



ICAO

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

WORKING PAPER

E/CAR/NTG/5 & E/CAR/RD/3

WP/13

11/10/14

**Fifth Eastern Caribbean Network Technical Group (E/CAR/NTG/5) and Third Eastern Caribbean Radar Data Sharing Ad-hoc Group (E/CAR/RD/3) Meetings**

Guadeloupe, France, 22 to 24 October 2014

**Agenda Item 3: Overview of Radar Data Sharing Activities**  
**3.2 Implementation of radar data sharing tasks**

**IMPLEMENTATION OF RADAR DATA SHARING ACTIVITIES**

(Presented by the Secretariat)

<b>EXECUTIVE SUMMARY</b>	
This working paper presents an overview of the radar data sharing activities achieved and the need for the update of the implementation plan on this matters to encompass all the radar data related actions for informing the E/CAR Directors as mandated.	
<b>Action:</b>	The suggested actions are detailed in section 3
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Environmental Protection</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• Fourth Eastern Caribbean Network Technical Group and Second Eastern Caribbean Radar Data Sharing Adhoc Group Meetings (E/CAR/NTG/4- E/CAR/RD/2), Martinique, French Antilles, France, 17 to 18 June 2013</li><li>• Twenty-fifth Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/25), St. John's, Antigua and Barbuda, 3–5 December 2013</li></ul>

**1. Introduction**

1.1 The agreement for a Central Radar Data server and the agreement for sharing/using the radar data among the E/CAR States and Territories represent an important improvement on safety and efficiency with notable improvements on ATC situational awareness in the region.

1.2 In the E/CAR/RD/2 Meeting, a follow-up to the Radar Data Agreement and its Teleconferences were made:

- Progress of the radar data server,
- Infrastructure needed for this radar data exchange and the offer made by France of the System Tracks from the radar sensors of Martinique and Guadeloupe to E/CAR States while the Radar Data server in Trinidad and Tobago is operational.
- Exchange of radar data coverages between France, Trinidad and Tobago, Barbados, Antigua - theoretical radar coverage (FL 50, 100, 150,200 and 300)
- Completion of radar questionnaire by all participating parties
- Trinidad and Tobago submitted the required information (ICD and the corresponding SIC/SAC codes) to French Antilles and the PIARCO radar merged data
- The ongoing work of France and TSTT on the resolution of the telecom issues for the transportation of the radar data from Piarco to Martinique.
- The commitment of Antigua, Barbados, Dominica, France, Saint Lucia, Trinidad and Tobago and United States, St. Kitts and Nevis, Saint Vincent, Montserrat and Grenada to be part of the radar data sharing project.
- Update of the E/CAR radar sharing implementation Points of Contacts.

1.3 An update to the E/CAR Radar Data Sharing implementation plan was made as shown in **Appendix** to this paper.

1.4 The E/CAR/DCA/25 Meeting approved the progress achieved by the RDS Group and took note of the implementation Plan to be achieved.

## 2. **Discussion**

2.1 The radar data sharing activities as included in the implementation Plan represent the commitment of the region for achieving the foreseen situational awareness improvements and to promote future improvements in air traffic control services.

2.2 Even though Decision E/CAR/NTG/4/14 and conclusion E/CAR/NTG/4/15 were agreed, no update on the implementation plan was presented for the E/CAR/DCA 25 Meeting because the multicasting of the radar data was not available, which is a key activity that set the timeline for the other radar sharing activities. Also the States need to confirm that local arrangements are completed.

**DECISION****E/CAR/NTG/4/14****UPDATE TO RADAR DATA SHARING IMPLEMENTATION ACTION PLAN**

*In order to update the activities for the radar data sharing implementation action plan, that Trinidad and Tobago:*

- a) *updates the Radar Data Sharing Action Plan including all the actions and activities discussed and agreed in the E/CAR/NTG/04 Meeting, as the long and short term solution actions, States/territories implementing the Radar Displays in Phase 1 and 2, etc;*
- b) *presents an initial draft of this update to the next Radar Data Sharing Adhoc Group teleconference in August 2013 for approval; and*
- c) *present the final update to the E/CAR/DCA/25 Meeting.*

**CONCLUSION****E/CAR/NTG/4/15****LOCAL TELECOM INFRASTRUCTURE**

*That the E/CAR States/territories implementing the Radar Displays in the short term solution, implement the necessary local telecommunications infrastructure to complete the connectivity of the circuits provided by the E/CAR AFS Network from the demarcation point of the E/CAR AFS network router.*

