Central America Lightining Detection Network

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- Context
- Network characteristics
- Status
- Next Steps

- Conference of Ibero-American NMHS Directors
- Working and cooperation structure, with annual meetings, aimed to improve institutional and operative capacities and to share experiences
- Active role of WMO
- Permanent Secretariat in AEMET
- Open to Associated NMHS (Curaçao; Aruba)
- Design, approval and implementation of action plans
  - Institutional strengthening and resources mobilization
  - Provision of Weather, Climate and Hydrologic services
  - Education and training

- Iberoamerican Networks
  - Weather and Climate: imhet
  - Water: CODIA
  - Climate Change: riocc
- Common strategies, join and complementary activities
  - Forecasting, watching and monitoring of extreme hydrometeorological events comprehensively addressed

- Support of Spanish International Cooperation Agencies

- Observation component of Central America Virtual Center for monitoring and forecast of hydrometerological events

- Regional network, use in each NMHS

- Agreement by all NMHS concerned

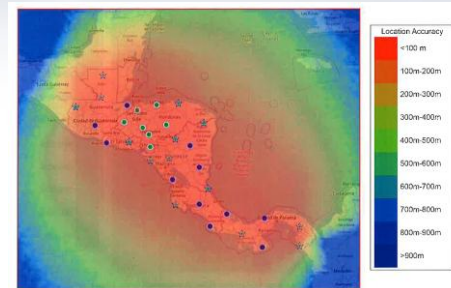- Funded by EU LAIF, managed by AECID (674.000 EUR)

- Techical support from AEMET

System used: Advanced Lightining Network from TOA Systems, implemented by DTN
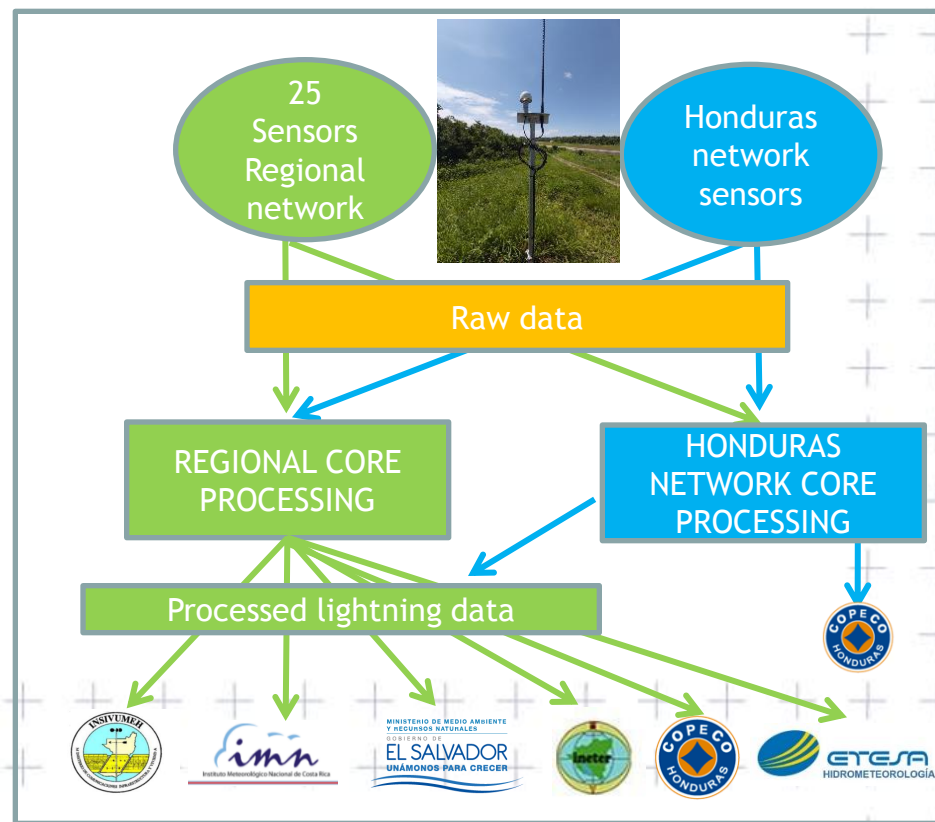
- Detectors (25) distributed by all countries
  - Location accuracy < 100 m in mostly of the area
  - Detection efficiency higher 90%
- A single processing system, based in Hidromet-ETESA (Panama)
- Operating systems (6) in each NMHS
- Include current systems (Honduras network)
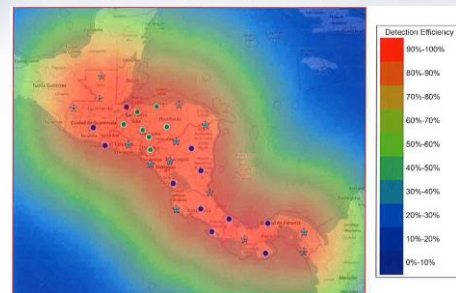
Detection efficiency 5kA   Location accuracy

