

Cruise SAV 12-05

Dep. Skio 13 February 2012 (Monday)

Science Party: Steven, Catharine Edwards, Trent Moore
Chantal Robertson, Julie Kraft

U. Tenn.: Drew Steen

Seabird Observer: Bill Lotz, Eric Bowler

Crew: Raymond Swartz, Pete Corcoran, John Bickley
Richard Hageley, Chris Keene, Joel Formby

Dep. Skio ~ 1440

initially heading for rendezvous point with
'Ramses' (UNC glider)

overnight run: calm

TUES 14 February

0615 EST — in/m ~ Skio of Ramses position
waiting for - 0630 surfacing to put on
manual control

Plan — Yo or 2 to get glider profile
— prepare RHB; CTD cast for
intercomparison
— comm. from ship w/ Ramses established

20700

Ramses sent on a profile
to be followed by CTD cast

~ 1230 GMT - CTD cast in vicinity of last Rammer '90' ~ 1300 EST
- sal to 22m - warm to bottom (20.2 at 114m)
- little change in O₂, chl some pikes

~ 0750 EST - heading for Rammer at surface position
- wind W 15-20, 3-4'
spotted ~ 0800 some white caps

32° 28.486'
78° 44.895'

Trent, William, Joel in RHIB

• retrieved by using crane at stern (A-frame out)
Trent & William out

1315 EST

Joel rode up to deck level

- able to position RHIB on deck
despite Var, incubator, Acrobat wind

1440 -

- unloaded glider after RHIB on stern deck

• Acrobat

swif - looked to be in good condition

~ 0845 EST heading for Pelagia position (~ 27 naut miles)
ETA ~ 1200 EST

• C970 sense

~ 1130 EST near Pelagia - needed to wait ~ 1 h
for surfacing

1230 EST CTD cast (Sta 02)

T-cline near bottom

20.6 → 19°C

~ 1900

(Isos cal / offset near edge)

• Acrobat too

Pelagia retrieval - conditions calm, wind 5-7, ~ 2'

• Acrobat too

40'
114u)

~ 1300 EST "Pelagia" onboard (via RHIB at A-frame)

- (*) Observed a very large loggerhead turtle "interacting" with Pelagia at the surface. Quite persistent, apparently trying to "climb" onto the glider.
- glider underside ~ optical window edge - paint chips - suit had some tears
 - fouling - not bad, fairly light (in hydroline?)

in RHIB

1315 EST - heading to LBSØØ to start Acrobat run.
(ETA ~ 1440 EST)

deck
Acrobat winch

1440 - arrived @ LBSØØ (ran a bit inshore of it)

in deck

— new tape marks on deployment —

- Acrobat profiling ~ 1450 EST
- ~ 1500 EST at LBSØØ
- profiling nicely

and meter)
~ 1200 EST

• Cytosense sampler @ sta Ø1 and sta Ø2
(Ind. HF trials)

- Lost "showed file" display for Acrobat
(on my old Compaq)

~ 1900 SW wind 12-15; some deck splash

• Acrobat turn at LBS+60 ~ 2035 EST

1, ~ 2'

• Acrobat turn at LBM+60 @ 2302 EST

15 February (Wed)

morning

- continuing Acrobat Survey

turn at 'LBNØØ' ~ 0700 EST

end at LBN+6Ø ~ 1230 EST

- set a draft plan for 15-19 Feb - considering forecast
- see —
— print out —

15 Feb (Wed) - Acrobat

- 'Rauzer' deployment

- start CTD station work at 'LB3'

(Drew enzyme incub. exp.)

with LB3 and deep ; deck incub.

