U.S. Navy Marine Species Monitoring Program

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Please visit the US Navy Marine Species Monitoring Program web portal for additional information on this project – www.navymarinespeciesmonitoring.us

US Navy Marine Species Monitoring Program – Atlantic Technical Review Meeting
Virginia Beach, VA *11-12 April 2017*

U.S. ANIMAL TELEMETRY NETWORK

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ATN Vision

"A national Animal Telemetry Network (ATN) through the U.S. Integrated Ocean Observing System (US IOOS) will provide integrated data on aquatic ecosystems from species to environment. This network will complement existing ocean observing assets and will inform ecosystem-based management, fisheries and biodiversity, marine spatial planning, ocean modeling and forecasting, and National Ocean Policy priority objectives."






What's Is Motivating Creation of an ATN?

- Current telemetry assets are owned/operated independently by multiple institutions/agencies with limited to no connectivity
- Operate with different Fed-State-Academic-Regional Objectives
- Limited ability to coordinate/share data across institutions, programs, regions, countries
- Lack of a sustained commitment to maintain the infrastructure
- No centralized accessibility to data or archiving



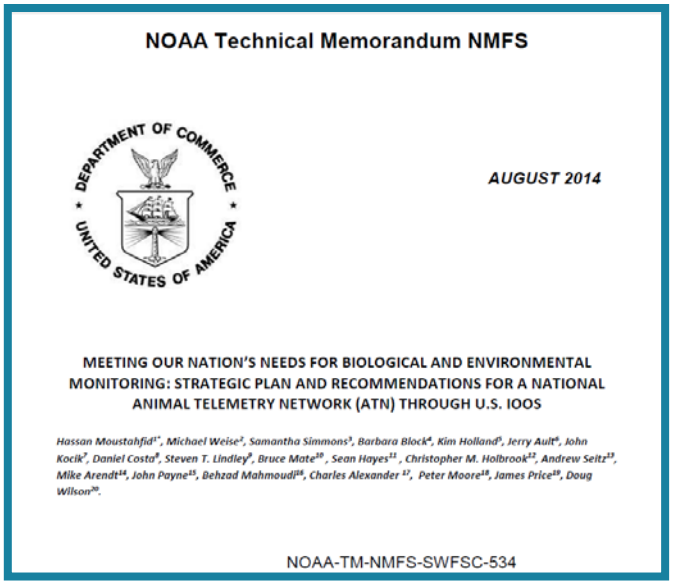



ATN National Plan

Integrated Ocean Observing Committee Task Team

(White House OSTP – SOST – IOOC)

- ATN Strategic Plan & Recommendations
- ATN Implementation Plan -22 Dec 2016 !!



NOAA Technical Memorandum NMFS

AUGUST 2014

MEETING OUR NATION'S NEEDS FOR BIOLOGICAL AND ENVIRONMENTAL MONITORING: STRATEGIC PLAN AND RECOMMENDATIONS FOR A NATIONAL ANIMAL TELEMETRY NETWORK (ATN) THROUGH U.S. IOOS

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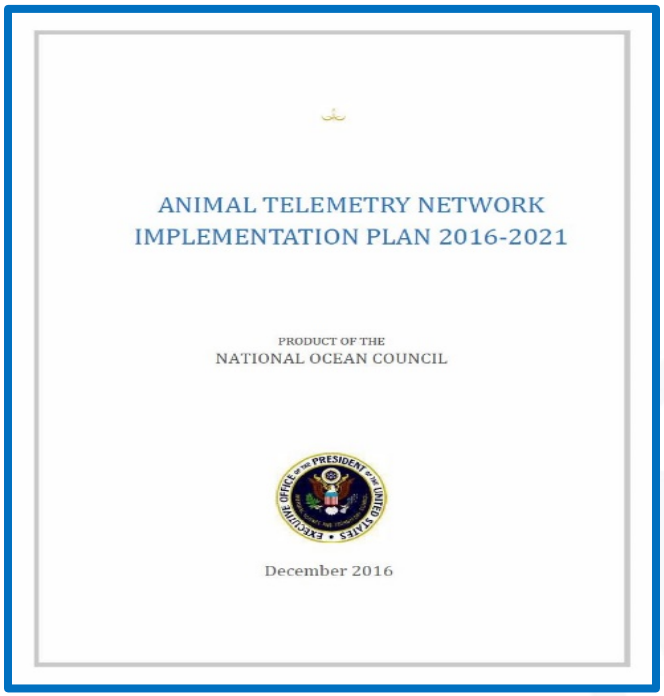
NOAA-TM-NMFS-SWFSC-534



