ADS-B PLANNING INITIATIVE TRINIDAD AND TOBAGO

Trinidad and Tobago Civil Aviation Authority

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TECHNICAL SPECIFICATIONS

- Operating Frequency 1090 MHz
- DATA format ASTERIX CAT21/CAT23/CAT22/CAT62
- RTCA DO-260A
- RTCA DO-260
- Capacity up to 600 targets

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Introduction to ADS-B Technology

- ADS-B was included in the package of equipment of the ATM system
- ADS-B Receiver installed on the roof of Piarco Control Tower
- Display of ADS-B track available in CNS equipment room
- ADS system monitor available in CNS equipment room

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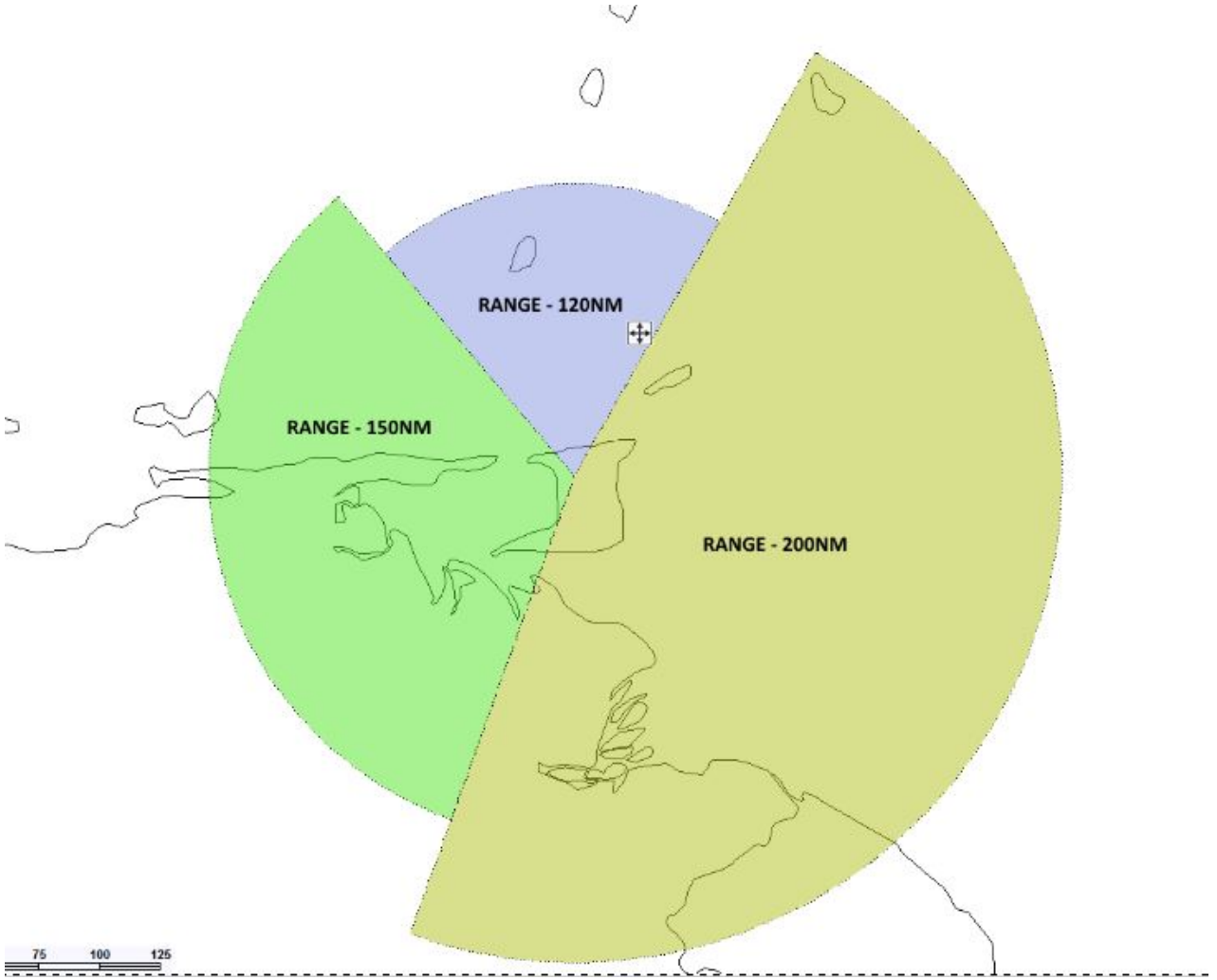
Observed Range of ADS above FL290



