

DIRC Monthly Report

January 24, 2007

- ♦ Operations
- ♦ Electronics
- ♦ Chiller
- ♦ Background
- ♦ IOC
- ♦ Spare Status
- ♦ Planned Work
- ♦ Manpower

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Operations

- DIRC is fine so far after the troubles during the shutdown.
- The holidays passed without incident.
- Cosmic runs OK.
- First 2 colliding beam runs OK.
 - A few noisy channels in sectors 0 and 6 may need masking when we get above 3×10^{33}



Electronics

- Before closing up BaBar for running we
 - Replaced DFBs 0, 3 & 6 in sector 4 (1/2 & 1/4)
 - Replaced DCC in sector 3 (1/2)
 - Masked sector 0 DFB 6 and sector 6 DFB 11 in EPICS, DAQ for these still running fine (1/4)
- Problem with DCC in sector 1 (12/14 & 1/8)
 - Monitoring values bad but data okay
 - Usually shortlived (<1 hr)
 - Requires bridge to replace, so for now it stays in



Electronics

- No problems when DIRC untouched over holidays
- Last 2 times the doors were opened in January there was a strange coincidence:
 - Configuration failed
 - A DFB required replacement
- Matt Weaver has created a workaround, so now we can run even if one more DFBs fails to configure properly by masking it in the configuration while still recording its data.



Electronics

- 16 inefficient channels in sector 1
 - Appears sometimes in calibrations
 - Data looks good though, so no need to replace
- Problem with DFB in sector 9
 - Fails to configure
 - Data looks good, so we're using Matt Weaver's workaround
 - No need to replace it so far



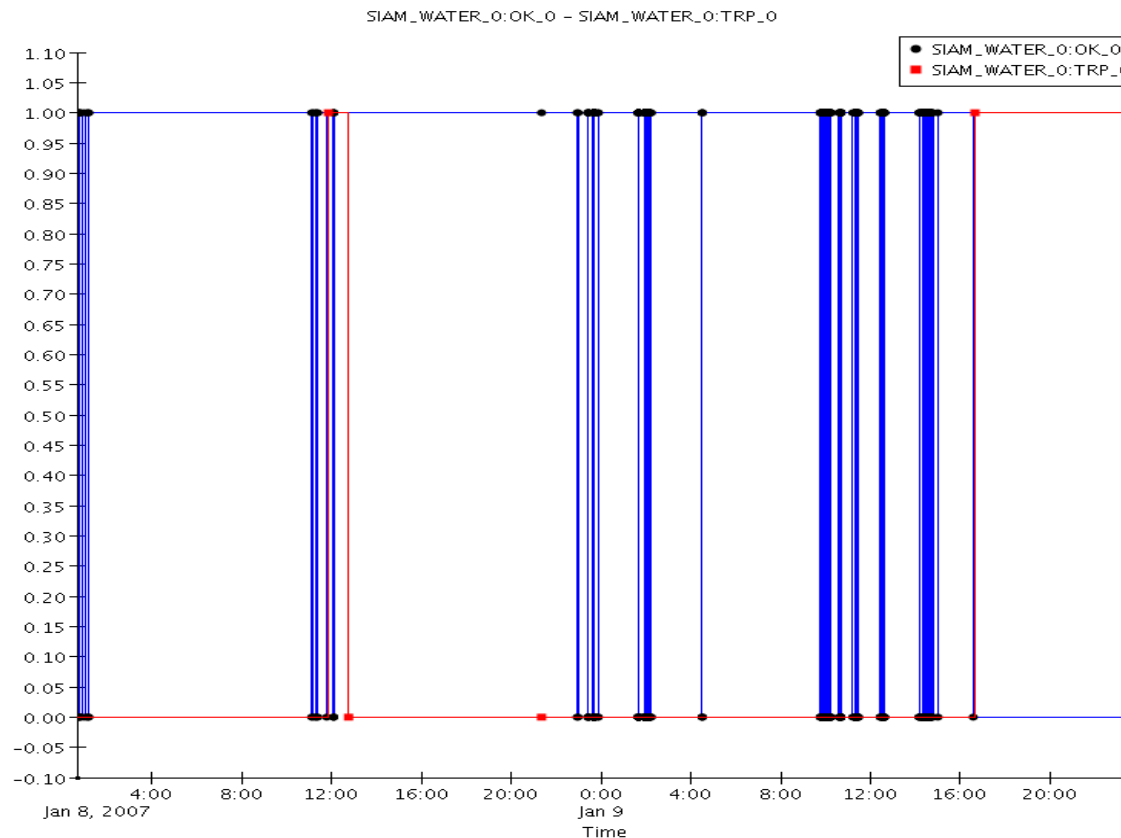
Chiller

- Underwent repair after several alarms in December
- Alarms shut down the Wiener crates
- Display changed
- Solenoid changed
- New values for flow & pressure on the DQM checklist



