INSTALLATION

STATION: DRO99  Month: 06  Day: 21  Year: 2006  ARRIVAL TIME(local): 9:30 AM
OPERATOR: J. C.  DAS S/N:  SENSOR S/N:  GPS S/N: 
HH GPS Sta Loc: Lat: 42.73731'  Lon: 186.8740'  Elv: 2144 m

PC: BATT-1: 14.26  BATT-2: 

Voltage CH 1: +0.6  CH 2: +0.6  CH 3: -0.1
Use Center 1-3 to recenter if any CH > +/-1.5 volts and check here then Update

DAS Status: Control -> Status: use Update to Refresh  GPS Status: GPS
Time: 
Acq: 
Events: 
RAM: 
Increasing?
Disk1: (Current) 
Disk2: (Current) 
Temperature: 
Power: 
Ch: DS: 

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
then remove and record time here:__________________________

Removing DISK 1 S/N ______ DISK 2 S/N ______
Installed DISK 1 S/N ______ DISK 2 S/N ______

START HERE FOR NEW INSTALLATION

(5732)
POWER: BATT-1: 14.26  BATT-2: 
HH GPS Sta Loc: Lat: 42.7373  Lon: 186.8740  Elv: 2144 m

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ROUTINE SERVICE
Control -> RAM -> Clear: .............. V
Control -> Reset DAS: .............. V
Control -> Format Disk -> 1 & 2: ....... V
Work with Configuration; Load or Edit parameters
Send to Das ONLY AFTER GPS HAS LOCKED

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WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint and Range
CH 1 10934 / 430  CH 2 -19169 / 569  CH 3 65216 / 1856  stylus test OK

START ACQUISITION: Control -> Status -> Start Acq.  GPS Status: GPS
DAS Status: use Update to Refresh
Acq: 
Events: 
RAM: 
Increasing?
Disk1: (Current) 
Disk2: (Current) 
Temperature: 46.0°C
Power: 13.0: 8.3: 0.0
Ch: 123  DS: 

DEPARTURE TIME(local): 15:15

******PLEASE NOTE ANY SPECIAL PROBLEMS ON THE BACK SIDE OF THIS SHEET.******
STATION: OR099  Month: 07  Day: 23  Year: 2008
OPERATOR: MAIRJAMES  DAS S/N: 9649  SENSOR S/N: 1912  GPS S/N:
Handheld GPS Sta Loc:  Lat:  Lon:  Elev (m):
POWER: BATT-1: 13.56  BATT-2: 13.57  SOLAR PANEL(S) OUTPUT:
Voltage CH 1: 7.4  CH 2: 7.3  CH 3: 7.4  => 0.4 0.3 0.3
Use Center 1-3 to recenter if any CH > +/- 1.5 volts and check here ✓
Continue with recenter commands (and update) until all channels are < +/- 1.5 V.

DAS Status: Control -> Status: use Update to Refresh
RAM: 4608 4608  RAM:
Disk1: 21 0f 1970  Disks:
Disk2: 0 1970  Temp: 40.4°C
Power: 12.9 2.7 0.0

CALIBRATION: Control -> Aux. Ctrl -> 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:
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:......... ✓
Control -> Reset DAS:............ ✓
Control -> Format Disk -> 1 & 2: ✓

REPLACEMENT
Control -> RAM -> Clear:......... ✓
Control -> Reset DAS:............ ✓
Control -> Format Disk -> 1 & 2: ✓
New Serial #: 92BF
Configuration: Load or Edit parameters:
Send new parameters to DAS ONLY AFTER GPS HAS LOCKED: Control -> Status -> GPS Status

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint and Range
CH 1: Digital Noise  CH 2: RECEIVER Swapped Out  CH 3: 

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Events: 18
RAM: 26 4608  Increasing?
Disk1: 0 1971  (Current)
Disk2: 0 1971  (Current)
Temperature: 25.5°C
Power: 12.9 2.7 0.0
Ch: 123  DS: CC

GPS Status: GPS
Time: 2008/07/23 19:24:49  Sec since LL: 0
Phase Diff.(us): -00,000,001
Mode: Cycle
Status: Locked  SV's: 9
Lat: N 40° 41.2543
Lon: W 118° 41.3458
Alt(m): 2128 m

DEPARTURE TIME(local): 12:30 local

*****PLEASE NOTE ANY SPECIAL PROBLEMS IN SPACE BELOW*****

New disk put in Disk 1 slot. Data were dumped from RAM to that disk.
Sensored 416 Mb of data that way, but most data lost.
Disk 2 failed at 21 bytes. Return to PASSCAL.
Channel 1 dead. RECEIVER swapped out (new)
New REFTEK 92 BF installed and new parameters sent.

