

Precruise 2024-12-06 02:00:00 PM (Web form precruise.asp)**From :** lisa@mbari.org

Mon, Nov 18, 2024 01:41 PM

Subject : Precruise 2024-12-06 02:00:00 PM (Web form precruise.asp)**To :** lisa@mbari.org**Cc :** chuffard@mbari.org, isotopepc@mbari.org, permitpc@mbari.org

Precruise database load request

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MBARI Project Number: 902305

Link to load this expedition into the database:

<https://mwww.mbari.org/expd/log/precruise.asp?step=1>

(Copy from the fields below into the web form fields)

ExpeditionID:

ShipName: rcsn

ShipSeqNum: 1255

Purpose:

Purpose:

Equipment to be deployed:

SES (as autonomous lander)

McLane Sediment trap (as autonomous lander, aka Trigger trap/TT).

One current meter (looks like a baseball bat, which we deployed last year)

Order of operations (let me know if this should be altered):

1. Steam to MARS. We aim to drop the SES and TT ~400 m apart. Last time we deployed, the TT drifted about 100 m on way to seafloor--something to keep in mind. Exact lat and long doesn't matter so long as we're not dropping our equipment on other people's instruments or on the slope. The last SES deployment location was 36 42.6554 N 122 10.8600 W.
2. Deploy TT as lander.
3. Steam to SES drop location, deploy SES

4. ROV dive:

- Descend to SES. Fly around to see how it looks, fly over and look down to see if anything is on top of the baffle.

Position the SES so that modem is on the side facing the TT.

- Deploy 1 current meter at SES.
- Get video of SES for SciComm
- Transit underwater to TT.
- Fly around TT to see how it looks, fly over and look down to see if anything is on top of the baffle.
- Position the TT so that modem is on the side facing the SES.
- Get video of TT for SciComm
- Recover ROV
- Not sure if Rich and Paul will want to talk with the SES and McLane traps modem via a dunker. Probably not, but just putting that here just in case.

ExpdChiefScientist: Christine Huffard

ExpdPrincipalInvestigator: Christine Huffard

ScheduledStartDtg: 2024-12-06 0600 Local Moss Landing time

ScheduledEndDtg: 2024-12-06 1630 Local Moss Landing time

EquipmentDesc:

Equipment Requested: ROV

Equipment Details: Benthic sled for carrying down current meter

No collections of any kind anticipated.

Winch Requested: None

Winch Details: None

Hazardous Materials: Deploying sediment trap with cups that have a total of <3L of <10% formalin.

They are sealed closed during transit and deployment.

96 lithium primary DD cells in the SES battery, completely contained within the titanium sphere

Mooring Deployment Details: SUBSEA_MOORING_DEPLOYMENT

Not a mooring, but is two large landers: SES, and McLane trap

Participants:

MBARI Personnel: Crissy Huffard

Rich Henthorn

Irene Hu

Paul McGill

Colleen Durkin *telepresence*

Ben Jansen *Brent Roman*

SciComm team possibly sending 2 people

RegionDesc:

PlannedTrackDesc:

MARS, but not plugging in

Track Outside Monterey Bay: NO

Track In Restricted Areas: NO

MBNMS Permit Compliance: YES

CDFW Permit Compliance: NOT_APPLICABLE

SMPA Collection Permit Compliance: YES

small zip tie around top
large on bottom

Ship Rachel Carson

Site MARS

Modified McLane trap

[Trigger Trap (TT)]

Deployment Date 4 Dec 2024

Deployment time

8:40 am

Depth

Project folks on board

Rich Paul Irene Crissy
Ben Brent Romal

Lat 36 N 42.721

Lon 122 W 11.214

Beacons: VHF F 01-015 154.585

Argos 168161 SN 002021 401.64800

Strobe PD1-019

Homer 26 batt ~~renew~~ June 2024

575 lbs dry
1 PLUG IN
SOVIRTY

Collect time 6 hours (last deploy was set to 4hr)

Collect schedule - 3 sched

12/15
2/15
4/15

see code

Number of bottles

11

Fixative

5% Formalin
250 mL cups

Release mechanism pull pin

Mission objective/general notes

test adaptive trigger

start low (rmiso slope > 0.007)

if $\Rightarrow 3$ month, $\rightarrow$ rmiso slope > 0.011

has old triggers
in its memory
delete after next
recovery

ADD beacon info to Bring spare
all precrises beacons
even deploy on next
Deploy day

