HLP RT-130 Station Installation (revised 6/27/2007 DEJ)

STATION: QK6S3   Month: 6   Day: 24 Year: 2007
ARRIVAL TIME (local): 16:30   OPERATOR: FLH, Mike Launey, Tom Jaye
DAS S/N: 9AD8Q50   SENSOR S/N: 4R34Q2   GPS S/N: 4R34Q2
Handheld GPS Sta Loc: Lat: 43° 55' 01.4"   Long: 118° 50' 48.7"   Elev: 132
POWER: BATT-1: 12.83   BATT-2: 12.75   Solar panel output: (-18V) 18.2

Connect cables:
1) Build power system
2) RT-130 (GPS) to GPS
3) Check power with voltmeter
4) Sensor to RT-130 (CH1-3)
5) Power to RT-130
6) Close to RT-130 (comm.)

>Cli->PFC. 130 -> Control -> RAM -> Clear
>Cli->Control -> Reset DAS
>Cli->Control -> Format Disk -> 1
>Cli->Format Disk -> 2

>Check that GPS has locked: Control -> Status -> GPS (Warning: Load parameters from Cli to DAS ONLY AFTER GPS LOCK)

>Exit Control (click Done on successive screens until return to Control)
>PFC. 130 -> Work with Configuration (Refer to Configuration Sheet for RT-130 in back of service binder)
>Work with Configuration -> Load -> HLP (or) Work with Configuration -> New -> Name: HLP
>Edit configuration file
>Send to DAS
>Confirm (optional): Upload from DAS and confirm that parameters have been correctly set in RT-130...

SENSOR MASS POSITION: (Measure initial voltage at break box, vault open)
Voltage CH 1: ______________ CH 2: ______________ CH 3: ______________
Push mass center button from break box if any CH > ±1.5 V (Guralp) or ±2.5 V (STS-2) and, if necessary, repeat at 2-3 minute intervals until centered. Seal up vault and continue centering if necessary through the Cli.

If any CH > ±1.5 V (Guralp) or ±2.5 V (STS-2), touch center 1-3 (and update) until all CH < ±1 V or 2.5 V.
Final mass position voltages: CH 1: -3.8 V CH 2: +3.2 V CH 3: -0 V.

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midline and Range
CH 1: 5425   CH 2: 8516   CH 3: 9514   CH 3 = CH 1 ≈ 2.88

START ACQUISITION: Control -> Status -> Start Acq. √
DAS Status: (use Update to Refresh)
Acq: *ON*
Events: 3
RAM: 45 of 4352   Increasing
Disk1: 0 of 1550   Current
Disk2: 0 of 1550   Current
Temperature: 33°C
Power: 12.4 m 3.2 hp
Ch: 123 DS: 55

GPS Status: GPS
Time: 2007: 17: 41: 53: 0
Sec since L1: 00:00
Phase Diff (us): -3.45
Model: C4
Status: tracked SVs 9
Lat: N 43° 33' 00.94"
Lon: W 118° 50' 48.725"
Elev(m): 132.55 m

DEPARTURE TIME (local): 18: 50

*****PLEASE NOTE ANY SPECIAL PROBLEMS BELOW ON THIS SHEET*****

1) Channel 1 had a hard time centering; getting it slightly below 4.0 V was the best we could do. Hopefully the sensor will settle with time and center up correctly in 5 days.
2) Stomp tests on all 3 channels on, but still very much drift. Inclined to tell if microseism is riding on drift - seemed so, but not very clear.
HLP RT-130 SERVICE SHEET (last revised 6/27/2007 DEJ)

STATION: CRAS3  Month: 06  Day: 07  Year: 2007  ARRIVAL TIME (local): 5:45 PM
OPERATOR: MMMMER  DAS S/N: 9AD0  POWER: BATT-1: 13.6V  BATT-2: 13.6V
Voltage CH 1: -9.9  CH 2: -0.4  CH 3: -0.4
Use Center 1-3 to recenter if any CH > +/-1.5 volts Guralp; > +/-2.5 volts STS-2. Check here.
Continue with recenter command (and update) until all channels are < +/- 1.5 V (Guralp); 2.5 V (STS2)
Enter final mass position voltages: CH 1: -9.9  CH 2: -0.4  CH 3: -0.4

DAS Status: Control -> Status: (use Update to Refresh)  
Acq: START ON
Events: 7554
RAM: 2134 OF 4352 ✓ Increasing?
Disk1: 13568 OF 1980 ✓ (Current)
Disk2: 0 OF 1970  ✓ (Current)
Temperature: 27.9C
Power: 13.3  7.38W
Ch: 123  DS: CC

CALIBRATION: Control -> Aux. Cntrl -> Test 1-3……..Wait quietly for 18 min.