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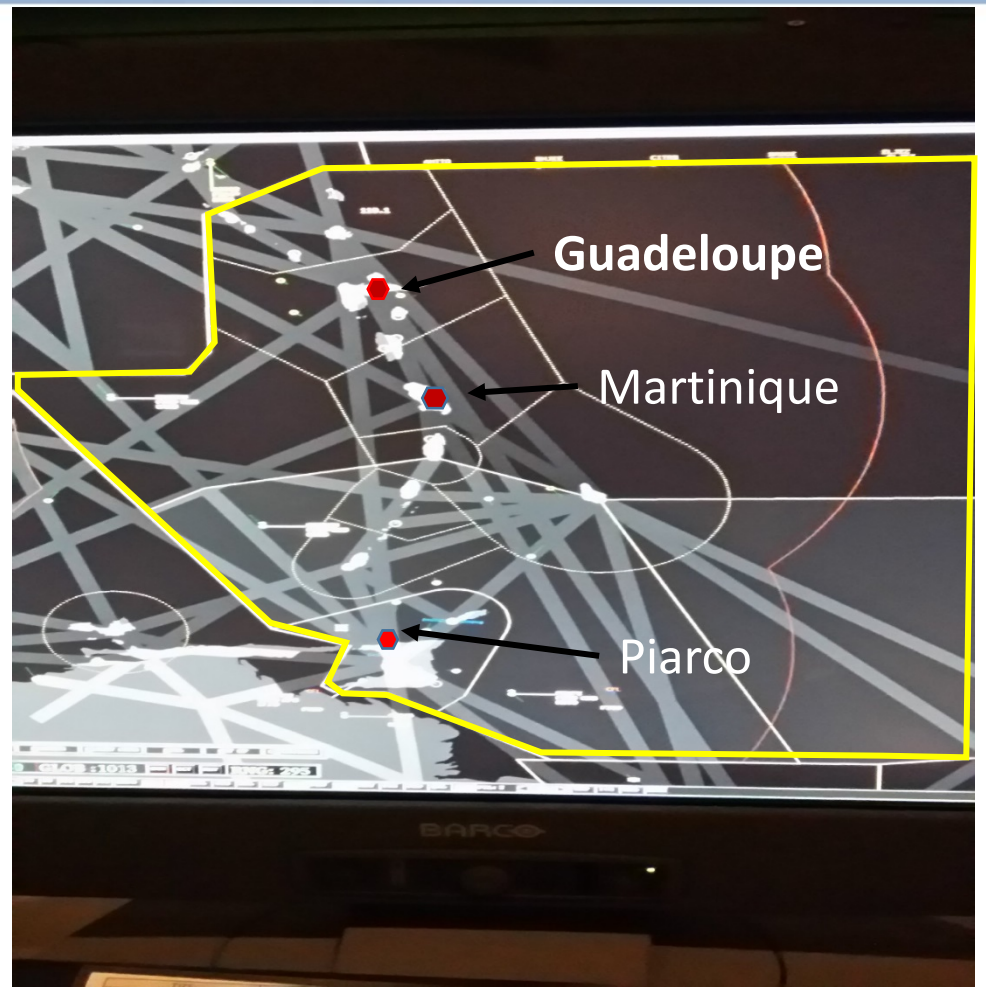
