<table>
<thead>
<tr>
<th>Eventlabel</th>
<th>CAR2013_sel_a_m_12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campaign</td>
<td>King George Island 2013</td>
</tr>
<tr>
<td>Species</td>
<td>Southern elephant seal (<em>Mirounga leonina</em>)</td>
</tr>
<tr>
<td>Age</td>
<td>Adult; 10 years</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
</tr>
<tr>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Length (total)</td>
<td>4660 mm</td>
</tr>
<tr>
<td>Length (standard)</td>
<td>4060 mm</td>
</tr>
<tr>
<td>Length (curvatur)</td>
<td>4570 mm</td>
</tr>
<tr>
<td>Girth (pectoral)</td>
<td>3340 mm</td>
</tr>
<tr>
<td>Weight [estimated]</td>
<td>&gt;3000</td>
</tr>
<tr>
<td>Weight [calculated]</td>
<td></td>
</tr>
<tr>
<td>Weight [measured]</td>
<td></td>
</tr>
<tr>
<td>ARGOS PTT ID</td>
<td>130071</td>
</tr>
<tr>
<td>Transmitter type</td>
<td>SMRU/Series 9000 SRDL/CTD</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>SMRU</td>
</tr>
<tr>
<td>PTT Serial Number</td>
<td>12797</td>
</tr>
<tr>
<td>PTT Software</td>
<td>Software specification for CTD_GEN_13A deployment (Standard CTD) Valid for dates in years 2013 to 2016</td>
</tr>
<tr>
<td>Setting protocol</td>
<td>Software specification for CTD_GEN_13A deployment (Standard CTD) Valid for dates in years 2013 to 2016</td>
</tr>
<tr>
<td></td>
<td>Transmitting via ARGOS Argos page transmission sequences:</td>
</tr>
<tr>
<td></td>
<td>Until day 1464: 0 0 1 0 0 2 3 0 0 4 5 An additional diagnostics page (6) is sent every 60 transmissions</td>
</tr>
<tr>
<td></td>
<td>Argos airtest for first 7 hours: Transmission interval is chosen randomly between 48 and 72 seconds</td>
</tr>
<tr>
<td></td>
<td>Satellite availability (UTC): 00: -- on -- 01: -- on -- 02: -- on -- 03: -- on -- 04: -- on -- 05: -- on -- 06: -- on --</td>
</tr>
</tbody>
</table>
Transmission targets:

56000 transmissions after 365 days

Normal interval between Argos transmissions: 40 secs
In Haulouts: ON (one tx every 1 min 20 secs) for first 5 hours
then cycling OFF for 3 hours, ON for 2 hours

Check sensors every 4 secs
When near surface (shallower than 10m), check wet/dry every 1 sec
Consider wet/dry sensor failed if wet for 7 days or dry for 99 days
Dives start when wet and below 6m for 8 secs
and end when dry, or above 6m
Do not separate 'Deep' dives
A cruise begins if there has been no dive for 9 mins
A haulout begins when dry for 10 mins
and ends when wet for 40 secs

Dive shape (normal dives):
4 points per dive using broken-stick algorithm

Dive shape (deep dives):
none

CTD profiles: max 2000 dbar up to 4 dbar in 2 dbar bins.
Note: these values should now be given in cbar.
They have been auto-converted from dbar because CTD_HI_RES_PRESSURE is not specified

Temperature: Collected, Stored. Valid range: -2.5 to 30.2 degC
Conductivity: Collected, Not stored.
Salinity: Calculated, Stored. Valid range: 28.9 to 37.1
Fluorescence: Not collected.
Oxygen: Not collected.
Light level: Not collected.

Send the deepest upcast in each 6-hour period.
An upcast is collected if the depth exceeds:
- 1000m in hour 1
- 400m in hour 2
- 200m in hour 3
- 100m in hour 4
- 50m in hour 5
- 30m in hour 6
In addition, a replacement upcast is collected if the depth exceeds the depth of the current upcast by 20%.