2.3 The Implementation Plan shall be updated based on the recent events in Radar Data Sharing matters, such as:

- The RFI Process for collecting data shall provide more ideas for planning and orienting the region's works toward achieving improvements in the situational awareness benefits
- The experience on using the French donated CPUs should provide a hands-on experience and practical view for using radar data displays
- Availability of the radar data within the E/CAR AFS Network
- Availability of the MRT data in each user site- including local availability
- Availability of RASA guidance on OEACS States
- Review of radar data coverage in the region (Trinidad and Tobago, Martinique, Guadeloupe, Antigua, Sint Maarten, Barbados and the benefits of specific overlap coverage from the radars and identified the States that could benefit from either single radar or multiple radars)
- Radar Data from United States sites
- Analysis of real Radar Coverage in States as done for Grenada and Saint Vincent

2.4 Similarly, the Implementation Plan should include the actions for radar data exchange with the adjacent FIRs as part of the process to enhance the MRT data for the E/CAR users (San Juan, Sint Maarten and Venezuela)

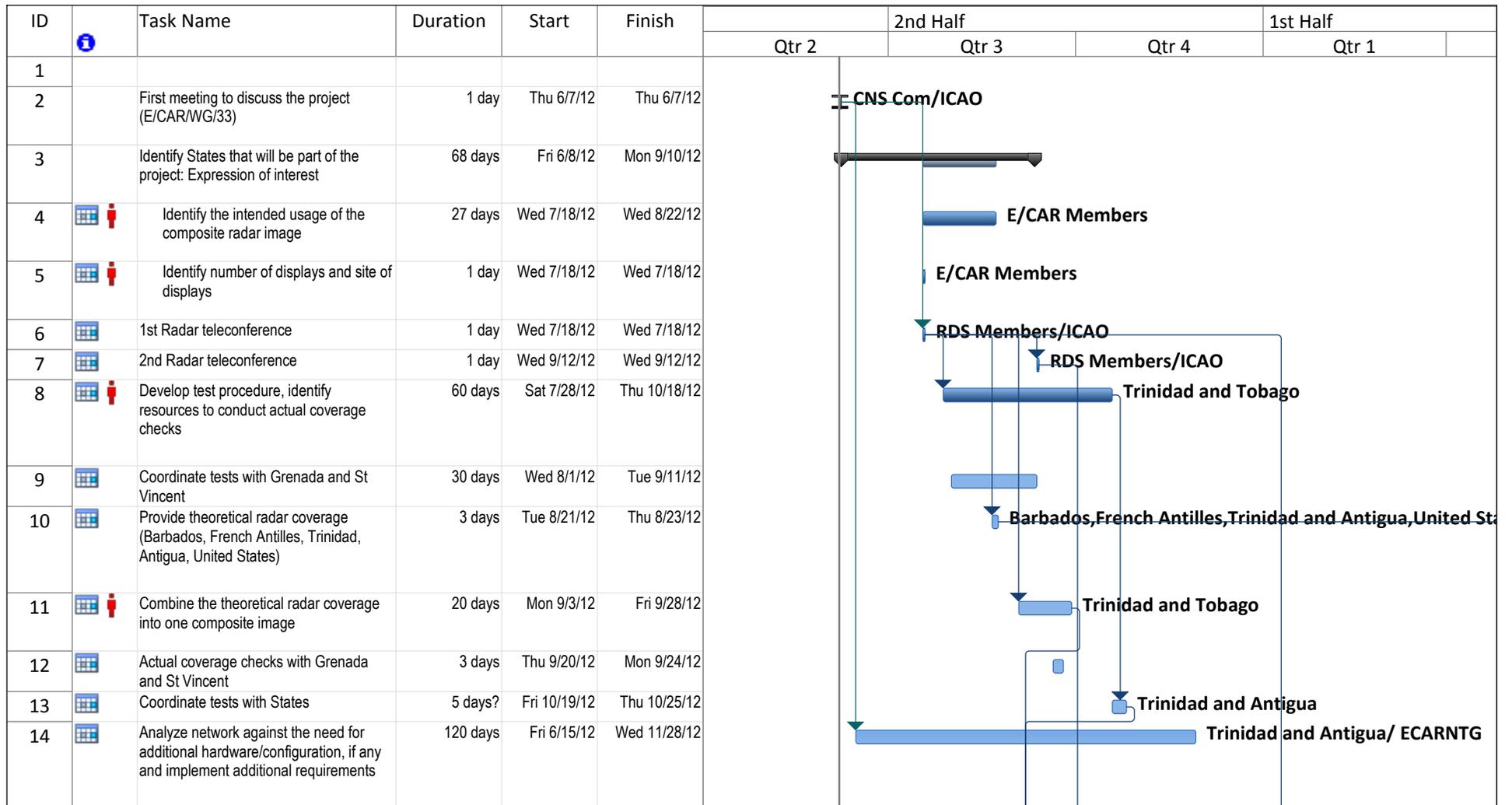
**3. Suggested Action**

3.1 The Meeting is invited to:

- a) take note of the E/CAR Radar Data Sharing achieved activities and recent progress;
- b) review and update the E/CAR Radar Data Sharing Implementation Plan to reflect the future actions with the commitment of the E/CAR users; and
- c) take any other action as deemed necessary.

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APPENDIX



Project: ECAR RADAR DATA PROJE  
Date: Wed 6/12/13

Task		External Milestone		Manual Summary Rollup	
Split		Inactive Task		Manual Summary	
Milestone		Inactive Milestone		Start-only	
Summary		Inactive Summary		Finish-only	
Project Summary		Manual Task		Deadline	
External Tasks		Duration-only		Progress	

APPENDIX

ID	Task Name	Duration	Start	Finish	2nd Half			
					Qtr 2	Qtr 3	Qtr 4	1st Half
15	Make recommendations to E/CAR/DCA/24 on Radar Data Sharing Project- implementation and procurement	3 days	Tue 10/2/12	Thu 10/4/12			<b>CNS Com Rapporteur</b>	
