

# Update on NOC contribution

By

Maureen Pagnani

# Background

## National Oceanography Centre:

originally Southampton Oceanography Centre,  
then National Oceanography centre, Southampton.  
Now includes sites in Southampton and Liverpool  
(previously Proudman Oceanographic Laboratory).

# Background

I work for the British Oceanographic Data Centre.

I am based in Southampton, but BODC's larger office is in Liverpool

# Deep Ocean Moorings

- ANIMATE 2001-2004 CIS, ESTOC, PAP
- MERSEA 2004-2008 CIS, ESTOC, PAP
- EuroSITES 2008-2011 CIS, DYFAMED, E2-M3A, ESTOC, PAP, Poseidon E1-M3A, Station M, TENATSO, W1-M3A
- FixO<sup>3</sup> Fixed Point Open Ocean  
Observatory Network

September 2013 for 4 years

# EuroSITES



OceanSITES DMT meeting Seoul  
29-30 May 2013



# FixO<sub>3</sub>

CIS, DYFAMED, E2-M3A, ESTOC, PAP, Poseidon E1-M3A, Station M,  
TENATSO, W1-M3A

Plus

ANTARES, Biscay AGL, DELOS A, DELOS B, Fram Strait, Filchner  
Ronne, LION, MoMAR, NEMO-SN1, NOG, OBSEA, SOG, SOR

| Mooring Deployment     | Temperature |          | ADCP | Chlorophyll |              | Sediment Trap | Current meter |              | Nitrate   |              | Carbon dioxide |              | Turbidity |              | PAR / Irradiance |              | Oxygen    |              | pH        |              | Meteorological package |              |           |
|------------------------|-------------|----------|------|-------------|--------------|---------------|---------------|--------------|-----------|--------------|----------------|--------------|-----------|--------------|------------------|--------------|-----------|--------------|-----------|--------------|------------------------|--------------|-----------|
|                        | Salinity    | Pressure |      | Real-time   | Delayed-mode |               | Real-time     | Delayed-mode | Real-time | Delayed-mode | Real-time      | Delayed-mode | Real-time | Delayed-mode | Real-time        | Delayed-mode | Real-time | Delayed-mode | Real-time | Delayed-mode | Real-time              | Delayed-mode | Real-time |
| ANTARES 200509 -200612 |             | 18       |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |           |
| ANTARES 200701         |             | 18       |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |           |
| ANTARES 200801         |             | 18       |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |           |
| ANTARES 200901         |             | 18       |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |           |
| ANTARES 201001         |             | 18       |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |           |
| ANTARES 2010           | 3           |          |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |           |
| ANTARES 2011           | 3           |          |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |           |