During profile, sample CTD sensor every 2 seconds when deeper than 500 m, every 1 seconds when shallower than 500 m.
Each profile contains 16 cut points consisting of 8 fixed points, maximum depth, minimum depth, 6 broken-stick points.
A set of fixed point is selected according to depth:
- 10, 12, 14, 16, 18, 20, 24, 30
- 10, 14, 20, 26, 30, 36, 40, 50
- 10, 20, 30, 40, 50, 60, 70, 75
- 10, 20, 30, 40, 50, 60, 75, 100
- 10, 20, 30, 50, 75, 100, 125, 150
- 10, 20, 30, 50, 75, 100, 150, 200
- 10, 20, 30, 50, 100, 150, 200, 300
- 10, 20, 50, 100, 150, 200, 300, 400
- 10, 20, 50, 100, 200, 300, 400, 500
- 10, 20, 50, 100, 200, 300, 500, 700
- 20, 50, 100, 200, 300, 500, 700, 1000
- 50, 100, 200, 300, 500, 700, 1000, 1500

No GPS data

TRANSMISSION BUFFERS (in RAM):
Dives in groups of 3 (10.4167 days @ 10mins/dive):
500  = 2000 bytes
No 'deep' dives
Haulouts: 50  = 200 bytes
6-hour Summaries in groups of 3 (7.5 days): 10  = 40 bytes
No Timelines
Cruises: 50  = 200 bytes
No Diving periods
No Spot depths
No Emergence records
No Dive duration histograms
No Max depth histograms
No Depth & Temperature histograms
CTD casts (7.5 days): 30  = 120 bytes
No GPS fixes
No Spot CTD's
No Vemco VMT's

TOTAL 2560 bytes (of about 21000 available)
MAIN BUFFERS (in 8 or 24 Mb Flash):
Dive in groups of 3 (10.4167 days @ 10mins/dive):
500 x 104 bytes = 52000 bytes
No 'deep' dives
Haulout: 50 x 32 bytes = 1600 bytes
6-hour summaries in groups of 3 (7.5 days): 10 x 88 bytes = 880 bytes
No Depth & Temperature histograms
No timelines
Cruise: 50 x 32 bytes = 1600 bytes
No diving periods
No spot depths
No emergence records
No Max depth histograms
CTD casts (7.5 days): 30 x 160 bytes = 4800 bytes
No GPS fixes
No spot CTD's
No Vemco VMT's
TOTAL 59 kb (from 8192 kb available)

PAGE CONTENTS:

PAGE 0 (Argos, 247 bits):
PTT NUMBER OVERHEAD (28-bit code)
----------[8 bits: 0 - 7]

PAGE NUMBER
----------[3 bits: 8 - 10]

DIAGNOSTICS in format 0:

