

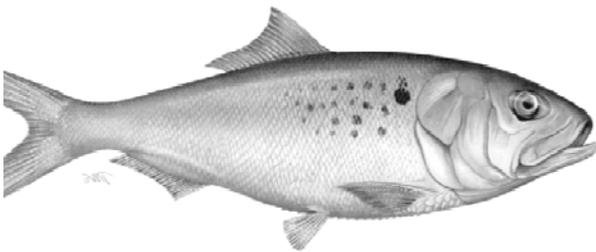


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for all Atlantic coast fish species or successful
restoration well in progress by 2015*

Atlantic Menhaden

2014 Benchmark Terms of Reference Revisions

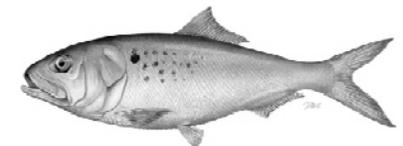
August 6, 2013





2014 Benchmark TORs

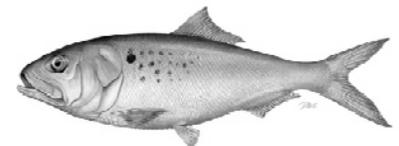
- Edits to Peer Review TORs suggested since Board approved all TORs at May Meeting 2013
- Discrepancies between Assessment and Peer Review TORs with regard to targets





2014 Benchmark TORs

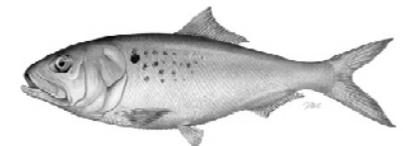
- 4. Evaluate the assessment findings with respect to the following:
- b. Is the stock overfished relative to biomass or abundance threshold reference points? Where is the stock relative to biomass or abundance management targets? What information supports this conclusion?





2014 Benchmark TORs

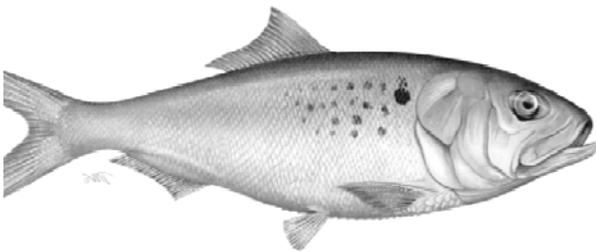
- 4. Evaluate the assessment findings with respect to the following:
- c. Is the stock undergoing overfishing relative to fishing mortality threshold reference points? Where is the stock relative to fishing mortality management targets? What information supports this conclusion?





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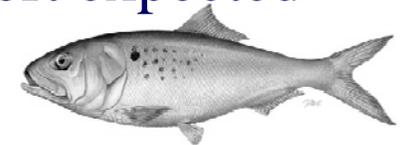
Atlantic Menhaden
Benchmark Stock Assessment
Progress Report
August 6, 2013





Stock Assessment Progress Report

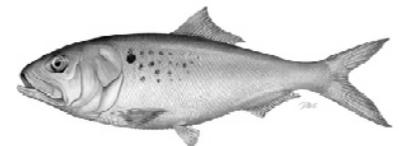
- Benchmark assessment scheduled for 2014 (SEDAR)
 - 2013
 - September – life history data
 - 2014
 - January – Data Workshop
 - June – Assessment Workshop
 - December – Peer Review Workshop
 - 2015
 - Delivery of assessment and peer review report expected at Winter Meeting





Stock Assessment Progress Report

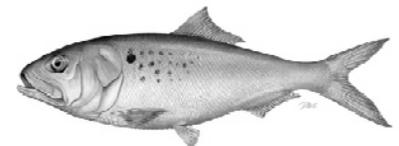
- June 26-27, 2013 in-person meeting
 - Reviewed existing state and regional FI surveys (Maine to Florida) as potential relative abundance indices
 - Identified 40 data sources (34 state surveys and 6 regional survey datasets) as potential candidates for index development
 - Included trawl, seine, gillnet and ichthyoplankton nets targeting juveniles, adults or both





Stock Assessment Progress Report

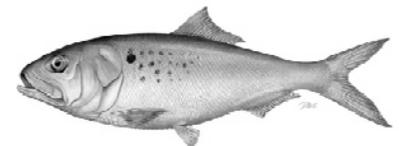
- June 26-27, 2013 in-person meeting (*continued*)
 - Subcommittee formed to further vet data and explore preliminary development of both juvenile and adult indices for consideration at January DW
 - Reviewed historical tagging data publications, and began discussion on potential data analysis options





Stock Assessment Progress Report

- Historical tagging data digitization project
 - Completed in July 2013
 - SAS/TC will begin organizing and analyzing the dataset for potential incorporation into the benchmark assessment
 - The Commission thanks NOAA Headquarters and the NOAA Chesapeake Bay Office for their contributions