|                                |   |     |     |    |      |    |   |     |    |      |    |       |    |     |  |  |   |     |  |  |  |  |  |
|--------------------------------|---|-----|-----|----|------|----|---|-----|----|------|----|-------|----|-----|--|--|---|-----|--|--|--|--|--|
| CIS200208 Aug 2002 - Jul 2003  | 1 | 18  | 14  | NT | Lost | UD |   | 17  | NT | Lost | NT | Lost  |    |     |  |  |   |     |  |  |  |  |  |
| CIS200308 Aug 2003 - May 2004  | 1 | 18  | 14  | NT | SF   | UD |   | 17  | NT | 17   | NT | 17    |    |     |  |  |   |     |  |  |  |  |  |
| CIS200405 May 2004 - Sept 2004 | 1 | 18  | 14  | ND | ND   | UD |   | 13  | ND | ND   | NT | 13/SF |    |     |  |  |   |     |  |  |  |  |  |
| CIS200409 Sep 2004 - Sep 2005  | 1 | 18  | 14  | NT | 17   | 17 |   | 14  | NT | 17   | SF | SF    |    |     |  |  |   |     |  |  |  |  |  |
| CIS200509 Sep 2005 - Aug2006   | 1 | 18  | 14  | CF | 17   | ND |   | 14  | CF | 11   | CF | SF    | CF | 17  |  |  |   |     |  |  |  |  |  |
| CIS200608 Sep 2006 - Jul 2007  | 1 | 16  | 11  | 2  | 16   | ND |   | 11  | SF | SF   | CF | UD    | 2  | 16  |  |  |   |     |  |  |  |  |  |
| CIS200707 Jul 2007 - Sep 2008  | 3 | 16  | 11  | CF | 11   | ND |   | 11  | CF | 12   | SF | SF    | CF | 11  |  |  |   |     |  |  |  |  |  |
| CIS200809 Sep 2008 - May 2009  | 3 | 16  | 11  | 1  | 11   | ND |   | 11  | ND | ND   | SF | SF    | 1  | 11  |  |  | 1 | 11  |  |  |  |  |  |
| CIS200905 May 2009 - July 2010 | 3 | 11  | 11  | 3  | 11   | ND |   | 11  | NT | 11   | SF | SF    | 3  | 11  |  |  | 3 | 11  |  |  |  |  |  |
| CIS201007 Jul 2010 to Aug 2011 | 3 | NYR | NYR | 3  | NYR  | ND |   | NYR | NT | NYR  | NT | NYR   | 3  | NYR |  |  | 3 | NYR |  |  |  |  |  |
| CIS201108 Aug 2011 to Jun 2012 | 3 |     |     |    |      |    |   |     |    |      |    |       |    |     |  |  | 3 |     |  |  |  |  |  |
| CIS201206 Jun 2012 to current  | 3 |     |     |    |      |    | 3 |     |    |      |    |       |    |     |  |  | 3 |     |  |  |  |  |  |

|                                     |    |     |     |    |    |     |  |     |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------|----|-----|-----|----|----|-----|--|-----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|
| CV1 July 08 2006 – February 19 2008 | NT | 16  | 11  | NT | UD | 11  |  | 11  | ND | ND | ND | ND |  |  |  |  |  |  |  |  |  |  |  |
| Nutrient Analysis and CTD 2008-2009 |    | 14  |     |    |    |     |  |     |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |
| CV2 March 2008 to current           | NT | NYR | NYR | ND | ND | NYR |  | NYR | ND | ND | ND | ND |  |  |  |  |  |  |  |  |  |  |  |

|                |  |    |  |  |    |  |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |    |
|----------------|--|----|--|--|----|--|--|--|--|--|--|----|--|--|--|--|--|----|--|--|--|--|----|
| DYFAMED 1995   |  | 18 |  |  | 18 |  |  |  |  |  |  | 18 |  |  |  |  |  | 18 |  |  |  |  | 18 |
| DYFAMED 1996   |  | 18 |  |  | 18 |  |  |  |  |  |  | 18 |  |  |  |  |  | 18 |  |  |  |  | 18 |
| DYFAMED 1997   |  | 18 |  |  | 18 |  |  |  |  |  |  | 18 |  |  |  |  |  | 18 |  |  |  |  | 18 |
| DYFAMED 1998   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 1999   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2000   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2001   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2002   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2003   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2004   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2005   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2006   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 2007   |  | 18 |  |  | 18 |  |  |  |  |  |  |    |  |  |  |  |  | 18 |  |  |  |  |    |
| DYFAMED 200908 |  | 16 |  |  |    |  |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |    |