Max depth ever: Lookup with 128 bins:
<2.5, 2.5-5, 5-7.5, 7.5-10, 10-12.5, 12.5-15, 15-
17.5, 17.5-20, 20-22.5, 22.5-25, 25-27.5, 27.5-30, 30-
32.5, 32.5-35, 35-40, 40-45, 45-50, 50-55, 55-60, 60-65, 65-
70, 70-75, 75-80, 80-85, 85-90, 90-95, 95-100, 100-105, 105-
110, 110-115, 115-120, 120-125, 125-130, 130-135, 135-
140, 140-145, 145-150, 150-155, 155-160, 160-165, 165-
170, 170-175, 175-180, 180-185, 185-190, 190-195, 195-
200, 200-205, 205-210, 210-215, 215-220, 220-225, 225-
230, 230-240, 240-250, 250-260, 260-270, 270-280, 280-
290, 290-300, 300-310, 310-320, 320-330, 330-340, 340-
350, 350-360, 360-370, 370-380, 380-390, 390-400, 400-
425, 425-450, 450-475, 475-500, 500-525, 525-550, 550-
575, 575-600, 600-625, 625-650, 650-675, 675-700, 700-
725, 725-750, 750-775, 775-800, 800-825, 825-850, 850-
875, 875-900, 900-925, 925-950, 950-975, 975-1000, 1000-
1025, 1025-1050, 1050-1075, 1075-1100, 1100-1125, 1125-
1150, 1150-1175, 1175-1200, 1200-1225, 1225-1250, 1250-
1275, 1275-1300, 1300-1325, 1325-1350, 1350-1375, 1375-
1400, 1400-1425, 1425-1450, 1450-1475, 1475-1500, 1500-
1550, 1550-1600, 1600-1650, 1650-1700, 1700-1750, 1750-
1800, 1800-1850, 1850-1900, 1900-1950, 1950-2000, 2000-
DIVE group in format 0:
Normal dives transmitted in groups of 3
Time of start of last dive: max 5 days 12 hours @ 30 secs = 15840
(tx as raw 14 bits in units of 1
(range: 0 to 16383 ) OK
(recommended sell-by 5 days 11 hours,
actual: 5 days is OK)
Number of records: raw 2 bits in units of 1
(range: 0 to 3 )
Reason for end: -- not transmitted --
Group number: -- not transmitted --
Max depth: -- not transmitted --
Dive duration: odlog 2/5 in units of 16 s
(range: 0 to 7608 s)
Mean speed: -- not transmitted --
Profile data (4 depths/times, 0 speeds):
Depth profile: Lookup with 128 bins:
<2.5,2.5-5,5-7.5,7.5-10,10-12.5,12.5-15,15-
17.5,17.5-20,20-22.5,22.5-25,25-27.5,27.5-30,
30-32.5,32.5-35,35-40,40-45,45-50,50-55,55-60,60-65,65-
70,70-75,75-80,80-85,85-90,90-95,95-100,100-105,105-
110,110-115,115-120,120-125,125-130,130-135,135-
140,140-145,145-150,150-155,155-160,160-165,165-
170,170-175,175-180,180-185,185-190,190-195,195-
200,200-205,205-210,210-215,215-220,220-225,225-
230,230-240,240-250,250-260,260-270,270-280,280-
290,290-300,300-310,310-320,320-330,330-340,340-
350,350-360,360-370,370-380,380-390,390-400,400-
425,425-450,450-475,475-500,500-525,525-550,550-
575,575-600,600-625,625-650,650-675,675-700,700-
725,725-750,750-775,775-800,800-825,825-850,850-
875,875-900,900-925,925-950,950-975,975-1000,1000-
1025,1025-1050,1050-1075,1075-1100,1100-1125,1125-
1150,1150-1175,1175-1200,1200-1225,1225-1250,1250-
1275,1275-1300,1300-1325,1325-1350,1350-1375,1375-
1400,1400-1425,1425-1450,1450-1475,1475-1500,1500-
1550,1550-1600,1600-1650,1650-1700,1700-1750,1750-
1800,1800-1850,1850-1900,1900-1950,1950-2000,2000-
2050,2050-2100,2100-2150, >2150 in units of 0.1 m
(range: 0 to 2150 m)
Profile times: raw 6 bits in units of 15.873 permille (range: 0 to 1000 permille)
Speed profile: -- not transmitted --
Residual: -- not transmitted --
Calculation time: -- not transmitted --
Surface duration: odlog 2/4 in units of 2.5 s (range: 0 to 588.75 s)
(cf. cruise starts after 9 mins (540 secs)
Dive area: raw 6 bits in units of 15.873 permille (range: 0 to 1000 permille)
---------[229 bits: 18 - 246]
Available bits used exactly
PAGE 1 (Argos, 247 bits):

PTT NUMBER OVERHEAD (28-bit code)
-----------[8 bits: 0 - 7]

PAGE NUMBER
-----------[3 bits: 8 - 10]

DIAGNOSTICS in format 1:

TX number: wraparound 11 bits in units of 32 (range: 0 to 65504)
-----------[11 bits: 11 - 21]

CRUISE group in format 0:
Number of records: raw 1 bits in units of 1 (range: 0 to 1)
Cruise number: wraparound 4 bits in units of 1 (range: 0 to 15)
Start time: -- not transmitted --
End time: max 5 days 12 hours @ 2 mins = 3960
tax as raw 12 bits in units of 1 (range: 0 to 4095) OK
(recommended sell-by 5 days 11 hours, actual: 5 days 4 hours is OK)
Duration: raw 9 bits in units of 120 s (range: 0 to 61320 s)
    cf. Max duration is 16 hours
    Speed: -- not transmitted --
    Reason for end: -- not transmitted --
-----------[26 bits: 22 - 47]

