

Project: T-350-M

Project Principal Investigator: Dr. Charles Bentley

Report No: 1 **for period** 11-19-07 **through** 11-25-07 **Prepared by:** Jay Johnson **Date:** 11-26-07

ICDS Personnel on Site: Kristina Dahnert

Michael Jayred Brent Folmer Scott Haman Jay Johnson

ACTIVITIES DURING PERIOD

- Krissy and Michael arrived in Christchurch on Tuesday
- · Brent, Scott, and myself arrived in Christchurch on Wednesday
- We had ECW clothing issue at the CDC on Thursday
- We were originally scheduled to fly to McMurdo on Friday, but the flight was canceled due to weather in MCM. Flight is Rescheduled for Monday Nov 26
- · We spent the weekend sight seeing in the Christchurch area.

COMMENTS (Problems, Concerns, Recommendations, Etc.)



Project: T-350-M

Project Principal Investigator: Dr. Charles Bentley

Report No: 2 for period 11-26-07 through 12-02-07 Prepared by: Jay Johnson Date: 12-02-07

ICDS Personnel on Site: Kristina Dahnert

Michael Jayred Brent Folmer Scott Haman Jay Johnson

ACTIVITIES DURING PERIOD

- We flew to McMurdo Station (MCM) on Monday on a C17. The flight took five hours.
- A large portion of the DISC Drill came in with us on the Monday Flight. The remainder arrived on Tuesday's flight.
- All of the DISC Drill cargo sent for this season is here in MCM accept for the second shipment of Arctic Oven tents which are in CHC.
- Tuesday morning Brent, Mike, and I attended our in brief while Scott and Krissy went to Snow School. Brent, Mike, and I attended our Snow School refresher class in the afternoon.
- Met several times throughout the week with Sharon Lewis, the WIAS Divide cargo coordinator, to review the status of our cargo and give items a priority number for shipment to WAIS.
- Inventoried and packed our gear issued by the BFC and Comms.
- On Wednesday all of us attended the Waste and Environmental training class.
- We had two phone conferences with WAIS this week to go over the status of the camp and the drilling arch. Everything is on schedule.
- The five of us are scheduled to fly to WAIS on Monday.

	COMMENTS	
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(Problems, Concerns, Recommendations, Etc.)



Project: T-350-M

Project Principal Investigator: Dr. Charles Bentley

Report No: 3 for period 12-03-07 through 12-09-07 Prepared by: Jay Johnson Date: 12-09-07

ICDS Personnel on Site: Kristina Dahnert

Michael Jayred Brent Folmer Scott Haman Jay Johnson

ACTIVITIES DURING PERIOD

- Flew to WAIS on Monday on a LC-130. The flight took 3.5 hours.
- Set up MECC. It will not have power or heat for a few weeks yet.
- Brent has both the 480v and 208v panels mounted and he is starting to wire them.
- Installed the beeper on the yellow gantry crane.
- Excavated ~4 inches of snow from the bottom of the winch pit and tower base cut outs.
- Installed the tower base and winch pit mats.
- Installed the wall brackets for the gantry crane cable chains.
- Jayred pulled a muscle in his back on Wednesday. He is on light duty work for the rest of the week.
- Worked a half day on Saturday due to bad weather.
- All but four pieces of our cargo came in this week.

COMMENTS

(Problems, Concerns, Recommendations, Etc.)

Apon inspection of the of the slot and winch pit dimentions I Found that the actual Dimentions for the length of the slot and slot access hatch don't match our drawings. The overall length of the slot is short by 10 inches. The distance from the edge of the tower base cut out to the edge of the slot hatch measures 25' 10" and our drawing calls it out to be 30'6". The 25' 10" opening will accomidate the drill and tower in the configuration we ran it in Greenland. If we find the screen section and/or Tower need to be lengthened modifications or removal of the slot hatch will have to be done.



Project: T-350-M

Project Principal Investigator: Dr. Charles Bentley

Report No: 4 for period 12-10-07 through 12-16-07 Prepared by: Jay Johnson Date: 12-16-07

ICDS Personnel on Site: Kristina Dahnert

Michael Jayred Brent Folmer Scott Haman Jay Johnson

ACTIVITIES DURING PERIOD

We made good progress this week and are on schedule to be drilling by the end of the month. Another storm hit us on Thursday evening delaying the arrival of Bill, Paul, Nicolai, and Laurent until next week. Winds reaching 40+ knots, heavy drifting, and white out conditions continued through Saturday evening. Most of camp took the day off on Saturday because working outside was near impossible and the poor visibility combined with heavy drifting made walking dangerous. We took the morning off, but worked in the afternoon when visibility improved some. Today we have unrestricted visibility and the wind is decreasing. The Camp staff is busy once again digging out camp and knocking down the massive drifts in front of buildings, some over 8' high.

