

“SERVING NATIONAL NEEDS THROUGH REGIONAL ACTION”

**NASA BIODIVERSITY AND
ECOLOGICAL
FORECASTING TEAM
MEETING**
Washington, DC

APRIL 24 - 26, 2018

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ATN



BOEM
BUREAU OF OCEAN ENERGY MANAGEMENT

ATN VISION

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 STAKEHOLDERS

Federal & State Agencies

Fisheries, Marine Mammal, Sea
Turtle & Bird
Conservation/Management
Communities

Tribal Communities

Energy Sector

General Public

Tourism Sector

Private Industry

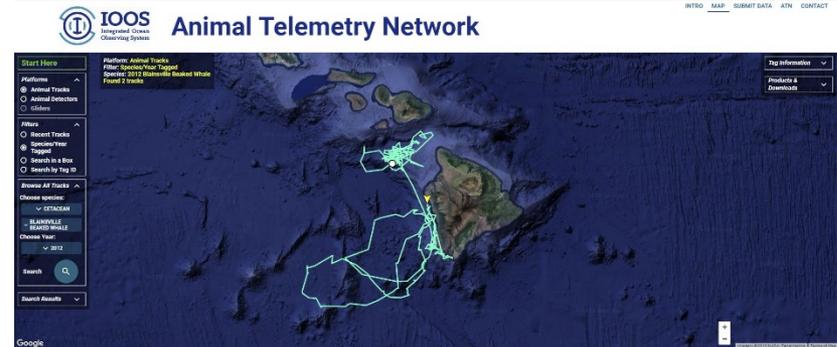
Educational Institutions

THREE ATN COMPONENTS

- ✓ BUILD ALLIANCES AND COLLABORATIONS



- ✓ PROVIDE TELEMETRY DATA MANAGEMENT & DELIVERY



- ✓ SUPPORT BASELINE ANIMAL TELEMETRY OBSERVATIONS



The 5 year ATN Implementation Plan calls for:

ATN Phase I - 2016/17

- Coordination - Coordinate, support, and enhance planned and funded animal telemetry efforts
- Governance Structure - Establish ATN Steering Group
- Operational Data Assembly Center
 - Regional Acoustic Nodes linked with ATN DAC (SECOORA, MARACOOS)
- Asset/Effort Inventory Website (Who, What, Where)

ATN Phase II – 2017/18/19

- Define & Fund Multi-Age
Required Assets / Infrastructure
 - Workshops to ID Assets, effort

"Help to keep existing efforts going and to add to them as needed and defined through our Workshops and our ATN Steering Group"

ALLIANCES AND COLLABORATIONS



ACT-MARACOOS



AOOS



SECOORA+FACT



GOVERNANCE

ATN STEERING GROUP

- ONR
- BOEM
- NOAA/NMFS
- SMITHSONIAN
- MARINE MAMMAL COMMISSION
- NSF
- USGS
- NASA
- COE
- FWC
- U.OF HAWAII
- MASS. MARINE FISHERIES
- CHICAGO ZOOLOGICAL SOC.



ATN DATA ASSEMBLY CENTER (DAC)

A CENTRALIZED COMMUNITY RESOURCE



Animal Telemetry Network

Start Here

Platform: Animal Tracks
Filter: Species/Year Tagged
Species: 2016 Tiger Shark
Found 4 tracks

Platforms

- Animal Tracks
- Animal Detectors
- Gliders

Filters

- Recent Tracks
- Species/Year Tagged
- Search in a Box
- Search by Tag ID

Browse All Tracks

Choose species:

- SHARK
- TIGER SHARK

Choose Year:

- 2016

Search

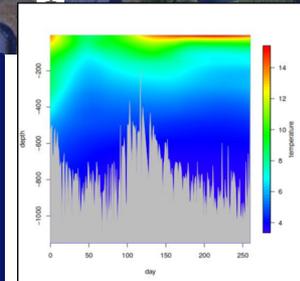
Search Results

Tag Information

Products & Downloads

Google

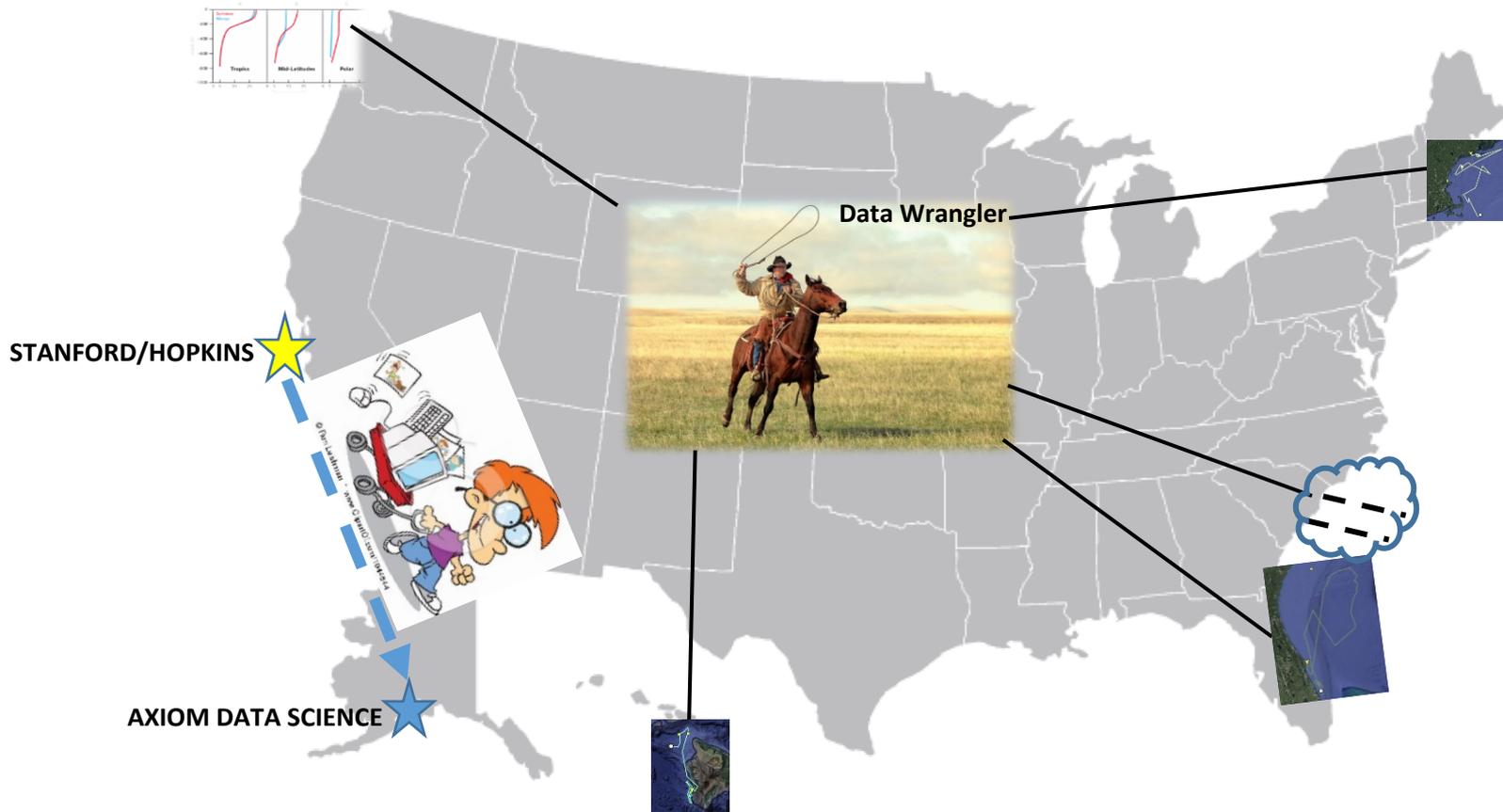
- RECEIVES SATELLITE/ACOUSTIC/ARCHIVAL DATA
- ENABLES SHARING AMONG GLOBAL PARTNERS,
- MAXIMIZES ACCESS TO TELEMETRY DATA, AND
- ENHANCES & EXPANDS TELEMETRY DATA PRODUCTS