HAULOUT in format 0:
Number of records: raw 1 bits in units of 1 (range: 0 to 1)
Haulout number: wraparound 3 bits in units of 1 (range: 0 to 7)
Start time: -- not transmitted --
End time: max 5 days 12 hours @ 2 mins = 3960
tax as raw 12 bits in units of 1 (range: 0 to 4095) OK
(recommended sell-by 5 days 11 hours, actual: 5 days 4 hours is OK)
Duration: raw 9 bits in units of 120 s (range: 0 to 61320 s)
    cf. Max duration is 16 hours
    Reason for end: -- not transmitted --
    Contiguous: -- not transmitted --
-----------[25 bits: 48 - 72]

SUMMARY group in format 0:
Transmitted in groups of 3
Record could be in buffer for 7 days 12 hours
End time: max 7 days 12 hours @ 6 hours = 30
tax as raw 5 bits in units of 1 (range: 0 to 31) OK
(recommended sell-by 7 days 11 hours,
actual: 7 days is OK)

Number of records: raw 1 bits in units of 1 (range: 0 to 1)

Cruising time: -- not transmitted --

Haulout time: raw 6 bits in units of 15.873 permille (range: 0 to 1000 permille)

Dive time: raw 6 bits in units of 15.873 permille (range: 0 to 1000 permille)

Deep Dive time: -- not transmitted --

Normal dives:

Avg max dive depth: Lookup with 128 bins: <2.5,2.5-5,5-7.5,7.5-10,10-12.5,12.5-15,15-
17.5,17.5-20,20-22.5,22.5-25,25-27.5,27.5-30,30-
32.5,32.5-35,35-40,40-45,45-50,50-55,55-60,60-65,65-
70,70-75,75-80,80-85,85-90,90-95,95-100,100-105,105-
110,110-115,115-120,120-125,125-130,130-135,135-
140,140-145,145-150,150-155,155-160,160-165,165-
170,170-175,175-180,180-185,185-190,190-195,195-
200,200-205,205-210,210-215,215-220,220-225,225-
230,230-240,240-250,250-260,260-270,270-280,280-
290,290-300,300-310,310-320,320-330,330-340,340-
350,350-360,360-370,370-380,380-390,390-400,400-
425,425-450,450-475,475-500,500-525,525-550,550-
575,575-600,600-625,625-650,650-675,675-700,700-
725,725-750,750-775,775-800,800-825,825-850,850-
875,875-900,900-925,925-950,950-975,975-1000,1000-
1025,1025-1050,1050-1075,1075-1100,1100-1125,1125-
1150,1150-1175,1175-1200,1200-1225,1225-1250,1250-
1275,1275-1300,1300-1325,1325-1350,1350-1375,1375-
1400,1400-1425,1425-1450,1450-1475,1475-1500,1500-
1550,1550-1600,1600-1650,1650-1700,1700-1750,1750-
1800,1800-1850,1850-1900,1900-1950,1950-2000,2000-
2050,2050-2100,2100-2150, >2150 in units of 0.1 m (range: 0 to 2150 m)

SD max dive depth: odlog 2/4 in units of 5 m (range: 0 to 1177.5 m)

Max max dive depth: Lookup with 128 bins: <2.5,2.5-5,5-7.5,7.5-10,10-12.5,12.5-15,15-
17.5,17.5-20,20-22.5,22.5-25,25-27.5,27.5-30,30-
32.5,32.5-35,35-40,40-45,45-50,50-55,55-60,60-65,65-
70,70-75,75-80,80-85,85-90,90-95,95-100,100-105,105-
110,110-115,115-120,120-125,125-130,130-135,135-
140,140-145,145-150,150-155,155-160,160-165,165-
170,170-175,175-180,180-185,185-190,190-195,195-
200,200-205,205-210,210-215,215-220,220-225,225-
230,230-240,240-250,250-260,260-270,270-280,280-
290,290-300,300-310,310-320,320-330,330-340,340-
350,350-360,360-370,370-380,380-390,390-400,400-
425,425-450,450-475,475-500,500-525,525-550,550-
575,575-600,600-625,625-650,650-675,675-700,700-
725,725-750,750-775,775-800,800-825,825-850,850-
875,875-900,900-925,925-950,950-975,975-1000,1000-
1025,1025-1050,1050-1075,1075-1100,1100-1125,1125-
1150,1150-1175,1175-1200,1200-1225,1225-1250,1250-
1275,1275-1300,1300-1325,1325-1350,1350-1375,1375-
1400,1400-1425,1425-1450,1450-1475,1475-1500,1500-
1550,1550-1600,1600-1650,1650-1700,1700-1750,1750-
1800,1800-1850,1850-1900,1900-1950,1950-2000,2000-
2050,2050-2100,2100-2150, >2150 in units of 0.1 m (range: 0 to 2150 m)

