

BEST PRACTICES

- * Start by reading the flight notes. This will inform you of any unusual aspects of the data collection such as PST renamings, restarted instruments, or anything that may have affected the data collection process.
- * Avoid overloading the QNAP by being mindful of the I/O and bandwidth requirements of your task
- * Mark your initials on the media envelopes which stage you are at (i.e. downloading, deleting)
- * Do not delete any original data unless it has been archived
- * Archiving tapes (copies and full tapes) should be distributed to avoid single point failures
- * Always unmount disks before removing
- * { } brackets are used to denote options or file names F## is the flight number (i.e. F02, F12), J### is for the Julian day (i.e. J055, J132)
- * Any qualitative notes about what you find in this process go in: /media/ICE/note/yped/ICP7/notebook/BOPnotes
- * Suggested order (for maximizing usage of the QNAP)
- * Linux tips and useful commands are at the end of this document

Download

- Avoid downloading large data in parallel (such as radar and camera)
- Preserve the time stamps of the data (i.e. \$ cp -p)
- Mark the media envelope after downloaded with your initials
- When there are multiple GPS units of the same type, check envelope for ID
- **After download, be sure to move files to a new folder on the media named by the flight number (i.e. F##/{data}) EXCEPT where noted not to (i.e. Ashtek media)**

Media	Instrument	Instructions
JKB2* drive	VHF {MARFA, HiCARS2}	<ul style="list-style-type: none"> • Make folder in hierarchy: \$mkdir -p /media/ICE/orig/yped/ICP7/acqn/{HiCARS2, MARFA}/F## • Copy files from media: \$cp -p radar* /media/ICE/orig/yped/ICP7/acqn/{HiCARS2, MARFA}/F##
	ELSA2	<ul style="list-style-type: none"> • Make folder in hierarchy: \$mkdir -p /media/ICE/orig/yped/ICP7/acqn/ELSA/F## • Copy files from media: \$cp -p serial* /media/ICE/orig/yped/ICP7/acqn/ELSA/F##
PCL drives	PCL	<ul style="list-style-type: none"> • \$./media/ICE/code/yped/ICP7/download/TOF/read_PCL_marker.sh {offset count in 32 MB blocks (typically 0)} • Check the card number and the "marker" that the operator records in the flight notes • \$./download_pcl.sh F## {channel 0 or 1} {flight sector (a, b or c)} JDAY {min # blocks to download, try 1} {offset count in 32 MB blocks} • Files sent to .../orig/yped/ICP7/acqn/TOF/F##/ - also save the pcl.log file here • Nothing to unmount
CF card	CAM	<ul style="list-style-type: none"> • Make folder in hierarchy: \$mkdir -p /media/ICE/orig/yped/ICP7/acqn/CAM/F## • Copy complete camera directories {100CANON, 101CANON, etc.}: \$cp -rp {100CANON, 101CANON, etc.} /media/ICE/orig/yped/ICP7/acqn/CAM/F##
online	Mag External	<p>Get files from http://www.intermagnet.org/data-donnee/download-eng.php#view select Latitude (S High Lat). Select seconds. Download data. Extract .sec file.</p> <ul style="list-style-type: none"> • Make folder in hierarchy: \$mkdir -p /media/ICE/orig/yped/ICP7/acqn/EXTERNAL/JDAY/MAG_IAGA • Copy files to folder <p>Note: You can visualize the last 24h data at Qaanaaq: http://flux.phys.uit.no/cgi-bin/plotgeodata.cgi?Last24&site=thl6d&</p>
USB	GT2A (CMG)	<ul style="list-style-type: none"> • Make folder in hierarchy: \$mkdir -p /media/ICE/orig/yped/ICP7/acqn/CMG/F## • Copy files from media: \$cp -p {files} /media/ICE/orig/yped/ICP7/acqn/CMG/F##
GPS Naming Conventions	<p>Airborne: ##: First number is the location of the gps (CG=1, Tail=2, Right wing=3, Left wing=4) Second number is the current version/iteration of receiver used on the particular antenna</p> <p>Base Station: Prefix: Use the 3 letter acronym of the base (i.e. WSD for WAIS) ##: First number is the antenna number Second number is the current version/iteration of the receiver used on the particular antenna</p>	
USB	JVD	<ul style="list-style-type: none"> • Make folder in hierarchy: \$mkdir -p /media/ICE/orig/yped/ICP7/acqn/JVD/F## • Copy files from media: \$cp -p {*.jps} /media/ICE/orig/yped/ICP7/acqn/JVD/F##