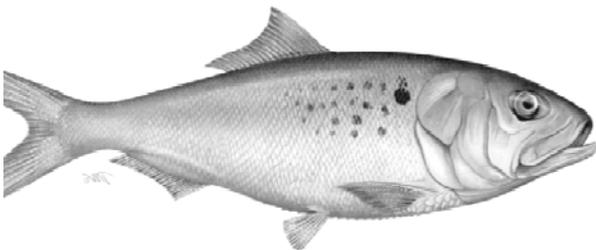


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Atlantic Menhaden

TC Review of Aerial Survey Proposal

August 6, 2013





TC Review of Aerial Survey Design

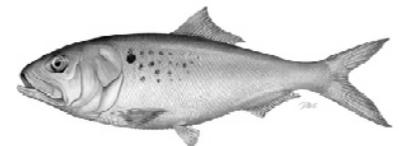
- TC held conference call on July 16th
- Addressed 5 TORs in July 3rd AM Board memo





TC Review of Aerial Survey Design

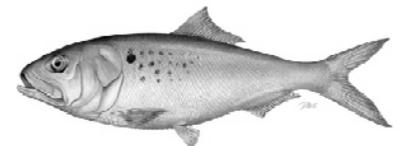
- Study is unlikely to produce biomass estimates or provide data that will be highly applicable to the 2014 assessment
- Adequate statistical justification for the proposed survey methodology was not presented in the proposal





TC Review of Aerial Survey Design

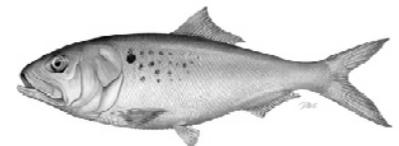
- Spatial area covered by this survey
 - Would focus on sampling the mid- and northern portions of the stock
 - Use of these data alone to estimate reduction fishery selectivity would produce biased biomass estimates and age structure characterization





TC Review of Aerial Survey Design

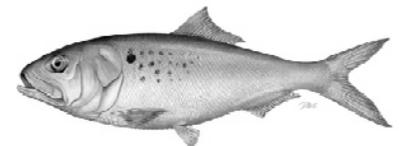
- Study may offer a slight benefit to the 2014 assessment
 - By providing a small data set for use in age-structure comparisons with bait fishery samples in northern region
 - Sensitivity analyses
 - Development of statistical priors for parameter estimates





TC Review of Aerial Survey Design

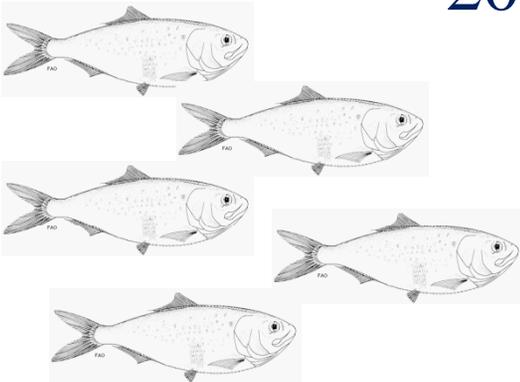
- Unlikely these data would be used in the base run of the 2014 assessment
- Anticipated delivery of data after January 2014
Data Workshop





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2013 FMP Review of the 2012 Fishery for Atlantic Menhaden



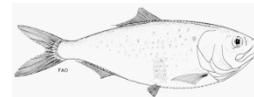
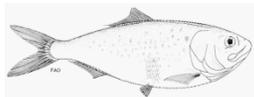
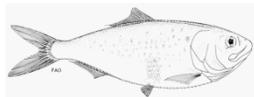
Atlantic Menhaden Management Board

August 6, 2013



Status of FMP

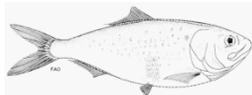
- Amendment 2, implemented July 2013
- Establishes coast wide TAC = 170,800mt until completion and Board action on next benchmark assessment
- State allocated quotas (2009-2011) landings history
- Transfer of quotas
- 6,000 pound bycatch allowance for non-directed fisheries
- 20% Reduction in Chesapeake Bay reduction fishery harvest cap
- Timely reporting to minimize quota overages
- Improved biological monitoring





Status of the Stock

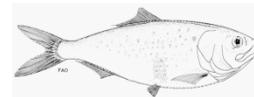
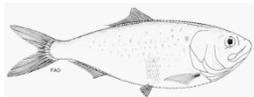
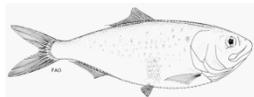
- Interim reference points based on maximum spawning potential (MSP)
- Thresholds
 - ❖ F15% MSP
 - ❖ SSB15% MSP
- Targets
 - F30% MSP
 - SSB30% MSP
- Based on 2012 Stock assessment update:
 - ❖ Stock is experiencing overfishing
 - ❖ Overfished status is unknown because of uncertainty in the model runs.





