TESTS TO SEE IF THERE IS A SIGNIFICANT ERROR IN TSG TIME

1. Underway between events 52 and 53 (TSG File #4)

TSG

2013/05/31 20:58:05 3. 10.9459 11.1094 31.2411 2.793 151.873672 48.65196 -125.81376

SCS

5/31/2013,20:58:07.115,$GPGGA,205808,4839.1836,N,12548.6870,W,

So TSG: 48 39.1176 N 125 48.8256W

SCS: 48 39.1836 N 125 48.6870W

I then looked through the SCS file to find the TSG position and this one is closest but looks like it is slightly late:

05/31/2013,20:58:47.066,$GPGGA,205848,4839.1151,N,12548.8295,W

So this implies that the TSG time is about 40s earlier than the SCS time.

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2. Stopped during net cast #53 May 31 21.28 Log Position 48 36.48N 125 53.89W

TSG position: (TSG File 4)

48.60806 -125.89806 1

Equiv 48 36.4836 N 125 53.8836 W

SCS – at same time

05/31/2013,21:28:07.187,$GPGGA,212808,4836.4852,N,12553.8879,W

equiv 48 36.4852 N 125 53.8879 W

So all 3 agree reasonably - SCS, TSG, log book.

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3. June 1 stopped for net event #56 LOG POSITION 48 28.69 126 42.79

TSG

2013/06/01 02:00:05 607. 12.9336 13.0443 31.9664 0.865 152.083389 48.47810 -126.71336 1 3.780538 0.911 -0.1107 0.000E+00

equiv 48 28.686 126 42.8016

SCS

06/01/2013,02:00:05.715,$GPGGA,020006,4828.6847,N,12642.8042,W

equiv 48 28.6847N 126 42.8042W

Again all three in reasonable agreement

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4. June 1 stopped for CTD event # 58 LOG POSITION 48 32.184 126 36.624

TSG (File #5)

2013/06/01 08:02:05 1331. 12.0825 12.3039 32.0053 1.208 152.334778 48.53638 -126.61038 1 3.718431 0.007 -0.2214 0.000E+00

48 32.1828 -126 36.6228

SCS

06/01/2013,08:02:06.699,$GPGGA,080207,4832.1849,N,12636.6261,W,2,09,00.

48 32.1849 126 36.6261

Reasonable agreement \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. June 1 underway after event #58

TSG (File #5)

2013/06/01 09:00:05 1447. 12.2545 12.6427 32.0054 1.155 152.375061 48.55816 -126.56710 1 3.748705 0.007 -0.3882 0.000E+00

48 33.4896 -126 34.0260

SCS

06/01/2013,09:00:06.723,$GPGGA,090007,4833.4224,N,12634.1518,W,2,09,00.9,12.5,M,-19.6,M,04.

48 33.4224 126 34.1518

I then looked through the SCS file to find a position that matched the TSG position and it was found about 40s later.

06/01/2013,09:00:46.722,$GPGGA,090047,4833.4893,N,12634.0261,W

The TSG only records every 30s, so the TSG clock may be running fast relative to the SCS clock, but the difference is not significant.