USB	TRM	<p>CSY TRM (Skiway)</p> <ul style="list-style-type: none"> • Make folder in hierarchy: <code>\$mkdir -p /media/ICE/orig/xped/ICP7/acqn/TRM/F##</code> • Rename files to be <code>###12.T02</code> and <code>###21.T01</code>, where numbers follow the base naming convention (<code>###</code> = base station identifier: ZWD = Willie, CSY = Casey, WSD = WAIS) • Copy files from media: <code>\$cp -p { } /media/ICE/orig/xped/ICP7/acqn/TRM/F##</code> <p>Note: The R9 receiver data can be accessed by logging into the receiver (see ip address on device)</p> <p>CAS TRM (Casey Station)</p> <p><code>\$/WAIS/code/xped/ICP7/download/EXTERNAL/TRM_CAS1/download_cas1.sh JDAY</code> (Files sent to <code>.../orig/xped/ICP7/acqn/TRM/F##</code>)</p>
USB {jkb32, jkb22}	TG3 (Topcon)	<ul style="list-style-type: none"> • Make folders in hierarchy for each TG3 (i.e. 32,42): <code>\$mkdir -p /media/ICE/orig/xped/ICP7/acqn/TG3/F##/JKB32</code> <code>\$mkdir -p /media/ICE/orig/xped/ICP7/acqn/TG3/F##/JKB22</code> • *Select the relevant files from the source folder (e.g. <code>/media/TG3_USB32/TOPCONFS/YXSV9EPZ/*D*</code>) • Copy files from media: <code>\$cp -p /media/ICE/orig/xped/ICP7/acqn/TG3/F##/JKB##</code> <p>NOTE: the file name indicates the instrument id and date (i.e. 321122 = MKB32 Nov 22)</p>
SD card	SPAN (NVT)	<ul style="list-style-type: none"> • Make folder in hierarchy: <code>\$mkdir /media/ICE/orig/xped/ICP7/acqn/NVT/F##</code> • Copy files from media: <code>\$cp -p *.LOG /media/ICE/orig/xped/ICP7/acqn/NVT/F##</code> • Clean the media after download

PST RENAMING

NOTE: The need for renaming should be noted in flight log. Also check the results of GPS breakout against expected PST names

Create file: `modify_pst.rc` with lines "old_pst new_pst" using the format: P/S/T P/S/T (one PST change per line)

Copy/place file:

`$ /media/ICE/orig/xped/ICP7/acqn/{HF, HiCARS2, ELSA}/F##/`

Add -modpst to grad

Add -modpst to glnk

BREAKOUT

Scripts in `media/ICE/code/xped/ICP7/all` breakout data AND generate files for printing

To save a log file, run the breakout script using `./glog`. (i.e. `$./glog ./grad -flags ...`)

Note: There are warnings that will be displayed (along with other verbose statements). To check if the script worked check the contents of `targ` and the corresponding print out folders

