

Weather Bird II September 20-29<sup>th</sup>, 2011  
 Research Cruise - Ocean Acidification

~~8:00 AM~~September 20<sup>th</sup>

- Departure 8:00 AM
- Two transects DSH & PCB
  - headed to DSH09 first
  - Closest to BP Deep Water Horizon
- 36 hour Transit.
  - Taking flow through samples every 1.5 hours during transit. (24 samples)

921 Changed time on sonde logger

1016 <sup>fab</sup> flow-through is on

1021 Sonde running N 27° 36.361  
 W 082° 50.343

1027 Surface Sample  
 WB09-001  
 Loc N 27° 36.318 W 082° 50.815  
 Temp 28.34  
 Salinity 34.17

WBI Sept 11

September 20<sup>th</sup>

1143 Surface Sample  
Loc N 27°37.025 W 83°02.878  
Temp 28.42  
Salinity 35.48  
WB09-002

1352 Surface Sample  
Loc N 27°41.180 W 83°22.418  
Temp 28.86°  
Salinity 35.83  
WB09-003

1532 Surface Sample  
Loc N 27°44.372 W 83°37.462  
Temp 29.27  
Salinity 35.29  
WB09-004

1702 Surface Sample  
Loc N 27°47.162 W 83°50.582  
Temp 29.22  
Sal 34.88  
WB09-005

WBI Sept

September 20<sup>th</sup>

1834 Surface Sample  
WB09-006 & WB09-001 iso  
Loc N 27°49.941, W 84°03.688  
Temp 29.00 Salinity 34.59

2008 Surface Sample  
WB09-007  
Loc N 27°52.796 W 84°17.165  
Temp 28.06 Salinity 34.17

2123 Surface Sample  
WB09-008  
Loc N 27°55.060 W 84°27.901  
Temp 28.27 Sal 33.33

September 21<sup>st</sup>, 2011

0213 Surface Sample WB09-009  
Loc N 28°04.239 W 85°11.170  
Temp 23.94 Salinity 33.41

Flow through to ~~scout~~ Sonde bucket  
was stopped - Turned up flow  
rate

WBII SEPT '11

WBII SEPT '11

September 21<sup>st</sup>, 2011

September 21<sup>st</sup>, 2011

0402 Surface Sample

WBOA-010

Loc N 28° 07.647 W 85° 27.244

Temp 27.46 Sal 32.72

1001 Surface Sample

WBOA-014

Loc N 28° 18.937 W 86° 20.662

Temp 27.35 Sal 32.64

0545 Surface Sample

WBOA-011

Loc N 28° 10.511 W 85° 42.182

Temp 27.05 Sal 32.70

1131 Surface Sample

WBOA-015

Loc N 28° 21.746 W 86° 33.953

Temp 28.06 Sal 34.06

552 STOPPED sonde logger & started logging in a new file Sept 21

1259 surface Sample

WBOA-16

Loc N 28° 24.432 W 86° 46.684

Temp 27.66 Salinity 34.05

0703 Surface Sample

WBOA-012

WBOA-012 Dup

Loc N 28° 13.064 W 85° 54.188

Temp 27.82 Sal 32.64

1414 Surface Sample

WBOA-017, WBOA-003:50

Loc N 28° 26.848 W 86° 58.142

Temp 27.86 Salinity 33.78

0816 Surface Sample

WBOA-013 WBOA-002:50

Loc N 28° 15.389 W 86° 05.742

Temp 27.58 Sal 32.44

1602 Surface Sample

WBOA-018

Loc N 28° 30.148 W 87° 13.754

Temp 27.66 Sal 33.68

14

15



WBII Sept 11

September 21<sup>st</sup>, 2011

1737 Surface Sample  
 WB09-019  
 Loc N 28°33.319 W 87°27.448  
 Temp 27.49 Sal 33.33

1947 Surface Sample  
 WB09-020  
 Loc N 28°36.498 W 87°38.309  
 Temp 27.90 Sal 33.06

2238 Surface Samples  
 WB09-021  
 WB09-04150  
 Loc N 28°39.277 W 87°47.895  
 Temp 27.64 Sal 33.32  
 Notes: Towing Sippert's so going  
 much slower