- Installed the slot drip pans, hole cover, and fiber grate walkway in the slot. We
 had to excavate the slot an additional one foot at the bore hole before installing
 the pans.
- Assembled the tower base and lowered it into place. The slot opening through the floor was to narrow to allow the tower base to be aligned with bore hole. The slot measures 43" wide at floor level and it should be 48". The tower base needs to shift 1 5/8" towards the control room to line up with the bore hole. Eric Brown and I cut the floor on the control room side of the slot back 6" for a distance of ~6" starting at the winch pit to allow the tower base to be shifted and to allow the hand rail and hand rail brackets to clear the trunnion when it moves.
- Completed installation of the gantry crane cable chains. Both cranes are now powered via the cable chains.
- Began assembly of the tower sections.
- Placed the level wind in the winch pit, however it is not in final position yet. I
 decided to bring the level wind and tower pallet in ahead of schedule, on
 Thursday, because of the high winds, blowing snow, and white out conditions
 forecast for the end of the week. The drill side arch doors drift in quickly when the
 winds pick up so I wanted to make sure we had enough work side to keep us
 going for several days.

- Placed and wired the 208v transformer.
- Ran cables through the under floor cable chases for the winch, control room, and Centrifuge.
- Ran the 480v feeder from the RPSC panel to our main distribution panel.
- Wiring of the power panels is ongoing.

COMMENTS

(Problems, Concerns, Recommendations, Etc.)



Project: T-350-M

Project Principal Investigator: Dr. Charles Bentley

Report No: 5 for period 12-17-07 through 12-23-07 Prepared by: Jay Johnson Date: 12-24-07

ICDS Personnel on Site: Kristina Dahnert

Michael Jayred Brent Folmer Scott Haman Jay Johnson Laurnet Augustin

Bill Mason

Nicolai Mortensen Paul Sendelbach

ACTIVITIES DURING PERIOD

Laurent, Bill, Nicolai, and Paul arrived at WAIS on Monday. By Monday evening another storm began to settle in at WAIS. We were able to work a full day on Tuesday and until 4:30 PM on Wednesday. By Wednesday evening the wind was blowing 50+ knots and visibility was near zero. To go outside we had to check out and travel in pairs. We all stayed in the camp Rac tents Wednesday night because it was too dangerous and near impossible to get to our tents. About 30 of us stayed in the galley sleeping on the floor, on tables, or on chairs. Needless to say, most of camp didn't get much sleep Wednesday night so Thursday was a rest, recovery, and dig out day. By Friday the weather had greatly improved and we were able to get back to work. Everyone worked Sunday this week so we can take Monday off for Christmas. Sunday evening we had our Christmas dinner and Party.

- Helped Lurent, Bill, Nicolai, and Paul set up their tents and get settled.
- Aligned the tower base with the bore hole using a plumb bob and straight line. Further alignment will be done once the tower can be tilted vertical.
- Finished assembly of the tower sections. Installed the tower sections along with the drip pans, rollers, and crown sheave. The new upper tower stiffeners have also been installed.
- Installed the tower actuator and power unit, connected the hydraulic lines, and wired the power unit. On Sunday we tilted the tower for the first time. Both the wired and wireless pendants are working properly. The horizontal and vertical tower limit switches are working, but they are not adjusted yet. Since Greenland we installed a shroud on the tower base to keep drilling fluid and cable debris for building up on the tower actuator brake. The case drain hose on the actuator motor will hit the shroud as the tower nears vertical. We are going to change the routing of the hose so it will clear. Otherwise, the tower is clearing everything as

it tilts. The shuttering we experienced when tilting the tower during the Greenland test has been cured with the changes we made to the valving. We have also installed the new pressure limiting valves and are working on dialing them in.

