



ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

WORKING PAPER

E/CAR/NTG/8 & E/CAR/RD/6 — WP/04  
25/08/18

**Eighth Eastern Caribbean Network Technical Group (E/CAR/NTG/8) and  
Sixth Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/6)**  
Saint George's, Grenada, 3 - 5 September 2018

- Agenda Item 4: Surveillance Sharing Activities**  
**4.1 Review of Surveillance Sharing Letters of Agreement (LOAs)/Memorandum of Understanding (MOUs): Barbados, France, Sint Maarten and Trinidad and Tobago**

**SURVEILLANCE DATA SHARING RECOMMENDATIONS**

(Presented by the Secretariat)

<b>EXECUTIVE SUMMARY</b>	
This working paper presents information about surveillance data sharing, benefits of sharing and integrates surveillance data in different ATC systems.	
<b>Action:</b>	The suggested actions are presented in Section 3
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• NAM/CAR/SAM Meeting/workshop on the Implementation of Automatic Dependence Surveillance –Broadcast (ADS-B), Lima, Peru, November 2017</li></ul>

**1. Introduction**

1.1 Taking into account the importance of having common situational awareness information, in the last years ICAO assisted those States which make decisions based on realistic information to allow safety improvement.

1.2 Sharing Surveillance data information is an essential requirement to support and improve situational awareness.

1.3 Many States in the North American, Central American and Caribbean (NAM/CAR) Region integrated surveillance information of the adjacent States in their Air Traffic Control (ATC) systems, such as the Central American States, Mexico, Panama, Cuba, Cayman Islands, Jamaica, providing information in areas where their own systems did not allow them.

1.4 In addition to expand the surveillance coverage of FIRs, sharing surveillance data information provides other benefits:

- Backup data information.
- Quality and data validation, to be compared with other data.
- Promote coordination procedures.
- Decrease in the occurrence of LHD at 0% in FIRs.
- Improve PBN procedures.
- Support automated implementation protocols, such as NAM/ICD and AIDC/ASIA -PAC.

1.5 To share surveillance data demands technical requirements that have to be met:

- Communication channel established to carry out surveillance data
- ATC data management systems (Protocols of surveillance systems).
- Operational development procedures that integrate this new information.
- New coordination procedures between the different FIRs that share data.
- Maintenance procedures that take into account the areas of data overlapping and the benefit of the redundancy information.
- Others, according to State's needs.

1.6 Experience in several implementations has shown that not all processes are successful due to:

- Lack of system capacity to support some surveillance protocols.
- No standards surveillance protocols.
- Lack of support from systems providers (vendors).
- Other factors

1.7 Eastern Caribbean States willing to share their data with other States, because is an important and key factor to promote share information.

## **2. Discussion**

2.1 Improved situational awareness in the Eastern Caribbean taking into account the importance of having common situational awareness information, which is obtained by sharing surveillance data.

2.2 States and Territories were urged to continue making efforts to complete data sharing both at radar and ADS-B system level to improve region safety.

2.3 It is necessary for data exchange, that each State share technical information on surveillance systems with adjacent States in order to analyse the coverage and overlap of surveillance data to serve as backup in air traffic control coordination areas between FIRs.

2.4 Take advanced of the lesson learned in other FIRs to avoid make the same mistakes and improve in better way to share surveillance data information.

2.5 It is necessary that each State take into account surveillance infrastructure of the adjacent States before project development that implement air traffic control centres, in order to ensure that these data must be integrated.

2.6 Update technical infrastructure of Eastern Caribbean States' surveillance systems (radar Systems, MLAT, ADS-B) indicating manufacturer, model, protocols etc.

2.7 Update technical infrastructure of Eastern Caribbean States' ATC Systems, indicating the manufacturer, model and surveillance protocols that can be managed for them.

2.8 Perform an analysis of the current infrastructure and create the necessary recommendations of minimum requirements that surveillance systems and air ATC systems must meet to ensure their integration.

2.9 Ensure not only local integration and standardization, but integrate regional requirements with the other States of the Caribbean and South America with whom Eastern Caribbean States make coordination.

### **3. Suggested actions**

3.1 The meeting is invited to take on account the following recommendations:

- a) Take note of the information provided;
- b) Integrate in RD Ad-hoc group the activities described in the item 2.6 to 2.9; and
- c) Agree to any other actions as deemed appropriate.