Depth-Temp Profiles

ATN DAC

Transitioning to an Operational Environment
Includes a National Data Wrangler (NMFS Funded)



ATN DAC COMMUNITY BENEFITS

- Tools to manage/analyze/share data (more science time)
- Integrate tag data with other IOOS observations
- Standardized meta data, data formats
- Access to networked datasets (i.e. outside region)
- Data products, i.e. SSM tracks, Analysis tools
- Permanent archiving with NCEI, DataOne
- 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



ATN CY -2017 HIGHLIGHTS

- ✓ Emphasis on forming alliances/collaborations, creating governance and implementing the ATN data management & delivery vision
- ✓ Two meetings of the newly formed ATN Steering Group (SG)
- ✓ Telemetry asset/effort inventory web-tool created; needs to be populated
- ✓ **New Mid-Atlantic Telemetry Observation System (MATOS) web-based acoustic data aggregation tool developed by RPS/ASA is operational and will serve the ACT Region and more**
- ✓ New live tracks displayed on the ATN website from BOEM/ONR PI's: whales, sharks turtles……
- ✓ **FY-18+ NMFS ATN funding agreement secured**
- ✓ Annual Report submitted to BOEM
- ✓ Science on a Sphere (SOS): ATN is working with the NOAA SOS Educational Outreach Coordinator to display marine animal telemetry tracks on the SOS
- ✓ 12 Monthly *"From the ATN Wheelhouse"* newsletter issues
- ✓ **Some initial candidate High-priority national ATN Program Assets and Infrastructure for Phase II ATN funding have been identified**