| Mooring Deployment | Temperature<br>Salinity Pressure |                  | ADCP | Chlorophyll   |                  | Sediment<br>Trap | Current meter |                  | Nitrate       |                  | Carbon dioxide |                  | Turbidity     |                  | PAR /<br>Irradiance |                  | Oxygen        |                  | pH            |                  | Meteorological<br>package |                  |
|--------------------|----------------------------------|------------------|------|---------------|------------------|------------------|---------------|------------------|---------------|------------------|----------------|------------------|---------------|------------------|---------------------|------------------|---------------|------------------|---------------|------------------|---------------------------|------------------|
|                    | Real-<br>time                    | Delayed-<br>mode |      | Real-<br>time | Delayed-<br>mode |                  | Real-<br>time | Delayed-<br>mode | Real-<br>time | Delayed-<br>mode | Real-<br>time  | Delayed-<br>mode | Real-<br>time | Delayed-<br>mode | Real-<br>time       | Delayed-<br>mode | Real-<br>time | Delayed-<br>mode | Real-<br>time | Delayed-<br>mode | Real-<br>time             | Delayed-<br>mode |
| E1-M3A 2007        | 3                                |                  |      | 3             |                  |                  |               |                  |               |                  |                |                  | 3             |                  |                     |                  | 3             |                  |               |                  | 3                         |                  |
| E1-M3A 2008        | 3                                |                  |      | 3             |                  |                  |               |                  |               |                  |                |                  | 3             |                  |                     |                  | 3             |                  |               |                  | 3                         |                  |
| E1-M3A 2009        | 3                                |                  |      | 3             |                  |                  |               |                  |               |                  |                |                  | 3             |                  |                     |                  | 3             |                  |               |                  | 3                         |                  |
| E1-M3A 2010        | 3                                |                  |      | 3             |                  |                  |               |                  |               |                  |                |                  |               |                  |                     |                  |               |                  |               |                  | 3                         |                  |
| E1-M3A 2011        | 3                                |                  |      | 3             |                  |                  |               |                  |               |                  |                |                  |               |                  |                     |                  |               |                  |               |                  | 3                         |                  |

|                                    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
|------------------------------------|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| E2-M3A 200209 Sep 2002 - May 2003  |    | 18 |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| E2-M3A 200402 Feb 2004 - June 2004 |    | 18 |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 14 |
| E2-M3A 200611 Nov 2006 - Oct 2008  |    | 18 |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| E2-M3A 200810 Oct 2008 - Aug 2009  |    | 18 |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| E2-M3A 200910 to current           | CF |    | CF |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |

|                                   |    |    |    |    |    |      |  |    |      |      |    |    |    |    |    |    |    |    |  |   |  |  |
|-----------------------------------|----|----|----|----|----|------|--|----|------|------|----|----|----|----|----|----|----|----|--|---|--|--|
| ESTOC 200204 Apr 2002 - Dec 2002  | 2  | 18 | 14 | NT | 13 | Lost |  | ND | Lost | Lost | ND | ND |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200304 Apr 2003 - Nov 2003  | 2  | 18 | 13 | NT | 17 | 17   |  | 17 | NT   | UD   | NT | SF |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200311 Nov 2003 - Apr 2004  | 2  | 18 | 11 | NT | 17 | 17   |  | 11 | ND   | ND   | 2  | 17 |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200404 Apr 2004 - Dec 2004  | 2  | 11 | 11 | NT | UD | ND   |  | ND | NT   | UD   | SF | SF |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200412 Dec 2004 - Mar-2005  | 2  | 16 | 11 | NT | 17 |      |  |    | NT   | UD   | SF | SF |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200503 Mar-2005 - Nov 2005  | 2  | 13 | ND | NT | 17 |      |  |    | 11   | 11   | ND | SF |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200511 Nov 2005 - Mar 2006  | NT | 13 | 13 | ND | ND |      |  |    | NT   | 14   |    | ND |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200603 Mar 2006 - Nov 2006  | 2  | 13 | 13 | NT | SF |      |  |    | NT   | 14   |    |    |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200611 Nov 2006 - Mar 2007  | 2  | 13 | 13 | NT | 17 |      |  |    | NT   | 11   |    |    |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200704 Apr 2007 - May 2007  | 2  | 13 | 13 | NT | SF |      |  |    | NT   | 11   |    |    |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200711 Nov 2007 - Mar 2008  | 3  | 13 | 13 | ND | ND |      |  |    | NT   | 11   |    |    |    |    |    |    |    |    |  |   |  |  |
| ESTOC 200812 Dec 2008 to Jan 2010 | UD | UD | ND | UD | UD |      |  | UD | ND   | ND   |    |    | UD | UD | UD | UD | UD | UD |  |   |  |  |
| ESTOC 201004 to 201007            | 1  |    |    | 1  |    |      |  | 1  |      |      |    |    | 1  |    |    |    |    |    |  | 1 |  |  |