- The ICDS-NICL core transfer truss in place and leveled.
- Upon powering up the yellow gantry crane we found the VFD that drives the
 crane wheels was not working. It will power up, but displays error messages.
 Brent, Paul, and Nicolai were all working on trouble shooting it. After several
 attempts to fix it and a few calls to the manufacture Nicolai concluded that it
 should be replaced. A new one has been ordered and is scheduled to arrive in
 Christchurch next Thursday. For the time being we are using the blue gantry to
 push/pull the yellow gantry around.
- Placed the control room and wired it.
- The Glassman power supply has been brought in and Nicolai is working on installing the new ground fault circuit board.
- Place the winch control cabinet and began wiring it. Nicolai checked all of the terminal block screws on the low voltage side of the cabinet to make sure all of the connections were sound. He did find a few lose wires.
- Starting late this past week we began running a 12K generator at night so we can heat the control room and winch control cabinet.
- Connected the feeder from our 480V panel to the building panel.
- Wired the winch shunt trip breaker.
- The carpenters installed the ships ladder into the winch pit near the control room.
- Connected the level wind to the tower base.
- Brought the winch drum in and connected it to the level wind. We have begun
 installing the drip pans and wiring. The Blue gantry effortlessly picked up the
 winch drum and moved it into place. The footers and floor under the crane rails
 were very solid and hardly made a sound as we moved the fully loaded crane
 over them.
- Assembly of the screen cleaning system has begun.
- Brought in the centrifuge and its related parts. We will be bolting the centrifuge to the floor. Next week.
- Brought in the fluid handling system.
- Brought in the chip blower and hoses.
- Set up shelving to organize the safety gear and our tools.

COMMENTS

(Problems, Concerns, Recommendations, Etc.)

The hand rails and hand rail mounting brackes along the centrifuge side of the winch pit interfere with the tower stifning struts. The carpenters are modifing the brackets and how they are mounted to give us an additional 2" of clearance.



T-350-M **Project:**

Project Principal Investigator: Dr. Charles Bentley

Report No: for period 12-25-07 through 12-30-07 6 **Prepared by:** Jay Johnson Date: 12-30-07

ICDS Personnel on Site: Kristina Dahnert

> Michael Jayred **Brent Folmer** Scott Haman Jay Johnson Laurent Augustin

Bill Mason

Nicolai Mortensen Paul Sendelbach James Koehler Tanner Kuhl John Robinson

- Jim, Tanner, and John arrived at WAIS on Thursday. Jayred and Krissy helped them put their tents up and get settled.
- Re routed the hose going to the case drain on the tower actuator so it clears the shroud and adjusted the tower limit switches.
- Installed the drip pan that goes between the level wind and the slot. The pan required some modification to it would clear the hydraulic hoses on the tower actuator.
- Brought the winch/drill computer rack into the control room.
- Finished wiring the winch power cabinet and test ran the winch. Two of the new level wind cables had to be lengthened. Paul was initially having problems with the level wind not initializing properly when powering up. He unplugged and replugged the connections in the winch power cabinet and it seems to be working fine now.
- The brake power unit would not come up to pressure when we started it up. Bill tried several things to get it to work including heating the fluid and nothing helped. We ended up replacing the pump and now it is working fine. Jayred added heat tape and insulation to the tank and valve block in case we need it to keep the pump running reliably.
- The carpenters have finished modifying and installing the hand rails around the winch pit and slot.
- Finished assembly of the screen cleaning system and connected power to it. The system is not in its final position yet so we haven't cut the hole in the floor for the vibrator stand. We had to replace the grease in the bearings of the hot air blower

with low temp grease so that it would run.

- Lag bolted the centrifuge to the floor. Installed the new nitrogen system for the lid lock. Assembled the stand, placed the controller, and ran power to it. After trouble shooting a problem with the lid latch proximity sensors the system is now up and running.
- Placed the fluid handling system, plumbed, and wired it. The circulation pump mounted on the tank was difficult to prime. Scott added ball valves to the lines coming from the barrel pumps to prevent siphoning and back flowing. Scott and Laurent are working on mixing the first batch of fluid.
- Mounted the chip blower, connected power to it, and ran the suction hose.
- Mounted the air monitor and ran the sample lines including the one going to the NICL side. Krissy and Nicolai completed calibration of the unit.
- Assembled the optics tables.
- Brought in the sondes, screen barrels, and core barrel.
- Organized the shipping container and put up a storage rack.
- Finished organizing the safety equipment. Krissy showed all of the NICL and ICDS people what we have and where it is located which included the fire extinguishers and first aid kits.
- Assembled the upper sonde sections.
- · Aligned the tower rollers.
- Assembled the turning fixture.
- Ran the antenna cable for our HF radio base station and mounted the antenna to the building. This radio will live in the control room.

