

## MARCOOS CONFERENCE CALL – June 27, 2008

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Oscar Schofield  
Sage Lichtenwalner  
Courtney Kohut  
Andrew Voros  
Art Allen  
Jim O'Donnell  
Dave Chapman  
Bill Boicourt  
Avijit  
Larry Atkinson  
Josh Kohut  
Tom Harrington  
Teresa Garner  
Allen Blumberg  
Wendell Brown  
Dennis King  
Tony MacDonald  
Jay Titlow  
Matt Oliver  
Eoin Howlett

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J. Kohut: HF Radar Document – sending to Jack Harlan later today – DUE TODAY, 6.27.08

- Introducing Marcoos
- Each theme
- What present network is
- Strategy for gap filling
  - Site acquisition
  - Standard and long rang
  - Technicians
  - Spare parts
- Have one discrepancy with southern region – we are charging \$20k, southeast is charging \$100k, largely due to Wera /Codar discrepancy
- Struggling with what sites they are going to use. Not going to identify a particular vendor. Charging Wera pricing for all their sites. Some sites can handle a phased array, some can't.
- Increase budget from 10k to 20k – figuring that we could employ CODAR to help us install some of the sites – a fee of 8k for each site which will be increasing.
- People time is embedded in the support
- D. Chapman: What the density of the midatlantic looks like compared to southern California?  
Josh: Before this, they had something like 40 – 50 sites and with gap filling we will be at 50. we are getting to the level where they are now. We can check that on the national network.
- Dave Ullman sent Josh a good comment about adding labels to the sites. Change has been made. Version 5 has been sent right before this phone call. If people have time today to read through it – please provide comments.
- Goal is at 2 p.m., whatever comments will be put into the document and final version will be sent to Jack.
- **609.577.8878** Josh's cell phone best way to reach him.
- August 19 – 21, 2008 – NOAA hosting a meeting, reps from each RA and federal agencies to go through gap filling document and overall national draft plan.
- Jack at NOAA will send out a copy of the national draft plan prior to that meeting so we can get comments.
- Is it possible to estimate the GDOP era ahead of time? John Wilkin

- J. Kohut: If it's a green gap, its good. For standard range, we haven't gone through that exercise.
- We say the geometric error with acceptable values – will explain more about GDOP.
- J. O'Donnell: Do not use as a relative weight in his OI.

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#### RESULTS FROM MACOORA BOARD MEETING

- Andrew Voros: Board agreed to put an additional 6k toward data registry effort. About 200 data collection sites with balloons and sub-regional rectangles on map of the mid atlantic. Can link to data from each site. Will have this put up on the MARCOOS site.
- State of New York \$1.2 mm to instrument great south bay. \$500,000 for instruments, rest for modeling. Concentrating on real-time storm surge and providing data stream to MARCOOS.
- S. Glenn – NOAA putting together different sites for data streams – can be switched over to NOAA effort
- Eoin – Yes, we are going to. In our region they are really focused on NDBC type data. Really focused on *insitu* wind stations / current stations. Have to give them some type of time frame on this.
- Stevens is delivering current meters
- Allen: We are having a difficult time working with NOAA and sending them data to validate it. Don't want our data unless they have a spare for our ADCP. Dealing with the ports people.
- Bill: Probably a 20 year old story that hasn't changed. They keep upping the bar with what they think is acceptable data.
- Jim: they don't want any of our data either.
- John Wilkin: bring up these issues at MAST workshop.
- Oscar: if some people can document that and send it on.
- Eoin – deal with SOS scheme. DMAC meeting in the next month of two within our own region.