AQN (ELSA) (requires HF)	<p><code>\$ cd /media/ICE/code/xped/ICP7/all</code> <code>\$./glog ./glmk -flight F## -project ICP7 -skip_download [-overwrite] [-modpst]</code></p> <p>Check that all expected PSTs are there <code>\$ cd /media/ICE/targ/xped/ICP7/breakout/ELSA/F##</code> <code>\$ ls */*</code></p>
VHF (takes a long time)	<p><code>\$ cd /media/ICE/code/xped/ICP7/all</code> <code>\$./glog ./grad -mode {MARFA, HiCARS2} {-f forces overwrite of breakout} F## [-modpst]</code></p>
MAG External (cannot be done at NBY)	<p><code>\$ cd /media/ICE/code/xped/ICP7/breakout/MAG_IAGA</code> <code>\$./run_breakout F## JDAY</code> (accepts J### and ### i.e. no 'J' at start)</p>

GPS (do this after ELSA and MAG)	<pre>\$ cd /media/ICE/code/xped/ICP7/all \$./glog ./ggps -proj ICP7 F## Jddd yyyy [ignore missing] NOTE: Use -ignoremissing flag if missing data NOTE: All GPS can be manually broken out separately if there's a problem with above script {Maybe only works on old computers i.e. older Ubuntu} \$ cd /media/ICE/code/xped/ICP7/breakout/{GPS} \$./glog ./bo_pos_{nvt, tg3} -proj ICP7 F## \$./glog ./bo_pos_trm F## DOY year \$./glog ./bo_pos_jvd F## {or} DOY NOTE: Do the last three steps if re-running to integrate other sensors into the QC sheets \$ cd /media/ICE/code/xped/ICP7/quality/xlob/teqc \$./doteqc F## \$ cd /media/ICE/mkb22a.b mkb22a.e code/xped/ICP7/quality/flight \$./run_qc.sh F## \$ cd /media/ICE/code/xped/ICP7/print \$./ggps -proj ICP7 -year 2014 F## ~/Desktop/F##_gps_printing</pre>
PCL (not dependent on good PST)	<pre>\$ cd /media/ICE/code/xped/ICP7/quality/xlob/TOF \$./qc_tof.sh F## (Consider beginning printing whilst this is chugging along)</pre>
GT2a (CMG) QC	Refer to 'GT2 Processing and QC Procedures' to undertake gravity QC. Output from GT2 procedure is incorporated into GQC.
GQC (not an instrument, but do after GPS and PCL)	<p>Produces Flight QC, Geology QC, Ice QC, and Review pdfs (this will generate the qc sheets)</p> <pre>\$ cd /media/ICE/code/xped/ICP7/all \$./gqc F##</pre>
CAM (not dependent on good PST)	<pre>\$ cd /media/ICE/code/xped/ICP7/breakout/CAM \$./bo_cam -flight F##</pre> <p>The movie command is very slow – you may be able to begin QC while this is running (Do this on ICECAP7 or 8 if possible)</p> <pre>\$ cd /media/ICE/code/xped/ICP7/quality/xlob/CAM \$./makemovie -flight F##</pre>
ELF	<pre>\$ cd /media/ICE/code/xped/ICP7/quality/xlob/ELF \$./run_quality.sh F## (Video saved in: .../targ/xped/ICP7/quality/xlob/ELF/F##)</pre>

PRINT NOTE: you may do breakout and printing in parallel	
VHF	<ul style="list-style-type: none"> The grad.sh script at the breakout step should generate a folder on your desktop Print its content: \$ lpr ~/Desktop/F##_[MARFA,HiCARS2]_printing/* Classify the sheets in the RADAR binder If GRAD works, radargrams will be saved in targ/././quality/xtra/plots/pik1.RADnh4 ...Else see process below: <p>To manually generate the VHF QC sheets</p> <pre>\$ cd media/ICE/code/xped/ICP7/quality/xlob/{MARFA,HiCARS} \$./run_rp F## pik1.RADnh3 \$./plot_radargrams.sh F## \$ cd /media/ICE/code/xped/ICP7/print/RAD \$./print.sh {season} {platform} {F##} MARFA pik1</pre>
AQN	<ul style="list-style-type: none"> The glnk.sh script at the breakout step should have generated a folder on your desktop Print its content : \$ lpr ~/Desktop/F##_pcor_printing/* Classify the sheets in the PCOR binder