COMMENTS (Problems, Concerns, Recommendations, Etc.)



T-350-M **Project:**

Project Principal Investigator: Dr. Charles Bentley

Report No: for period 12-31-07 through 1-6-08 7 Prepared by: Jay Johnson Date: 1-6-08

ICDS Personnel on Site: Kristina Dahnert

> Michael Jayred **Brent Folmer** Scott Haman Jay Johnson Laurent Augustin

Bill Mason

Nicolai Mortensen Paul Sendelbach James Koehler Tanner Kuhl John Robinson

- Brent left WAIS Divide on Tuesday and flew to Christchurch on Thursday.
- Finished installation of the screen cleaning vibrator stand and bolted the screen cleaning system to the floor.
- Ran the winch cable through the sheaves and connected it to the upper sonde.
- The instrument section, pump, and cutter motors powered up and ran without issue on the first try.
- Hung the entire drill string and did some final adjusting of the tower base to align the drill with the bore hole.
- Completed the start up inspection check list.
- On Tuesday the 225k generator was brought on line.
- Added drilling fluid to the bore hole.
- The air monitor is very sensitive to the presence of 141b. When we first added fluid to the bore the air monitor went into alarm for the slot. The concentration level spiked just for a minute or two and then guickly dropped. The ventilation system was running at half speed at this time. We are now running it at 75 percent. This seems to provide a good level of ventilation, but we are also not running in production mode yet. The alarm also goes off for the centrifuge when we fill the chip buckets. This spike in concentration also only lasts for a minute or two. Currently the sample tube is mounted ~2' off the floor on the leg of the centrifuge stand, so when a chip bucket is brought over the top of it is very close to the sample tube. Overall the alarm limits seem to be set excessively low based on what the MDS states is a safe exposure limit. Krissy is working with Tom Demke to determine if these alarm levels can be raised.

- Completed alignment of our core barrel with the NICL core receiving tray.
- We touch the drill off on the bore hole step at 110 meters to give us a depth reference. From there we did two 1.5 meter deep reaming runs to open up the pilot hole left by the 4" drill. This should have put us within 1 meter of the bottom according to pilot hole drill log. We then did one more reaming run to put us within .5 meters of the bottom, but to our surprise we ended up drilling a .48 meter long core! So this was our first core. We drilled this core in the afternoon on January 3rd.
- On Friday we did a second drill run. We were attempting to drill a 3m core, but the screens filled after drilling 2.5m. The screens were packed more evenly than we saw in Greenland.
- We decided to reconfigure the drill so we could add two more screens. The core barrel was shortened by four sections. The net length of the drill increased by 42cm so we didn't have to extend the tower or change the slot hatch.
- We extended the screen cleaning system to accommodate the longer screen barrel.
- On Sunday we drilled a third core. We were able to drill a 2.8m long core before the screens filled.
- The new screen cleaning system is working well. The screen vibrator eliminates
 the need to plunge the screens and leaves them clean on the inside. The heat
 tube also works well.
- The chip blower system works fair. The reduction of the suction hose from 7" to 4" greatly reduces the velocity in the 7" tube so some of the chips remain in the bottom of it. The lid on the chip hopper fits loosely so some of the chips end up coming out around the edges.
- The brushes on the hole cover were to stiff so it was difficult to get the cover to close. When winching up the cable would open the cover part way. We thinned the brushes and added some weight to the cover. It looks like the cover is going to work better now.
- The new drive for the yellow gantry crane came in. Nicolai installed it and tweaked a few of the parameters to meet our needs.
- Once we had the drill on the tower and began tilting it we found out that the tower wants to drift vertical on its own when the brake is released. This happens when you try to tilt vertical or horizontal. This makes tilting the tower vertical using the pendent very difficult since you can't park the tower in a controlled manner. We did find that you can keep complete control of the tower if we run the hydraulic proportioning valve manually. To fix this problem we are going to have to reinstall the balancing valve we took out in Madison. Reinstalling this valve will probably reintroduce the chatter problem we experienced in Greenland. We left this valve in Madison, But Tony Wendricks is on his way and he is hand carrying it.
- We found a glitch in the level wind programming. If you stop the winch when the
 level wind is in the process of turning around it sometimes doesn't know which
 direction to go when the winch starts moving again. If it goes the wrong direction
 it will over travel and the limit switches will stop it. Paul is working on fixing this
 problem.
- Laurent has made up a few batches of glycol ice cubes.
- We have consolidated all of our shipping crates that we will be holding on to for repacking the drill. For this winter we have placed them on top of our storage container here at WAIS Divide. If we find this doesn't work well, next season we

will to send them to McMurdo for storage.