Monitor (midpt range)

Ch 1 527 262  Ch 2 3304 304  Ch 3 -1640 295

Note added: Dish with 21 MB bytes could not be read. DEJ 7/22/06

7/23/06
OPERATOR: Stan Maier + Ken Nagi  DAS S/N: 92BF  POWER: BATT-1: 12.74  BATT-2: 12.74
Voltage CH 1: -1.7  CH 2: 2.4  CH 3: -1.2
Use Center 1-3 to center if any CH > +/- 1.5 volts. Check here ✓ 3x
Continue with centering commands (and update) until all channels are < +/- 1.5 V.
Enter final mass position voltages: CH 1: -0.1  CH 2: -1.0  CH 3: 2.0

DAS Status: Control -> Status: use Update to Refresh
Acq: Star & on
Events: 4224
RAM: 2384 of 3684
Disk1: 0 of 1921  (Current)
Disk2: 0 of 1921  (Current)
Temperature: 131.1°C
Power: 12.4/3.3 EXP: 0.9
Ch: 1.4 X  DS: CC

GPS Status: GPS
Sec since LL: 00:00:00:00
Phase Diff. (us): -0.000030
Mode: Cycles
Status: locked  SV’s: 9
Lat: N 42°47’ 43.4”
Lon: W 118°41’ 24.7”
Alt (m): 2136

CALIBRATION: Control -> Aux. Ctrl -> Test 1-3: Wait quietly for 10 min...

STOP ACQUISITION: Control -> Status -> Stop Acq: Wait until disk is no longer in use,
update status screen then remove and record time here: 11:40 a.m.

Disks Removed: 1 (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: ........  ✓
Control -> Reset DAS: ............  ✓
Control -> Format Disk -> 1 & 2: ✓

REPLACEMENT
Confirm GPS lock:
Control -> Status -> GPS Status: lock
Configuration: Load or Edit parameters
Send new parameters
Control -> RAM -> Clear: ............
Control -> Reset DAS: ............
Control -> Format Disk -> 1 & 2:  ✓

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint (M) and Range (R)
CH 1: M 1763  R 779  Microseism? X
CH 2: M 2800  R 649
CH 3: M 1082  R 385  Microseism? X

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Acq: Star & on
Events: 2
RAM: 292 of 3684
Disk1: 0 of 1950  (Current)
Disk2: 0 of 1950  (Current)
Temperature: 135°C
Power: 12.5/3.3 EXP: 0.9
Ch: 1.3 X  DS: CC

GPS Status: GPS
Sec since LL: 0
Phase Diff. (us): 0
Mode: cycles
Status: locked  SV’s: 9
Lat: N 42°47’ 43.4”
Lon: W 118°41’ 24.7”
Alt (m): 2136

DEPARTURE TIME (local): 12:05

PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW***
HLP RT-130 SERVICE SHEET (STS-2)

STATION: Spacecraft
Month: June
Day: 2
Year: 2007
ARRIVAL TIME (local): 3:30 p.m.
OPERATOR: [Signature]
DAS S/N: 928 F
POWER: BATT 1: 28.60, BATT 2: 28.47
SENSOR MASS POSITION: Control -> Aux Ctrl -> Aux Ch.
Voltage CH 1: -0.7, CH 2: -0.6, CH 3: ...
Use Center 1-3 to recenter if any CH > +/- 1.5 volts Guralp
Continue with recenter command (and update) until all channels are < +/- 1.5 V (Guralp)
Enter final mass position voltages: CH 1: 2.0, CH 2: 1.4, CH 3: 1.3

DAS Status: Control -> Status (use Update to Refresh)
Time: 2007/06/22 03:30
Acc: [Signature]
RAM: 10.21 of 1G, X: Increasing?
Disk 1: 10.21 of 1G, (Current)
Disk 2: 1 of 1G, (Current)
Temperature: 33.1°C
Power: 3.2 kV O.F. 3.5 kV (O.K)
Cal: 23 DS: 23