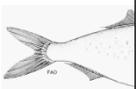
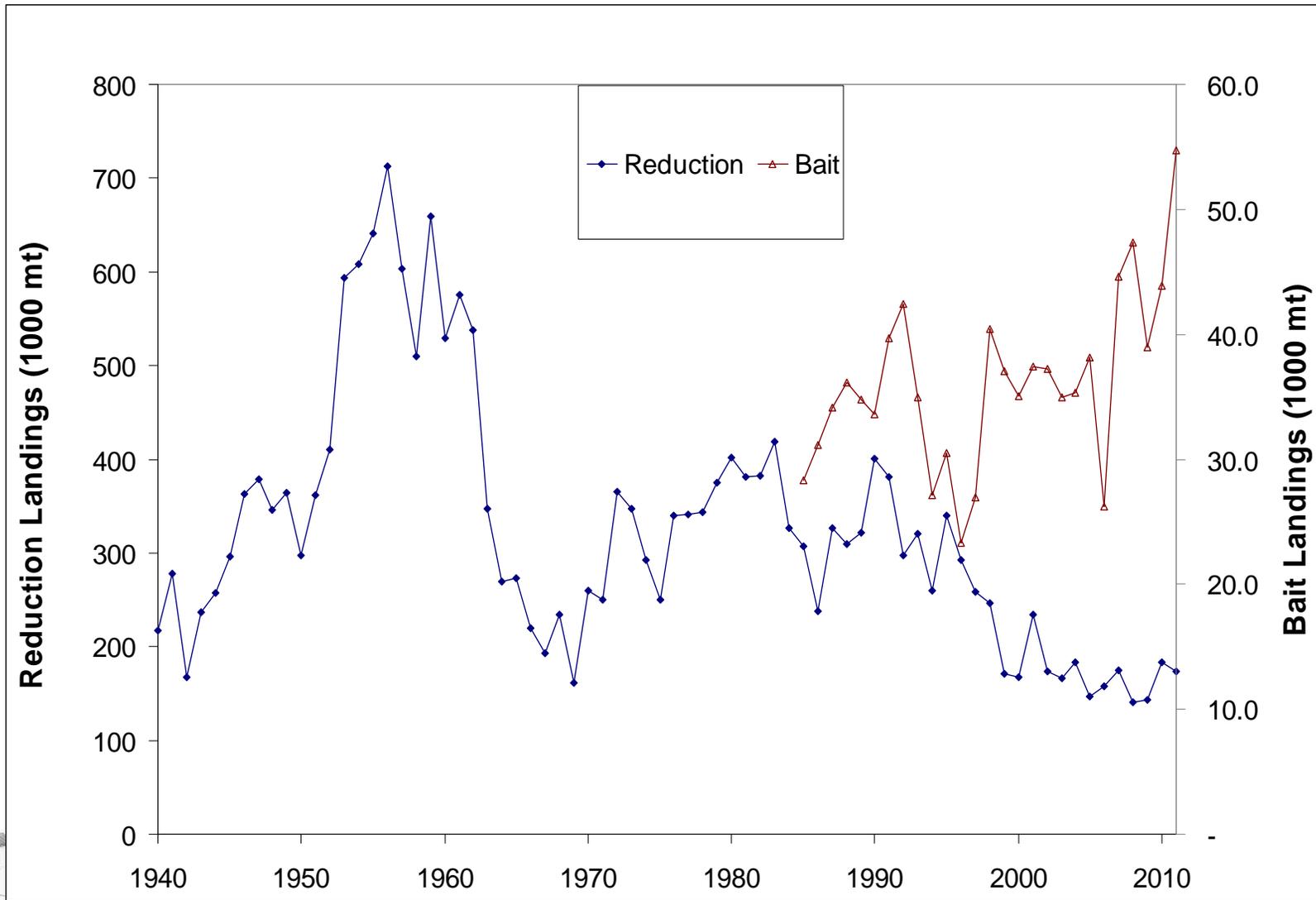
2012 Status of the Fishery

- Total coastwide harvest: 224,200 mt
 - ❖ 2% decrease from 2011
- Reduction harvest: 160,627 mt
 - ❖ 8% decrease from 2011; a 2% decrease from previous 5-year average
- Bait harvest: 63,566 mt
 - ❖ 17% increase from 2011; 30% increase from previous 5-year average



