

MOOS mooring system 3/13/02 meeting notes

Present: Jon Erickson, Mike Kelley, Lance McBride, Ed Mellinger, Keith Raybould, John Ryan, Mark Chaffey (notes).

- 1. Update from the project scientist. Letter of intent has been submitted by John and Francisco to NOPP to be followed by proposal (2-3 weeks) requesting funding for five year effort in "A 4-D Biogeochemical Observatory for the West Coast of North America". Potential industrial partners are Hobi Labs and possibly a buoy power generation company for development of the phase II power source. Possible additional academic partner would be WHOI who has been working with us on the buoy dynamics modeling.*
- 2. Deployment cruise scheduling. Pick-up date for test mooring should be mid-April to early May 2003 to allow time for engineering revisions and system PDR before lead time of equipment needed for 2003 Science experiment (late October 2003).*
- 3. Mooring deployment location. Two potential sites selected, an 1850 meter site and a 1300 meter site. Ventana can only reach the shallow site. Strong desire to try ROV approach and connect at base of mooring during the test deployment period. Tiburon may be difficult to schedule.*

1300 meters deep site: 36° 42.7' N, 122° 17.5'W, about 5nm east of M2

1850 meters deep site: 36° 40.7' N, 122° 26.2'W, about 3nm west of M2

The final selection of the site depends on:

- ROV availability*
- Search for adjacent moorings*
- Verification of safe ROV guard zone with marine Ops.*
- Verification of location of vessel coastal transit lane*
- Sanctuary permit*
- Notice to mariners*

- 4. Staging area for preliminary assembly and testing. Doug Au has agreed to let the project use the support engineering staging area in building 'B'. This site location is ideal due to it's proximity to the machine shop and mooring final assembly areas.*

5. Current task update.

ID	Task Name	Duration	Start	Finish	Resource Names	% Complete
3	power system prelim. design & diagram <i>in progress.</i>	8.33 days	Tue 2/12/02	Wed 3/13/02	Mellinger Ed[60%]	60%
7	battery housing size, design and locate Critical path! <i>Battery housing preliminary design reviewed at the meeting. Stock Zero case aluminum blank is stiffened with an MBARI clamp/seal collar and covered with an MBARI aluminum machined lid. Final wall thickness is 0.060". Questions on corrosion resistance of case. Jon will look into 0.90" wall availability and check out coatings.</i>	10 days	Wed 3/6/02	Wed 3/20/02	Mellinger Ed[60%], Erickson Jon[60%]	70%
12	design panel mounts and tower access <i>On hold pending selection of panels.</i>	5 days	Fri 2/22/02	Mon 3/11/02	Mellinger Ed[60%], Erickson Jon[60%]	60%
13	specify and order panels <i>Sample panels in route. Final panel selection planned by 3/38/02 so tower mount design can proceed.</i>	10 days	Fri 3/1/02	Mon 3/18/02	Mellinger Ed[60%]	50%
22	turbine mount and access design <i>No update.</i>	1 day	Fri 3/8/02	Fri 3/8/02	Mellinger Ed[60%], Erickson Jon[60%]	75%
30	temporary controller requirements specified <i>Requirements updated.</i>	8.33 days	Mon 2/11/02	Mon 3/11/02	McBride Lance[60%]	80%
31	wave/acceleration instrument specified Critical path! <i>Triaxys from Axys Environmental Systems in Canada makes suitable unit, see</i>	5 days	Thu 2/28/02	Thu 3/14/02	Chaffey Mark[60%]	50%

<http://www.axystechnologies.com/>. Selection of heave only or heave and wave direction needs to be made. Unit is strap - down and designed for our application. Delivery is around six to eight weeks.

33	temporary controller specified <i>No update.</i>	8.33 days	Mon 3/4/02	Wed 3/20/02	McBride Lance[60%]	75%
35	CERF adapter board in fab. <i>Received 3/13/02. Starting build and test.</i>	7 days	Mon 3/4/02	Tue 3/12/02		100%
37	RF communications specified <i>No update.</i>	8.33 days	Mon 3/11/02	Thu 3/21/02	McBride Lance[60%]	0%
42	selection of riser cable vendor <i>TMT completing work on modeling top three vendor designs. Have all necessary data from vendors. PDR on selection Friday, 3/15/02, 1:30PM.</i>	20 days	Mon 2/11/02	Wed 3/13/02	Chaffey Mark[60%],Mellinger Ed[10%]	85%
48	coil cord specified Critical path! <i>Specification complete and ready to go to Cortland cable. PDR on design Friday, 3/15/02, 1:30PM.</i>	5 days	Mon 2/11/02	Mon 3/11/02	Chaffey Mark[20%],Walter Paul[50%],Mellinger Ed[10%]	80%
49	snubber electro-optical connectors specified Critical path! <i>SeaCon responding slowly to RFQ on connectors. Expect price and delivery Thursday, 3/14/02.</i>	5 days	Mon 2/18/02	Wed 3/13/02	Chaffey Mark[60%],Mellinger Ed[10%]	80%
51	bridle/snubber strain gage specified <i>No update.</i>	8.33 days	Thu 2/28/02	Thu 3/14/02	unassigned EE[60%]	40%
72	float design <i>Current design is 92" X 44" and has about 9% reserve buoyancy. Weight is right around 3000 lbs. Buoy foam compresses around 2% per foot of</i>	5 days	Mon 3/4/02	Thu 3/21/02	Erickson Jon[60%]	75%

submergence! Desired reserve buoyancy is in the 15-20% range. Final payload numbers depend on panel mount design. Also some reworking of the calculations needs to be done. Weight has become a big issue and saving air and water weight important.

75	anchor system preliminary design <i>No update.</i>	8.33 days	Mon 3/11/02	Thu 3/21/02	Erickson Jon[60%],Chaffey Mark[60%]	0%
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