Avg dive duration: odlog 2/5 in
units of 16 s (range: 0 to 7608 s) SD dive duration: odlog 1/4 in
units of 60 s (range: 0 to 2790 s) Max dive duration: odlog 2/5 in
units of 16 s (range: 0 to 7608 s) Avg surface duration: -- not
transmitted -- SD surface duration: -- not
transmitted -- Max surface duration: -- not
transmitted -- Avg speed in dive: -- not
transmitted -- Number of dives: odlog 1/4 in units of 2 (range: 0 to 93 )
  Deep dives:
    Avg max dive depth: -- not
transmitted -- SD max dive depth: -- not
transmitted -- Max max dive depth: -- not
transmitted -- Avg dive duration: -- not
transmitted -- SD dive duration: -- not
transmitted -- Max dive duration: -- not
transmitted -- Avg surface duration: -- not
transmitted -- SD surface duration: -- not
transmitted -- Max surface duration: -- not
transmitted -- Avg speed in dive: -- not
transmitted -- Number of dives: -- not transmitted
  --
    Avg SST: -- not transmitted --
    -----------------[174 bits: 73 - 246]

Available bits used exactly

=== End of page 1 ===

PAGE 2 (Argos, 247 bits):
  PTT NUMBER OVERHEAD (28-bit code)
  -----------------[8 bits: 0 - 7]

  PAGE NUMBER
  -----------------[3 bits: 8 - 10]

  CTD PROFILE in format 0:

    End time: max 7 days @ 10 mins= 1008
    tx as raw 10 bits in units of 1
    (range: 0 to 1023 ) OK
    (recommended sell-by 6 days 23 hours, actual: 6 days 18 hours is OK)
    CTD cast number: -- not transmitted --
    Note: these old-style dbar pressures are internally
Min pressure: -- not transmitted --
Max pressure: raw 10 bits in units of 2 dbar (range: 4 to 2050 dbar)
Min temperature: raw 15 bits in units of 0.001 (range: 2.5 to 35.267 = -2.5 to 30.267 °C in steps of 0.001 °C)
Max temperature: raw 15 bits in units of 0.001 (range: 2.5 to 35.267 = -2.5 to 30.267 °C in steps of 0.001 °C)
cf. Valid temperatures: -2.5 to 30.2 degC
Min salinity: raw 13 bits in units of 1 mPSU (range: 28900 to 37091 mPSU)
Max salinity: raw 13 bits in units of 1 mPSU (range: 28900 to 37091 mPSU)
cf. Valid salinity: 28.9 to 37.1
Number of samples: -- not transmitted --
8 profile points 0 to 7 (from total of 16 cut points):
  Temperature:
    Points 0 to 7 are at fixed pressure
    8 x Temperature: raw 10 bits in units of 0.977517 permille (range: 0 to 1000 permille)
    Temperature residual: -- not transmitted --
  Salinity:
    Points 0 to 7 are at fixed pressure
    8 x Salinity: raw 10 bits in units of 0.977517 permille (range: 0 to 1000 permille)
    Salinity residual: -- not transmitted --

Temperature bounds: -- not transmitted --
Conductivity bounds: -- not transmitted --
Salinity bounds: -- not transmitted --
Min fluoro: -- not transmitted --
Max fluoro: -- not transmitted --
Min DOxy: -- not transmitted --
Max DOxy: -- not transmitted --
Min Light: -- not transmitted --
Max Light: -- not transmitted --
----------[236 bits: 11 - 246]

Available bits used exactly

=== End of page 2 ===

PAGE 3 (Argos, 247 bits):

PTT NUMBER OVERHEAD (28-bit code)
----------[8 bits: 0 - 7]

PAGE NUMBER
----------[3 bits: 8 - 10]

DIAGNOSTICS in format 2:

Number of resets: wraparound 2 bits in
CTD PROFILE in format 1:

End time: max 7 days @ 10 mins = 1008
          tx as raw 10 bits in units of 1
          (range: 0 to 1023 ) OK
          (recommended sell-by 6 days 23 hours,
           actual: 6 days 18 hours is OK)

