

2018-06-26 SZ

Start up ~~for~~ / setup for

2018-63 C30 SWL

TSG already in place from L. Penrose
TSG Laptop & plugged in, needed
to reset IP address + gateway etc.
10.1.20.11

Once address was correct it could
see GPS gate + NMEA string coming
in fine through network.

Because testing was done w/out NMEA
the Lat + Long were removed from
the "TCP/IP Out" tab ("Configure Outputs")
automatically by Seaview.

So - reinserted Lat + Long per
variable list on page 51.

27 June 2018

Blue Cooler:

GTD →

Optode →

Pressure →

• Note that optode & display in GTDlog
freezes but looks like data is
still being collected in file

☐ Take screen capture of setup



- cycled black power box this seemed to help
- pump runs automatically as soon as enough water inside to float the white levor

Nope - seems like optode string isn't
correctly coming in properly

Remove Blue cooler + take back to Lab.

6 July 2018 2215 local (+7 UTC) SZimn.

Seawater loop started
Engineers have it running at fixed RPM
by supplying it w/ 18Hz power.

Call the engine room at 333 if
we need flow increased or decreased
(change Hz)

TSG - started all looks good except

a) Flow is cyclic to the TSG.
w/ debubblers filling then draining
So still need to address flow &
pressure in plumbing locally by
changing more valves

b) Fluorometer is reading
0.17 v w/ 3x cable and
after removing the 3x cable,
just the 30x cable ready
↓ 0.08 v

This is surprising and likely
not correct. No cable to strip
* Do check pin out tomorrow

GTD - now that we are using the
keyspan, the optode is working fine.
✓ Pressure }
✓ GTD }
✓ Optode } all coming in
✓ GPS } GTD Log just fine.

Still to do: ✓ start up pCO₂ system

✓ adjust + measure flows

~~create~~

✓ add TSG log to SCS

✓ check fluorometer

↑

7 July ~1630 UTC

turned upside down so
in/out ports were on top &
tightened cap so now no
bubbles. ~~the~~ Voltage changed
from -0.8 to 1.5 using 30x
Then added 3x adaptor back
in + restarted seawater.

2018-63-0003.hex

Still on the inside of Vancourt's.

07 July 2018 20:11 UTC SZ

pCO₂ adjusted regulators to all show 26 PSI; all tanks are at a little over 2000 PSI

↓ Further notes on pCO₂ system will be logged in the new pCO₂ notebook.

08 July 2018 0545 UTC SZ

Ship stopped in Port Hardy for fuelling. Water turned off, all valves except drains closed. Software stopped: TSG Seaware, GTDLog, Sunburst pCO₂.

Gas standards for pCO₂ & values closed.

Blue cooler continues to leak at inlet (right side as you face the box). Lets remark this whole thing...

9 July 2018 0330 UTC SZ

Good
4L/min
5L/min

pCO₂ flow 8L 1'50" 2'05" need of flow is 12

Cooler flow 10L 1'22" 1'55" 5L 55"

Fluorometer 8L 1'55"

Leaving Port Hardy. Sea water loop turned back on. They typical 18Hz did not provide enough flow. Increased to 22 then increased to 26Hz. This is now giving plenty. Some is going out the closed drain.

* Consider adding flow valves readers (re not loggers) like the Sunburst pCO₂ system has to help see what rate is without having to do bucket measurements for each adjustment.

TSG restart file 2018-03-0005

Cooler GTDLog restart
pCO₂ "

Note Fluorometer is high ~8 mg/l and oxygen sat is ~120%

0 Jul 2018 2233 UTC SZ
Flow calculations Pump still @ 26Hz

Drain to sink 10L in 63sec
Fluorometer 8L in 1'53"

PCO₂ 8L in 2'13" increased to 2'10"
~~then~~ opened line fully and

Blue cooler 10L in 1'55"

13 Jul 2056 UTC

Blue cooler 10L 1'56"
8L 2'

PCO₂ Fluorometer in use - can't measure now

14 Jul 2018 0300 UTC - SZ

Stopped pump when tied up in
Dutch Harbor
All programs stopped

14 Jul 2018 ~2000 UTC - SZ
Restarted pump leaving Dutch H. (to 26Hz)

Fluorometer: 8L in 2'10"

Blue cooler: 10L in 1'52" 2'10"

PCO₂: 8L in 2'04" (bottom of flow water
Flange @ 5) II 5

Fast Drain: 10L in 40"

Closed circuit drain is off
... flow (ie de-bubble)

is full)
20:32 UTC

TSG Seabase start-d file: 201863-TSG-0007.hex

GTD log had it actually been stopped (oops)

Program stopped / quit / restart-cl

Good new file is 2018-071420.GTD

Oxygen optode did not come up...
oh - had been powered off.

Powered on and RESTARTED program.

Same file being written to.

PCO₂ - Peltier water trap removed
from - two line per Mark's inst.

Restarted ~~5~~ Powered on

Gas is still on (never turned off)

16 Jul 2018 0728

GTD - concerned pump is not pumping
Flow through the line hooked up
to the GTD as bubbles just sit
in the exposed line outside of
the cooler.

Turn flow off, partly empty cooler
so I can check inside -

And look at the exposed line hasn't been
purt for the exposed line hasn't been
bleeding...

Opened up and looked inside -
sump-pump is not pushing much
water. Can barely feel pressure
on its outlet.
Reattached plumbing & tie wrapped
incoming water spout down lower
into cooler.

Water going past GTD ~~may be stagnant~~
(may not be flowing past).

0816 → Flow in sink was too fast
adjusted all the flows &
opened the sink bypass drain
manifold a bit.

~~20~~ 17 Jul 2018 0207 SZ
Found GTD loop was not running - must
have turned it off last night ~~and~~,
when working about w/ cooler + then didn't
restart.

17 Jul 2018 0712 SZ
~~Reset~~ plumbing flow
pCO₂ from 60L/min to ~~42~~ 4L/min
GTD/Blue Cooler reduced from 102L/min to 52L/min
FLR increased from 23L/min to 4L/min

18 July 2018

Senseave ~~file~~ hung ~~while~~ trying
to stop file — abz-hex
~~Hard to~~

Had to use hard shutdown of
software. Rebooted computer.