- Provide sites with electricity and internet access and without electric interferences
- Responsible for preventive and corrective maintenance of installed equipment
- Data ownership
  - Raw data: NHMS with detector antenna
  - Localized data: All NMHS
- Products ownership
  - National products produced by each NMHS: Elaborating institution
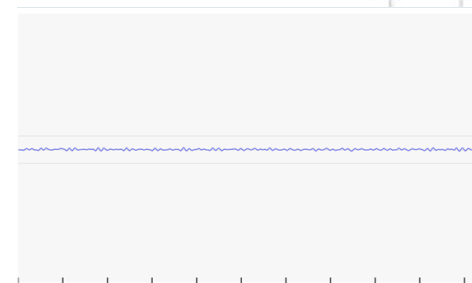 - Regional products produced by Processing System: All NMHS

- Sites with noise. Need for alternative locations
- Difficulties in get some suitable sites
- Internet connection difficulties of detectors
- Problems with ETESA firewall to receive data from detectors outside its corporative network
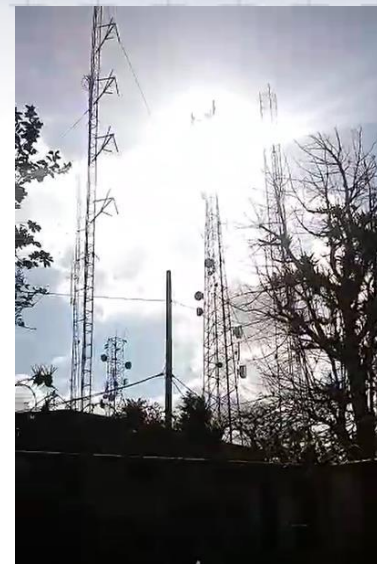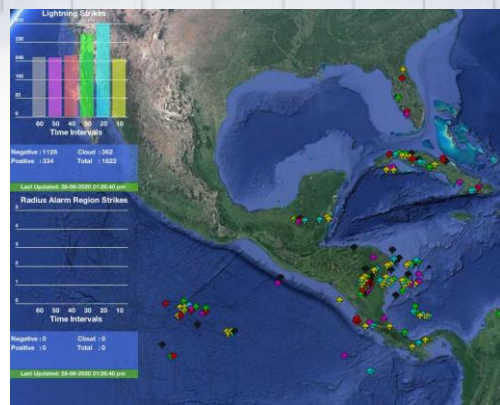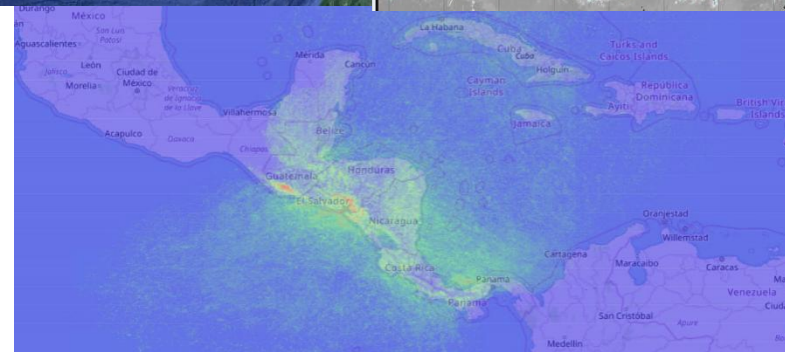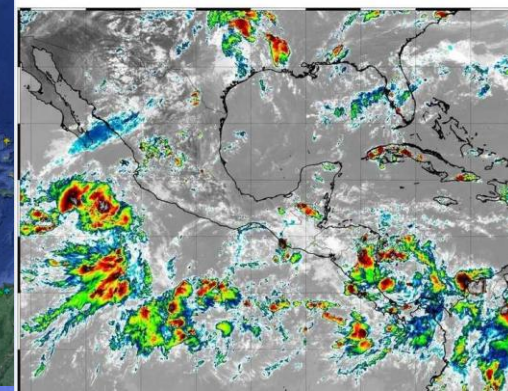

