Thursday 23rd was a long day where we started on the barge at 7.30am and got off the lake after the sun had set. There were advances and also some frustrations and setbacks.

Prime task of the day was establishing communications with the IPSIE instruments and the percussion corer and then proceeding to test them operationally. We managed to establish communications with some of the scientific instruments, though not all. Troubleshooting ensued and some issues were sorted out, but not all. Thus although all were working well in Alameda before shipping, there remain issues to be dealt with tomorrow regarding instrumentation communications with topside computers through the fiber-optics cable.

We completely assembled all 15m of the upper sections of the percussion corer above the barrel and had them over the side for testing through the smart fiber-optics cable. They looked quite impressive! To do this testing, we motored from the dock for the first time out across a broad flat bedrock platform in front of the marina and anchored in about 15m of water. We got help in locating our position from UC Santa Cruz engineers who have their own boat here. We also used the SCRIPPS ROV to observe the system underwater along side the barge. Tomorrow we plan to be taking the first test core using the percussion corer, again in relatively shallow water.

The UC Santa Cruz group also worked on the set-up of their piston corer, and tested their winch over the side of the barge as well, although didn’t deploying the corer.
Early morning on the lake
IPSIEs waiting for testing

Trouble shooting the IPSIEs
Setting up the Santa Cruz winch

Assembling the piston corer

Moving the barge out into deeper water
The driving section of the percussion corer over the side of the barge
Adjusting the hydraulics on the percussion corer

Lowering the percussion corer on the fiber-optic cable

NIU crew watching the percussion corer getting wet
Underwater view of the percussion corer from the SCRIPPs ROV

Getting the percussion corer on board
Coming back in at the end of the day