CALIBRATION: Control -> Aux Ctrl -> 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:

Disks Removed: 0 (circle one or both). Install new disk(s): Confirm that correct disk has been removed by checking disk content: Control -> Status: disk 1/disk 2

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

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: 
Control -> Reset DAS: 
Control -> Format Disk 1 & 2: 

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M 11.2, R 3900, CH 2: M 14.8, R 120, CH 3: M -49.9, R 170

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Time: 2007/06/22 03:30
Acc: [Signature]
Events: 2
RAM: 164 of 4.3G, X: Increasing?
Disk 1: 164 of 4.3G (Current)
Disk 2: 164 of 4.3G (Current)
Temperature: 36.1°C
Power: 3.2 kV O.F. 3.5 kV (O.K)
Cal: 23 DS: 23

GPS Status: GPS
Time: 2007/06/22 03:30
Sec since LL: 99:23:59
Phase Diff (us): 99999999
Mode: 100
Status: Searching, SV's: 0
Lat: N 42.14, 24.5
Lon: W 118.4, 159
Alt(m): 0

DEPARTURE TIME (local)

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

P.S. exiting service position. ISS was up for about 15 minutes. Would not get through ch 1. Was listening to ch 1 and 2. About 15 minutes we couldn't get any ID and we had to reset the system. Then GPS would not lock.
HLP RT-130 SERVICE SHEET

STATION: OR099  MONTH: 02  DAY: 23  YEAR: 2007  ARRIVAL TIME (local): 15:52 pm

Voltage CH 1: -3.1  CH 2: +1.1  CH 3: +1.1
Use Center 1-3 to center if any CH > +/- 1.5 volts Guralp; > +/- 2.5 volts STS-2. Check here.
Continue with centering commands (and update) until all channels are < +/- 1.5 V.
Enter final mass position voltages: CH 1: _______  CH 2: _______  CH 3: _______

DAS Status: Control -> Status: (use Update to Refresh)
Acq: Start ON
Events: 97
RAM: 2815/4352  Increasing?
Disk1: 19/1956  (Current)
Disk2: 0/1956  (Current)
Temperature: 29.4 C
Power: 13.2 V  3.3 A
Ch: 1 3  DS C

CALIBRATION: Control -> Aux. Ctrlr -> 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: (16:05)

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
Control -> Reset DAS
Control -> Format Disk 1
Control -> Format Disk 2

REPLACEMENT
Control -> Status -> GPS Status: (confirm lock?)
Configuration: Load new parameters only after GPS lock

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M_______ R_______ CH 2: M_______ R_______ CH 3: M_______ R_______
Microseism?__ Microseism?__

START ACQUISITION: Control -> Status -> Start Acq
DAS Status: use Update to Refresh
Acq: Start ON
Events: 64
RAM: 34 of 4352 KB  Increasing?
Disk1: 22 of 1956 MB  (Current)
Disk2: 0 of 1956 MB  (Current)
Temperature: 29.4 C
Power: 13.2 V  3.3 A
Ch: 1 3  DS C

GPS Status: GPS
Sec since LL: 0
Phase Diff. (us): 0
Mode: cycle
Status: locked
SVs: 9
Lat: 49.9999999
Lon: 141.1111111
Alt(m): 123

DEPARTURE TIME (local): 16:24

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

Clock unlocked upon arrival, replaced. GPS antenna - immediate clock lock.
Disks not collected as they were swapped 2 days ago.
HLP RT-130 SERVICE SHEET (last revised 6/27/2007 DEJ)

OPERATOR: Mike Nadeau  Day: 3rd  DAS S/N: 925F POWER: BATT-1: 13.95  BATT-2: 13.95

Voltage CH 1: 1.2  CH 2: 0.3  CH 3: 0.5
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: _______  CH 2: _______  CH 3: _______

DAS Status: Control -> Status: (use Update to Refresh)
Acq: Steady ON
Events: 2 0 11
RAM: 37.5 / 43.52  Increasing?
Disk1: 12.98 / 13.50  (Current)
Disk2: 0 / 13.50  (Current)
Temperature: 17.8
Power: 13.6 V / 3.3 A
Ch: 123  DS: C

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:________________________

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:________
Control -> Reset DAS:________
Control -> Format Disk 1 & 2:________