16	Have Barbados Radar in Trinidad	180 days	Thu 3/28/13	Wed 12/4/13				
17	Develop technical specifications needed to implement the radar display for situational awareness.	320 days	Thu 1/10/13	Tue 4/1/14				
18	Send Piarco's MRT to Martinique/ recorded data only		Wed 4/10/13					
19	Conduct actual coverage checks with Antigua, Dominica, montserrat, St. Kitts, St. Lucia	15 days	Mon 6/17/13	Fri 7/5/13				
20	Integrate Barbados radar into Piarco's MRT							
21	Trials to determine whether the composite image can be displayed on the displays available by French Antilles	27 days	Thu 4/11/13	Fri 5/17/13				
22	Trials to determine whether the composite image can be displayed on the existing displays in Saint Lucia	27 days	Tue 6/25/13	Wed 7/31/13				
23	3rd Radar Teleconference: Present findings to radar sharing group	1 day	Fri 3/15/13	Fri 3/15/13				
24	If success results, carry out MOU signatures	40 days	Mon 7/8/13	Fri 8/30/13				
25	Transportation, training and final setup of the displays in agreed sites	50 days						

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					Qtr 2	Qtr 3	Qtr 4	Qtr 1
26	Commissioning and operational readiness	20 days						
27	4th Radar Sharing Teleconference	1 day	Tue 5/21/13	Tue 5/21/13				
28	<b>OP2: Acquisition of new Radar Data Displays</b>	<b>172 days</b>	<b>Fri 11/1/13</b>	<b>Mon 6/30/14</b>				
29	Draft specifications for review by ICAO, ECCAA, France and Trinidad and Tobago							
30	Finalization of Committee members/Selection of Chairperson							
31	Finalization of complete tender documents							
32	Obtain quotations from selected vendors for estimation	27 days	Wed 4/2/14	Thu 5/8/14				
33	Start procurement process as a regional project (tender/evaluation/selection)	48 days						
34	<b>Delivery and Installation of equipment</b>	<b>81 days</b>						
35	Delivery	30 days						
36	Installation- with local technicians	23 days						
37	Training	3 days						
38	Commissioning and operational readiness	25 days						
39	Radar Meeting for procurement OP2/preparation of OP1	3 days						→ RDS Members/ICAO
40	CATG/2	3 days						