GPS	<ul style="list-style-type: none"> The ggps.sh script at the breakout step should have generated a folder on your desktop Print its content: \$ lpr ~/Desktop/F##_GPS_for_printing/* Classify the sheets in the PCOR binder
GQC	<ul style="list-style-type: none"> Print the pdf files and classify the sheets in the FLIGHT NOTES binder: \$ cd /media/ICE/targ/xped/ICP7/quality/flight/plots/F## \$ lpr * Copy files \$ cp * /media/ICE/note/xped/ICP7/acqn/Flight_Logs/F##

QC	
Instructions	<p>On the flight based QC sheet, highlight quality of each sub-section of transects using the following color code: 1 = blue 2 = yellow 3 = orange pink = missing data or sections where the instrument could not be expected to perform normally</p> <p>Note any error messages, synchronization problems, or times missing in each dataset</p>
Flight Notes	Review the flight notes to check any PST renaming, FOP passes to BOP, and events that could explain data singularities
GPS	<p>Each reciever has at least 7 satellites, with few I's (indicates loss of lock). See print-out or teqc -help for symbol list explanation Ideally we want observations/cycle slip to be >1000 ORIENTATION (dPOS): 1. At least a combination of 1 tail + 2 wings at any time across full section of transect 2. No combinaison of 1 tail + 2 wings for < 10% of the transect 3. No combinaison of 1 tail + 2 wings for > 30% of the transect</p> <p>CENTER OF GRAVITY (CG): 1. At least 7 satellite at any time across full section of transect 2. No satellites for < 10% of the transect 3. No satellites for > 30% of the transect</p>
MAG	1. Base mag range during the transect is < window (or 100 gamma) and flown in a quiet window 2. Base mag range during the transect is < window (or 100 gamma) but flown in a noisy window 3. Base mag range during the transect is > window
ALT	LASER/IMU/PRESSURE: 1. Dropouts for <10% of the transect 2. Dropouts for between 10% and 30% of the transect 3. Dropouts for > 30% of the transect
SPAN	1. Continuous, compare to the IMU, roll and pitch hopefully not exceeding 1 degree 2. Continuous, compare to the IMU, roll and pitch hopefully not exceeding 10 degree 3. Discontinuous, does not match IMU, roll and pitch not matching known turns
CAM	<ul style="list-style-type: none"> Play the movie: check for window cleanliness, camera focus, and pictures accordance with targets \$ mplayer /media/ICE/targ/xped/ICP7/quality/xlob/CAM/F##/CAM_F##.mp4
PCL	1. Dropouts < 20% of the transect 2. Dropouts between 20% and 80% of the transect 3. Dropouts > 80% of the transect

RADAR	<p>It is recommended that VHF QC is done from xevas \$ cd /media/ICE/code/xped/ICP7/analysis/xlob/HiCARS2/picking \$./pst_list.sh {find desired PST} \$./xevas_any.sh PSTNAME</p> <p>QC HF by comparing HF and VHF on gqc sheet: SURFACE (Low gain, channel 1): 1. Surface traceable without interruption across entire section 2. One or more locations where the surface is present but poorly defined or indistinct 3. One or more location where the surface is not present in the radargram Note: Traces should not saturate at the surface</p> <p>LAYERS (Low/High gain): 1. Layers visible to a depth of ~8 µs above the bed over >80% of the section 2. Layers visible to a depth of ~8 µs above the bed over 40-80% of the section 3. Layers visible to a depth of ~8 µs above the bed over <40% of the section</p> <p>BEDROCK (High gain, channel 2): 1. Bed is clear and traceable across full section of transect 2. Bed is faint or partially obscured by noise at one or more points along the section 3. Bed is not present or completely obscured by noise at one or more points along the section</p>
Gravity	<p>Compare the gravity anomaly to the topography and the mag: 1. correlation is good 3. overly noisy or lack of correlation (i.e. unusable for science)</p>
MEDIAS	On the flight based QC sheet, track each media ID that has been used for this flight