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M 1260 R 818  CH 2: M 360 R 586  CH 3: M 205 R 234

START ACQUISITION: Control -> Status -> Start Acq. /
DAS Status: use Update to Refresh
Acq: Steady ON
Events: 3
RAM: 42 / 43.52  Increasing?
Disk1: 0 / 1350  (Current)
Disk2: 0 / 1350  (Current)
Temperature: 18.2
Power: 13.6 V / 3.3 A
Ch: 123  DS: C

GPS Status: GPS
Sec since LL: 0
Phase Diff (us): -1 435
Mode: Cycle
Status: Acquired  SVs: 10
Lat: N 93.443957
Lon: W 118.41.34  Alt:m: 2 139

DEPARTURE TIME (local): 13:30

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

+ only once C -> dreamed configuration only had 2.5 2.5 default config
+ skipped cal, since probably using parameters
+ Reprogrammed parameters before cal. Rebooted...
+ Started calibration, waited... changed RAM -> copied file -> loaded... put card back in, and dumped again. No error => it's working. ooh

Locked out data, reinitialization failed again. - all ok.
HLP RT-130 SERVICE SHEET (last revised 6/27/2007 DEJ)

STATION: CR099  Month: 07  Day: 23  Year: 2008  ARRIVAL TIME(local): 5:45
Voltage CH 1: 1.6  CH 2: -5.2  CH 3: 9.9
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: 0.0  CH 2: 0.4  CH 3: -1.4
Re-centered 3 times

DAS Status: Control -> Status: (use Update to Refresh)
Time: 2008.206.01:12:16  Accurate? Y/N
Acq: Started
Events: 1
RAM: 102.0 / 4352 mb Increasing?
Disk1: 192.8 / 1930 mb (Current)
Disk2: 106.7 / 1910 mb (Current)
Temperature: 33.4 °C
Power: 13.2 in. 3.5 bpm, 0.00 Cehr
Ch: 123 DS: C

GPS Status: GPS s/n 2341
Time: 2008.206.01:15:20
Sec since LL: 99:23.59:00
Phase Diff.(us): 59:999:999
Mode: CYCLE
Status: SEARCHING SVs: 0
Lat: 
Lon: 
Alt(m): 

NOTE: We had to stop sequence to reconfigure DAS.

X 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:

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
Control -> Reset DAS
Control -> Format Disk 1
Control -> Format Disk 2

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:
Control -> Reset DAS:
Control -> Format Disk 1 & 2:

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M ______ R ______ CH 2: M ______ R ______ CH 3: M ______ R ______
Microseism? ___ Microseism? ___ Microseism? ___

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Time: __________________________
Acq: __________________________
Events: ________________________
RAM: _________________________ Increasing?
Disk1: _________________________ (Current)
Disk2: _________________________ (Current)
Temperature: ______________________
Power: __________________________
Ch: ________ DS: ________

GPS Status: GPS s/n 3860
Time: __________________________
Sec since LL: ____________________
Phase Diff.(us): ____________________
Mode: ____________________________
Status: ________________________ SVs: __________
Lat: ____________________________
Lon: ____________________________
Alt(m): ____________________________

DEPARTURE TIME(local): __________

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

- DAS frozen: we will cycle power.
- Tarps very disintegrated on top, but action packer was dry.
HLP RT-130 SERVICE SHEET (last revised 6/27/2007 DEJ)

STATION: CH099 Month: Day: Year: ARRIVAL TIME(local):
OPERATOR: DAS S/N: POWER: BATT-1: BATT-2:
Voltage CH 1: CH 2: CH 3:
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: CH 2: CH 3:

DAS Status: Control -> Status: (use Update to Refresh)
Time: 20:06: 02: 00: 09: 00
Acq: 4
Events: START ON
RAM: 1GB 4352 MB Increasing?
Disk1: 1GB 4352 MB (Current)
Disk2: 1GB 4352 MB (Current)
Temperature: 23.9 C
Power: 12.7 in, 3.3 k, 0.0 CH GR
Ch: 123 DS: CC

GPS Status: GPS
Time: 20:08: 02: 00: 09: 00
Sec since LL: 00. 00: 09: 00
Phase Diff.(us): -00.000.000
Mode: CYCLO
Status: ASLEEP SVs: 11
Lat: N 42. 44. 2442
Lon: W 118. 41. 349
Alt(m): 2140 m

CALIBRATION: Control -> Aux. Ctrl -> 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:

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: disk 1/disk 2.

