Help'</u>: to access the online User Manual

List of Mode S Radars ('Radars' button)





- To display the Status of Radar Installation (i.e. the list of Mode S radars for which an IC allocation is issued).
 - All registered users (all user profiles) have access to the Status of Radar Installation
- The user may fill the "Search Criteria" frame to refine the Mode S radars he wants to display. Then he has to click on "Search" button. The result can be exported in PDF or csv.
- For each Mode S radar, the following Information is displayed:
 - ICAO Region + Country
 - Organisation
 - Name of Mode S radar (Sensor ID)
 - Allocated Interrogator Code (IC)
 - Cluster ID (if the radar is part of a cluster)
 - IC Allocation Reference
 - Effective date of the issued IC allocation
 - Process ID (i.e. the MICA Cycle number or Ad-Hoc)
 - Contact details of the responsible Focal Point

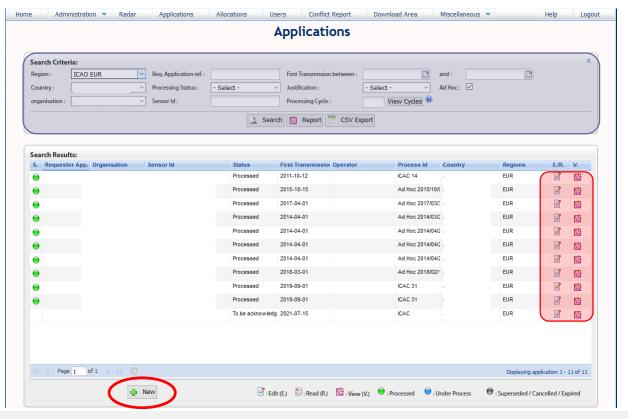








- Open the <u>"Applications"</u> page
 - To access existing IC applications or to submit a new IC application.
 - Access rights to IC applications depends on the user profile.

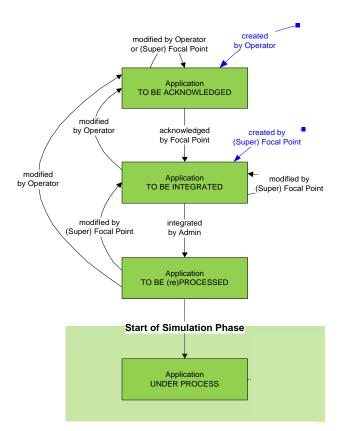


- "Search Criteria" frame to refine the IC applications to display.
- The result can be exported in PDF or csv.
- To submit a new IC application, the user has to click on the www button (located at the bottom of the page) and to provide the required information in the "Application Creation" page.
- To edit an IC application which has not been processed (<u>"Application Update"</u> page), the user can double click on the IC application line or on the Edit button.
- The user can export an IC application in PDF.