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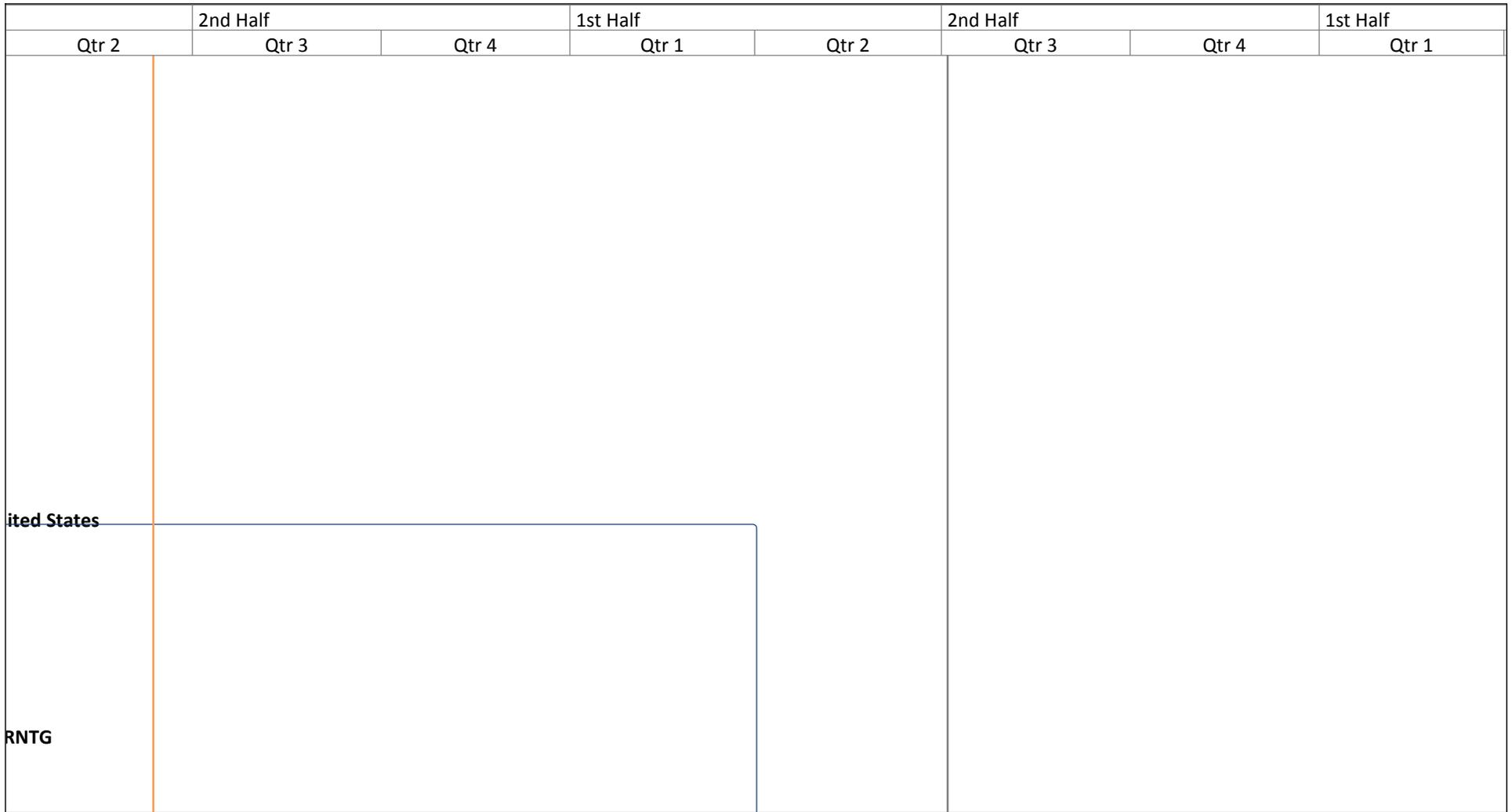
ID	Task Name	Duration	Start	Finish	2nd Half		1st Half	
					Qtr 2	Qtr 3	Qtr 4	Qtr 1
41	Conduct tests	23 days						
42	OP1: Use of 10 existing displays offered by France	137 days						
43	E/CAR/WG/34 Meeting	3 days	Tue 7/1/14	Thu 7/3/14				