16 Feb (Thurs) - 'Pelagia' deployment

- sta work (CTD/sampling) on central LB
shelf break → outer shelf/shelf

17 Feb (Friday) [Weather/sea state dependant]

- possible Acrobat survey on central 'LB' inc
outer shelf/break (6h)

- CTD/sta sampling on return leg

18 Feb (Saturday) [likely to start deteriorating]

- possible shelf sampling

- possibly starting for Southport (~6h)

19 Feb (Sunday)

forecast gale conditions

→ Cap For Comm. College

15 Feb (Wed)

• Acrobat back aboard at 'LBN+60' ~ 1240 EST

• Heading to 'LB3' (central line seaward end pt)
for deployment of 'Ranger' upper slope mooring

• ETA 1420 EST

Arrived @ 'LB3' @ 1425 EST

- surface CTD cast
- RAIB deployed
- 'Ranger' launch from stern

• RAIB tended 'Ranger' for test mission

- issue with altimeter on Ranger
- had to retrieve & return to ship (~1715 EST)

• post-dinner - CTD cast at 'LB3' (X) nepheloid layer contact near bottom

• Ranger redeployed from stern after troubleshooting (connector or such) altimeter / cable issue

• scrapping further CTD sit. work for evening -
time required to resolve Ranger issue
not clear; CTD crew fairly weary

• during night - after Ranger monitoring
→ 'LB2' (Sea Horse Mooring)

Plan for Friday (17 Feb)

~ 0600

Drew
(3 x 1/2 bottles)

• cast at LB30 for WCPP

• deck incubation (24 hr)

• full sample set (chl, nutr, POC, Cytosense)

• PP samples

• (sample for Drew 3 depths - 1/2 bottle)

FRIDAY 17 FEBRUARY 2012

@ LB+30

CTD cast (STA 12) ~ 0610 EST (1110 GMT)

5 depths sampled for WCPP,
& chl, nutr, POC, Cytosense

& Drew Steen's - microbial Prod
- enzymes etc

• Deck WCPP incubation started 0740 EST
(24 hr planned)

• Filtration completed ~ 0810 EST

• started transit to LB5'00 for Acrobat survey
ETA ~ 1040 EST

• Acrobat survey started 1604 GMT (1104 EST)

Wind N 10 knots
Seas 2-4'

Acrobat launched 0821 EST

~0650 EST CTD cast (Sta B) at LBN+40

~40 m

samples: chl, CytSense (3 depths)

— Lots of CytSense runs for imaging larger cells ~
on way in

Basel or forecasts...

Decided to run to Wilmington in advance of predicted
gale (Sun-mon)

Arrived at Cape Fear Comm. College Dock @ 1607 EST

Departed from Science Party:

William Stark } → Chapel
Deen Steen } Hill → Knoxville
Eric Bowler → Atlanta

1-way car rentals
from ILM airport

TUESDAY
~ 0730
EST

Back to

40
SUNDAY 19 Feb

AT dock CFCC...

uga cells -
rain, wind

seen at bridge 41004 41057

built up to ~ 6-9 ft

(not as high as predicted)

strongest winds ~ 0200 - 0300 Mon AM

ST
MONDAY 20 Feb

• at Cape Fear Community College dock

— let de Catena for Ocean Science —

• dep 1500 EST for Southport anchorage

plan — run out in morning as buoy marks
are deteriorating

> Kinston
• Arrived at Southport 1745 EST

whale
airport
• Mechanical issue —

it appears that the starboard engine shaft
has slipped off — "key" loose?

— it was decided we will have to return to
Wilmington to troubleshoot / repair

TUESDAY — 21 February 2012

~ 0730
EST

— pulled anchor — departed for Wilmington

Back at CFCC dock ~ 1030 EST to work on
the shaft / coupling

WEDNESDAY 22 FEBRUARY

• still at CFCC dock

• shaft work completed in the late afternoon

• decided to wait for morning for the transit to SK10

THURSDAY 23 FEBRUARY

Departed the CFCC dock in Wilmington
@ 0800 EST

Forecast for 0-20 mile from Southport → Edisto
is ~ 4-6', so we will be hugging
the coast

Thursday night - running into SW wind 20-25
0100 EST 25-30
sea 4-6' to 5-7'

FRIDAY 24 FEBRUARY

Arrival at SK10 at 1430 EST
unloaded Cytochrome

SAT 25 FEB

unloaded Wet Lab with Charter