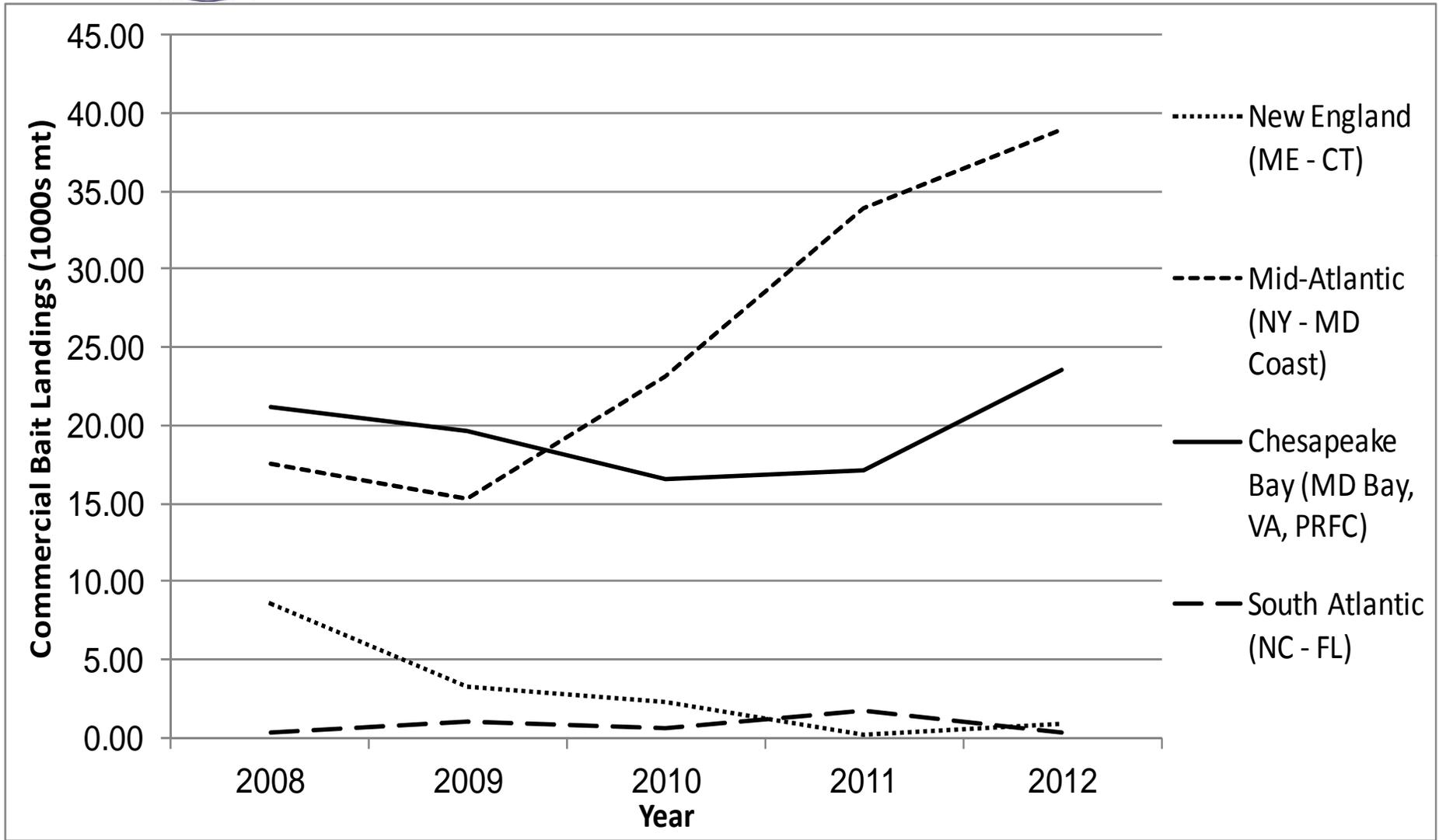


Atlantic Menhaden Landings





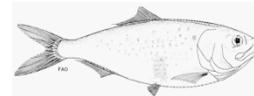
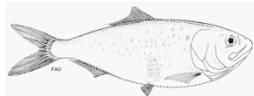
2012 Bait Fishery





Addendum III Harvest Cap

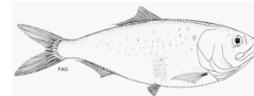
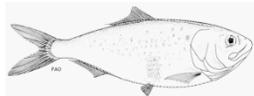
- 2012 harvest cap for reduction fishery from Chesapeake Bay: 122,740 mt
- Approximate reported harvest: ~85,000 mt
- 2013 harvest cap: 87,216 mt
 - ❖ changed through implementation of Amend 2





State Compliance

- All states in compliance with Amendment 1 reporting requirement (Table 1, page 6)
- NH, SC, GA, and FL requested *de minimis* status for 2013
 - ❖ Approved through Amendment 2 implementation plans





PRT Recommendations

- Approve the 2013 Fishery Management Plan Review for Atlantic menhaden.
- PRT will work with states regarding compliance reports in 2014 to account for Amendment 2 changes that occurred in the 2013 fishing year.





NOAA Unmanned Aircraft Systems (UAS) & Atlantic States Marine Fisheries Commission Collaboration

**John "JC" Coffey
NOAA UAS Program Office
06 August 2013**



Purpose and Outline



- **NOAA UAS Strategic Vision and Goals**
- **Marine Monitoring Missions & Future**
- **Challenges & Successes!**





NOAA UAS Strategic Vision and Goals



- ***Vision***

- UAS will revolutionize NOAA observing strategies by 2015 comparable to the introduction of satellite and radar assets decades earlier