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#### WEATHER

- Coordinating weather stations – hardened weather stations from 6 – 12 codar sites if we can get everyone coordinated. Jay. Talked to jim and josh and at buckston and hatteras, there would be a weather station we would install ourselves and share the data.
- Wendell: – cape cod may be a good location
- Josh: start approaching groups with you and us? Would like to add additional sensors at your location?
- Jay: is part of our network – 63 sites put in already. Ones that will stay in category 4 hurricanes. Use a solar panel – 14 days on battery. Air temp, precip and other parameters. Flash drive in case systems fail. Florida power and light – Looking to do at Cape Cod and Texas coast.
- Send us a photo of an installed site? Scott: would be helpful.
- MOU is with NOAA and national hurricane center. Jay:
- Scott: some coordination with CODAR on this.
- Andrew: subregional meeting July 21<sup>st</sup> MACOORA - what observing operations are going on in Long Island Sound. Fostering collaborations. Steering Ct. DEP, UCON, Larry Swanson State U. of NY.
- Jay: Determine what is good and what's not – lots of data out there.
- Data Buoy Center – talked to them. Important we pay attention and put them through scrutiny. Not saying they don't provide good data.

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#### CODAR SITE SETUP

- Hugh: 45 sites in California – between san diego and bodega bay. 950 kilometers of coastline. We are at 1000 kilometers of coastline
- When we last spoke in beginning of June – we had 18 of 25 sites running. Now we are 20 of 25 sites running.
- In the northern region – to long island and found computer was not responsive, got it repaired. Heading to block island this Tuesday with D. Ullman and Adam, hopefully 5 and 25 will be up by the 2<sup>nd</sup>.

- 8 of the 9 sites are running – one site is HOOK 5 megahertz, transmitter just arrived from CODAR today.
- We moved the greenhead site to bringantine to space out sites. Greenhead had given us a lot of interference, new one is a clear site.
- Chesapeake Bay Bridge site is back up.
- Only site worried about is Cedar Island – going there on July 7<sup>th</sup>.
- Cape Henry is up and running. NOAA is pushing their data to the national network.
- We have a page on MARCOOS site for antenna patterns. Teresa two sites are up as of yesterday on site. Send to igor [Heifetz@marine.rutgers.edu](mailto:Heifetz@marine.rutgers.edu)
- Josh: 1<sup>st</sup> year of Marcoos, sites supported by CIT and funding through NOAA. Ending on Aug. 31<sup>st</sup>, so MARCOOS will start supporting those 5 sites.
- Spoke to John Moison earlier this week, close to Back Bay deployment. Working on permissions and getting permits to hook everything up. Was told he was optimistic it would happen in the next week.
- May be delayed – with permits. Wallops is going to turn off ODAC? At the end of August. Will be some challenges keeping those sites going. Larry Not going to use it for this purpose.

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#### PLAN FOR QAQC

- Josh: Dave is working on the combined software for the new combiner server. We want to get OI technique into that combiner so we can evaluate when it comes online.
- Just got back from Spain – two long range sites on north coast of Spain. Plan for 20 sites over the next few years. Want to work with us on QAQC discussions. Interested on developing thresholding code.

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#### NATIONAL SERVER

- Scott: Going live next week.
- How STPS getting into the national server
- Go over plan and making sure we are doing the right thing
- Live July 1 Josh
- Jim still using Codar data from Rutgers? Now using OpenDap server. Been experimenting with that. Give Eoin – opened up an OpenDap server at UConn.
- Eoin: we need look at national server and is in Jim's interest so the server is the same way.
- Are not to touch the national server as per Jack Harlan.
- Going to have a better product on our server – may get migrated over to the national server.
- Jim: Make data and compare forecasts, we make better estimates. Errors in the drifter data too.
- Josh: When we try a new technique – we compare it to a drifter. Getting Jim the full regional data set should be a priority. OpenDap stuff is just the NY bight. We have to transition that to the National grid – 6 kilometer grid over the whole domain.
- QAQC document we sent around April 1 – highlights 4 recommendations of quality control we know now. Some setting and practices we have changed. Will resend Jim.
- Eoin and Jim will get together after the server is set up.
- We do have the combined server to do development work on that which will have OpenDap running on that.
- Eoin: Will continue to get data from Rutgers. Forecast from UCONN.

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#### MODELING

- Allen: Have been assimilating whatever data we have. Checking things out. Water level is very interesting – as you are creating mass or not.
- Larry: Teresa doing some work – will send to Rutgers and we can post to the MARCOOS website. Will post modeling efforts.
- Avijit: Hops/Sea Surface Initializing and updating we are looking at. Another week will have a good handle of the wind.