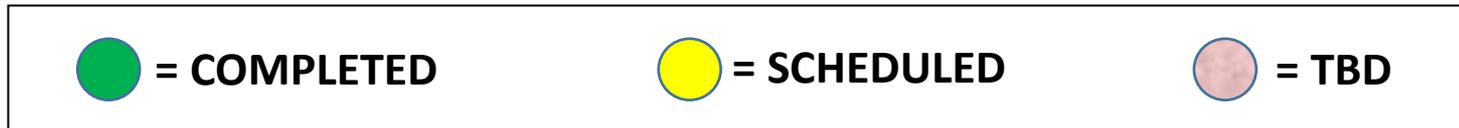
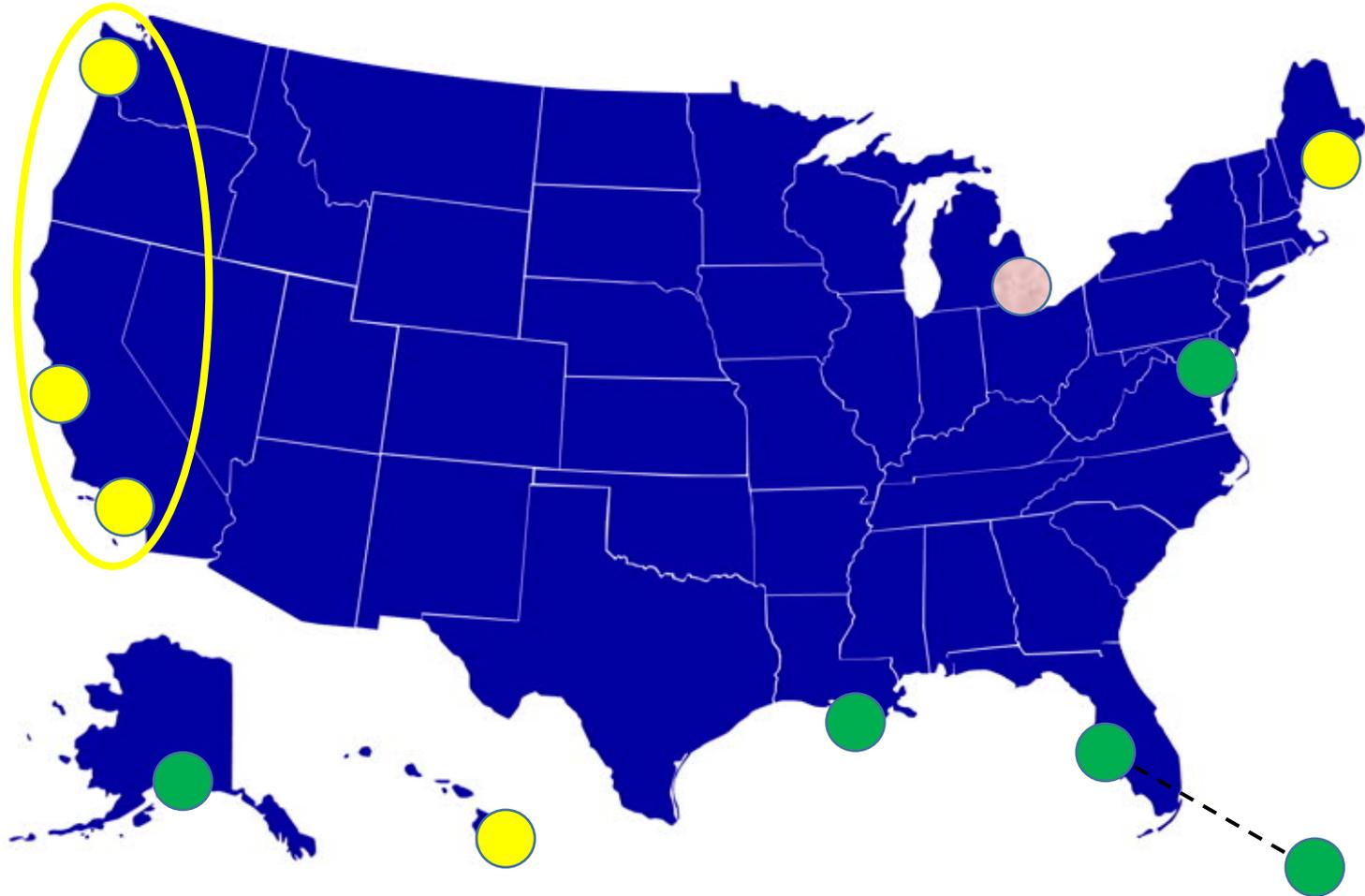
FY-18: Execute Phase II of the ATN Implementation Plan

- ✓ **Identify, Prioritize and Fund U.S. baseline observations & telemetry infrastructure / assets in sustained operations**
 - **Near-Term**
 - **Begin Funding as Soon as Possible**
 - **Earn Community Trust – Build Confidence**
 - **Candidates Harvested from initial Workshops, Direct Dialog/Community Meetings: *REGIONAL NODE DATA WRANGLERS, COASTAL ACOUSTIC ARRAY, FUND ARGOS FEES FOR ATN PI'S , NATIONAL DAC DATA WRANGLER***
 - **Long-Term**
 - **Implement Guidelines**
 - **Systematic, Open and Fair Process for how the ATN can make choices on what will be supported by our multi-agency ATN funds**



WORKSHOPS TO ID PRIORITY OBS AND ASSETS

Status on April 19, 2018



ATN: COMING UP - CY-2018 ACTIONS

- Continued joint efforts with MBON and agencies to define/implement a sustained biological observing component in IOOS: *Ongoing*
- Call for ideas for FY-19 Baseline Obs/Infrastructure funding: *July 2018*
- DAC becomes a valuable operational resource for the telemetry community: *July 2018*
- Asset Inventory Project implemented: *Summer 2018*
- Workshop Reports completed: *First 5 by Fall 2018*
- R/T GTS insertion of QC'd T, S profiles from animal-borne tags; WC collaboration: *Fall 2018*
- Three Region West Coast Workshop – partnered with OTN and MBON: *November 2018*
- NERACOOS ATN Workshop: *Early 2019*