ECAR Members  
 OP1: U

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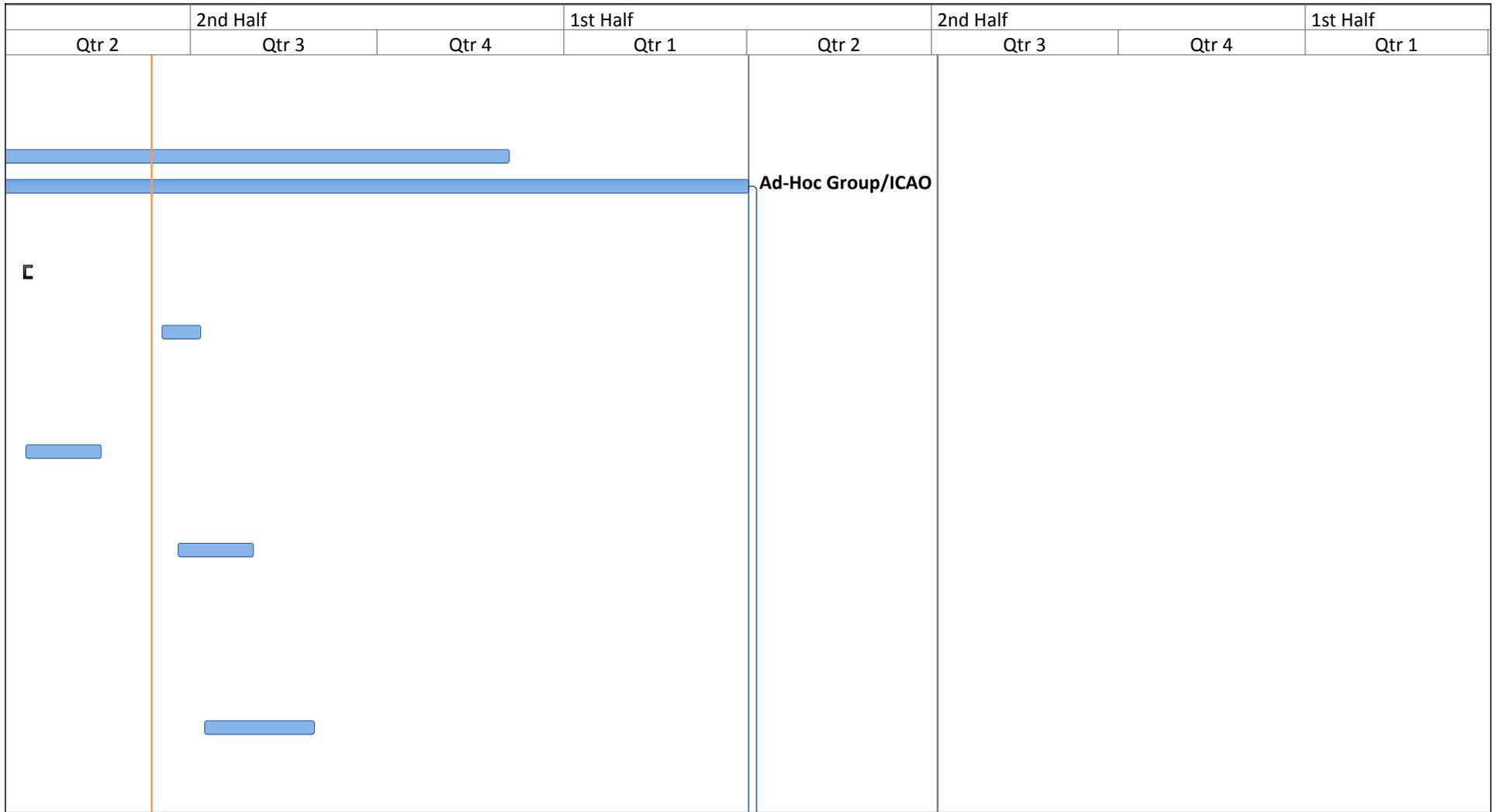
Limited States