ANIMAL TELEMETRY NETWORK
IMPLEMENTATION PLAN 2016-2021

PRODUCT OF THE
NATIONAL OCEAN COUNCIL

December 2016

www.ioos.atn

What Will A National ATN Do ?

Create an alliance among federal and non-federal, state, regional, tribal, and academic partners which will:

- Maximize collaborations/benefit of existing investments
- Maximize access to telemetry data
- Integrate telemetry instruments with existing observing systems
- Improve data standards, sharing capability and establish a cyber-infrastructure for assembling and displaying telemetry data
- Bring permanence to a national baseline telemetry network

THE U.S. ANIMAL TELEMETRY NETWORK

BUILDING AN ALLIANCE

The ATN, under the auspices of the U.S. IOOS, will provide a mechanism to facilitate and empower an alliance among Federal, industry, academic, state, local, tribal, and non-Federal organizations to coordinate aquatic animal telemetry infrastructure and operations.

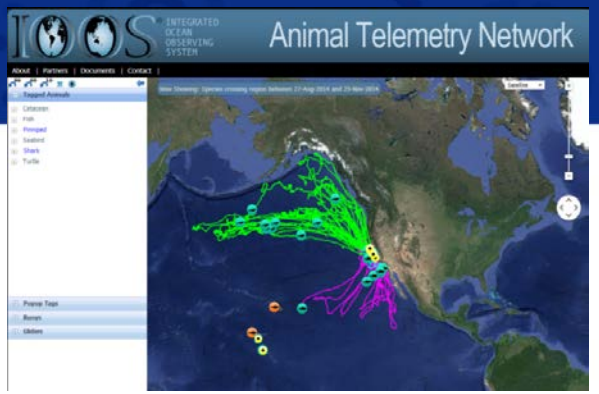
BASELINE OBSERVATIONS

A top priority of the ATN is to facilitate and support baseline observations of the aquatic species, and to coordinate, support, maintain, and enhance existing national animal telemetry infrastructure and capability.

DATA MANAGEMENT & DELIVERY

ATN will maximize the benefit of existing investments by providing a mechanism for sustained operations and consistent delivery of animal telemetry data using international data standards and best practices

ATN Approach



ATN Phase I - 2016/17

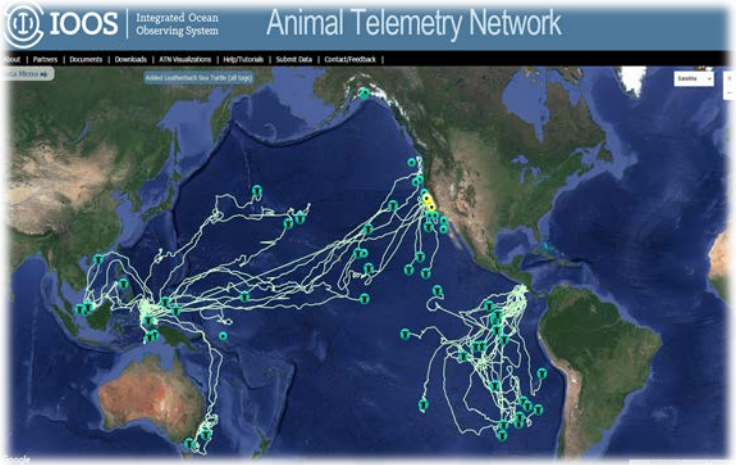
- Coordination - Coordinate, support, and enhance planned and funded animal telemetry efforts
  - Hired Network Coordinator (Bill Woodward)
- Governance Structure
  - Establish ATN Steering Group – Feds & non-Feds using IOOC/SOST approved *Terms of Reference*
- Data Management System / Data Assembly Center
  - DAC Operational January 2017
  - Asset/Effort Inventory Website (Who, What, Where)
  - Regional Acoustic Nodes linked with ATN DAC (SECOORA)