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

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
Control -> Reset DAS
Control -> Format Disk 1 & 2

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M 1431 R 542 CH 2: M 658 R 717 CH 3: M -1016 R 1639
Microseism?
Microseism?
Microseism?

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: Use Update to Refresh
Time: 20:08: 02: 00: 09: 00
Acq: 4
Events: START ON
RAM: 1GB 4352 MB Increasing?
Disk1: 1GB 4352 MB (Current)
Disk2: 1GB 4352 MB (Current)
Temperature: 23.9 C
Power: 12.7 in, 3.3 k, 0.0 CH GR
Ch: 123 DS: CC

GPS Status: GPS
Time: 20:08: 02: 00: 09: 00
Sec since LL: 00. 00: 09: 00
Phase Diff.(us): -00.000.000
Mode: CYCLO
Status: LOCKED SVs: 10
Lat: N 42. 44. 2452
Lon: W 118. 41. 345
Alt(m): 2139 m

DEPARTURE TIME(local): 7:22 am

*PLEASE NOTE GENERAL STATE OF THE STATION AND ANY SPECIAL PROBLEMS IN SPACE BELOW*
HLP RT-130 SERVICE SHEET (v4) (last revised 20080716 MJF)

Voltage CH 1: +0.3 CH 2: -2.7 CH 3: +0.0
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 (STS2)
Enter final mass position voltages: CH 1: +0.3 CH 2: -0.7 CH 3: +0.0

set with 9.790

DAS Status: Control -> Status: (use Update to Refresh)
Acq: Start ON
Events: 2,3,2
RAM: 45% of 1,935,265
Disk1: 97% of 37,911 Mb
Disk2: 2% of 177,1 Mb
Temperature: 73.8
Power: 13.3 3.3
Ch: 1,2,3 DS: C

CALIBRATION: Control -> Aux. Ctrl -> 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: 10:56

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

IMPORTANT NOTE: Disk 1 must be current once acquisition starts. If changing both disks, then insert disk1 first, and
leaving disk2 slot empty, dump RAM to disk1 (Control -> RAM -> Dump RAM), then insert disk2 and proceed.

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

WAVEFORM MONITOR: Control -> Monitor -> View: Record Midpoint(M) and Range(R)
CH 1: M=493 R=129 CH 2: M=1080 R=377 CH 3: M=-630 R=435
Microseism? Yes Microseism? Yes Microseism? Yes

START ACQUISITION: Control -> Status -> Start Acq.
DAS Status: use Update to Refresh
Time: 2008:26:17:49:12
Acq: Start ON
Events: 3
RAM: 38% of 4,352 Kb
Disk1: 60% of 3,411 Mb
Disk2: 2% of 165,503 Mb
Temperature: 46.8
Power: 13.3 3.3
Ch: 1,2,3 DS: C

GPS Status: GPS
Time: 2008:26:17:53:03
Sec since LL: 0
Phase Diff.(us): 0
Mode: Cycle
Status: Locked SVs: 11
Lat: 42:47.244
Lon: 118:41.345
Alt(m): 2137

DEPARTURE TIME(local): 11:53

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

Add tape to GPS antenna connection
**HLP RT-130 SERVICE SHEET (v4)** (last revised 20080716 MJF)

**STATION:** 08099  **Month:** 9  **Day:** 9  **Year:** 2008  **ARRIVAL TIME (local):** 11:50 am

**OPERATOR:** 530  **Mom:** 02  **DAS S/N:** 9328  **POWER:** BATT: 1: 3.75  BATT: 2: 3.75

**SENSOR MASS POSITION**

Control -> Aux. Cntrl -> Aux. Ch.