ATN: 2019-2021 Plans

- Increased/aggressive outreach to achieve greater stakeholder interaction and advocacy
- Attract an increasing number of federal agencies participate in ATN, and use of DAC data management capabilities for PARR compliance
- Expand multi-agency collaborative baseline observations & infrastructure support to facilitate long-term, sustained tagging, telemetry and tracking of marine animals
- Expand and promote the use of animals as biological sensors to monitor remote ocean environments to improve ocean-atmosphere modeling and forecasting
- Promote the use of animals as sentinels of climate change
- Innovative analytical and visualization tools & data products



**** ATN SEAL OF APPROVAL ****

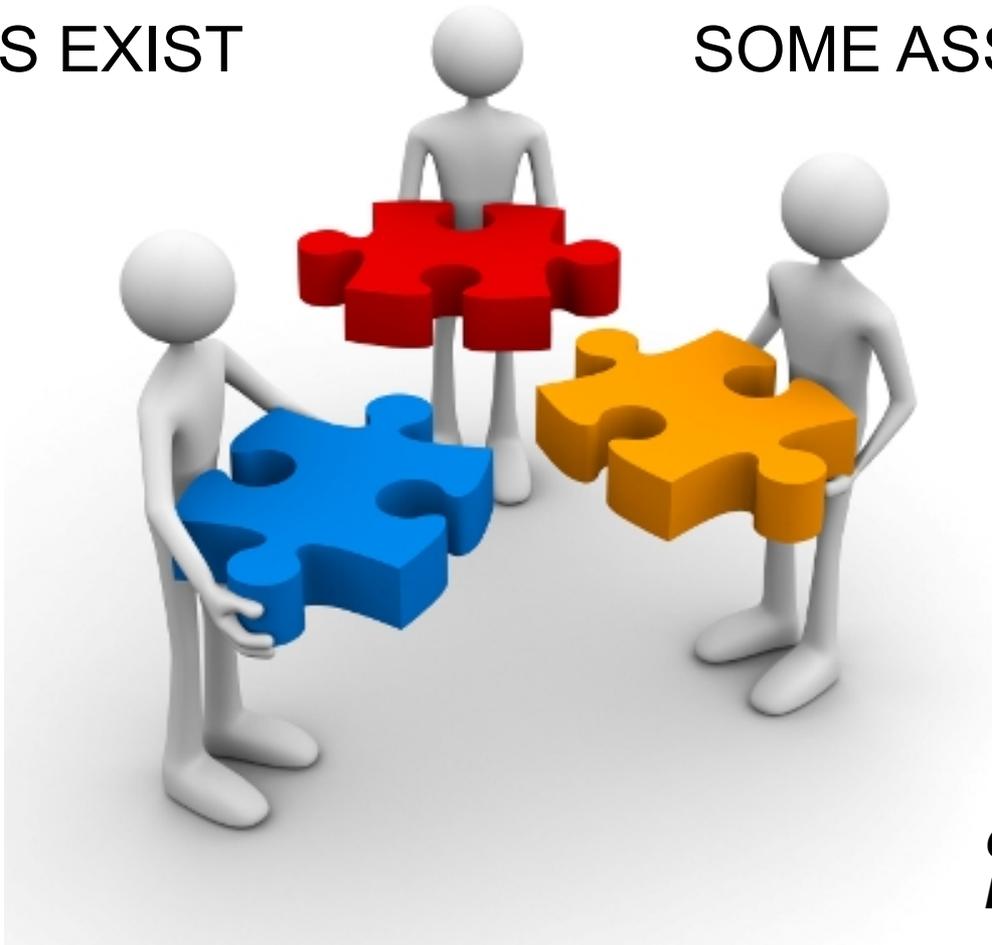


THANK YOU !

IOOS SUSTAINED BIOLOGICAL OBS

PIECES EXIST

SOME ASSEMBLY REQUIRED



BATTERIES NOT
INCLUDED

Gabrielle Canonico - MBON
Bill Woodward - ATN

How Will We Define Baseline Monitoring ?



IDENTIFY/SEEK INPUT ON:

- EXISTING ASSETS AND CAPABILITIES
- PRIORITY REGIONAL BASELINE NEEDS FOR ATN OBS