Scans (ASUS Netbook or icecap7)	
FLIGHT NOTES	<p>Scan the flight plan and flight notes into a pdf/jpg format and copy them to: /media/ICE/note/xped/ICP7/acqn/Flight_Logs/F##/F##_FlightNotes_ICP7.pdf Flight notes hard copy is stored in the FLIGHT NOTES binder</p>
QC SHEETS	<p>Scan the flight based QC sheet into a pdf/jpg format and copy them to: /media/ICE/note/xped/ICP7/acqn/Flight_Logs/F## QC hard copy is stored in the FLIGHT NOTES binder</p>

ARCHIVE	
<p>•Set local 'asdrive' variable on your terminal to the correct ipaddress: \$export ASDRIVE=<ipaddress></p> <p>• To get the ipaddress: 2 ways 1)on chrome go to router (192.168.1.1): → status → local network → DHCP client table, get the a-series address 2)on terminal: ping a-series.local</p>	
RADAR	<p>ORIGINAL DATA (ovhfr x2) • \$./media/ICE/code/xped/ICP7/archive/find_ovhfr F## • Insert "ICP7 ovhfr copy #1" into the tape drive • \$./media/ICE/code/xped/ICP7/archive/arc_syst ovhfr F## • When prompted remove copy #1 and insert copy #2</p> <p>BREAKOUT DATA (tvhfr x1) • \$./media/ICE/code/xped/ICP7/archive/find_tvhfr F## • Insert "ICP7 tvhfr copy #1" into the tape drive • \$./media/ICE/code/xped/ICP7/archive/arc_syst tvhfr F##</p>
PCL, CAM, SPAN	<p>ORIGINAL DATA (opciu x3) • \$./media/ICE/code/xped/ICP7/archive/find_opciu F## • Insert "ICP7 opciu copy #1" into the tape drive • \$./media/ICE/code/xped/ICP7/archive/arc_syst opciu F## • When prompted remove copy #1 and insert copy #2, then copy #3</p>

ELSA, AQN, GPS, CMG <i>oelpo</i> does not require scanned QC sheets <i>telpo</i> does	ORIGINAL DATA (oelpo x2) • \$./media/ICE/code/xcped/ICP7/archive/find_oelpo F## • Insert "ICP7 oelpo copy #1" into the tape drive • \$./media/ICE/code/xcped/ICP7/archive/arc_syst oelpo F## • When prompted remove copy #1 and insert copy #2 BREAKOUT DATA (telpo x1) • \$./media/ICE/code/xcped/ICP7/archive/find_telpo F## • Insert "ICP7 telpo copy #1" into the tape drive • \$./media/ICE/code/xcped/ICP7/archive/arc_syst telpo F##
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CLEAN	
All EXCEPT PCL, ASH	<ul style="list-style-type: none"> Once downloaded, move the files in a media subdirectory called F## for clarity. We keep a minimum of data from the two last flights on media. <p>Before deleting: (1) Check qc sheets to be sure the media was qc-ed and makes sense (2) Create log files of each tape on DIFFERENT LTO than they were written: \$ as-list to see what flights are stored on each tape \$ as-read F##.tar tar tv > \$WAIS/note/xcped/ICP7/media/F##.tag where "tag" is replaced by {oelpo1, oelpo2, ...} (3) For each piece of media, run one of: (the GPS renames files, so requires diff script) \$./media/ICE/code/xcped/ICP7/media/check_media.sh F## tag /path/to/media \$./media/ICE/code/xcped/ICP7/media/check_trm.sh F## tag /path/to/media \$./media/ICE/code/xcped/ICP7/media/check_tg3.sh F## tag /path/to/media (4) if the files were found in the logfile, remove them from media</p>
PCL (maybe recheck with LEL about strike-out in original version)	<ul style="list-style-type: none"> To check that it was archived: \$ cd /media/ICE/note/xcped/ICP7/media \$ cat F##.opciu* grep "tof{0,1}{a,b,c,d}.bin" <p>If it shows up: \$./media/ICE/code/xcped/ICP7/download/TOF/blank_pcl_disk.csh F?? c s (where c is channel equal to 0 or 1 and s is flight segment)</p> <ul style="list-style-type: none"> Select y to produce a lot of zeros on drive Nothing to unmount