CTD cast number: -- not transmitted --

Note: these old-style dbar pressures are internally
       converted to cbar

Min pressure: -- not transmitted --
Max pressure: -- not transmitted --
Min temperature: -- not transmitted --
Max temperature: -- not transmitted --
Min salinity: -- not transmitted --
Max salinity: -- not transmitted --
Number of samples: -- not transmitted --

8 profile points 8 to 15 (from total of 16
cut points):
  
  Temperature:
  Min pressure is sent
  separately
  Max pressure is sent
  separately

  6 broken stick pressure bins:
  raw 10 bits in units of 1 bin (range: 0 to 1023 bin)
  8 x Temperature: raw 10 bits
  in units of 0.977517 permille (range: 0 to 1000
  permille)

  Temperature residual: -- not transmitted --

Salinity:
  Pressure already transmitted
  8 x Salinity: raw 10 bits in
  units of 0.977517 permille (range: 0 to 1000
  permille)

  Salinity residual: -- not transmitted --

Temperature bounds: raw 2 bits in units of
1 lo/hi (range: 0 to 3 lo/hi)

Conductivity bounds: -- not transmitted --

Salinity bounds: raw 2 bits in units of 1
lo/hi (range: 0 to 3 lo/hi)

Min fluoro: -- not transmitted --
Max fluoro: -- not transmitted --
Min DOxy: -- not transmitted --
Max DOxy: -- not transmitted --
Min Light: -- not transmitted --
Max Light: -- not transmitted --

----------[234 bits: 13 - 246]

Available bits used exactly

=== End of page 3 ===

PAGE 4 (Argos, 247 bits):

PTT NUMBER OVERHEAD (28-bit code)

----------[8 bits: 0 - 7]
CTD PROFILE in format 2:

End time: max 3 days 6 hours @ 10 mins = 468
  tx as raw 9 bits in units of 1
  (range: 0 to 511) OK
  (recommended sell-by 3 days 5 hours,
  actual: 3 days is OK)
CTD cast number: -- not transmitted --
Note: these old-style dbar pressures are internally
converted to cbar
Min pressure: -- not transmitted --
  Max pressure: raw 10 bits in units of 2
dbar (range: 4 to 2050 dbar)
  Min temperature: raw 15 bits in units of
  0.001 (range: 2.5 to 35.267 = -2.5 to 30.267°C in
  steps of 0.001 =°C)
  Max temperature: raw 15 bits in units of
  0.001 (range: 2.5 to 35.267 = -2.5 to 30.267°C in
  steps of 0.001 =°C)
  cf. Valid temperatures: -2.5 to 30.2°C
Min salinity: raw 13 bits in units of 1
mPSU (range: 28900 to 37091 mPSU)
Max salinity: raw 13 bits in units of 1
mPSU (range: 28900 to 37091 mPSU)
  cf. Valid salinity: 28.9 to 37.1
Number of samples: -- not transmitted --
  8 profile points 0 to 7 (from total of 16
  cut points):
  Temperature:
    Points 0 to 7 are at fixed
    pressure
    8 x Temperature: raw 10 bits
    in units of 0.977517 permille (range: 0 to 1000
    permille)
    Temperature residual: -- not
    transmitted --
  Salinity:
    Points 0 to 7 are at fixed
    pressure
    8 x Salinity: raw 10 bits in
    units of 0.977517 permille (range: 0 to 1000
    permille)
    Salinity residual: -- not
    transmitted --
  Temperature bounds: -- not transmitted --
  Conductivity bounds: -- not transmitted --
  Salinity bounds: -- not transmitted --
  Min fluoro: -- not transmitted --
  Max fluoro: -- not transmitted --
  Min DOxy: -- not transmitted --
  Max DOxy: -- not transmitted --
  Min Light: -- not transmitted --
  Max Light: -- not transmitted --
-----------------[235 bits: 11 - 245]
PAGE 5 (Argos, 247 bits):

PTT NUMBER OVERHEAD (28-bit code)
---------[8 bits: 0 – 7]

PAGE NUMBER
---------[3 bits: 8 – 10]

DIAGNOSTICS in format 2:

Number of resets: wraparound 2 bits in units of 1 (range: 0 to 3 )
---------[2 bits: 11 – 12]