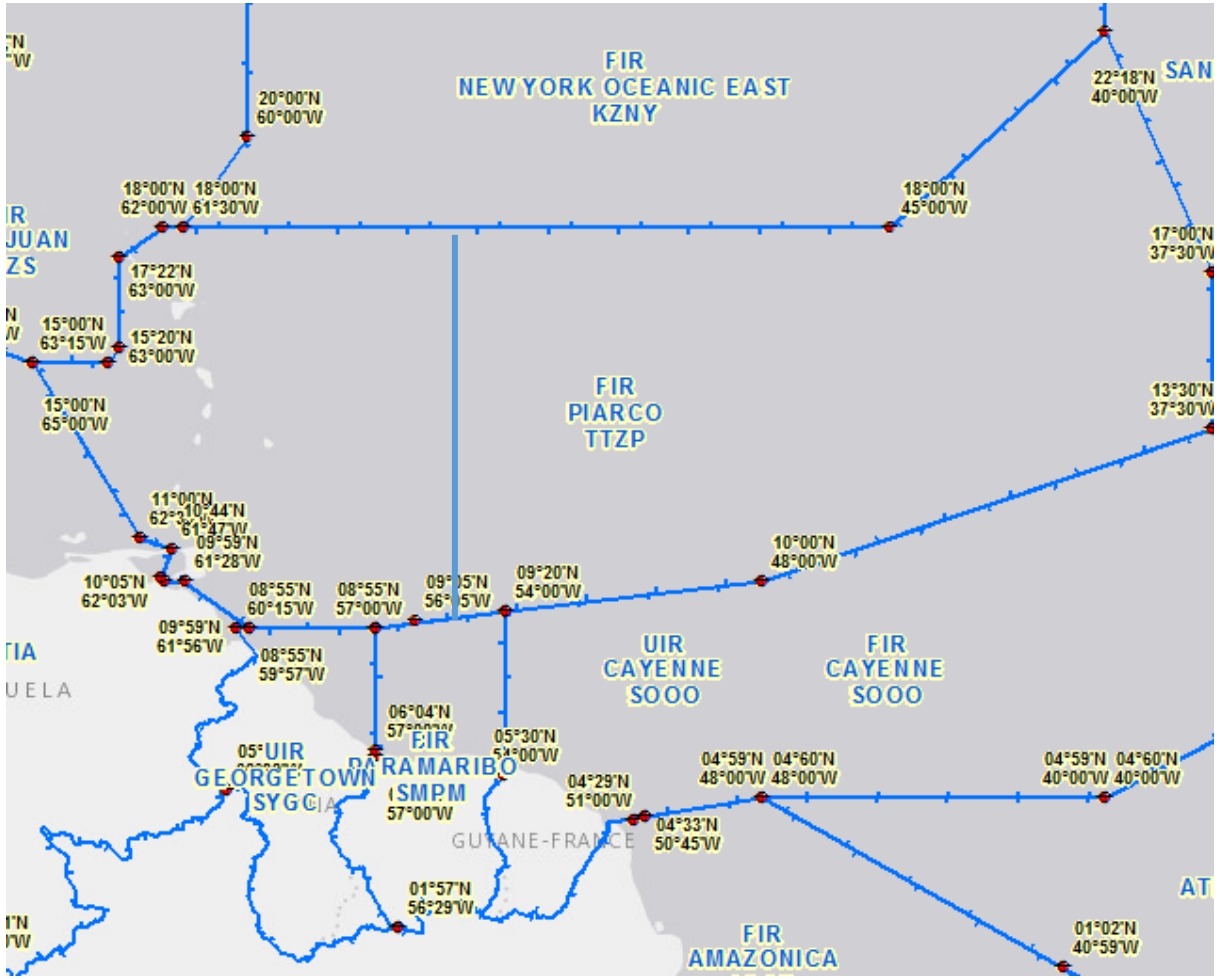
SSR Coverage in TTZP FIR