IC Application Status



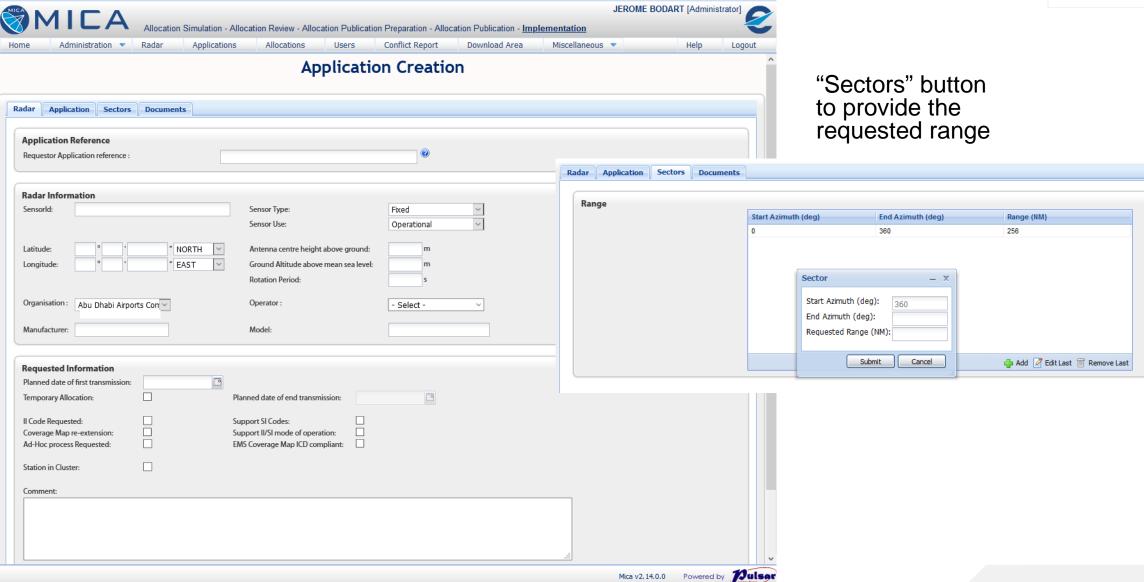




- The status of a new IC application depends on the profile of the user who created it.
 - A Focal Point can create an IC application for any organisation in his area of oversight (in the country under his responsibility).
 - An Operator can create an IC application for his own organisation.
- IC applications created by Operators have to be reviewed and acknowledged by the responsible Focal Point.
 - The responsible Focal Point has to edit the IC application ("Application Update" page) to review it and acknowledge it.
 - There is an Acknowledge button located at the bottom of the page.
- IC applications filtered per status can be access from the <u>"Applications"</u> page (see previous slide) or from the Home Page



IC Application Creation Window

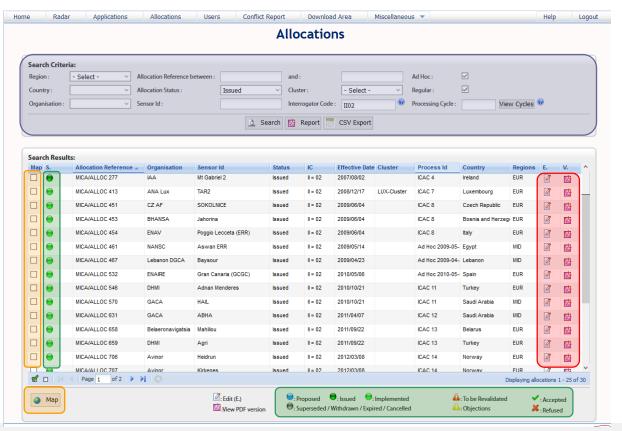


IC Allocations ('Allocations' button)





- Open the <u>"Allocations"</u> page.
 - To access all IC allocations: IC allocations proposals, issued IC allocations...
 - Access rights to IC allocations depends on the user profile.



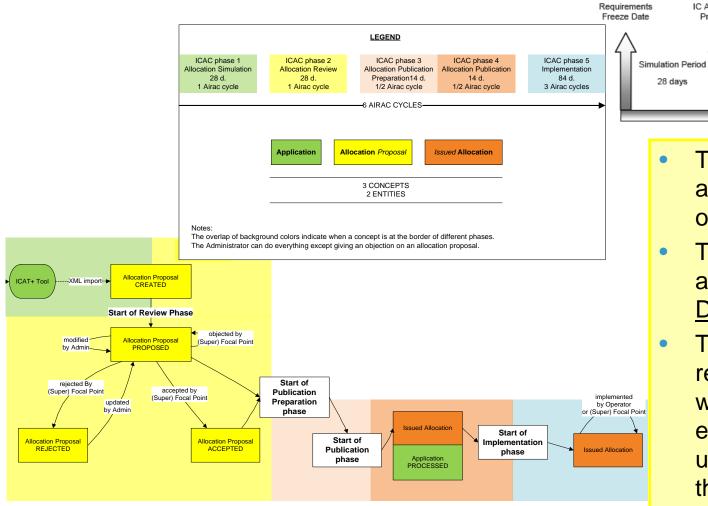
- "Search Criteria" frame to refine the IC allocations to display.
- The result can be exported in PDF or csv.
- Click on the IC allocation line or on the Edit button to access the details of an IC allocation (<u>"Allocation Details"</u> page)
- The user can export a detailed IC allocation in PDF.
- The Status of an IC allocation is provided by the bullet in front of the IC allocation
- Select coverage map and click on "Map" button to display in Google Map or export in kml.

IC Allocation Proposals



Implementation Period

Effective



The Focal Points have to review the IC

The Focal Points have to review the IC

allocation proposals during the Review Period

IC Allocation Acknowledgement

Publication

Period

Publication of

of MICA Cycle/Ad-Hoc process.