WBII Sept 11

September 21<sup>st</sup>, 2011

Station DSH09

CTD Ino. 2330 (Cast 1)

Sample Time:

Sample Time	bottle	Target depth
WB09-022	12 <del>12</del>	TOP 0.5m
-023	1 <del>12</del>	Mid 400m
-024	Cast 1	Bot 1500
-025	8 <del>12</del>	CTOP 50m
bottle 4, 1100m -026	Cast 2 9	<del>7</del> <del>CTOP</del> 50m
-027	NO 6	CBOT 70m

- Isotope

WB09-05:50	12	TOP	0.5m
-06:50	4	Mid	400m
-07:50	Cast 2	Bot	
-08:50	Cast 2 8	CTOP	50m
broke -09:50	Cast 2 7 bottle 4 1100m	<del>CTOP</del> <del>CTOP</del>	<del>50m</del> <del>60m</del>
-10:50	6	CBOT	70m

Cast 2

CTD in 0152 (9/22/11)

multicoreing 3m - 17m 9/22

September 22<sup>nd</sup>, 2011

1050 Surface Sample  
 WBO9-028  
 Loc 28°38.447 U 88°19.187  
 Temp 27.98 Salinity 34.94

1200 Rough waves; everything on hold

1312 Surface Samples  
 WBO9-029 & WBO9-11:50  
 Loc N28 42.479 W 88° 25.180  
 Temp 27.24 Sal 32.97

Deep Water Horizon well head

CTD Cast 1 in 1608		Cast 2 WHP ~1916	
	bottle		depth
CTDUP 1707			
WBO9-30	C2 12	TOP	05
31	12	MID	600
32	2	BOT	1400
33	10 dibutyl sepic	C TOP	16140
34	8	Emax	30m
35	6	C Bot	46
35dup	6	C Bot	46

Cast 1  
 Temp ~~30~~ 27.91  
 Sal 32.67

Cast 2  
 28.08  
 33.01

September 23<sup>rd</sup>, 2011

0018 Surface Sample  
 WBO9-36  
 Loc N28°44.122 U 88 20°094  
 Temp 27.43 Sal 32.70

0358 Surface Sample  
 WBO9-37  
 Loc N28 39.387 W 88°10.965  
 Temp 27.72 Sal 33.23

0410 New sonde file: Sept 23

0543 Surface Sample  
 WBO9-38  
 Loc N28 40.104 W 88°12.047  
 Temp 27.92 Sal 33.14  
 Notes: before sunrise

0824 Surface Sample WBO9-39<sup>306</sup>  
 Loc N28°44.958 W 88°23.308  
 Temp 25.67 Sal 32.84  
 Notes ~1 hour after sunrise



WBII SEPT

September 23<sup>rd</sup>, 2011

0957 surface sample WBOA-40 & WBOA-<sup>12</sup>13:50  
Loc N 28° 46.977 W 88° 17.437  
Temp 27.25 Sal 32.70

1230 Surface Sample WBOA-41<sup>13</sup>  
Loc N 28° 47.720 W 88° 18.849  
Temp 27.70 Sal 33.20

on that site all day

1800 en Route to Pensacola for med help for Karen.

1855 Surface Sample WBOA-42  
Loc N 29° 00.414 W 87° 58.592  
Temp 27.44 Sal 32.21  
Before sunset

2128 Surface Sample WBOA-43  
Loc N 29° 15.451 W 87° 43.312  
Temp 26.74 Sal 32.02

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WBII SEPT

September 24<sup>th</sup>, 2011

0636 Surface Samples  
WBOA-44 & WBOA-13:50  
Loc N 30° 16.118 W 87° 17.509  
Temp 24.09 Sal 32.48

- sonde flow low, turned up rate
- CTA for Pensacola is 0700

~0700 flowthrough system off for docking

~1100 left Pensacola, H<sub>2</sub>O flow still off.