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ADS-B Coverage on the TTPP – TTCP Route

- Scheduled Airline on Domestic Route has 100 % ADS-B
- Aircraft to/from TTCP are not under ADS-B coverage below F070
- Aircraft to/from TTPP under ADS-B coverage from the Runway
- Approximately 40 scheduled daily domestic movements

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Range of ADS-B in NE Quadrant

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Types of Track Symbols

ADS composite track

SSR track

Flight Plan Track

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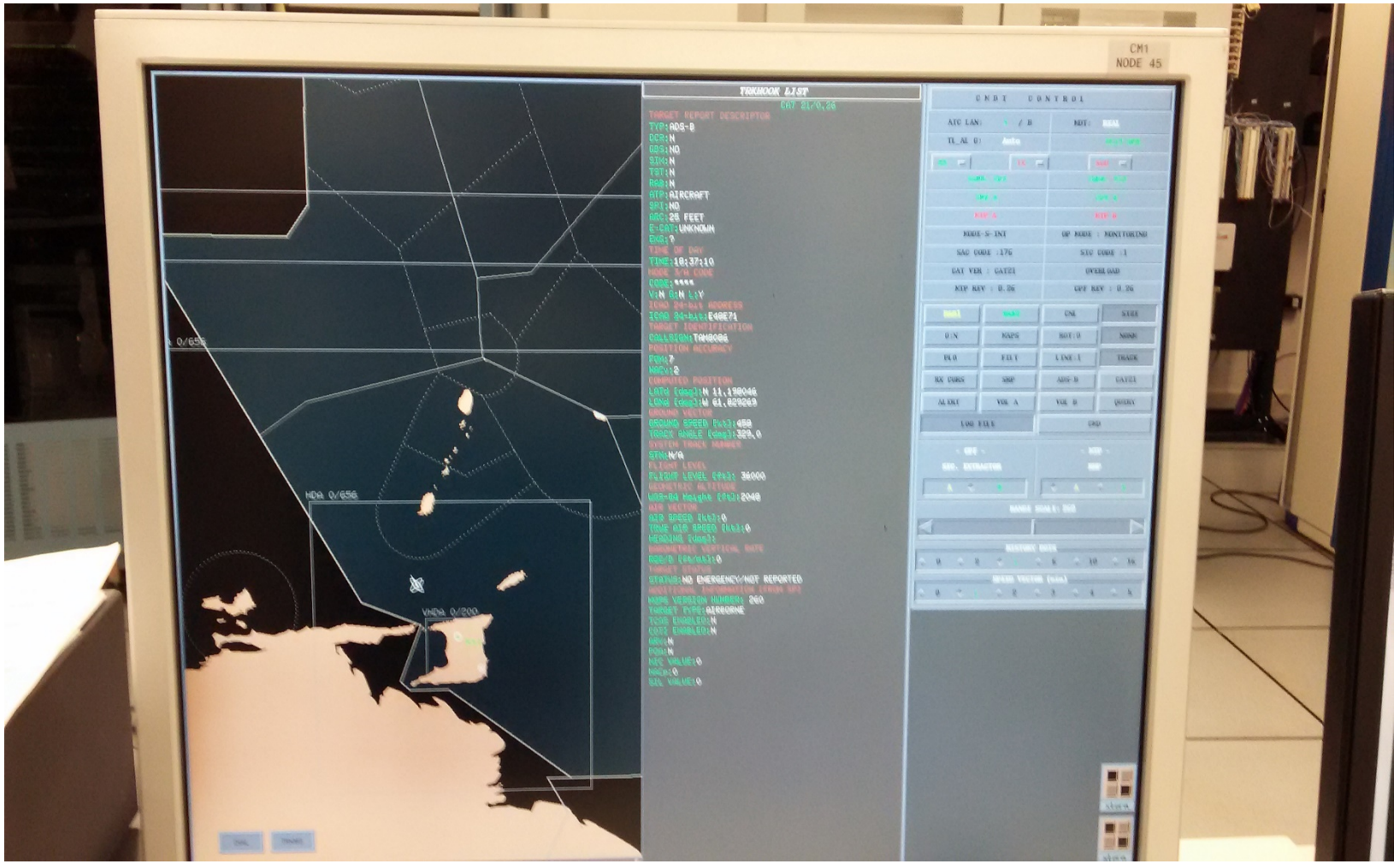
ADS-B system monitoring display