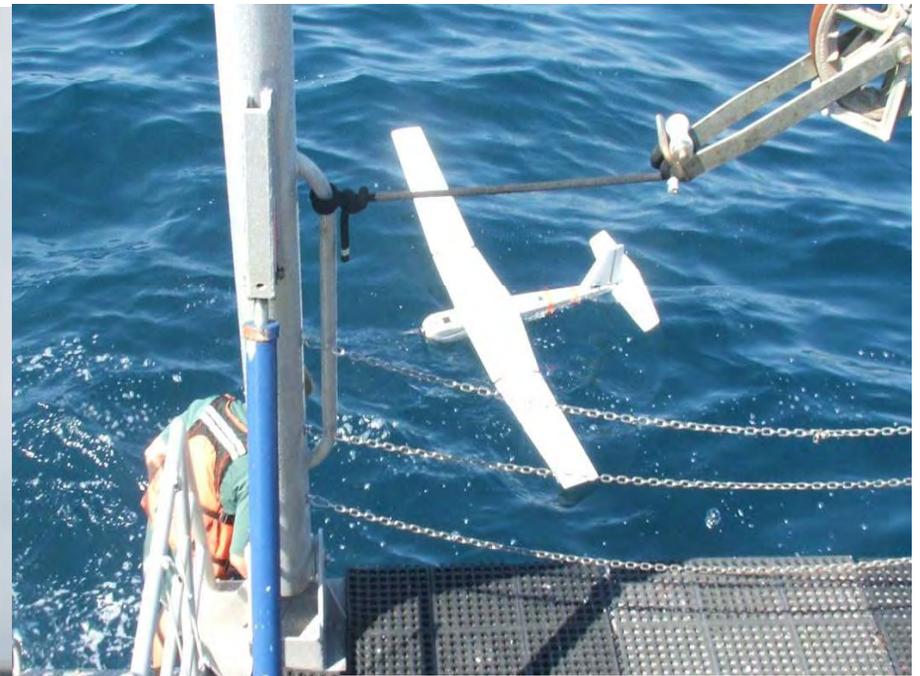
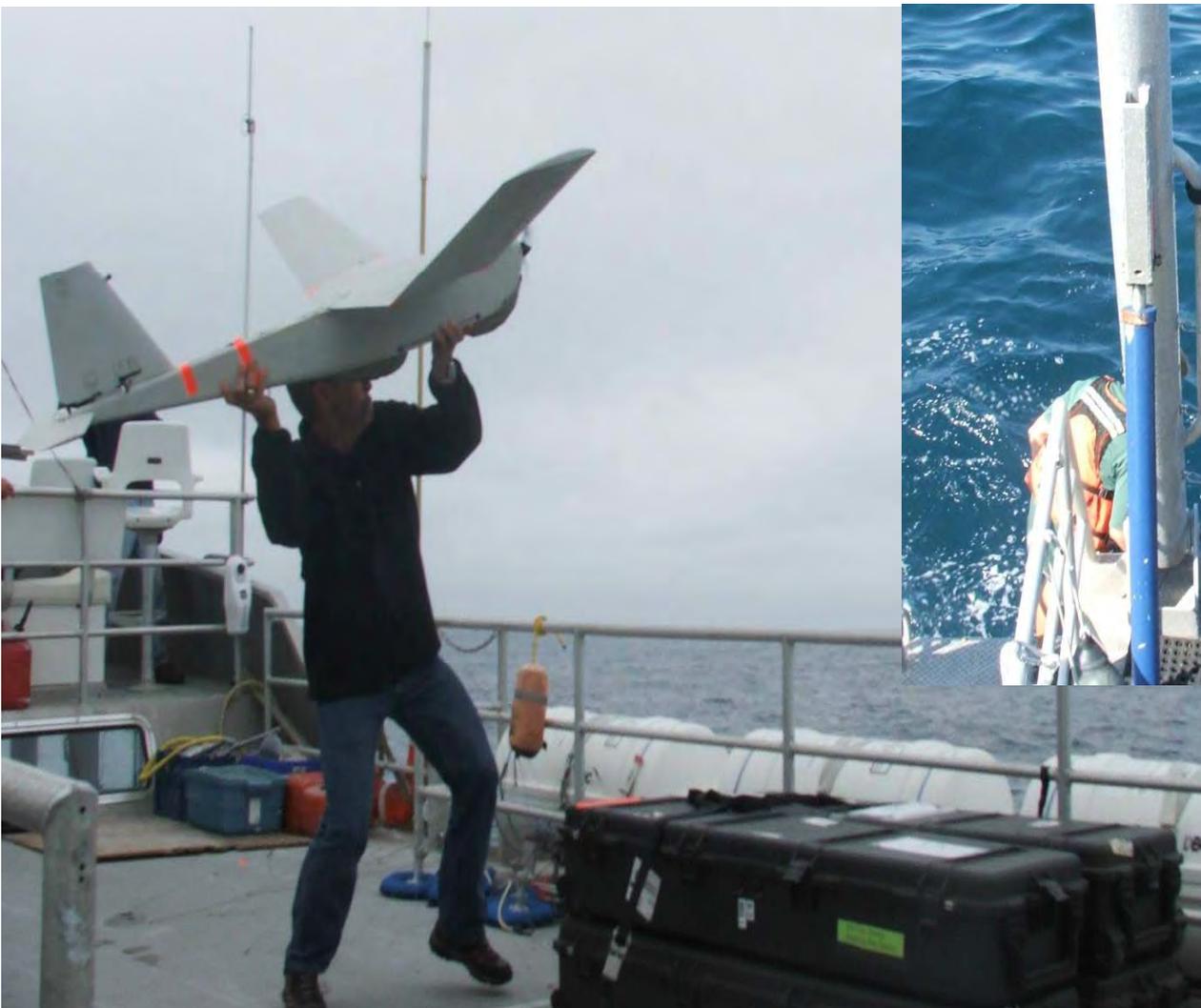
- ***Goals***

- Goal 1: Increase UAS observing capacity
- Goal 2: Develop high science-return UAS missions
 - ***High impact weather monitoring,***
 - ***Polar monitoring***
 - ***Marine monitoring***
- Goal 3: Transition cost-effective, operationally feasible UAS solutions into routine operations