1241 flow through running  
~~Surface Sample WBOA-45~~  
~~Loc~~  
~~Temp~~ Sal  
emptied sonde bucket & refill  
& created new file Sept 24

1248 Surface Sample WBOA-45  
Loc N 30° 10.594 W 87° 9.605  
Temp 27.39 Sal 32.27

21

September 24<sup>th</sup> 2011

- 1414 Surface Sample WB09-46  
Loc N 29° 58.954 W 87° 24.182  
Temp 26.78 Sal 32.17
- 1851 Surface Sample WB09-47 Before sunset  
Loc N 29° 22.241 W 87° 41.439  
Temp 25.54 Sal 33.15
- 2047 Surface Sample WB09-48  
Loc N 29° 08.803 W 87° 50.482  
Temp 27.79 Sal 32.60  
After sunset

DSHO8

	C <sub>1</sub> Temp	Sal		
2130 CTD Cast 1 up				
2355 CTD Cast 2 up	C <sub>2</sub> Temp 27.74	Sal 32.11		
	Caster	Bottle	Desc.	Depth
WB09-49	C <sub>1</sub>	1/12	TOP	0.5m
49 dup	C <sub>1</sub>	1/12	TOP	0.5m
50	C <sub>2</sub>	1/12	MID	500m
51	C <sub>2</sub>	1/12	BOT	1100m
52	C <sub>1</sub>	9	C <sub>TOP</sub>	25
53	C <sub>1</sub>	1/8	C <sub>MAX</sub>	40m
54	C <sub>1</sub>	1/5	C <sub>BOT</sub>	75m

- 2314 Sonde not responding  
replaced batteries in logger &  
Sonde
- 2332 Sonde Logging again

0016 New sonde log file Sept 25

September 25<sup>th</sup> 2011

- 0352 Surface Sample WB09-55  
Loc N 28° 59.824 W 87° 52.120  
Temp 26.68 Sal 31.88
- 0606 Surface Sample WB09-56  
Loc N 29° 59.024 W 87° 51.496  
Temp 27.80 Sal 31.63
- 0912 Surface Sample WB09-57  
Loc N 29° 58.355 W 87° 49.824  
Temp 27.37 Sal 31.67
- 1013 Surface Sample WB09-58  
Loc N 29° 54.943 W 87° 39.364  
Temp 27.56 Sal 31.95



WBTF SEPT

September 25<sup>th</sup>, 2011

1143 Surface Sample WBO9-59  
 Loc N28°50.520 W87°25.744  
 Temp 28.21 Sal 33.86

PCB11

1306 Cast 1 CTD Temp 28.42 Sal 33.80  
 1545 Cast 2 CTD Temp 28.58 Sal 33.86

	Cast	Bottle	Area	Depth
WBO9-60	1	11/16	TOP	0.5m
-61	2	9/10	Mid	500m
-62	2	1/3	Bot	1150m
-62 dup	2	1/3	Bot	1150m
-63	1	9	CTOP	25m
-64	1	1/8	CMax	57m
-65	1	1/5	CBot	75m

1604 Surface Sample WBO9-1430  
 Loc N28°52.098 W87°17.792  
 Temp, 28.73 Sal 33.85

1724 Surface Sample WBO9-66  
 Loc N28°56.495 W87°17.312  
 Temp 28.80 Sal 34.07

24

WBTF SEPT

September 25<sup>th</sup>, 2011

1945 Surface Sample WBO9-67  
 Loc N29°04.875 W87°16.179  
 Temp 28.46 Sal 33.81

PCB06

Cast 1 up Temp Sal  
 Cast 2 up Temp Sal

Cast	Bottle	Area	Depth
WBO9- <del>67</del>	68		TOP
<del>68</del>	69		MID
<del>69</del>	70		BOT
<del>70</del>	71		CTOP
<del>71</del>	72		CMax
<del>72</del>	73		CBot

2127 Surface Sample WBO9-74  
 Loc N29°09.758 W87°14.832  
 Temp 28.63 Sal 34.38

CTD Broken PCB06 Cast delayed?