Agreement

Contingency

- The responsible Focal Point has to edit the IC allocation proposal to access the <u>"Allocation</u> <u>Details"</u> page and to review it.
- The responsible Focal Point has to accept or reject IC allocation proposals for Mode S radars within their area of oversight (State) before the end of the review period on the MICA website, using the Accept Refuse button at the bottom of the "Allocation Details" page.

MICA website User Guide 12

IC Allocations

Proposals

Review Period

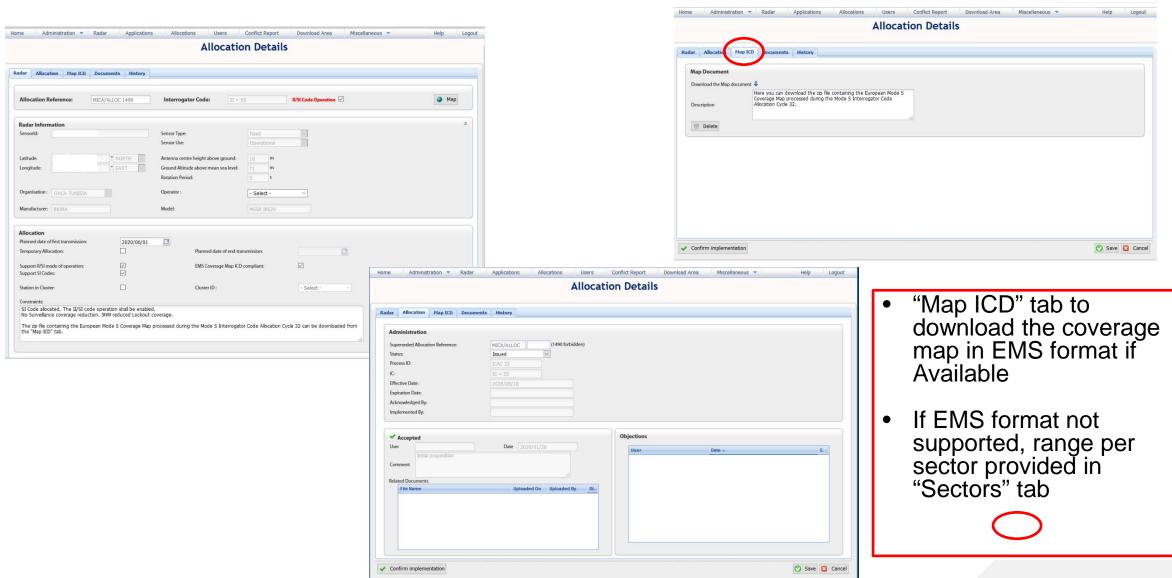
Issued IC allocations



- Once an **IC allocation is issued**, the responsible **Focal Point has to acknowledge** it on the MICA website, using the Acknowledge button at the bottom of the "Allocation Details" page.
- Once an issued IC allocation is implemented in a Mode S radar, the responsible
 Operator or Focal Point has to confirm the implementation on the MICA website, using the confirm implementation button at the bottom of the "Allocation Details" page.
- Every 5 years the responsible Focal Points has to revalidate the issued IC allocations in order to confirm that the IC allocation is still used and should not be withdrawn, using the Pevalidate button at the bottom of the "Allocation Details" page.

Allocation Details - Online version





IC Allocation Details in PDF



Mode S IC Allocation Cell

IC Allocation



MICA/ALLOC 1490

Supersedes the following allocation(s)

NONE

II/SI Code Operation

YES

Interrogator Code

SI = 55

Radar Information

Your Application Reference:

Sensor Id Operator

 Latitude
 Sensor Type
 Fixed

 Longitude
 Sensor Use
 Operational

Key Dates

Issue Date:

Review Date: 30 January 2020

03 March 2020

Planned first transmission: 01 June 2020

Planned end transmission:

Effective Date: 18 June 2020

Mode S IC Allocation Cell

IC Allocation



MICA/ALLOC 1490

Allocation Details

Allocation Cycle : Cycle 32

EMS Coverage Map ICD compliant: Yes

Map ICD Identification :

Station in Cluster: No Cluster id: Second IC requested: Second IC:

Allocation Constraints

SI Code allocated. The II/SI code operation shall be enabled. No Surveillance coverage reduction. SNM reduced Lockout coverage.