STOP ACQUISITION: Control -> Status -> Stop Acq: Wait until disk is no longer in use, update status screen then remove and record time here: 4:06 PM

Disks Removed: 1 2 (circle one or both). Install new disk(s): Confirm that correct disk has been removed by checking disk content: Control -> Status: disk1/disk2.

ROUTINE SERVICE  |  REPLACEMENT (record details and new S/N below!)
Control -> RAM -> Clear……. ✓  |  Control->Status->GPS Status:_____ (confirm lock?)
Control -> Reset DAS:……. ✓  |  Configuration: Load new parameters only after GPS lock
Control -> Format Disk 1:……. ✓  |  Control -> RAM -> Clear…….✓
Control -> Format Disk 2:……. ✓  |  Control -> Reset DAS:……. ✓

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M -1275 R 522  CH 2: M -1238 R 897  CH 3: M -385 R 1305
Microseism? ✓  Microseism? ✓  Microseism? ✓

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Time: 2007; 280; 23:13:46
Acq: START ON
Events: 3
RAM: 42 OF 4352 ✓ Increasing?
Disk1: 0 OF 1971 ✓ (Current)
Disk2: 0 OF 1971 ✓ (Current)
Temperature: 28.3C
Power: 13.4  7.38W
Ch: 123  DS: CC

GPS Status: GPS
Time: 2007; 280; 23:14:11
Sec since LL: 0
Phase Diff.(us): 0
Mode: CYCLE
Status: LOCKED SV’s: 10
Lat: 43° 33.0009'
Lon: 118° 24.5297'
Alt(m): 1463 m

DEPARTURE TIME (local): 4:30 PM

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*

NOTE DIFFICULTY: SENSOR CHANNEL 1 WOULD NOT CENTER.
BUT WAVEFORM MONITOR LOOKED GOOD.
CYCLING POWER TO DAS/SENSOR DID NOT CHANGE CENTERING PROBLEM.
HLP RT-130 SERVICE SHEET (v3) (last revised 6/27/2007 DEJ)

STATION: JPL503  Month: May  Day: 18  Year: 2008  ARRIVAL TIME(local): 7:36 pm

Voltage CH 1: 0.5  CH 2: 1  CH 3: 3.0
Use Center 1-3 to recenter if any CH > +/- 1.5 volts Guralp; > +/- 2.5 volts STS-2. Check here __
Continue with recenter command (and update) until all channels are < +/- 1.5 V (Guralp); 2.5 V (STS-2)
Enter final mass position voltages: CH 1: 1.3  CH 2: 1.3  CH 3: 1.4

DAS Status: Control -> Status: (use Update to Refresh)
Time: 2008-05-18 00:50:28+02:00 Accurate? Y/N
Acq: 100%
Events: 1444
RAM: 262880 0 4352 (Increasing?)
Disk1: 196 0 199 (Current)
Disk2: 934 0 330 (Current)
Temperature: 31.54°C
Power: 23.26 3.3
Ch: 123  DS: CC

GPS Status: GPS
Time: 2008-05-18 00:50:28+02:00
Sec since LL: 0
Phase Diff.(us): -2
Mode: Cycled
Status: 16032 SVs: 71
Lat: N 43.33 010.0
Lon: W 118.24 528.0
Alt(m): 1635

CALIBRATION: Control -> Aux. Cntrl -> Test 1-3:...... Wait quietly for 18 min... __________

STOP ACQUISITION: Control -> Status -> Stop Acq: Wait until disk is no longer in use, update status screen then remove and record time here: 7:48 pm

Disks Removed: 1 2 (circle one or both). Install new disk(s): Confirm that correct disk has been removed by checking disk content: Control -> Status: disk1/disk2.