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Flight Data Collected

ADS-B data collected for flights within range of ADS-B (October 2013)

- Less than 60% of the random sample of aircraft were ADS-B equipped
- Over 40% of the sample did not file ADS-B equipment
- Data collected classified by Operator and type of aircraft

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ADS-B options for Piarco

- Placement of antennae to give full coverage of the domestic airspace
- Assess the feasibility of using ADS-B to add redundancy to the continental SSR
- Using emerging technology

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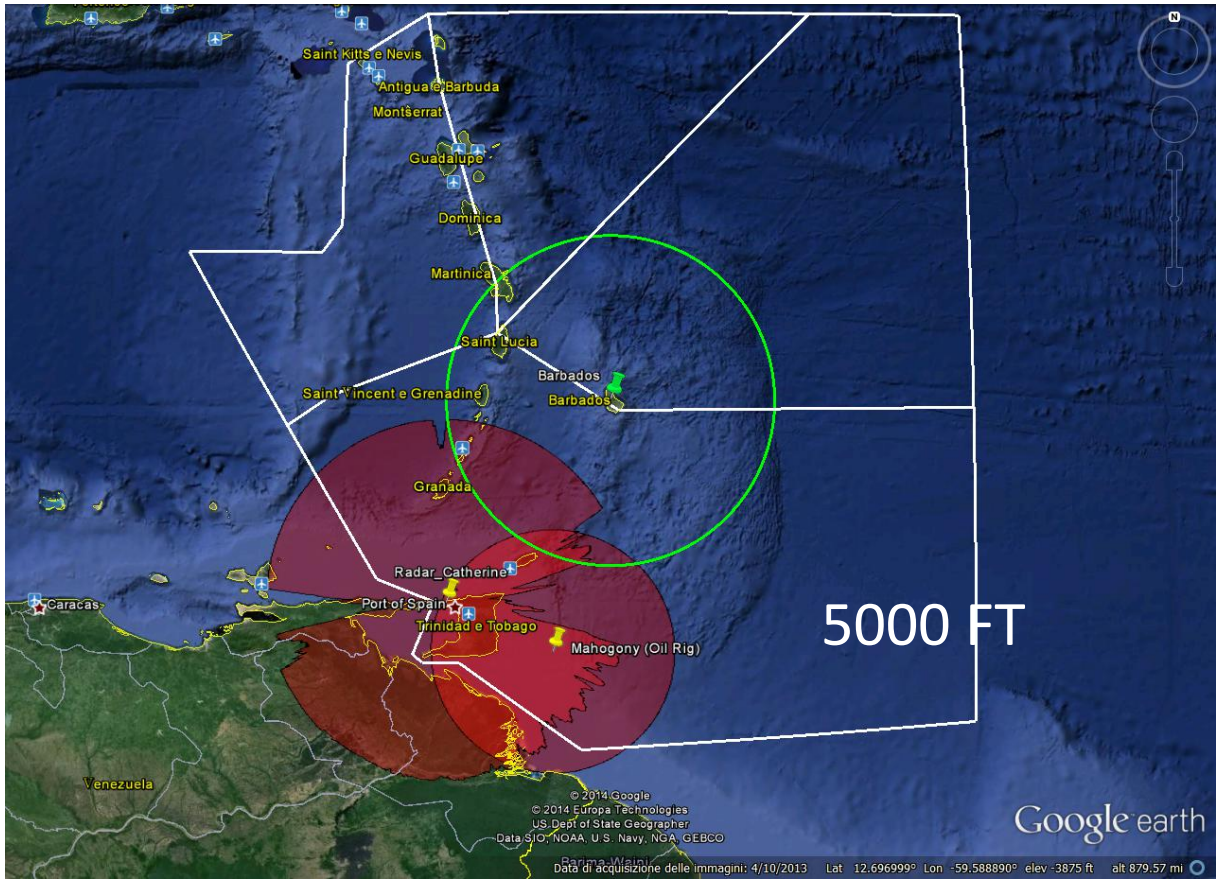
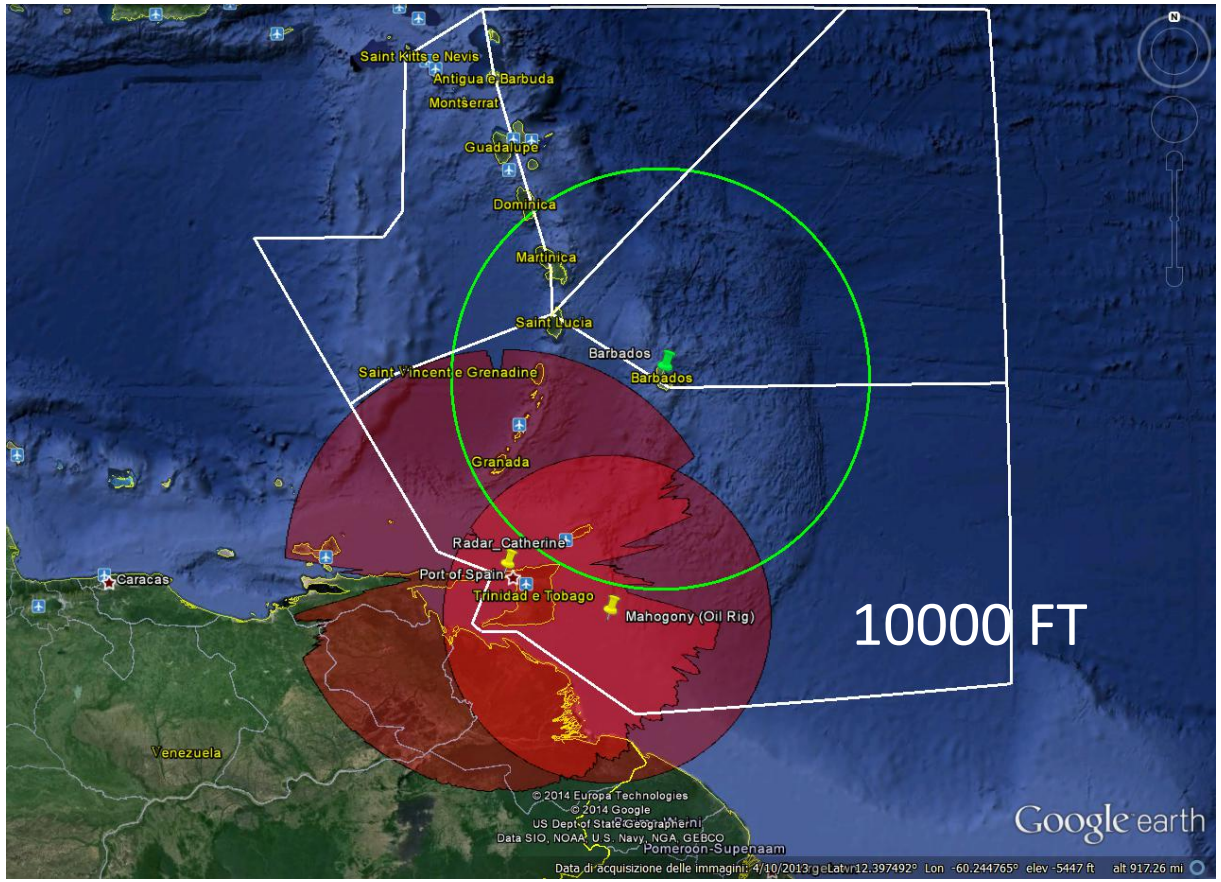
Estimated range with two additional antennae