CTD PROFILE in format 3:

End time: max 3 days 6 hours 0 10 mins= 468 tx as raw 9 bits in units of 1
(range: 0 to 511 ) OK
(recommended sell-by 3 days 5 hours, actual: 3 days is OK)
CTD cast number: -- not transmitted --
Note: these old-style dbar pressures are internally converted to cbar
Min pressure: -- not transmitted --
Max pressure: -- not transmitted --
Min temperature: -- not transmitted --
Max temperature: -- not transmitted --
Min salinity: -- not transmitted --
Max salinity: -- not transmitted --
Number of samples: -- not transmitted --
8 profile points 8 to 15 (from total of 16 cut points):

Temperature:
Min pressure is sent separately
Max pressure is sent separately

6 broken stick pressure bins:
raw 10 bits in units of 1 bin (range: 0 to 1023 bin)
8 x Temperature: raw 10 bits in units of 0.977517 permille (range: 0 to 1000 permille)
Temperature residual: -- not transmitted --

Salinity:
Pressure already transmitted
8 x Salinity: raw 10 bits in units of 0.977517 permille (range: 0 to 1000 permille)
Salinity residual: -- not transmitted --

Temperature bounds : raw 2 bits in units of 1 lo/hi (range: 0 to 3 lo/hi)
Conductivity bounds : -- not transmitted --
Salinity bounds : raw 2 bits in units of 1 lo/hi (range: 0 to 3 lo/hi)
Min fluoro: -- not transmitted --
Max fluoro: -- not transmitted --
Min DOxy: -- not transmitted --
Max DOxy: -- not transmitted --
Min Light: -- not transmitted --
Max Light: -- not transmitted --

-----------[233 bits: 13 - 245]

UNUSED

-----------[1 bits: 246 - 246]

=== End of page 5 ===

PAGE 6 (special diagnostics page sent every 60 transmissions)

PTT NUMBER OVERHEAD (28-bit code)

-----------[8 bits: 0 - 7]

PAGE NUMBER

-----------[3 bits: 8 - 10]

TX number: wraparound 18 bits in units of 1
(range: 0 to 262143 )
Current state: raw 3 bits in units of 1
(range: 0 to 7 )
Tag time (mm:ss): raw 12 bits in units of 1 secs (range: 0 to 4095 secs)
ADC offset: raw 12 bits in units of 1 A/D units (range: 0 to 4095 A/D units)
Tag hours: wraparound 16 bits in units of 1 hours (range: 0 to 65535 hours)
Aborted tx: wraparound 18 bits in units of 1 (range: 0 to 262143 )
Wet/dry status: raw 2 bits in units of 1 (range: 0 to 3 )
Wet/dry fail count: wraparound 8 bits in units of 1 (range: 0 to 255 )
Body number: raw 16 bits in units of 1 (range: 0 to 65535 )
Max depth ever: raw 15 bits in units of 0.1 m (range: 0 to 3276.7 m)
Latest reset hour: raw 16 bits in units of 1 hours (range: 0 to 65535 hours)
Number of resets: wraparound 8 bits in units of 1 (range: 0 to 255 )
Wettest (min wet/dry): raw 8 bits in units of 1 (range: 0 to 255 )
Driest (max wet/dry): raw 8 bits in units of 1 (range: 0 to 255 )
Number of depth spikes: wraparound 16 bits in units of 1 (range: 0 to 65535 )
Number of CTD samples: wraparound 22 bits in units of 1 (range: 0 to 4.1943e+06 )

-----------[198 bits: 11 - 208]

UNUSED

-----------[38 bits: 209 - 246]
<table>
<thead>
<tr>
<th>Deployment</th>
<th><img src="image" alt="Seal with tag" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>Immobilisation</td>
<td><a href="http://doi.pangaea.de/10.1594/PANGAEA.833216">http://doi.pangaea.de/10.1594/PANGAEA.833216</a></td>
</tr>
</tbody>
</table>
| Comment | Seal tag: 498 ST C321 C322  
Deployment site: Refugio Elephante – P5  
Prev. Deployment: none |
| Tag retrieved | -- // |
| First transmission | 2013-11-09T17:38:52 -62.258 -58.659 |
| Last transmission | 2014-05-29T06:24:58 -60.695 -45.606 |