AV Puma AE





md4-1000



- NOAA currently owns one md4-1000 UAS that consists of one aircraft and one GCS.
- The md4-1000 is built by Microdrones GmbH in Germany.
- The aircraft is a VTOL quadracopter.
- The NOAA md4-1000 capabilities are summarized in the Table below:

Parameter	Value
Payload	1.7 lb
Endurance	1.16 hours
Cruise Speed	29 knots
LOS Range	0.54 nm
Ceiling	3,280 ft
Launch/Recovery	Vertical/Vertical





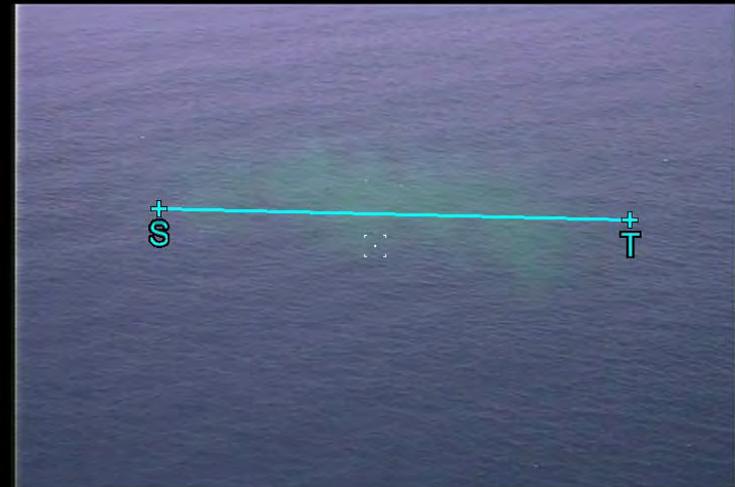
Emergency Response & Oil Spill Simulation



Coast Guard UAS partnership study of oil spill monitoring in Santa Barbara channel



Lat/Lon: N 33° 48' 31.53" W 119° 46' 18.60"
Alt: 351 ft MSL
Mag: 39°



Gimbal
FOV Data:
Slant Rng: 259 m
CFOV Hdg: 320°
CFOV Lat/Lon: N 33° 48' 37.61" W 119° 46' 23.82"
Horiz. FOV: 29.6°

Targeting Data:
Target S Lat/Lon: N 33° 48' 36.66" W 119° 46' 26.12"
Target T Lat/Lon: N 33° 48' 39.29" W 119° 46' 23.45"
ADD 94 m RIGHT 48 m
Range: 106 m Mag Bearing: 27°



Environmental Monitoring of National Marine Sanctuaries



Shoreline Assessments



Fisheries Law Enforcement

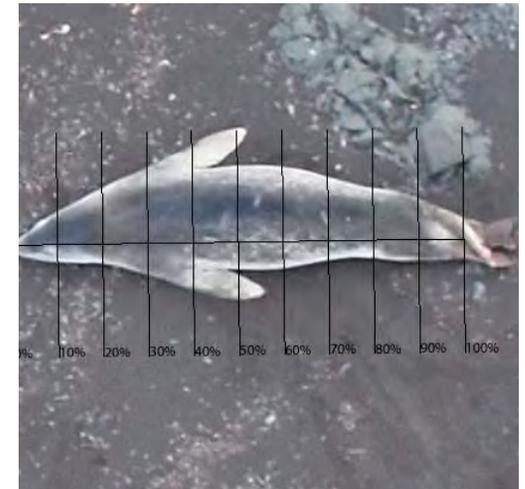
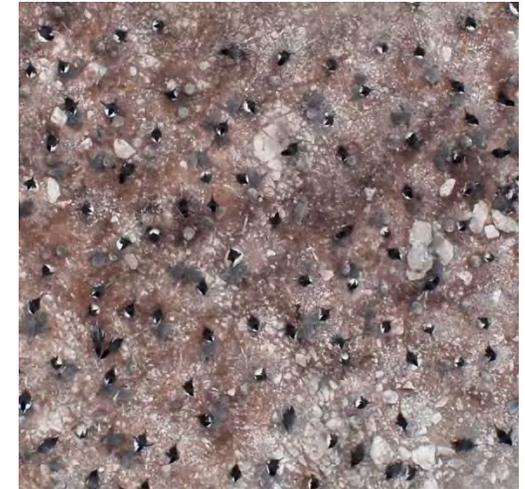