EXTRA	
LINUX	<ul style="list-style-type: none"> Mounting media: Some media automount – get address by clicking Places (upper left) If the media doesn't mount: \$ sudo fdisk -l (check name of the connected media, should be /dev/sd??) \$ sudo mkdir -p /media/?? (create the directory where the media will be mounted) \$ sudo mount /dev/sd?? /media/?? (mount the media) \$ df -h (check if the media is mounted) How to unmount a media: \$ df -h (check the name of the mounted media) \$ sudo umount /media/?? OR \$ sudo umount /dev/sd?? (if unusual chars in /media option) (unmount the media) \$ df -h (check if the media is unmounted) How to watch PCL data download status: \$ pstree -p grep download (get the job ID) \$ sudo watch -n 10 kill -USR1 {ID} If that doesn't work, try "ls -lh" to compare the size of destination file to expected final size Check file systems for errors on a media: \$ sudo fsck /dev/sd?? (see if there are errors) \$ sudo fsck -r /dev/sd?? (repair errors) \$ sudo fsck /dev/sd?? (see if errors have been fixed; run with -r option again if not) Copy a disk image from a media to another: \$ dd if=/dev/sd1 of=~/Desktop/media.img (create an image from sd1 or other media) \$ dd if=~/Desktop/media.img of=/dev/sd2 (copy the image to sd2 or other media) Check size of folder or disk: \$ du -ch grep total

• **Adjust size of terminal window (without mouse):**
 alt+F8 (use arrows to resize, press enter to fix)

\$ dd if=/dev/sd1 of=~/Desktop/media.img (create an image from sd1 or other media)
\$ dd if=~/Desktop/media.img of=/dev/sd2 (copy the image to sd2 or other media)

• **Check size of folder or disk:**

\$ du -ch | grep total

• **Adjust size of terminal window (without mouse):**

alt+F8 (use arrows to resize, press enter to fix)

ROUTER

• **To administer via the webpage:**

192.168.1.1

username:

password:

Setup → DHCP reservations to see what devices are currently connected and how

QNAP

• **To manually mount:**

\$ sudo mount /media/ICE

{or}

\$ sudo mount 192.168.1.104:/ICE /media/ICE4

\$ source ~/.bashrc

• **To reprioritize RAID checking:**

(The QNAP may slow down drastically when its checking the RAID)

ssh into QNAP

use top to find the PID of the process hogging resources

renice <pid> 20

• **To administer via the webpage:**

192.168.1.103:8080

LTO DRIVE

• **Tape Drive Check (lights):**

amber status light: cleaning request

orange error and amber status light blinking fast: cleaning error or media failure

error blinking fast: hardware error

error light stuck on: manual intervention requested

• **Tape drive access via FTP:**

\$ ncftp -u root -p ice098cap ftp://\$ASDRIVE

commands include: ls, exit, site eject

Redoing/rerunning Archive:

delete Index and Log files in /media/ICE/note/xped/ICP7/archive/{ovhfr, telpo, etc}

