

## Engineering Change Request Form

<b>Change Request No.:</b> 1303-00954	<b>Date:</b> 2/4/2013	<b>WBS:</b> 1.3.4.5.3.6 1.3.4.5.4.6 1.3.4.5.5.5
<b>Control Account Name:</b> None	<b>Configuration Manager:</b> Wickman, Diana	<b>Control Account Manager:</b>

### SECTION TO BE COMPLETED BY PERSON REQUESTING CHANGE:

**Requestor:** Ed Dever

**Telephone Number:** (541) 737-2749

**Request Name (Include document number and revision level):**

Bio-acoustic sonar (zooplankton, ZPLSC/G) deployment waiver

**Description of Change (Include all related systems):**

This ECR requests a waiver on the deployment of all ZPLSC and ZPLSG (bio-acoustic sonar (coastal) and bio-acoustic sonar (global)) instruments.

If approved, the waiver would apply to cabled and uncabled platforms deployed in summer 2013, fall 2014 and spring 2014. For the purposes of specificity, this waiver would apply to all CGSN and EA platforms with ZPLSC and ZPLSG instruments deployed before 31 July 2014. If the bio-acoustic sonar instruments are available before this point, the waiver would be reconsidered.

Specific sites for which a waiver is requested are:

CE01ISSM - Endurance OR Inshore Surface Mooring (deployment scheduled Oct 2013)  
CE06ISSM – Endurance WA Inshore Surface Mooring (deployment scheduled May 2014)  
CE02SHBP - Endurance OR Shelf Benthic Pkg (deployment scheduled July 2013)  
GP02HYPM - Station Papa Hybrid Profiler (deployment scheduled July 2013)  
CP01CNSM - Pioneer Central Surface Mooring (deployments scheduled for Nov 2013, May 2014)  
CP03ISSM - Pioneer Inshore Surface Mooring (deployment scheduled for May 2014)  
CP04OSSM - Pioneer Offshore Surface Mooring (deployment scheduled for May 2014)

Specific requirements waived for the duration of this waiver are:

L3-CG-RQ-578 - MFNs shall support the capability to measure near bottom acoustic backscatter. (applies to CE01ISSM, CE03ISSM, CP01CNSM, CP03ISSM, CP04OSSM)

L3-CG-RQ-894 - Global hybrid profiler moorings shall measure acoustic backscatter on the subsurface platform. (applies to GP02HYPM)

L3-CG-RQ-746 - Benthic Experiment Packages shall measure acoustic backscatter. (applies to CE02SHBP)

**Reason for Change:**

The bio-acoustic sonar procurement has fallen behind schedule to the point that procurement, acquisition, integration, and testing cannot be accomplished prior to summer 2014.

The initial RFP came in significantly over budget. After reviewing the options available, CGSN engineers, scientists and management personnel decided to move forward with the procurement of the cabled ZPLSC and re-compete the uncabled ZPLSC and ZPLSG instruments in a revised RFP.

An ECR (1300-00313) was approved 20 November 2012 to redistribute instrument budget to enable procurement of the cabled ZPLSC. However, approval for procurement from NSF and the PMO has not been granted.

**Benefit to OOI:**

Temporarily waiving the requirements for bio-acoustic sonar instruments will allow other initial deployment, testing and commissioning activities for the platforms listed above to occur on schedule.

This will reduce schedule risk to the program because

1. MREFC deployments in 2013 will enable thorough testing of several platforms before the anticipated end of MREFC in March 2015. The platforms listed about include inshore moorings, benthic experiment packages, coastal standard power

moorings, and global hybrid profilers.

2. Deployment of platforms beginning in 2013 is needed to avoid unworkable schedule compression in 2014.

*Requestor Assessment of Impact to Control Account:*

**Scope:**

This waiver will result in no change in scope. If this waiver is granted, the full scope of CGSN OOI will be deployed within the MREFC period.

**Schedule:**

For the sites listed above, deployment of ZPLSC and ZPLSG instruments will be delayed for approximately one year.

The delay in schedule has cross-IO dependencies with CI. If this waiver is granted, CI will not need to deliver ZPLSC and ZPLSG drivers before July 2013. CI personnel have been apprised of the likely delay.

In coordination with this ECR, ECR 1300-00334 (previously approved at System CCB) requested the schedule changes associated with this waiver.

**Cost:**

No change in cost

**SECTION TO BE COMPLETED BY IO/SL CCB CHAIRPERSON:**

*Assessment of Impact to IO Project:*

**Master Schedule:**

CG CCB: Concur with requestor's assessment.