Voltage CH 1: -7.7  CH 2: -9.8  CH 3: -6.4

Use Center 1-3 to recenter if any CH > +/-1.5 volts Guralp; > +/-2.5 volts STS-2. Check here X. 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: +0.1  CH 2: -1.5  CH 3: +0.7

**DAS Status:** Control -> Status: (use Update to Refresh)

<table>
<thead>
<tr>
<th>Events</th>
<th>RAM: 3, 4, 5, 6</th>
<th>Increasing?</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disk1:</td>
<td>357, 419, 5, 6</td>
<td>X (Current)</td>
<td></td>
</tr>
<tr>
<td>Disk2:</td>
<td>07, 14, 21</td>
<td>(Current)</td>
<td></td>
</tr>
<tr>
<td>Temp:</td>
<td>27.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power:</td>
<td>3.2, 3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ch:</td>
<td>12</td>
<td>DS: CL</td>
<td></td>
</tr>
</tbody>
</table>

**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: Already off since we rebooted

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

Once disks are 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.

**IMPORTANT NOTE:** Disk 1 must be current once acquisition starts. If changing both disks, then insert disk 1 first, and leaving disk2 slot empty, dump RAM to disk1 (Control -> RAM) -> Dump RAM), then insert disk2 and proceed.

**ROUTINE SERVICE**

Control -> RAM -> Clear: X
Control -> Reset DAS: X
Control -> Format Disk 1: X
Control -> Format Disk 2: X

**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: X
Control -> Reset DAS: X
Control -> Format Disk 1: X
Control -> Format Disk 1 & 2: X

**WAVEFORM MONITOR:** Control -> Monitor -> View: Record Midpoint(M) and Range(R)

CH 1: M 1812, R 660  CH 2: M 1836, R 566  CH 3: M -431, R 485


**START ACQUISITION:** Control -> Status -> Start Acq.

**DAS Status:** use Update to Refresh

<table>
<thead>
<tr>
<th>Time: 2008:253:19:17:07</th>
<th>Acq: 5/2, 3</th>
<th>Events: 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAM: 35, 43, 53</td>
<td>X Increasing</td>
<td>Disk1: 0</td>
</tr>
<tr>
<td>Disk2: 0, 14, 21</td>
<td>(Current)</td>
<td>Temperature: 28.6</td>
</tr>
<tr>
<td>Power: 3.2, 3.3</td>
<td></td>
<td>Ch: 123  DS: CL</td>
</tr>
</tbody>
</table>

**GPS Status:** GPS

<table>
<thead>
<tr>
<th>Time: 2008:253:19:17:48</th>
<th>Sec since LL: 0</th>
<th>Phase Diff (us): 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode: cycle</td>
<td>Status: locked</td>
<td>SV's: 11</td>
</tr>
<tr>
<td>Lat: 41.7, 41.2, 21.5</td>
<td>Lon: 118: 41: 24:57</td>
<td>Alt(m): 2137</td>
</tr>
</tbody>
</table>

**DEPARTURE TIME (local):** 12:40 pm

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

DAS was known we cycled power to it
Re-configured DAS then moved on to "sensor mass position"
HLP RT-130 DEMOBILIZATION SHEET (v4) (last revised 20090904 MJF)

STATION: 8P99  Month: 09  Day: 17  Year: 2009 ARRIVAL TIME (local): 2:20pm

Voltage CH 1: -0.8  CH 2: +2.2  CH 3: +0.6
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: ______  CH 2: ______  CH 3: ______

DAS Status: Control -> Status: (use Update to Refresh)
Time: 3:00:04.00  Acq: Start on
Events: 10639
RAM: 638.8  The Stuff is Increasing?
Disk1: 1.390G + 5911Mb (Current)
Disk2: 624  + 1950Mb (Current)
Temperature: 84.9
Power: 18.4m  03:3:56
Ch: 123  DS: LC

GPS Status: GPS
Time: 3:00:04.00  Lat: 42:44:24.3
Sec since LL: 00:00:52:00  Lon: 13:24:32:6
Phase Diff (us): +0.0009  Mode: Cycled
SVs: 11

CALIBRATION: Control -> Aux. Ctrlr -> 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:

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

DEMOBILIZE STATION

SENSOR
☐ If sensor is a 3T: lock masses twice with power on using breakout box; confirm masses pegged; disconnect
breakout box (NB: May need to connect AUX power cable to breakout box first, or use HCU with power cable)
☐ 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: 18
☐ Remove sensor; enter sensor information: Type: STS-2  Serial #: 191/2
☐ Enter assumed declination from installation (as written on sensor pad): 50.40
☐ 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: 910
☐ 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 #: 9790
☐ Disconnect batteries; cover terminals with plastic caps or tape
☐ Disconnect solar panels and GPS; enter GPS serial #: 3860

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