- John: ROMS – several projects. Latte/ focusing on mid to outer shelf. What we see if we have to do better with the shelf slope front. There is a bias in the density field. If we don't remove, it just doesn't work. Models are on the wrong TS scrip. Produced our own climatology.
- Gaps in the data field. Eli when back and compared fields for Ambrose and Atlantic City. Winds are assimilated in the NAM forecast. We think the NAM analysis is pretty good.
- We don't trust the precipitation outputs. Will take all files we don't trust off the server.
- Bill: proposal we want to do as an add on to Macoora.

#### JOHN WILKIN MODELING NOTES:

##### ROMS assimilation

LaTTE results show high skill on the inner shelf, so we are focussing on outer shelf assimilation of VOS XBT and Argo mostly alimtetry to get the SS/front better

\* 2006 drifters quickly crossed shelf to SS/front so ww want to have a better performace at the shelf break before we run our drifter track skill assessment

outer shelf and SS/front bias

- \* initial conditions
- \* boundary conditions

\* this is true wheter we take boundary data from HYCOM, NCOM or a MABGoM ROMS model embedded in

w/o bias removal data assimilation fails because model is on the wrong T/S curve and its difficult to reconcile multiple observations

assim of climatology best approach to reset bias

- \* but Hydrobase N. Atl climatology also has a outer shlef bias because it smooths too much as the front
- \* have out own interim climatology based on all NODC, NMFS, obs (XBT,CTD,Argo,NDBC) using 4-D weighted least squares

Alongtrack altimetry from RADS

- gridded AVISO analyses have large errors - anisotropy
- IEEE IGARS08 4-page paper

QC on meteorological forcing

- \* resolved scaling issues with precip
- \* identified gaps in the NAM analysis fields and filled with grib archives (and in some cases NARR)
- \* coastal winds compare very well

Avijit needs a larger domain for met forcing data - to 50 W - which is well beyond what we anticipated was required for MAB so I'm sending him scripts to extract surface meteorology for ocean models himself.

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#### GLIDERS & SATELLITES

- Glider manifest – what we are doing and what we are all about. Placeholders for the future. Made up numbers and procedures so we can update this and keep it as a working document.
- IOOS glider into the water and checked out in prep for some flights in October.
- Timing was set with John Manderson working with John Wilkin and Josh.
- Seasonal transition periods best – fall/winter transition will be first
- Cyber infrastructure group want to put a little money to support some extra glider efforts. Will be ready for the Spring stratification application.
- MURI Line – start Wednesday / July 2<sup>nd</sup>. Coordinate Jason and Glider.

- *Satellite Data* – L-Band. Isolated problem in our system. Motor controller problem. Getting data and not aiming the dish in the right way. Maine goes down at the end of this fiscal year. No redundancy in the northeast once the system goes down. No spares now, upgrading our own equipment.
- Need to develop more redundancy in the northeast. Matt – 60 day data hold. Chris Kincade going to get back to Matt.

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#### OUTREACH

- Tom: Nearshore products (lifeguards and water quality). Able to set up a lifeguard meeting on July 8<sup>th</sup> by their insurance carriers. Southern NJ life guard groups. Put them in contact with someone who handles the Northern NJ groups.
- Dennis King – grad student looking at a review of biological fishery models and how that data will impact them. Talking to fisheries scientist managers.
- Tony: Gathering different economic parameters. Going to reach out to the Science Community (Dennis) and how this data will be most useful to them. Will develop a more proactive outreach plan.
- Janis and Jeff – tuna club meeting
- Wendell is planning his macoora subregional meeting. Focus on fisheries. Talked to a NOAA guy and is keen on getting involved. May be a good one for us to attend. No date set yet. Making a key attendee list.

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#### OTHER ITEMS

- Andrew: Met with NY container terminal manager – handles 24% of container traffic in NY harbor. Tier 1 – Norfolk, Balimore, NY Harbor?? What are our ports. Tony will follow up on this to get this information. Boston down. HF plan is really merging with NERA.
- Going to make a list of our ports for the web page.