- Krissy took some time to show all of the drillers and core handlers where all of our safety equipment is kept, what we have, where the first aid kits are, and pointed out the locations of our fire extinguishers.
- A safety drill was conducted on Thursday involving everyone who is working at the drill site. The scenario involved three victims with injuries of varying severity.

COMMENTS (Problems, Concerns, Recommendations, Etc.)

T-350-M **Project:**

Project Principal Investigator: Dr. Charles Bentley

Report No: for period 1-7-07 through 1-13-08 8 Prepared by: Jay Johnson Date: 1-13-08

ICDS Personnel on Site: Kristina Dahnert

> Michael Jayred Scott Haman Jay Johnson Laurent Augustin Bill Mason

Nicolai Mortensen Paul Sendelbach James Koehler Tanner Kuhl John Robinson

- First week of production drilling.
- We did 85 drill runs this week and drilled a total of 220.419 meters.
- A few of the cores early in the week had a brake in them and many had small surface fractures. We made adjustments to the cutter and pump speeds and shoe height and are now consistently drilling one piece cores with few surface fractures.
- We worked in two shifts Monday Through Wednesday. First shift worked from 8:00 AM to 5:30 PM and second shift worked from 4:30 PM to 12:00 PM.
- On Thursday we switched to three shifts. First shift: 7:30 AM to 4:00 PM. Second shift: 3:30 PM to 12:00 AM. Third shift: 11:30 PM to 8:00 AM.
- We are averaging 7 drill runs per shift with core lengths running between 2.5 and 2.8 meters.
- I resharpened the cutters on Friday.
- On Friday during second shift we tried out the new cutter head. We don't see any noticeable changes in drilling; however the surface finish on the cores is better because the cutters are running more concentric.
- The nut that holds the lid on the centrifuge got stuck twice this week. The first time it got stuck we had to cut the weld between the nut and the washer to remove it. The second time we were able to get it off without cutting it. I have modified the nut so we should be able to release it if it gets stuck again without having to cut it.
- Nicolai wired the beeper on the yellow gantry crane.
- We have had the winch software hang up a hand full of times this week. Most of

- the time this happens when you try to leave a drilling cycle and come back into it or trip the hole cover switch at the wrong time. Paul is working on these glitches.
- Laurent, Bill and, Paul ran some test to see how fast we can reliably trip down.
 With out the pump running it looks like we can go 1.0 m/s. With the pump running
 3200 rpm we can go 1.2 m/s. It looks like we could trip at up to 1.4 m/s with the
 pump running at 3500 rpm; however the pump does not run reliably at 3500 rpm
 because the Glassman sporadically trips out due to current overload.
- The last day of drilling will be Sunday Jan 20. NICL will finish on the 21. The first wave of people are scheduled to leave on Jan 22 and the remainder of us on the 25th.





Project: T-350-M

Project Principal Investigator: Dr. Charles Bentley

Report No: 9 for period 1-14-07 through 1-20-08 Prepared by: Jay Johnson Date: 1-21-08

ICDS Personnel on Site: Charles Bentley

Tony Wendricks
Kristina Dahnert
Michael Jayred
Scott Haman
Jay Johnson
Laurent Augustin

Bill Mason

Nicolai Mortensen Paul Sendelbach James Koehler Tanner Kuhl John Robinson

- Second and final week of production drilling for this season.
- We drilled 246.162 meters this week.
- The final bore hole depth for this season is 580.581 meters.
- I worked with NICL to realign the FED, receiving tray, and core barrel after we began fracturing cores as they were pushed from the core barrel.
- We swapped out motor section X for motor section Z because motor section X has been leaking oil out of the rotating seal and we began having problems getting the cutter motor to start. Motor section Z was run for about a day and then we also began to have problems with the cutter motor. With this motor section the problem was worse because the cutter motor was not only hard to start, but would sporadically stop running. Despite having an oil leak, we swapped back in motor section X. This motor section was run for the rest of the season. It remained difficult to start the cutter motor at times, but otherwise worked fine.
- On Wednesday a 2.6m core was drilled, but only a little over a meter of it was recovered and the core break was very rough. When the drill was sent down again it got hung up in the hole at ~150 meters causing the cable to become completely slack before regaining tension. The drill was safely brought back to the surface. Scrape marks were evident on the screen barrel indicating that an ice chip had wedged itself along side the barrel causing the cable to loose tension. Another drill run was started to recover the missing core. This time we ran the pump from the time the drill was in the fluid to vacuum up any other loose