Wildlife Surveys

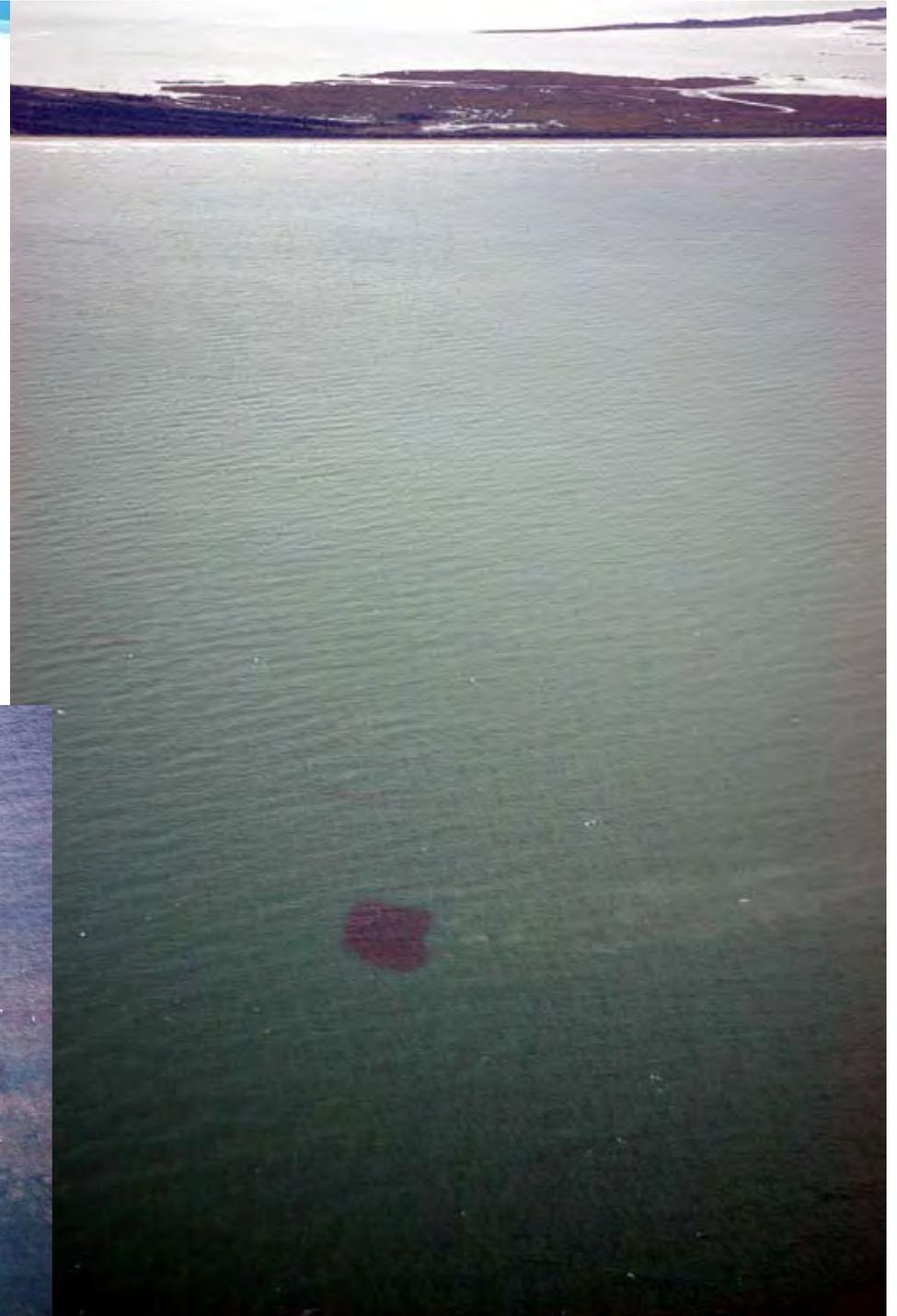




Marine Monitoring Missions



Schools of Menhaden





UAV Solutions MAAX & Talon



MAAX Specifications

Length: 7'
Wingspan: 16'
MGTOW: 145 lbs.
Range: 35-40 miles
ISR Mission Weight: 100 lbs.
(includes payload and engine)
Endurance: 10 hours
Payload capability: 20 lbs.
Operating Altitudes: 50-10k ft.



Talon Specifications

Length: 9'
Width: 20'
MGTOW: 80 lbs.
ISR mission weight: 60 lbs.
(Includes batteries and payload)
Range: 8-20 miles LOS
Payload Capacity: 10 lbs.
Endurance: 4-6 hours
Operating Alt: 50-10k ft.



Challenges & Success!



- Unmanned Systems have been “Wildly successful!”
- Plenty of issues but, “We have chosen to admire the problems.”
- Cheaper & Greener
 - *Efficient, Effective, Economical and Environmental Friendly*
 - Uses 10% of the fuel or “new fuels” or “no fuel”
- Issues & Barriers to Success
 - Privacy
 - Airspace Regulations & Access – Airspace, Airworthiness, Aircrew
 - Program Management
 - Engineering, Logistics, T&E, Operations, Contracting...
 - Cost, Schedule, Performance, Risk, **Requirement Traceability, Commonality**
 - Administrative hurdles to cooperation & asset pooling
 - International Traffic in Arms Regulations (ITAR)
 - MOUs & IAAs
 - Buying data or capability (assets, personnel, infrastructure)?