http://oceanview.pfeg.noaa.gov/ATN/

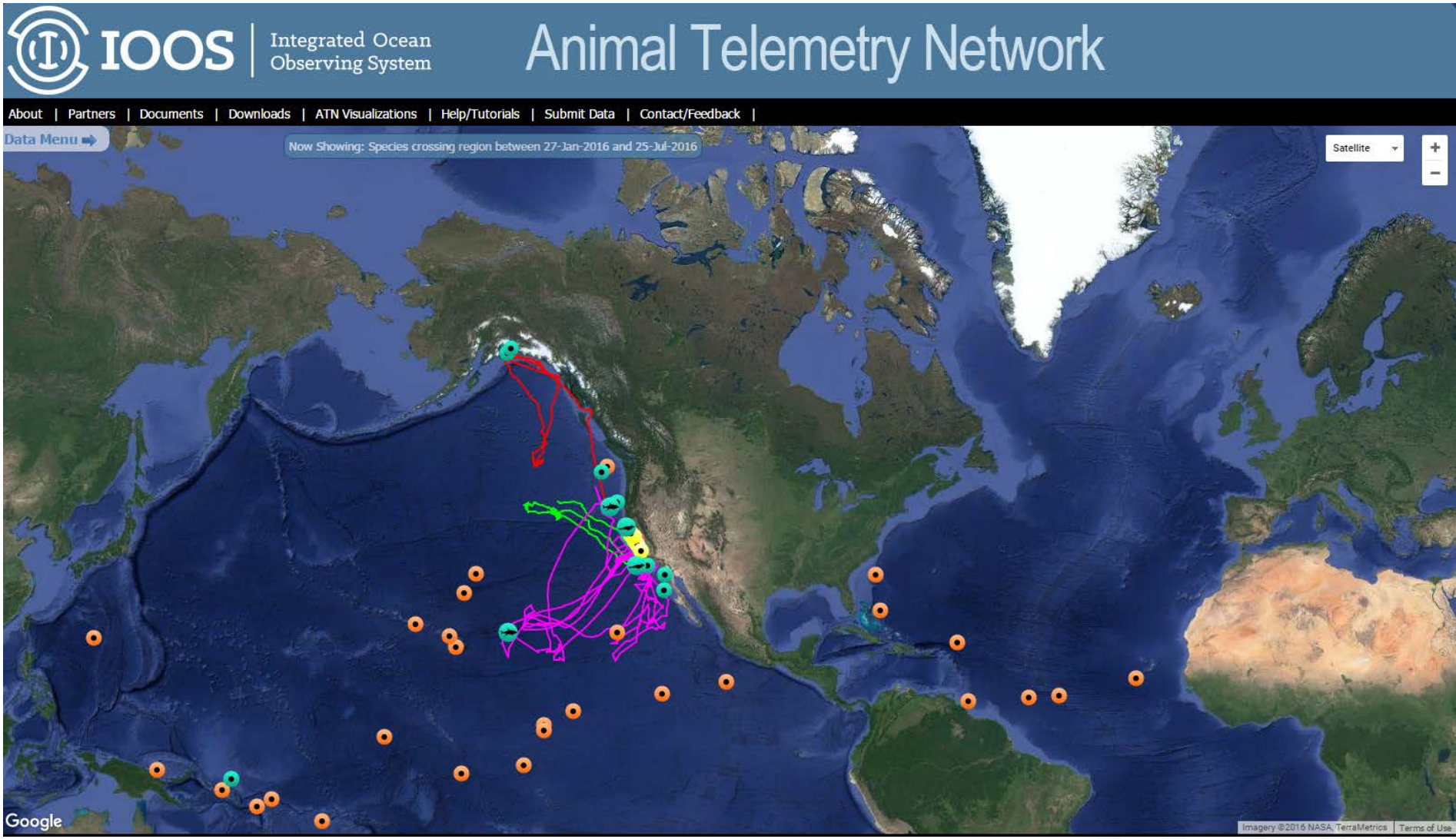
The U.S. National ATN

ATN Data Assembly Center (DAC):

