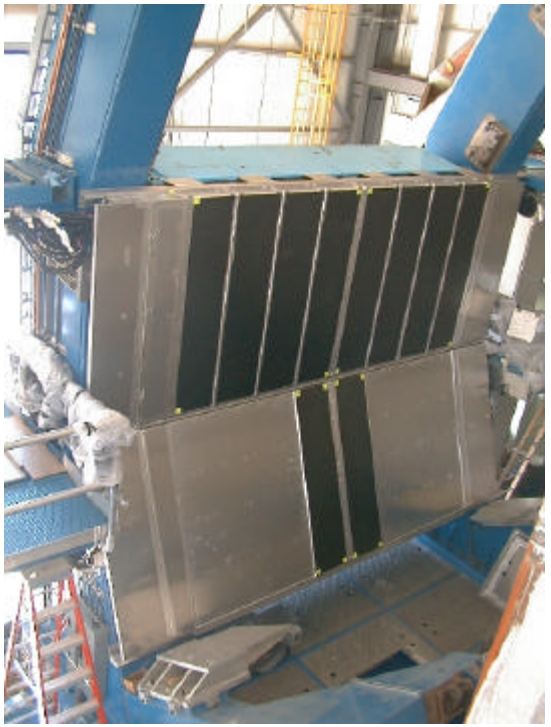
TOF Hardware Status

1. **Current Status**
   - **Overview**
   - **HV /LV**
   - **FEM**
   - **Cooling System / Temp. Monitor**
2. **Scheduled Items**



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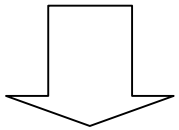
Current Status - Overview -

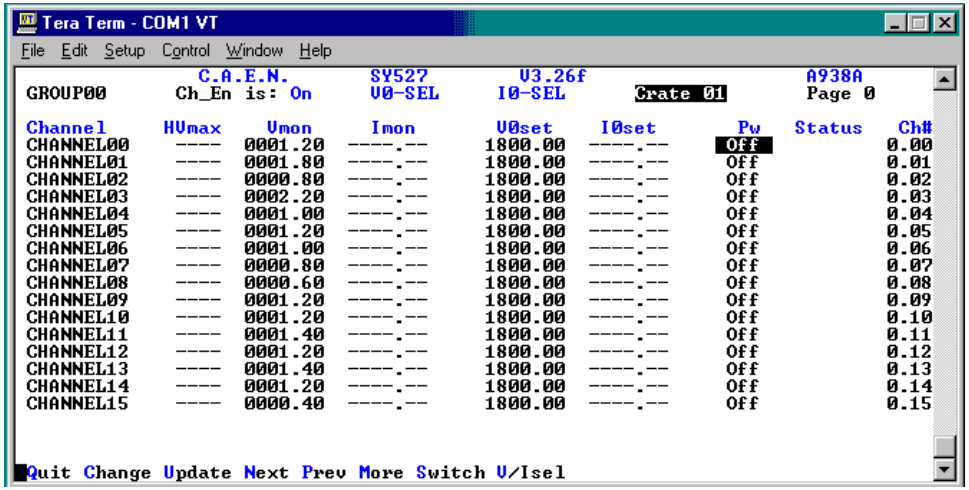
- All LV Power supplies were installed in both North and South side (4/25 done)
- LV control and LV module's temperature readout at the counting house
- HV control by the serial connection (RS232C) and monitoring
- TOF temperature readout via ADAM system
- Cooling blowers for TOF
- ARCNET control (by Nevis Group)
- All 1920 channels readout using test pulse to FEM (timing and charge injection)
- Done all hardware installation in IR



We are very close to say "TOF Operation Ready"!