RNTG

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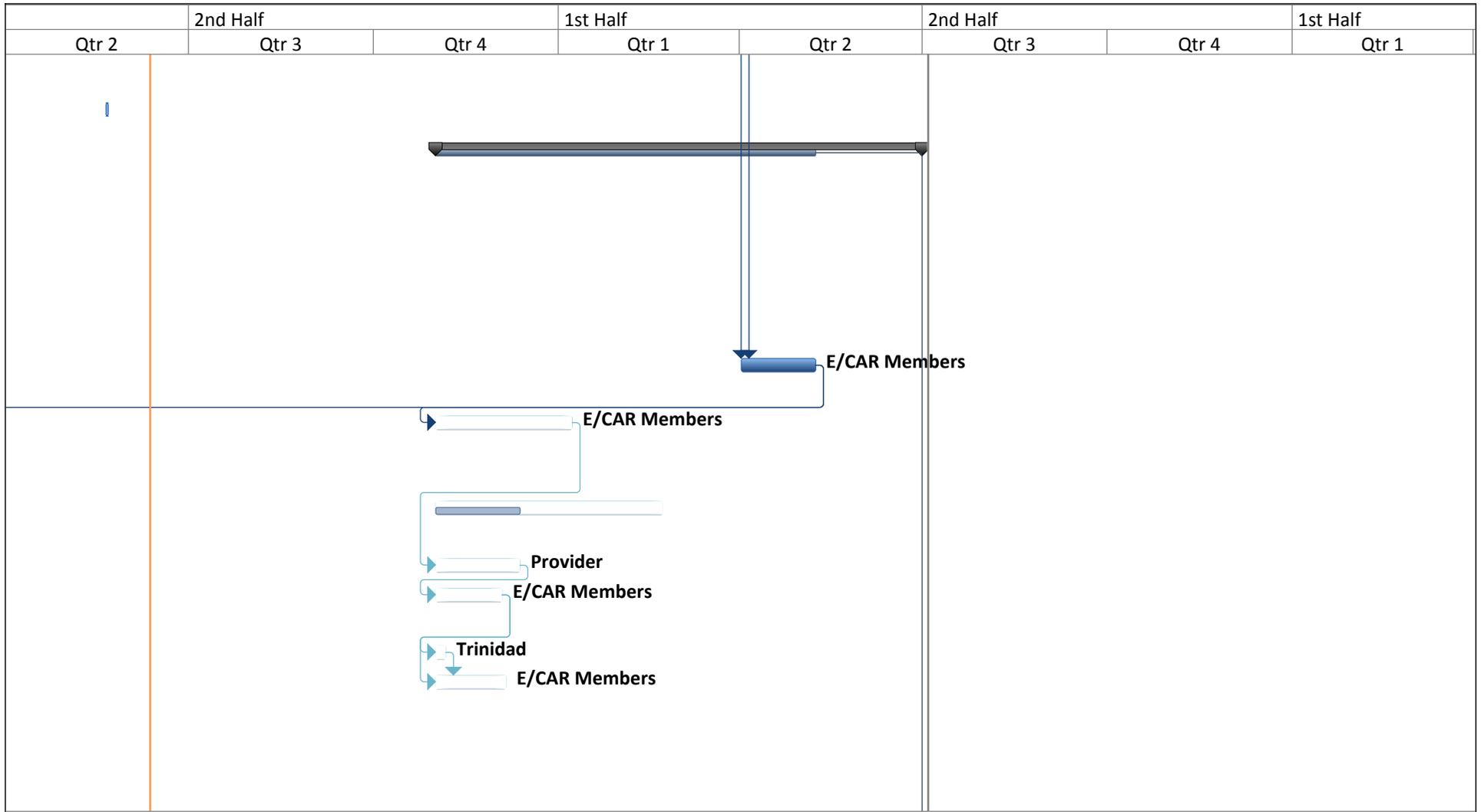
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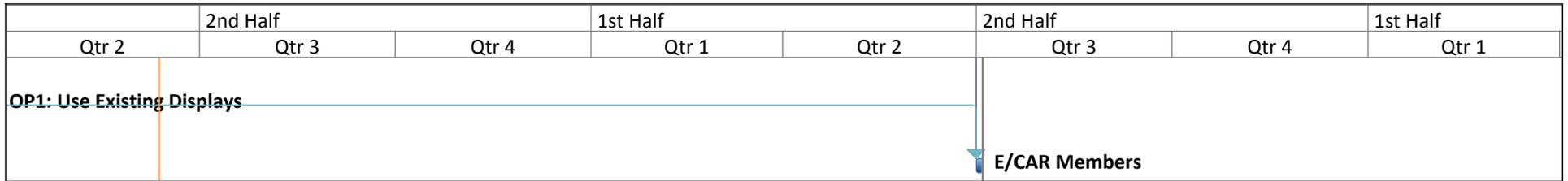
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