

KEK Computing Resources after Earthquake

Status as of today

Akiya Miyamoto

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ILD Software WG meeting

Earthquake – direct damage

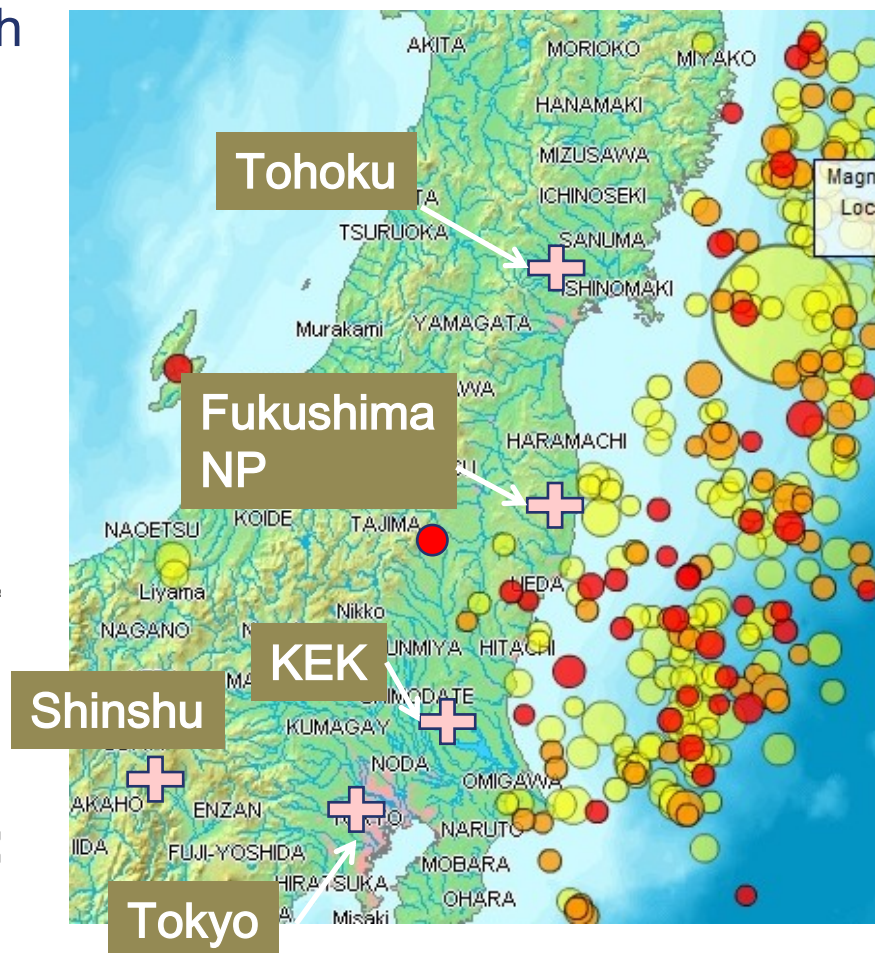
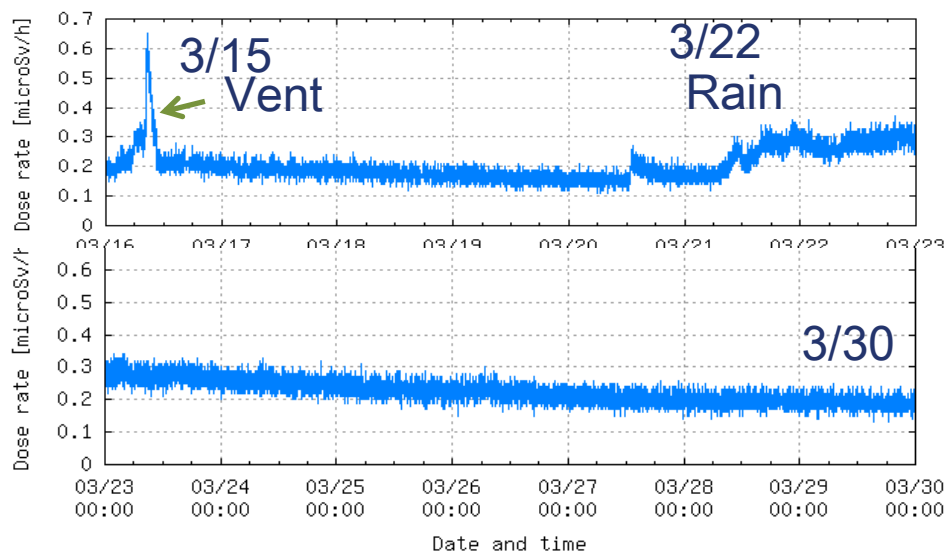
- Earthquake hit east Japan on 11-March.
Ex. My KEK office, 11-March →
I appreciate many warm words we received since then.
- No injuries among our colleagues.
For KEK situation, See
<http://www.kek.jp/quake/en/index.html>
- Many damages on accelerator facilities.
See Toge's report at ALCPG11 for example.
- After March 11, 1 week to check buildings,
another 1 week to turn on power to each bld.



- No damages to servers maintained by our group.
Our servers, except CPU servers, are in operation since this week
- Servers at KEKCC: Some concern on HPSS. Other components seem to be OK, but still waiting check after power on

Fukushima nuclear plant

- Fukushima Plant is about 160 km north of KEK. On going crisis.
- Radiation are continuously monitored at many places in Japan. Ex. KEK site <http://rcwww.kek.jp/norm/index-e.html>



- $\sim 0.2\mu\text{Sv/h}$ now. Mainly Iodine. Half life 8 days. $\sim 80\mu\text{Sv}$ when integrated, which is less than does by a round trip flight from Narita to NewYork($200\mu\text{Sv}$)
- But future of plant is unpredictable ! Will take long for a complete settle down.

Electricity

- Due to earthquake, Tokyo Electric Power Company (TEPCO) lost about 1/4 of their generators, which includes nuclear and non-nuclear power plants.
- To avoid a big blackout, rolling blackout has been started soon after the earthquake. The rolling blackout may be avoided in May-June when power consumption is low. But highest demand in July to September for air conditioning. Power recovery will take long. Some people says that the power shortage may continue till summer 2012.
- Ibraki prefecture, where KEK is sited, is not included in rolling prefecture because of the earthquake hit the area. However, due to a special contract between KEK and TEPCO, KEK power consumption is limited to **2MW** for the moment.
- Thus,
 - ◆ We operate group servers without air conditioning
 - ◆ Login servers (which mounts home disks) at KEKCC are turned on only weekends
 - ◆ No power to CPU servers for batch and GRID WNs (> 2000 cores) and SE.

Consequences to ILD study

- No CPU resources in KEK:
 - ◆ Whizard for ttH 8 fermion: needs > 2GB memory, CPU time > 7 days
 - ◆ Mokka/Marlin : hard to generate big samples.
- Access to GRID SE
 - ◆ Until GRID SE is back online, no access to 350 GeV samples, both generators (~ 2 TB) and Simulated/DST files (~ 35 TB)
 - copy to other places is not a simple job if stable operation is not available.
- GRID UI
 - ◆ We can access GRID sites in Europe. We'd like to use them. But file transfer is time consuming.

*For the moment, our analysis activity is slow down.
I don't know for sure how long it will be.
But we are trying to give more electric power to
servers and I hope the situation is improved soon.*