- *Receive Satellite/Acoustic/Archival Data from Multiple Regional Sources*
- *Enable/Promote Data Availability & Sharing among Global Community*
- *Enhance & Expand Electronic Tag Data Products*
- *Enable Permanent Archiving at NCEI*



ATN Data Assembly Center



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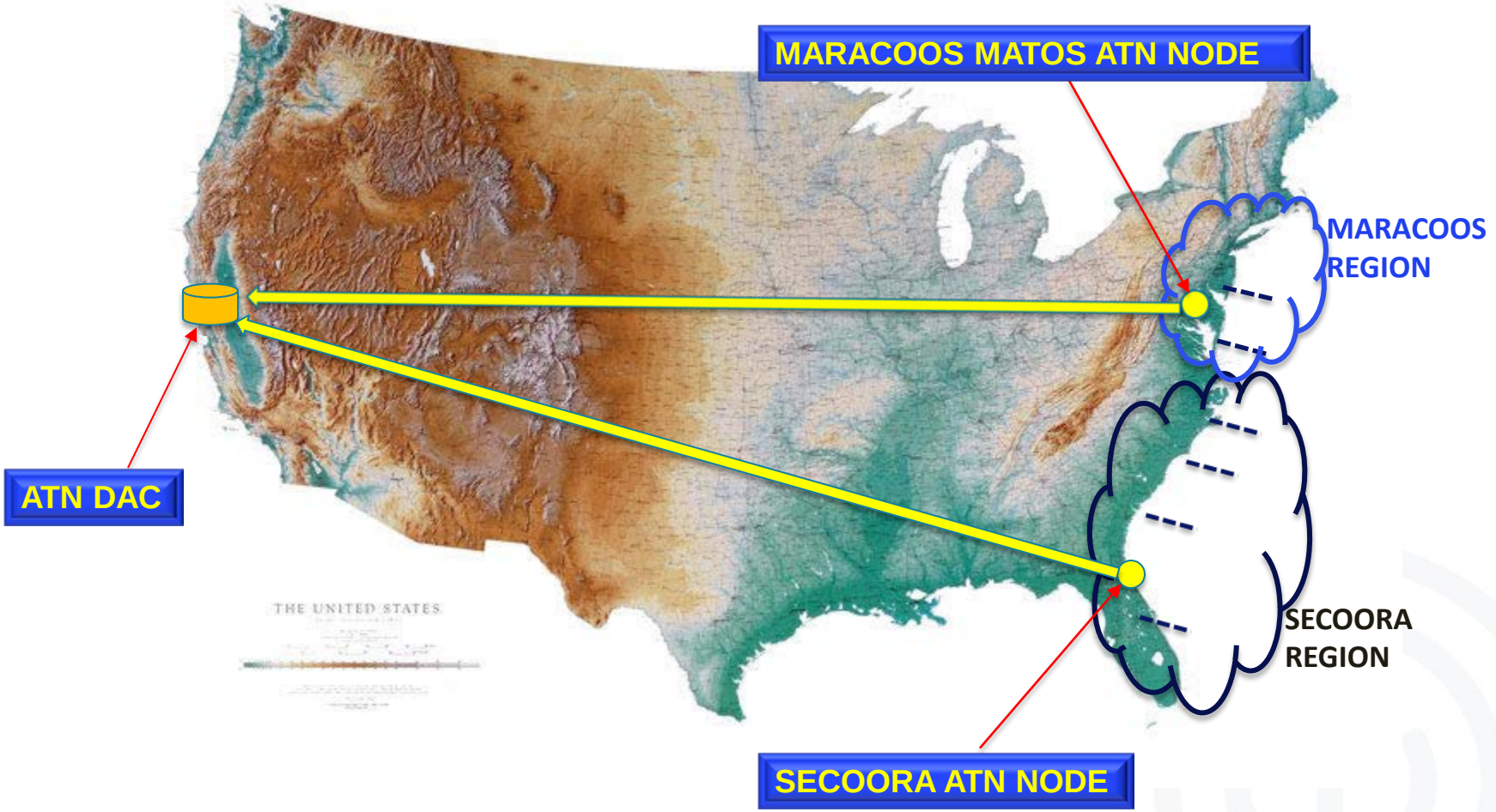
ATN Data Sharing Examples