Proposed site

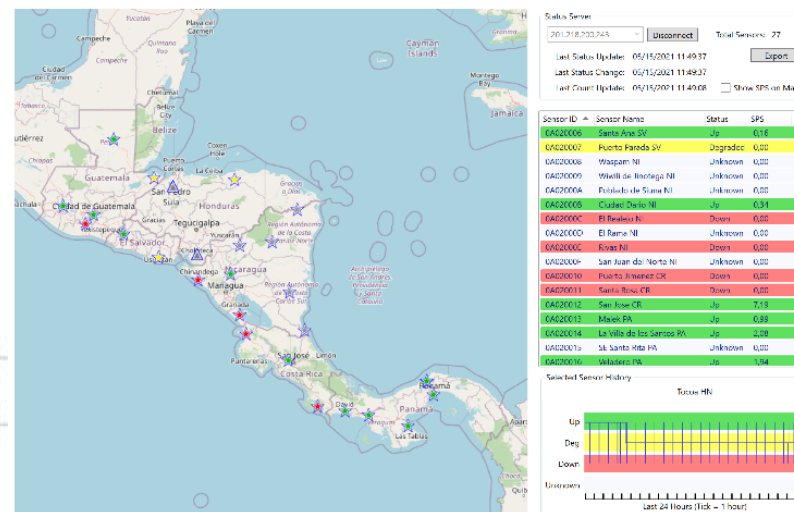Noise at proposed site

Operational noise

- Operational from September 2019

- Independent Internet connection for the Processing System financed by ETESA

- Six detectors not yet installed

- Some detectors with communications problems

- Trevel restrictions for installation and maintenance due to the pandemic

- Design of a failure notification system, managed from the CRRH
- Installation and operation of all detectors
- Incorporation of 100% of the Honduras lighting detection network (7 detectors)
- Training workshops and Exchange of experiences
- Possible network expansión
  - No practical limit to the number of sensors tan can be added to the system
  - Possible incorporation of other NMHS
    - Detectors installation
    - Explotaition system
- Replication in other areas

→ APLICACIÓN DE NOTIFICACIÓN, GESTIÓN Y REGISTRO DE INCIDENCIAS DE LA RED DE DETECTORES DE RAYOS DE CENTROAMÉRICA

Nombre de usuario

Iniciar sesión
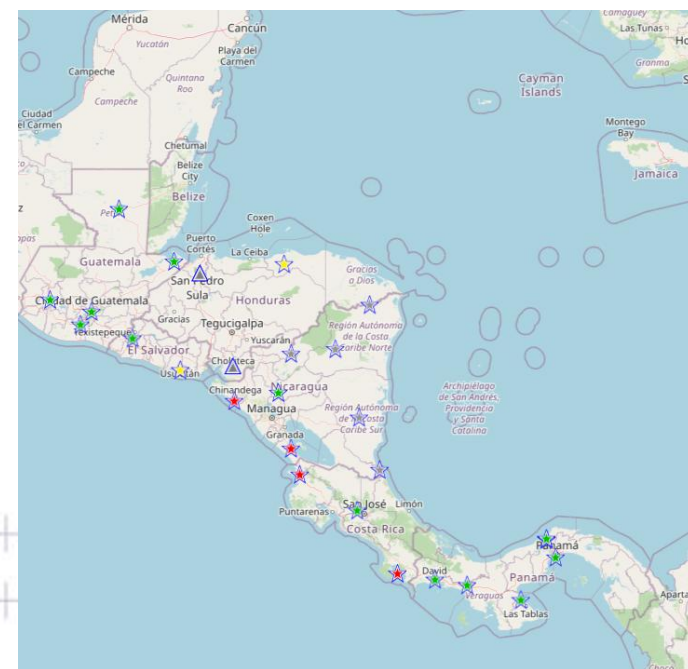
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PARA LA TRANSICIÓN ECOLÓGICA
Y EL RETO DEMOGRÁFICO

AEMet
Agencia Estatal de Meteorología

MUCHAS GRACIAS POR SU ATENCION
THANKS FOR YOUR ATTENTION