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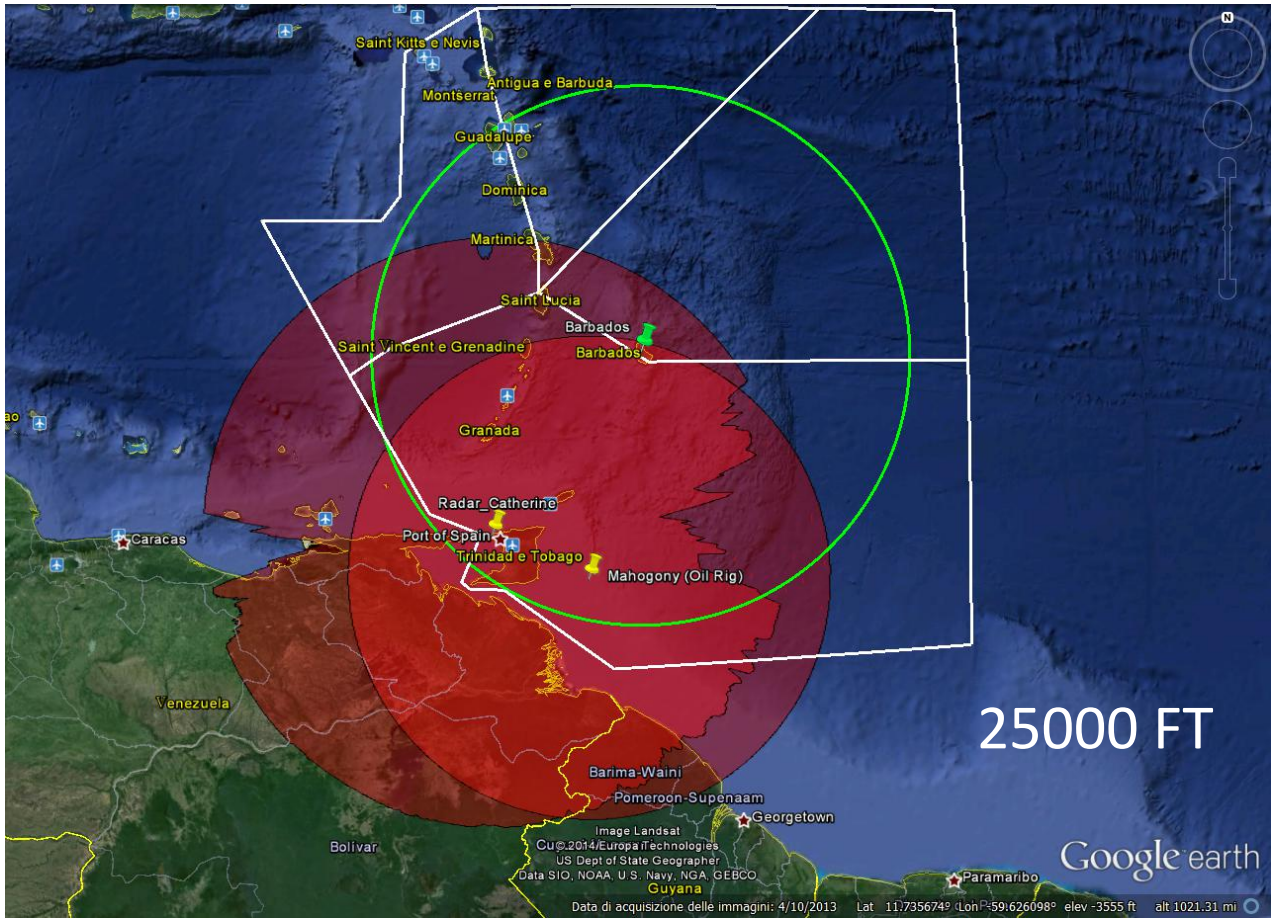