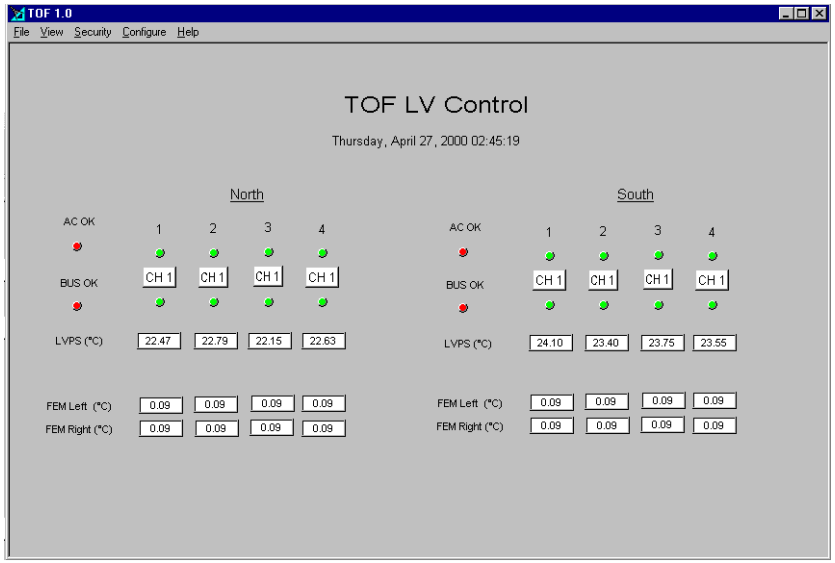
High /Low Voltage Control

High Voltage Control



- We use well-established method for HV control and monitoring (serial connection) for Day-1, instead of EPIC control
- Set up dedicated PC for CAEN HV

Low Voltage Control



- Controlled from PC for all 8 LV modules
- 6.8V output
- LV racks temperature monitoring
- Normal operation: LV ON (40~50 ^{o}C)

FEM

☆ After LV crates installation, we have done

- ARCNET control
- Test pulse events data taking for all channels
- Confirmed all FEM modules are working
- FEM calibration parameters check for QVC, TVC (Yun-Ha) using test pulse events
  (106 nsec/64 = 1.7 nsec time interval)

1920 signal cables are connected to FEM's

☆ Plan

- Laser events data taking for all channels
  1. Check PMTs signals
  2. Timing adjustments, channel by channel
  3. Data taking with BBC
  4. Work with online monitoring

Cooling System / TOF Temp. Monitor

- Cooling System (= Air blowers)
  Working well, but air ducts are vibrating during the blowers operation

<u>No mechanical damage for TOF itself</u>

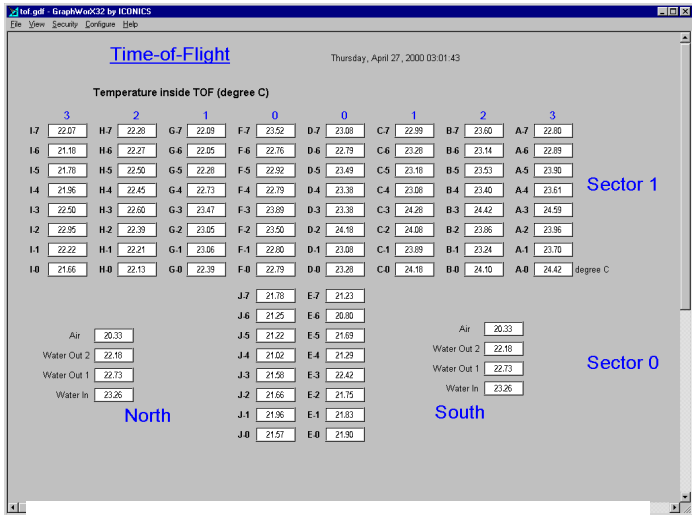
How reduce/stop this vibration?

* Solution 1 (Tom S.) Adjust fan speed and stop resonance in ducts?
* Solution 2 (Susumu S.) Put isolated plates both duct and fan and connect by flexible material?

⇨

Will be fixed in May shutdown

- TOF Temperature Monitor
  Working well, readout normal temperature
  (21~24 ^{o}C, turn off all HVs)



TOF Temperature monitor (ADAM system)

Scheduled Items

(0) TOF Operation Procedure for RUN2000, check and revise
⇨ End of this week or early next week

(1) Full operation chain test using laser input with BBC
(2) Current sensors for blowers
(3) Fix air ducts vibration in May shutdown
(4) Online monitoring
(5) Event display
(6) DCM readout by TOF offline software, and reconstruct DST