Chiller

- SIAM tripping in January even though the chiller looked fine



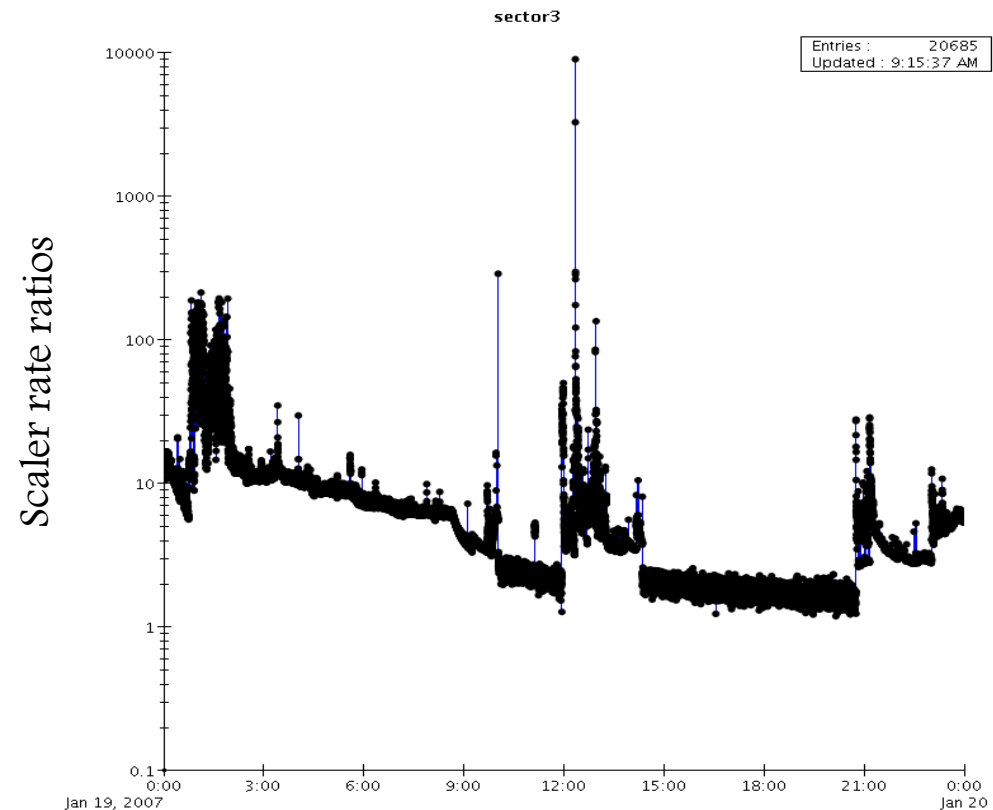
Chiller

- Matt check for leaking water lines and we ran the backup chiller to confirm there were none
- Confirmed OK by HVAC
- Oscilloscope used to monitor chiller & correlate with SIAM readings
- Chiller SIAM turned out to be the real problem
 - Ran for a week on the backup chiller to avoid possible other trips (1/11–1/16)
 - No problems since the SIAM was replaced by Ray (1/16)



Background

- Background levels got very high during PEP tuning (1/19)
- HV turned off in all sectors except sector 3 as a preventative measure
- Troubles disappear with careful tuning of beams during colliding



IOC

- When the drc-mon IOC is rebooted, it shuts off our Wiener crates
- No other subsystem has this problem
- We have been unable to track the problem down in software
- Ray & Matthias set up the teststand to try and understand this behavior



Spare Status

- Spare Status:
 - 5 good DFBs, 3 bad, 9 in France undergoing repairs
 - 3 good DCCs, 3 in France undergoing repairs
 - 1 working Wiener crate, 1 without a power supply
 - 2 good Wiener crate fantrays
 - 1 good PS, 2 being repaired by Ray
 - 1 good HV crate (shared with DCH)
 - 11 good HV boards



Planned Work

- Would like to install another humidity sensor next time the doors are opened
- No need to touch the DIRC during the next ROD.



Manpower

- Jose Benitez and Alejandro Perez have joined as new commissioners.
- Rolf Andreassen taking 6 months off from commissioner duties.
- We are **covered** through the coming months



Fans

- Trouble with our automated Wiener crate fans monitoring plots (1/21)
- Fanspeeds look OK in EPICS however
- Software glitch now fixed