ROUTINE SERVICE
Control -> RAM -> Clear: _______ V
Control -> Reset DAS: _______ V
Control -> Format Disk 1: _______ V
Control -> Format Disk 2: _______ V

REPLACEMENT (record details and new S/N below!)
Control->Status->GPS Status: _______ (confirm lock?)
Configuration: Load new parameters only after GPS lock
Control -> RAM -> Clear: _______ V
Control -> Reset DAS: _______ V
Control -> Format Disk 1 & 2: _______ V

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M = 1779  R = 322
CH 2: M = 3187 R = 394
CH 3: M = 58 R = 200
Microseism? V
Microseism? V
Microseism? V

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Time: 2008-05-18 01:40:26+02:00
Acq: 100%
Events: 3
RAM: 340 4352 (Increasing?)
Disk1: 0 3911 (Current)
Disk2: 0 1950 (Current)
Temperature: 20.8
Power: 12.6 3.3
Ch: 123  DS: CC

GPS Status: GPS
Time: 2008-05-18 01:40:26+02:00
Sec since LL: 0
Phase Diff.(us): -2
Mode: Cycled
Status: 16032 SVs: 71
Lat: N 43.33 010.0
Lon: W 118.24 528.0
Alt(m): 1635

DEPARTURE TIME(local): 8:00 pm

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*
1) Water in the box
2) 130 cm over, swimming in the water
3) Bath half in the water
HLP RT-130 DEMOBILIZATION SHEET (v2) (last revised 20080716 MJF)

STATION: 00853 Month: 6 Day: 20 Year: 2008 ARRIVAL TIME (local): 13:00
Voltage CH 1: ±0.3 CH 2: ±0.7 CH 3: ±0.5
Use Center 1-3 to recenter if any CH > ±1.5 volts Guralp; > ±2.5 volts STS-2. Check here: /A
Continue with recenter command (and update) until all channels are < ± 1.5 V (Guralp); 2.5 V (STS2)
Enter final mass position voltages: CH 1: _______ CH 2: _______ CH 3: _______

DAS Status: Control -> Status: (use Update to Refresh)
Time: 2008.02.21.09.32.12 Accurate? Y/N
Acq. Start ON
Events: 453
RAM: 3165 of 4352 Increasing?
Disk1: 300 of 3911 (Current)
Disk2: 0 of 1930 (Current)
Temperature: 38.4°C
Power: 13.8 kwp
Lat: 43.23.0894
Lon: 118.24.5288
Alt: 1637

GPS Status: GPS
Time: 2008.02.21.26.05.38
Sec since LL: 00:00 07:00
Phase Diff. (us): 3
Mode: cycle
Status: asleep SVs: 11

Stop acqu: enter new cal params; start acqu

CALIBRATION: Control -> Aux. Cntri -> Test 1-3:..... Wait quietly for 18 min. 13:10

□ Remove disk(s) and label with station ID, date, disk #, & final data amount (in Mb)

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DEMOBILIZE STATION

SENSOR
□ If sensor is a 3T, lock masses with power on; disconnect breakout box
□ If sensor is an STS2, disconnect breakout box; lock masses with power off
□ Confirm alignment of sensor with vault alignment line. If not aligned, enter misorientation value: N/A
□ Remove sensor; enter sensor information: Type: STS2 Serial #: 89302
□ Enter assumed declination from installation (as written on sensor pad): 15.5
□ Confirm Brunton compass declination is set to same value as that written on pad
□ Measure orientation of vault alignment line (N-S for Guralp; E-W for Streckheisen). Enter orientation: 90°
If measured orientation does not appear to be correct, double check measurement and confirm with at least one other team member!

DATALOGGER
□ Disconnect power box
□ Disconnect datalogger (all cables); enter serial #: 9AD9
□ Disconnect batteries; cover terminals with plastic caps or tape
□ Disconnect solar panels and GPS; enter GPS serial #: 1424

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*
A tarp pull off action packer
24" water in bottom of action packer