2329 Surface Sample WBO9-75  
 Loc N29°08.207 W87°15.066  
 Temp 28.28 Sal 34.30

25



WBII SEPT

Sept 26<sup>th</sup> 2011

0203 Surface Sample WBOA-76  
Loc N 28° 11.374 W 87° 30.177  
Temp 26.89 Sal 33.60

0209 NEW sonde file SEPT 26

0330 DSH 07  
CTD not fixed yet

0640 Surface Sample WBOA-77  
Loc N 29° 13.624 W 87° 29.330  
Temp 26.17 Sal 32.51

1016 Surface Sample WBOA-78  
Loc N 29° 06.530 W 87° 28.568  
Temp 24.95 Sal 33.30

Transiting to PCB800

1140 Surface Sample WBOA-79  
Loc N 29° 03.180 W 87° 26.063  
Temp 27.92 Sal 32.90

WBII SEPT

September 26<sup>th</sup>, 2011

1247 Surface Sample WBOA-80 & 80dup  
Loc N 29° 00.665 W 87° 21.564  
Temp 28.32 Sal 33.93

Drew is going to test the CTD,  
Cable might be spliced & reattached  
drying time for that is 12 hours  
In the mean time we are going  
to PCB800, 700, 5, 4, & 3  
to do coring, nets, etc. If  
CTD fixed we'll go back &  
collect samples