chips that might be in the hole. We were able to drill to the final depth from the second run back before loosing penetration. A few attempts were made to regain penetration with no success. The drill was brought back to the surface. Ice was brought back to the surface, but it was all broken into pieces. This rubble was very hard to remove from the core barrel because the pieces wedged themselves in the barrel when we tried to push them out. The head was completely plugged and it was evident that a few large chunks of ice had gotten wedged in the head and prevented further penetration. Upon inspecting the drill head after the run we found the core dogs were not moving freely because pieces of the cable void filler had gotten stuck in their pivots. We think the core dogs had not engaging properly and this is what caused the problems and junk core. I had John make some modifications to the core dogs and core dog cages to add more clearance around the coil spring. This fixed the problems with the core dogs sticking and improved the quality of the core breaks.

- Charlie and Tony arrived on Thursday.
- We worked with the Nova film crew for most of first shift on Friday to document the DISC Drill.
- I modified one of our screen section vales so we could bring a fluid sample up from the bottom of the bore hole. Laurent found the fluid density to be a little lower than he would like it. We began mixing the drilling fluid a little denser to raise the bore hole fluid density.
- Tanner drilled our first 3m core. This is an exception to our normal core lengths
 which range from 2.6m to 2.7m. Our drilling strategy is to drill the maximum
 repeatable length core without overfilling the screens and plugging the drill head.
 However, every so often we try to drill the maximum length core we can without
 plugging the head to make sure we are maximizing each drill run for the current
 ice conditions. Core quality continues to be excellent.
- Scott was flown to MCM on Saturday because he had been sick for several days and the doctor was not able keep him hydrated or provide for him care he needed. As of the time of writing this report his condition is improving and he is beginning to feel a little better. We all wish him a quick recovery.
- At 6:10 PM on Sunday the final core of season was delivered the core handlers.



T-350-M **Project:**

Project Principal Investigator: Dr. Charles Bentley

Report No: for period 1-21-07 through 1-27-08 10 **Prepared by:** Jay Johnson Date: 2-5-08

ICDS Personnel on Site: Charles Bentley

> **Tony Wendricks** Kristina Dahnert Michael Jayred Jay Johnson Laurent Augustin

Bill Mason

Nicolai Mortensen Paul Sendelbach James Koehler Tanner Kuhl John Robinson

- Final weekly report for the season.
- On Monday we began packing and winterizing the drill.
- Closed up the MECC, placed it on skies, and readied it to be moved to a winter storage berm.
- Cleaned the drip pans under the winch.
- Released the pressure from the accumulator on the winch brake unit.
- Removed the winch control cabinet.
- Packed the computer equipment, Glassman rack, and air monitor from the control room. The computer rack will be shipping back to Madison. All other items are packed in the DNF crate that will stay in McMurdo.
- Instead of removing and DNFing the entire electrical cabinet on the gantry cranes and centrifuge we removed only the critical DNF items from each cabinet. This reduces the amount of DNF space we need in McMurdo and will reduce the start up time next season.
- Covered equipment in the arch with tarps and plastic to help make clean up from the snow that will filter in over winter a little easier.
- Packed all anti-torque, instrument, and motor sections for shipment back to Madison.
- On Tuesday Charlie, Tony, Laurent, Bill, Paul, and Nicolai flew to McMurdo.
- On Wednesday Krissy, Mike, Jim, John, Tanner, and I flew to McMurdo.
- All of our tents and foam for under them are stored for the winter at WAIS Divided in our shipping container.
- In McMurdo we worked with Science Cargo to fill out shipping information for our

retro cargo. We also returned sleep kits to the BFC and radios to Coms.

- Bill, Krissy, Tony, and I attended an end of season out brief with RPSC and NSF folks on Friday.
- On Friday evening all of us accept for Mike flew back to Christchurch. Mike was quarantined for the flue and wasn't allowed to fly until Tuesday Jan 29th.

COMMENTS

(Problems, Concerns, Recommendations, Etc.)