ATN Phase II – 2017/18/19

- Define & Fund Multi-Agency Collaborative Baseline Observations & Required Infrastructure
  - Workshops to ID Assets, effort, needs, gaps, and priorities
    - MARACOOS-MATOS (Feb 21-22)
    - SECOORA-CARICOOS (Mar 29-30 2017)
    - Others Summer/Fall 2017

  - Outcomes
    - Establish observation priorities
    - Plan for sufficient funding tagging & infrastructure O & M
    - Determine ATN funding distribution across RAs
    - Establish integration & coordination of IOOS assets

ATN Benefits - Researcher

- Integrate tag data with other IOOS observations
- Tools to manage/analyze/share data (more science time)
- Access to networked datasets (i.e. outside region)
- Standardized meta data, data formats
- Data products, i.e. SSM tracks
- Permanent archiving with NCEI
- Asset and tagging inventory w/ web interface
- Potential for ’Big Data’ projects (integrated, cross-species)
- Potential for baseline asset support (i.e. core arrays)
- Increased awareness of PI products



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ATN Benefits – Agencies / Stakeholders

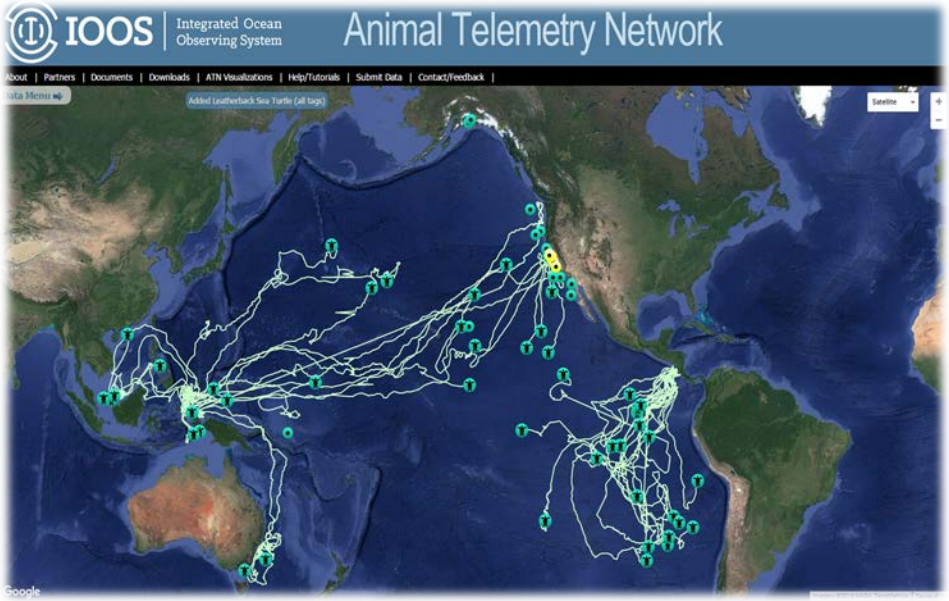
- Scientific basis for marine fisheries and protected-endangered species management
- Geospatial data to inform spatially explicit population and fishery assessment models
- Coordinated r/t monitoring, baseline observations, monitoring for effects of human activities on marine fish, turtles, birds, and mammals (One-Stop-Shop!!)
- Compliance with Exec. Ord. - Public Access to Research Results (PARR) & agency data sharing policies
- Cost effective data management across programs
- Asset and tagging inventory w/ web interface
- Permanent archiving with NCEI






Next Steps

- Navy & BOEM Adopt ATN for telemetry studies
- Navy & BOEM Adopt ATN DAC for all funded studies to submit data to ATN DAC
  - Grant / Contract language for FY17 (news starts/ ongoing)
  - Notification of NAVY/BOEM funded PIs



Thank you

Image: Marine CSI

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