1356 Surface Sample WBOA-81  
Loc N 28° 59.200 W 87° 09.670  
Temp 28.52 Sal 33.43

1638 Surface Samples WBOA-82 & WBOA-15.50  
Loc N 29° 03.545 W 86° 58.509  
Temp 29.02 Sal 34.05

1747 Surface Sample WBOA-83  
Loc N 29° 11.731 W 86° 54.414  
Temp 29.03 Sal 33.97

September 26<sup>th</sup>, 2011

1838 Surface Sample WB09-84  
 Loc N 29° 17.831 W 86° 51.352  
 Temp 28.91 Sal 33.66

2161 Surface Sample WB09-85  
 Loc N 29° 27.705 W 86° 44.488  
 Temp 28.44 Sal 32.32

0206

September 27<sup>th</sup>, 2011

0206 Surface Sample WB09-86  
 Loc N 29° 29.762 W 86° 42.069  
 Temp 24.41 Sal 32.63

0402 Surface Sample WB09-87  
 Loc N 29° 31.202 W 86° 32.012  
 Temp 25.82 Sal 32.48

0537 Surface Sample WB09-88  
 Loc N 29° 39.642 W 86° 44.571  
 Temp 27.92 Sal 34.00

September 27<sup>th</sup>, 2011

0813 Surface Sample WB09-89  
 Loc N 29° 48.030 W 86° 13.364  
 Temp 26.41 Sal 33.32

0958 Surface Samples WB09-90 & 90dup, <sup>16130</sup>  
 Loc N 29° 50.935 W 86° 06.046  
 Temp 26.79 Sal 32.91

1132 Surface Samples WB09-91  
 Loc N 29° 59.548 W 85° 54.594  
 Temp 27.07 Sal 32.99

1255 Surface Sample WB09-92  
 Loc N 30° 02.166 W 85° 50.298  
 Temp 27.33 Sal 32.91

1424 Surface Sample WB09-93  
 Loc N 29° 50.919 W 85° 53.267  
 Temp 28.09 Sal 32.96

1533 Surface Sample WB09-94  
 Loc N 29° 40.930 W 85° 55.809  
 Temp 28.13 Sal 32.94



WBII Sept

September 27<sup>th</sup>, 2011

1651 Surface Sample WB09-95  
Loc N 29° 29.633 W 85° 58.821  
Temp 28.00 Sal 32.94

1845 Surface Sample WB09-96  
Loc N 29° 12.899 W 86° 03.177  
Temp 27.93 Sal 33.41

2104 Surface Sample WB09-97  
Loc N 29° 06.243 W 85° 54.855  
Temp 28.39 Sal 33.55

2205 Surface Sample WB09-98 (dup)  
Loc N 29° 03.669 W 85° 45.815  
Temp 28.01 Sal 33.48

2213 Surface Sample WB09-99 MG  
Loc N 29° 01.290' W 85° 55.100'  
Temp 28.00 Sal 33.46

2355 Surface Sample WB09-100  
Loc 29° 00.711 W 85° 33.158  
Temp 27° 82 Sal 33.75

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WBII  
Sept

September 28<sup>th</sup>, 2011

~~0304~~ <sup>0100</sup> Surface Sample WB09-101 MG  
Loc N 28° 55.767 W 85° 24.304'  
Temp 26.87 Sal 33.92

0202 Surface Sample WB09-102 MG  
Loc N 28° 51.406 W 85° 15.153  
Temp 27.68 Sal 33.83

0330 Surface Sample WB09-103  
Loc N 28° 44.883 W 85° 02.741  
Temp 26.89 Sal 33.73

0401 surface sample WB09-104 TB  
Loc N 28° 42.622' W 84° 58.708  
Temp 26.48°C Sal 33.62

0503 surface sample WB09-105 TB  
Loc N 28° 37.851 W 84° 51.227  
Temp 26.28°C Sal 33.76

0632 Surface Sample WB09-106  
Loc N 28° 31.665 W 84° 39.278  
Temp 25.17 Sal 34.04

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WBI  
Sept

September 28<sup>th</sup>, 2011

- 0712 Surface Sample WB09-107  
Loc N 28° 29.198 W 84° 34.123  
Temp 26.23 Sal 34.11
- 0806 Surface Sample WB09-108 (12:30)  
Loc N 28° 25.519 W 84° 26.455  
Temp 27.72 Sal 34.29
- 0901 surface sample WB09-109  
Loc N 28° 21.906 W 84° 18.976  
Temp 27.85 Sal 34.72
- 0957 surface Sample WB09-110  
Loc N 28° 17.817 W 84° 10.978  
Temp 28.13 Sal 35.06
- 1057 Surface Sample WB09-111  
Loc N 28° 13.429 W 84° 02.522  
Temp 28.21 Sal 35.35
- 1201 Surface Samples WB09-112 & dup  
Loc N 28° 08.315 W 83° 52.765  
Temp 28.31 Sal 35.68

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WBI  
Sept

September 28<sup>th</sup>, 2011

- 1311 Surface Sample WB09-113  
Loc 28° 03.540 W 83° 43.454  
Temp 28.97 Sal 35.71
- 1358 Surface Sample WB09-114  
Loc N 28° 00.157 W 83° 36.955  
Temp 29.12 Sal 35.91
- 1511 Surface Sample WB09-115  
Loc 27° 54.790 W 83° 26.611  
Temp 29.26 Sal 36.25
- 1601 Surface Sample WB09-116  
Loc N 27° 51.190 W 83° 19.477  
Temp 28.83 Sal 36.35
- 1656 Surface Sample WB09-117  
Loc N 27° 47.186 W 83° 11.967  
Temp 29.27 Sal 36.26
- 1824 Surface Sample WB09-118  
Loc N 27° 40.548 W 82° 59.924  
Temp 27.90 Sal 36.33

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WBI  
Sept

September 26<sup>th</sup>, 2011

- 2904 Surface Sample WBO9-119  
Loc N27°37.780 W82°54.161  
Temp 28.56 Sal 36.02
- 2003 Surface Sample WBO9-126  
Loc N27°36.623 W82°46.141  
Temp 26.82 Sal 34.56
- 2008 Stopped logging & packed