The zip file containing the European Mode S Coverage Map processed during the Mode S interrogator Code Allocation Cycle 32 can be downloaded from the "Map ICD" tab. Maps (ICD / Sector)

Lockout Surve Surve



Mode S IC Allocation Cell

IC Allocation



MICA/ALLOC 1490

Additional Radar Information

Antenna centre heigth above ground: 16 m
Ground altitude above mean sea level: 71 m
Rotation Period: 5 s

Manufacturer: INDRA Model: MSSR IRS20

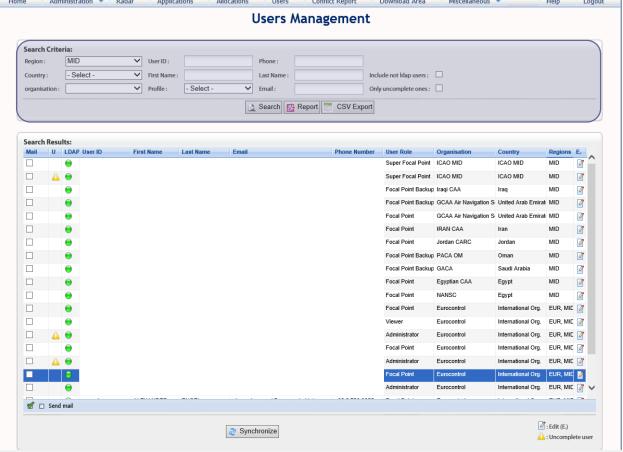
1/3 2/3 3/3







- Open the <u>"User Management"</u> page.
 - To display the list of users which are registered on the MICA website



- "Search Criteria" frame to refine the users to display.
- The result can be exported in PDF or csv.
- For each user, the following information is provided
 - First Name and Last Name
 - E-mail address
 - Phone Number
 - User role (profile)
 - Organisation
 - Country
 - ICAO Region

User Access Rights



- 6 different profiles (user role) are defined in the MICA web.
 - Administrator: members of EUROCONTROL MICA Cell
 - ICAO MID Super Focal Point: ICAO MID regional officer who coordinates the IC allocation in the ICAO MID region
 - Focal Point: a person representing a competent State or an international organisation applying for interrogator codes, who is responsible for the coordination of all matters concerning the IC allocations between the EUROCONTROL MICA Cell and the Mode S Operators in his area of oversight.
 - Mode S Operator: a person, organisation or enterprise operating or offering to operate a Mode S radar, including:
 - Air navigation service providers;
 - Mode S interrogators manufacturers;
 - Airport operators;
 - Military authorities;
 - Inspector: oversight of IC applications and IC allocations for Mode S radars installed or planned to be in a country

Viewer: "public" access

Super Focal Point Access Rights



Applications:

- Read/Write detailed access to IC applications from all countries in his ICAO Region (read/write "Edit" access + PDF)
- No access to IC applications from countries in other ICAO regions.

Allocations:

- Detailed access to IC allocations for all countries in his ICAO region (read only "Edit" access + PDF).
- High level access to IC allocations for countries in other ICAO regions (no "Edit" access, no PDF).
- Visualization in Google Earth (KML export):
 - The radar position, the surveillance coverage and the lockout coverage allocated to Mode S radars from his own ICAO region only.
- Visualization in Google Map:
 - The surveillance coverage and lockout coverage allocated to Mode S radars both in his own ICAO region and in other ICAO regions.
 - Only the position of radars located in his own ICAO region is disclose.
 - The position of radars located in other ICAO regions is not disclose.

Focal Point Access Rights



Applications:

- Read/Write detailed access to IC applications from his own country (read/write "Edit" access + PDF)
- Read Only detailed access to IC applications from other countries in the same ICAO region (PDF only).
- No access to IC applications from countries in other ICAO regions.

Allocations:

- Detailed access to IC allocations for countries in the same ICAO region (read only "Edit" access + PDF).
- High level access to IC allocations for countries in other ICAO regions (no "Edit" access, no PDF).
- Visualization in Google Earth (KML export):
 - The radar position, the surveillance coverage and the lockout coverage allocated to Mode S radars from his own country only.
- Visualization in Google Map:
 - The surveillance coverage and lockout coverage allocated to Mode S radars both in his own ICAO region and in other ICAO regions.

Only the position of radars located in his own country is disclose.