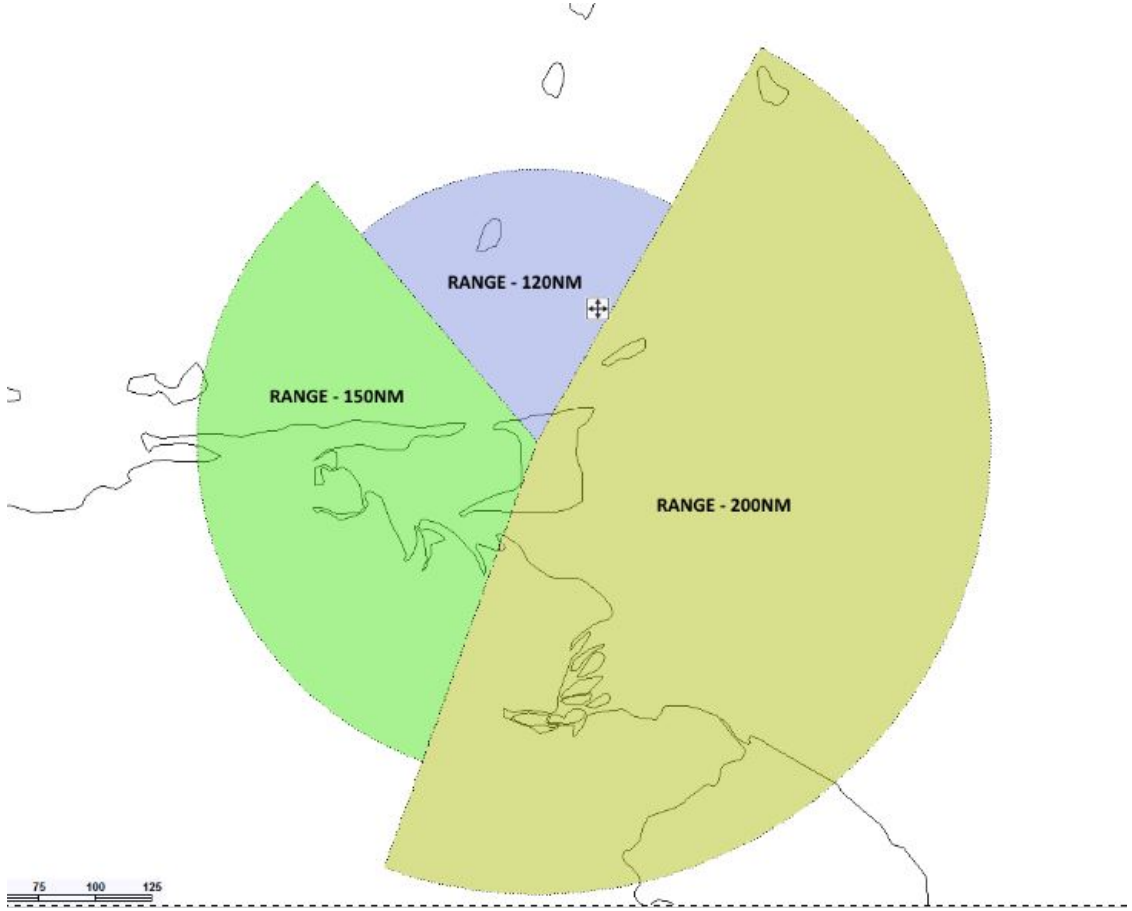

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ADS-B challenges for Piarco

- Reliable SSR in the continental and domestic airspace
- Competing priorities for improving ATS in the Oceanic Airspace (CPDLC, ADS-C, PBN)
- Limited application of a single antenna
- Regional standardization of equipment
- Emerging ADS-B technology – Space Based ADS by 2018

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Gracias por su Atencion

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