|                    |  |     |  |  |        |  |  |  |  |     |  |  |  |  |  |  |  |  |  |   |        |  |
|--------------------|--|-----|--|--|--------|--|--|--|--|-----|--|--|--|--|--|--|--|--|--|---|--------|--|
| ESTOC Cruises 1994 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  | S |        |  |
| ESTOC Cruises 1995 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 1996 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 1997 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 1998 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 1999 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 2000 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 2001 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 2003 |  | CTD |  |  | S      |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | S      |  |
| ESTOC Cruises 2008 |  | CTD |  |  | CTDu/S |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | CTDu/S |  |
| ESTOC Cruises 2009 |  | CTD |  |  | CTDu/S |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | CTDu/S |  |
| ESTOC Cruises 2010 |  | CTD |  |  | CTDu/S |  |  |  |  | S * |  |  |  |  |  |  |  |  |  |   | CTDu/S |  |
| ESTOC Cruises 2011 |  | CTD |  |  |        |  |  |  |  |     |  |  |  |  |  |  |  |  |  |   |        |  |

| Mooring Deployment                  | Temperature |              | ADCP | Chlorophyll |              | Sediment Trap | Current meter |              | Nitrate   |              | Carbon dioxide |              | Turbidity |              | PAR / Irradiance |              | Oxygen    |              | pH        |              | Meteorological package |              |
|-------------------------------------|-------------|--------------|------|-------------|--------------|---------------|---------------|--------------|-----------|--------------|----------------|--------------|-----------|--------------|------------------|--------------|-----------|--------------|-----------|--------------|------------------------|--------------|
|                                     | Real-time   | Delayed-mode |      | Real-time   | Delayed-mode |               | Real-time     | Delayed-mode | Real-time | Delayed-mode | Real-time      | Delayed-mode | Real-time | Delayed-mode | Real-time        | Delayed-mode | Real-time | Delayed-mode | Real-time | Delayed-mode | Real-time              | Delayed-mode |
| PAP1 Oct 2002 - Jun 2003            | 2           | 18           | 13   | NT          | UD           | 17            |               | 13           | NT        | 17           | NT             | SF           |           |              |                  |              |           |              |           |              |                        |              |
| PAP2 Jul 2003 - Nov 2003            | CF          | 18           | 13   | NT          | 18           | 17            |               | 17           | NT        | 17           | NT             | 17           |           |              |                  |              |           |              |           |              |                        |              |
| PAP3 Nov 2003 - Jun 2004            | 2           | 18           | 13   | NT          | 18           | 17            |               | 17           | NT        | 17           | NT             | 17           |           |              |                  |              |           |              |           |              |                        |              |
| PAP4 Jun 2004 - Jul 2005            | 3           | 18           | 12   | NT          | 18           | 17            |               | 13           | NT        | UD           | NT             | 17           |           |              |                  |              |           |              |           |              |                        |              |
| PAP5 Jul 2005 - Jun 2006            | 1           | Lost         | Lost | NT          | Lost         | 17            |               | 11           | NT        | Lost         | NT             | Lost         |           |              |                  |              |           |              |           |              |                        |              |
| PAP6 Jul 2006 - Jul 2007            | ND          | ND           | ND   | ND          | ND           | 17            |               | 12           | ND        | ND           | ND             | ND           |           |              |                  |              |           |              |           |              |                        |              |
| PAP7 Jun 2007 - Aug 2007            | 1           | Lost         | ND   | 1           | 17           | 17            |               | 17           | SF        | SF           | NT             | 13           |           |              |                  |              |           |              |           |              |                        |              |
| PAP 200905 May 2009 - Jul 2009 PAP8 | 1           | 11           |      | 1           | 11           | 18            |               |              | 1         | 11           | SF             | SF           |           |              |                  |              | 11        |              |           |              |                        |              |
| PAP9                                | 3           |              |      |             |              | 11            |               | 11           |           |              |                |              |           |              |                  |              |           |              |           |              |                        |              |
| PAP 201005 May 2010 - Sep 2010      | 3           | 12           |      | 3           | 18           | 11            |               |              |           |              | 3              |              |           |              |                  |              | 3         |              |           |              |                        | 1            |
| PAP 201009 Sep 2009 - Jul 2011      | 3           |              |      | 1           | 18           | 11            |               | 17           | 1         |              | 3              |              |           | 1            |                  |              | 1         |              |           |              |                        | 1            |
| PAP 201109 Sep 2011 - May 2012      | 3           |              |      |             | 18           | 11            |               | 17           |           |              |                |              |           |              |                  |              |           |              |           |              |                        | 1            |
| PAP 201205 May 2012 to Apr 2013     | 3           | 12           |      | 3           | Lost         | 12            |               | 12           |           | Lost         | 3              | Lost         |           | 1            |                  |              | 1         | Lost         |           |              |                        | 1            |
| PAP 201301 Jan 2013 to Apr 2013     |             | 12           |      |             |              |               |               |              |           |              |                |              |           |              |                  |              |           |              |           |              |                        | 1            |
| PAP 201304 Apr 2013 to current      | 1           |              |      | 1           |              | NYR           |               | 1            |           | 1            |                |              |           | 1            |                  |              | 1         |              | SF        |              |                        | 1            |