SL CCB: No change. Associated IMS Changes are covered by ECRs 1300-00334 and 1300-00342

**Project Cost:**

CG CCB: Concur with requestor's assessment.

SL CCB: No change. Associated IMS Changes are covered by ECRs 1300-00334 and 1300-00342

**Deliverables:**

CG CCB: No impact.

SL CCB: No change

**Potential Impact to Science and Design / As-built Capability:** CG CCB: While the initial deployments will not have this instrument, it will be delivered during the MRFEC portion of the program.

SL CCB: No change

**Percent Impact on WBS elements(s) selected:** 0%

**Percent Impact on OOI:** 0%

**Contingency \$0**

**Contingency Schedule (weeks):** 0

**Signature of CG CCB Chairperson:**

Sheri White (swhite@whoi.edu)

**Date:**

2/13/2013 1:30:00 PM

**Board Determination:**

Approved

**Signature of System CCB Chairperson:**

Ed Chapman (echapman@oceanleadership.org)

**Date:**

4/9/2013 2:00:00 PM

**Board Determination:**

Approved

**Signature of NSF CCB Chairperson:**

Jean McGovern (jmcgover@nsf.gov)

**Date:**

6/4/2013 3:00:00 PM

**Board Determination:**

Disapproved

**CERTIFICATION OF TECHNICAL DATA PACKAGE AND CONTROL SYSTEM UPDATE**

**Signature of Configuration Manager:**

Diana Wickman (dwickman@whoi.edu)

**Date:**

6/6/2013 9:02:54 AM

**Systems and**

**Documentation Updated:**

Confirmed Complete

**Attach supporting technical documentation and or additional comments as needed.**

**Change Request No.:** 1303-00954

**Request Name:** Bio-acoustic sonar (zooplankton, ZPLSC/G) deployment waiver

**ECR Comments**

#	Reviewer	Date Added	General Comment	Requestor Response	CCB Decision	Lien
1	Michael Vardaro	2/11/2013	Reviewed, recommend approval.			
2	Sheri White	2/12/2013	No comments. Recommend approval.			
3	Tim McPhail	2/12/2013	I recommend approval.			
4	KENNETH T ANGEL	2/13/2013	No comment.			
5	Steve Holford	2/13/2013	No comments.			
6	Ed Chapman	4/4/2013	I recommend approval.			
7	Michael Zernick	4/8/2013	No comment.			

**Change Request No.:** 1303-00954

**Request Name:** Bio-acoustic sonar (zooplankton, ZPLSC/G) deployment waiver

**ECR Vote (Highest Level Board: NSF)**

Title	Member Name	Delegate Name	Vote	Comment
Associate Program Director	Susan Banahan		(Did Not Vote)	
Chief Systems Engineer	Ed Chapman		(Did Not Vote)	
OOI Program Director/PI	Tim Cowles		(Did Not Vote)	
Sr Project Manager	Mike Kelly		(Did Not Vote)	
NSF Program Director	Jean McGovern		Disapprove	

<b>Change Request No.:</b> 1303-00954	<b>Request Name:</b> Bio-acoustic sonar (zooplankton, ZPLSC/G) deployment waiver
---------------------------------------	--

**ECR Liens/Action Items**

Lien	Due Date	Complete	Completion Date
------	----------	----------	-----------------

Action Item	Due Date	Complete	Cancel	Completion Date
Mark the Verification Status for the L3/L4 requirements as "Waived" in DOORS and add a description in the verification details column. (S. White, K. Carr, E. Dever)	3/11/2013	Yes	No	2/20/2013
Update "Approved Waiver-CM" attribute for affected L3/L4 requirement(s) in DOORS with the ECR number of the approved Waiver. (S. White, K. Carr, E. Dever)	3/11/2013	Yes	No	2/20/2013

**Change Request No.:** 1303-00954

**Request Name:** Bio-acoustic sonar (zooplankton, ZPLSC/G) deployment waiver

**ECR Meeting Results and Notes**

Board Level	Meeting Date	Meeting Name	Meeting Result	Meeting Notes
CG	2/13/2013	CG CCB 20130213	Approved	
System	4/9/2013	2013-04-09 System Level CCB	Approved	
NSF	6/4/2013	2013-06-04 NSF CCB Session	Disapproved	Although Ms McGovern did not sign and formally disapprove the ECR, she has repeatedly refused to approve it and this approach has been overcome by changes to the Commissioning Plan.