TAPES

• **Tagging new tapes:**

\$ cd /media/ICE/code/xped/ICP7/archive

\$./add_tag {tape_type} {1 or 2 or 3}

• **Checking flights recorded on a tape:**

\$ as-list

• **Downloading data from a tape:**

\$ as-read F##.tar | tar -xv

• **Checking tape was recorded properly:**

(do on different LTO than the one that wrote it)

\$ as-read F##.tar | tar tv > ~/tape_check/F##.tag

• **Ejecting a tape:**

\$ as-eject

XEVAS

Opening xevas

- cd \$WAIS/code/xped/ICP7/analysis/xlob/HiCARS2/picking
- ./pst_list.sh {find desired PST}
- ./xevas_any.sh PSTNAME

Initial setup

- Select File, Select data, type MagLoResInco1 (ENTER) for Low gain/ surface picking OR MagLoResInco2 (ENTER) for High gain/ bed picking
- Select pick, type srf_fld (ENTER) for Low gain/ surface picking OR bed_fld (ENTER) for High gain/ bed picking
- Select display, Select density, type 1000 (ENTER)
- Select draw. You should see the radargram on the screen

Picking the bed: I recommend you change the numbers at the top left and right to be 90000 and 190000, respectively. To do this, click on the box with the number in it, type in the desired value and press enter. You can play around with these values: it will adjust the grayscale brightness. Sometimes this takes some maneuvering to get the right balance. Press draw to see these changes (draw should be orange, indicating that there's something new to print on the screen)

Maneuvering in the gui

- To change the viewing window you can right click and drag to choice, selecting the now orange draw again
- You can also left click and drag along the bars below and to the left of the radar gram to select how much is displayed. Again, you have to hit draw for this to print on your screen
- Another option for moving the image is to select the arrow buttons on either side of the afore-mentioned bars. This will move the screen just about the same distance that is shown on the bar, with some overlap. This allows for smoother transitions to keep picking. Once again, you have to hit the orange draw for this new section to show up

Picking!!!

- On the display tab, pik1 should be deep orange. This means it is selected. Click along the top of the surface or bed (a little bit above what you want)
- Click pik2 until it is deep orange/ selected. Click along the bottom of the surface or bed (a little bit below what you want).
- If you made a mistake (pik1 points being below the desired line, for instance) and wish to delete one or more of your points, you can hold down the center mouse button and drag across the points to be removed. They should be whited out, indicating that they have been removed
- If there is an area that you just can't make out (this mostly happens on the bed) select points for pik1 below pik2, this will indicate to the algorithm to ignore this section

Completing and saving picks

- When you have picked the entire radargram, select file, and select auto. This should bring up the image of your picks! Huzzah. If the pick is incredibly noisy in places (more leniency is given for field picks) you may have to go back and re-pick that section. Once you have done so, simply select file, auto (again), and the new pick will show up
- Once you are satisfied with your pick, hit write

DO NOT HIT READ, OR PRINT. (Unless you know what you are doing)

- Hit quit to exit once your pick has been written

ELSA
STREAMS

Location: targ/xped/ICP7/breakout/ELSA/P/S/T/<stream>

Stream convention:

AAAAa# : AAA = instrument;
aa = first letter: abbrev for manufacture; second letter: abbrev for what it is measuring;
= version

Need to update this

- GPSAP3 → GG24
- GPSSc1 → true time
- AUNcp1 → status ... IMU
- AUNcp2 → data from ... IMU
- PRSpz2 → current pressure
- MAGgm2 → 823A mag, scalar
- MAGim1 → flux mag
- AZrz1 → RIGL
- AVNiz → radar altimeter (for MKB itself)
- RADnh3 → VHF
- RADnh4 → HF
- AVNnt1 → OAT
- AVNnt2 → OAT
- CCMei1 → Elphel
- AQNnr1 → internal status packets
- GPSPp1 →
- GPSTp3 →

Stream convention:

AAAAa# : AAA = instrument;
aa = first letter: abbrev for manufacture; second letter: abbrev for what it is measuring;
= version