

Eventlabel	CAR2013_sel_a_m_13
Campaign	King George Island 2013
Species	Southern elephant seal (<i>Mirounga leonina</i>)
Age	Adult; 15 years
Sex	Male
Number	
Length (total)	4530 mm
Length (standard)	4020 mm
Length (curvatur)	4250 mm
Girth (pectoral)	2940 mm
Weight [estimated]	>3000
Weight [calculated]	
Weight [measured]	
ARGOS PTT ID	12848
Transmitter type	SMRU/Series 9000 SRDL/CTD
Manufacturer	SMRU
PTT Serial Number	12190
PTT Software	Software specification for CTD_GEN_07B deployment (MEOP: Temp+Salinity share 2 tx)
Setting protocol	<p>Software specification for CTD_GEN_11A deployment (Standard CTD)</p> <p>Valid for dates in years 2011 to 2014</p> <p>Transmitting via ARGOS</p> <p>Page transmission sequences:</p> <p style="padding-left: 40px;">Until day 1464: 0 0 1 0 0 2 3 0 0 4 5</p> <p style="padding-left: 40px;">An additional diagnostics page is sent every 30 transmissions</p> <p>Airtest for first 7 hours:</p> <p style="padding-left: 40px;">Transmission interval is chosen randomly between 48 and 72 seconds</p> <p>Satellite availability (UTC):</p> <p style="padding-left: 40px;">00: -- on --</p> <p style="padding-left: 40px;">01: -- on --</p> <p style="padding-left: 40px;">02: -- on --</p> <p style="padding-left: 40px;">03: -- on --</p> <p style="padding-left: 40px;">04: -- on --</p> <p style="padding-left: 40px;">05: -- on --</p> <p style="padding-left: 40px;">06: -- on --</p> <p style="padding-left: 40px;">07: -- on --</p>

08: -- on --
09: -- on --
10: -- on --
11: -- on --
12: -- on --
13: -- on --
14: -- on --
15: -- on --
16: -- on --
17: -- on --
18: -- on --
19: -- on --
20: -- on --
21: -- on --
22: -- on --
23: -- on --

Transmission targets:

56000 transmissions after 365 days

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.

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.

Send the deepest upcast in each 6-hour period.

Minimum depth to trigger collection of cast: 1000m in hour 1

400m in hour 2
200m in hour 3
100m in hour 4
50m in hour 5
30m in hour 6

or 20% greater than the deepest dive in this period so far.

During profile, sample CTD sensor every 1 seconds.

Each profile contains 16 cut points consisting of 8 fixed points, minimum depth, maximum 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

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 100 bytes = 50000 bytes

No 'deep' dives

Haulout: 50 x 16 bytes = 800 bytes

6-hour summaries in groups of 3 (7.5 days): 10 x 84 bytes = 840 bytes

No Depth & Temperature histograms
No timelines
Cruise: 50 x 16 bytes = 800 bytes
No diving periods
No spot depths
No emergence records
No Duration histograms
No Max depth histograms
CTD casts (7.5 days): 30 x 156 bytes = 4680 bytes
No GPS fixes
No spot CTD's

TOTAL 55 kb (from 8192 kb available)

PAGE CONTENTS (256 bits - 9 overhead):

PAGE 0:

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-
2050,2050-2100,2100-2150, >2150 in units of 0.1 m
(range: 0 to 2150 m)

-----[7 bits: 11 - 17]

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)

(recommended sell-by 5 days 11 hours)

```

Sell-by range: 5 days
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
=== End of page 0 ===

PAGE 1:
    PTT NUMBER OVERHEAD (28-bit code)
-----[8 bits: 0 - 7]

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

    DIAGNOSTICS in format 1:

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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

tx as raw 12 bits in units of 1
 (range: 0 to 4095)
 (recommended sell-by 5 days 11 hours)
 Sell-by range: 5 days 4 hours
 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

tx as raw 12 bits in units of 1
 (range: 0 to 4095)
 (recommended sell-by 5 days 11 hours)
 Sell-by range: 5 days 4 hours
 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 @ 6 hours= 28
 tx as raw 5 bits in units of 1
 (range: 0 to 31)
 (recommended sell-by 6 days 17 hours)
 Sell-by range: 7 days
 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 --

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transmitted -- Avg speed in dive: -- not
transmitted -- Number of dives: odlog 1/4 in units
of 2 (range: 0 to 93 )
    Deep dives:
transmitted -- 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:
    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 )
    (recommended sell-by 6 days 23 hours)
    Sell-by range: 6 days 18 hours
    CTD cast number: -- not transmitted --
    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

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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 --
      -----[236 bits: 11 - 246]

      Available bits used exactly
=== End of page 2 ===

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PAGE 3:

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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 1:

  End time: max 7 days @ 10 mins= 1008
  tx as raw 10 bits in units of 1
(range: 0 to 1023 )
      (recommended sell-by 6 days 23 hours)
  Sell-by range: 6 days 18 hours
  CTD cast number: -- not transmitted --
  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 --
-----[234 bits: 13 - 246]

    Available bits used exactly
=== End of page 3 ===

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PAGE 4:

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

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

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 )
            (recommended sell-by 3 days 5 hours)
    Sell-by range:  3 days
    CTD cast number:  -- not transmitted --
    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 --
                -----[235 bits: 11 - 245]

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

=== End of page 4 ===

PAGE 5:
        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 @ 10 mins= 468
        tx as raw 9 bits in units of 1
(range: 0 to 511 )

```

```

(recommended sell-by 3 days 5 hours)
Sell-by range: 3 days
CTD cast number: -- not transmitted --
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 --
-----[233 bits: 13 - 245]

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

=== End of page 5 ===

PAGE 6 (special diagnostics page sent every 30
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]

=== End of page 6 ===

```

Deployment



Immobilisation	http://doi.pangaea.de/10.1594/PANGAEA.833216
Comment	Seal tag: 96 ST - ST 77 ST; C330 C331 Deployment site: P5 - Refugio Elephante Prev. Deployment: none
Tag deployed	2013-11-11T16:12 -62.256 -58.632
Tag retrieved	-- //
First transmission	2013-11-11T17:15:31 -62.256 -58.632
Last transmission	2014-01-30T08:43:27 -63.601 -56.364