Ship Rachel Carson

Site MARCS

SES

Deployment Date

4 Dec 2024

Deployment time

9:00am

1176 lb dry
180 lb wet

Depth

Project folks on board

Lat 36N 48.2638
36 42.6503 on bottom

Lon 122W 10.873

122 10.8842
on bottom

see ptecd. 18
Paul Rich slope of 150 sample
Irene start @ 0.008 rolling mean
Cissy upper to 0.011
Ben

Branthorn → 3 / month exceeded
one-way change
threshold

after 4050 samples
at end go to open
position, hibernatize
hang for 2m, sleep 12m
repeat for 30 days
then quit & run
out of battery

Beacons: VHF F01-017-160.725

Argos K01-026-401.65100

Strobe 04-004

Homer

10 - batts → Mar 2025

Collect time 5 min

Flow-through time 68 min

pull deck cable
8:52am

52 min flow
+ overhead
+ 5 collect time
68 min an avg

Release mechanism

pull pin

Mission objective/general notes

adaptive trigger see T1 notes
onboard at n calculation using
same code as last time

* 90 min
wait from
launch
to start

Flavor
same as
always

4050 samples → ~6 months
est enough for 4300

every 70 samples (~3 days) takes blank intake
by going backward after clearing slide then pic

force event on Dec 15 (11 days), 62 days (Feb)
per another
59 days April

4x 500s

deploy
11d
73d
59d
132 days

Vehicle: ROV-Dive# Ventana 4602

Date: 4 Dec 2024

PEOPLE

Paul McGill, Renatta, Rich Wentron
Crisag Hiffard, Ben Jensen, Brent Roman
Mike A. Ethan

EQUIPMENT

current meter (till), bladder test (for Evan), Brent Roman
modem test

GOALS

✓ make sure to record airbag Ethan knows
(M) ✓ Start check SES + TT, recar hydrophone

launch ~ 9:16 am if TT drifted a lot, add wt
(make heavier in H₂O)

Diver SES tried moving bridge

fly over glamar shot but is murky

TURN SES ~ 120° so modem is facing TT
(NW)

36 42.6481 N

SES is @ 884m 122 10.8719 W

SES modem is facing 310°

TT is 290° from here

Way
point
"SES"

deploy current meter:

current meter is a few m from
5m E of SES



brushes need to be adjusted
slide barely goes through them
Carousel turned! mission started
confirmed

old
mystery
hardware

36 42.652 N
122 10.9938 W

10:26 am

sampling - ROV dumped a lot of
sand into it

Vehicle: ROV-Dive#

Ventana 4602

Date:

4 Dec 2024

PEOPLE

Cris, Paul Rich Irene Ben
Mike B Ethan

EQUIPMENT

SES, Trigger Trap

GOALS

check TT, glamour shots, move TT so
modem is facing SES
recover Hydrophoneweight @ 36 42.7321N
122 11.1795W
single rail weight@TT - looks good
rotating trap so modem faces
SES (east)TT 36 42.7277N
@ 122 11.2033W
882m depth"Trigger Trap"
waypointrecovered hydrophone
from MARS nodeascend
+ descent
but not on
bottom

recorded AUX1 for Evan's air bladder

underwater WIFI testing
modem died. IP ~~test~~ address

end dive @ 12:46pm

found
dubious
something
like a float
w/ SES trap
w/ cups
went thru
prop"old mystery
hardware"
in waypoints
36 42.6925N
122 10.9938W

Vehicle: ROV-Dive# Verrana 4603

Date: 4 Dec 2024

PEOPLE Ethan Mike B, Crissy Paul McGill
Rich Herthorn, Ben Jansen, Brent Roman

EQUIPMENT Evan's air bladder

GOALS test air bladder
Bounce dive to check MARS cable
survey site - shallow

launch @ 36 52.8544N

40m depth 121 56.2167 W

recorded
air bladder
video on
ascend + descent
for Evan

0 v.s
Brown tide - big algal
Red + turbidity bloom?

8-10' vis on bottom!

PV11 @
15:50

MARS bottom survey
cable start @
2 knots speed of ship

resume
traw
end
trawed
- got
275m!
1. total

altitude 1.5m above bottom
off transect temporarily to
check hit on sonar
was ~~spot prawn~~ trap.

end dive
16:04 mesh size too
big for spot
prawn

(or at least looks like it)
no line strong from it
looks old / abandoned