Operator Access Rights



- Applications:
 - Detailed access to applications from his own organisation (read/write "Edit" access + PDF).
 - No access to applications from other organisations.
- Allocations:
 - Detailed access to allocations for his own organisation (read only "Edit" access + PDF).
 - High level access to allocations for other organisations (no "Edit" access, no PDF).
- Visualization in Google Earth (KML export)
 - The radar position, the surveillance coverage and the lockout coverage allocated to Mode S radars from his own organisation only.
- Visualization in Google Map:
 - The surveillance coverage and lockout coverage allocated to Mode S radars in all ICAO regions.
 - The position of radars from his own organisation only is disclose.
 - The position of radars from other organisations is not disclose.

Inspector Access Rights



- Applications:
 - Detailed access in Read Only to applications from his own country (read only "Edit" access + PDF).
 - No access to applications from other countries.
- Allocations:
 - Detailed access to allocations for his own country (read only "Edit" access + PDF).
 - High level access to allocations for other countries (no "Edit" access, no PDF).
- Visualization in Google Earth (KML export):
 - The radar position, the surveillance coverage and the lockout coverage allocated to Mode S radars from his own country.
- Visualization in Google Map:
 - The surveillance coverage and lockout coverage allocated to Mode S radars in all ICAO regions.
 - The position of radars from his own country only is disclose.
 - The position of radars located in other countries is not disclose.

Viewer Access Rights



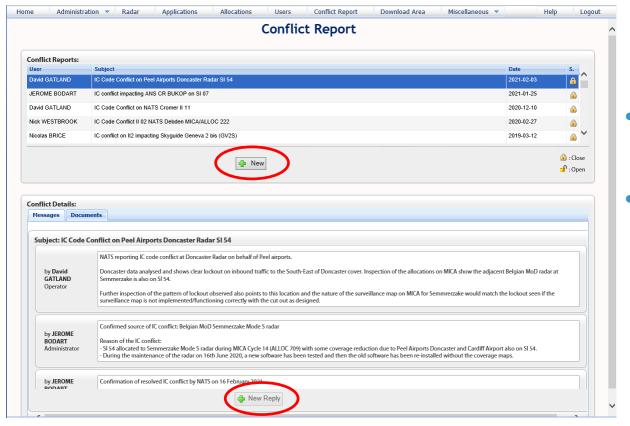
• The Viewer has only access to the list of Mode S radars for which an IC allocation is issued ("Radars" button).

IC conflict reporting ('Conflict Report' button)





- Open the <u>"Conflict Report"</u> page.
 - To access the list of reported IC conflicts, or to report a new IC conflict.



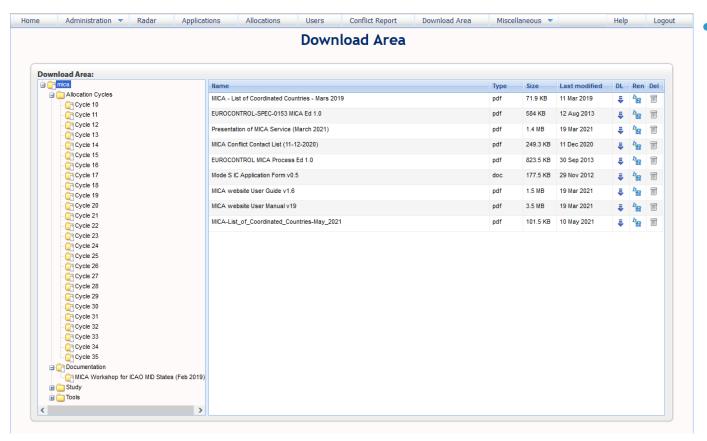
- The user can report a new IC conflict by clicking on "New" button.
- Any user can add information to an existing IC conflict report by clicking on "New Reply"

Download Area ('Download Area' button)





- Open the <u>"Download Area"</u> page.
 - To access documents and tools related to Mode S IC Allocation.



- The following documents are available:
 - MICA Specification and MICA Process
 - MICA website User Guide and User Manual
 - Mode S IC application form
 - MICA Conflict contact list
 - For each MICA Cycle
 - MICA Status presentation
 - Implementation Sequence
 - Presentation from MICA workshops for ICAO MID States

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Information and Contact



EUROCONTROL website

https://www.eurocontrol.int/function/mode-s-interrogator-code-allocation

MICA website

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- Direct link: https://ext.eurocontrol.int/mica/

EUROCONTROL MICA Cell contact

mica@eurocontrol.int