|                        |    |     |  |  |  |  |  |    |     |  |  |  |  |  |  |  |    |     |  |  |  |  |
|------------------------|----|-----|--|--|--|--|--|----|-----|--|--|--|--|--|--|--|----|-----|--|--|--|--|
| Station M 1948 to 2009 | NT | 18  |  |  |  |  |  |    |     |  |  |  |  |  |  |  |    |     |  |  |  |  |
| Station M 1948 to 2009 | NT | 18  |  |  |  |  |  |    |     |  |  |  |  |  |  |  |    | 18  |  |  |  |  |
| Station M 2010         | NT | NYR |  |  |  |  |  | NT | NYR |  |  |  |  |  |  |  | NT | NYR |  |  |  |  |

|                             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|-----------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| PYLOS 201003 to end of 2010 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| PYLOS 201101 to current     | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |

|             |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| W1-M3A 2004 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| W1-M3A 2005 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| W1-M3A 2006 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| W1-M3A 2007 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| W1-M3A 2008 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| W1-M3A 2009 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| W1-M3A 2010 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |

#### Status Indicators

1 Real-time data received

2 Quality controlled real-time data available on ftp

3 Real-time quality controlled data available on ftp in OceanSITES

SF Sensor Failed

ND Not Deployed

NYR Not yet recovered

CF Communications Failure

UD Unusable data

NT Not telemetered

11 Recovered

12 Raw Delivered to Data Manager

13 Raw data available on ftp

14 Quality control applied by responsible scientist, data delivered to Data Manager and/or on ftp

15 Post-recovery quality controlled data available on ftp in controlled format

16 Post-recovery quality controlled data available on ftp in OceanSITES format

17 Delayed-mode quality controlled data available on ftp in controlled format

18 Delayed-mode quality controlled data available on ftp in OceanSITES format

Note: Where a delayed-mode dataset has been processed to level 15 or more, only that data set is presented on the ftp site,

CTD Calibrated data collected on CTD on cruise on ftp in OceanSITES format

CTDu Not yet calibrated data collected on CTD on cruise on ftp in OceanSITES format

S Samples taken at mooring location \* indicates Phosphate and Silicate also

## OceanSITES DMT meeting Seoul 29-30 May 2013

# Thank you

OceanSITES DMT meeting Seoul  
29-30 May 2013