Contact Information



UAS Web Site: <http://uas.noaa.gov/>

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noaa.uas@noaa.gov

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John "JC" Coffey- NOAA UAS Program Office
john.j.coffey@noaa.gov



Small UAS Operations FY13



Project	Mission Dates	Location	COA Required	Platform(s)	Mission
Coyote Launch	May - August	California / Avon Park	No	Coyote / GALE	Clear Air and Storm Drop
VX-30 PUMA Emergency Response Exercise	June 18th or June 19th	Plead Control Range	No	PUMA (Army System)	Emergency Response
Olympic Coast NMS	PUMA: Travel June 16, PUMA OPS 17-30, Quad: Travel 23, OPS 24-30	Washington / Oregon	Yes		PUMA / Quadrocopter/Resolution
Florida Keys NMS	August 19 - September 1st	Florida Keys	Yes (for habitat mapping mission) / No (for enforcement mission)	PUMA	FKNMS Habitat Mapping and Enforcement Mission
Channel Island NMS	September 13-23	California	Yes	PUMA	CINMS Blue Whale and Enforcement Mission.
HEALY Ice Breaker OPS	7 - 8 Sep: Embark on HEALY in Barrow (two days to allow for poor wx) 9 - 13 Sep: D-17/RDC/NOAA UAS/UAV oil spill exercise 22 Sep: HEALY inports in Seward, AK. PUMA Team disembarks and ships PUMA gear back to AOC	Arctic	Yes	PUMA	Ice Research, Cooperative Ops
Marine Debris	September 15-30 (1 week)	Kodiak Island, AK	Yes	PUMA	Marine Debris Detection
River Forecasting Center	September	Lake Borgne, LA	Yes	PUMA	River Forecasting Center



Small UAS Operations FY14



Month	Platform	Mission	Location	AOC Support	Estimated Mission Duration
	Oct-13 PUMA AE DDL	Living Marine Resource / Enforcement	Florida Keys NMS	2 operators	10 days
	Nov-13 PUMA AE DDL	River Forecasting Center	Bogue Chitto NWR / Pearl River WMA	1 PIC	2 weeks
	Dec-13 APH-22 Hexacopter	Marine Mammal Surveys	Antarctica	None	all month
	Jan-14 MD4-1000 Quadcopter	Grey Whale / Marine Mammal Surveys\	Central California	1 PIC	10 days
	Jan-14 APH-22 Hexacopter	Marine Mammal Surveys	Antarctica	None	
	Jan-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	Feb-14 APH-22 Hexacopter	Marine Mammal Surveys	Antarctica	None	all month
		Living Marine Resource, Seabird and Marine Debris Detection	Olympic Coast NMS	2 operators	10 days
	Feb-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	Feb-14 PUMA AE DDL	River Forecasting Center	Bogue Chitto NWR / Pearl River WMA	1 PIC	2 weeks
	Mar-14 APH-22 Hexacopter	Marine Mammal Surveys	Antarctica	None	March 1 - 15
	Mar-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	Apr-14 PUMA AE DDL	Living Marine Resource / Enforcement	Florida Keys NMS	2 operators	10 days
	Apr-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	May-14 PUMA AE DDL	Living Marine Resource / Enforcement	Florida Keys NMS	2 operators	10 days
	May-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	May-14 PUMA AE DDL	River Forecasting Center	Bogue Chitto NWR / Pearl River WMA	1 PIC	2 weeks
	Jun-14 APH-22 Hexacopter	Marine Mammal Surveys	Aleutian Island Chain	None	all month
	Jun-14 PUMA AE DDL	Living Marine Resource / Enforcement	Stellwagen Bank NMS	2 operators	10 days
	Jun-14 PUMA AE DDL	Living Marine Resource / Enforcement	Florida Keys NMS	2 operators	10 days
	Jun-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	Jun-14 PUMA AE DDL	Living Marine Resource / Enforcement	Gray's Reef NMS	2 operators	10 days
	Jul-14 APH-22 Hexacopter	Marine Mammal Surveys	Aleutian Island Chain	None	July 1-8
			Papahānaumokuākea Marine National Monument	2 operators	10 days
	Jul-14 PUMA AE DDL	Living Marine Resource / Enforcement	Florida Keys NMS	2 operators	10 days
	Jul-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	Jul-14 PUMA AE DDL	Living Marine Resource / Enforcement	Gray's Reef NMS	2 operators	10 days
	Aug-14 Scan Eagle	Marine Mammal Surveys	Arctic (Barrow, AK)	None	month long
	Aug-14 PUMA AE DDL	Living Marine Resource / Enforcement	Florida Keys NMS	2 operators	10 days
	Aug-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	Aug-14 PUMA AE DDL	Living Marine Resource / Enforcement	Gray's Reef NMS	2 operators	10 days
			Papahānaumokuākea Marine National Monument	2 operators	10 days
	Aug-14 PUMA AE DDL	Living Marine Resource / Enforcement	Bogue Chitto NWR / Pearl River WMA	1 PIC	2 weeks
	Aug-14 PUMA AE DDL	River Forecasting Center	Arctic (Barrow, AK)	None	month long
	Sep-14 Scan Eagle	Marine Mammal Surveys	West Coast Region (Monterey, Cordell Bank, Farallones)	2 operators	10 days
	Sep-14 PUMA AE DDL	Living Marine Resource / Enforcement	Channel Islands NMS	Varies (none, 1 or 2 pilots)	10 days
	Sep-14 PUMA AE DDL	Living Marine Resource / Enforcement	Gray's Reef NMS	2 operators	10 days





















