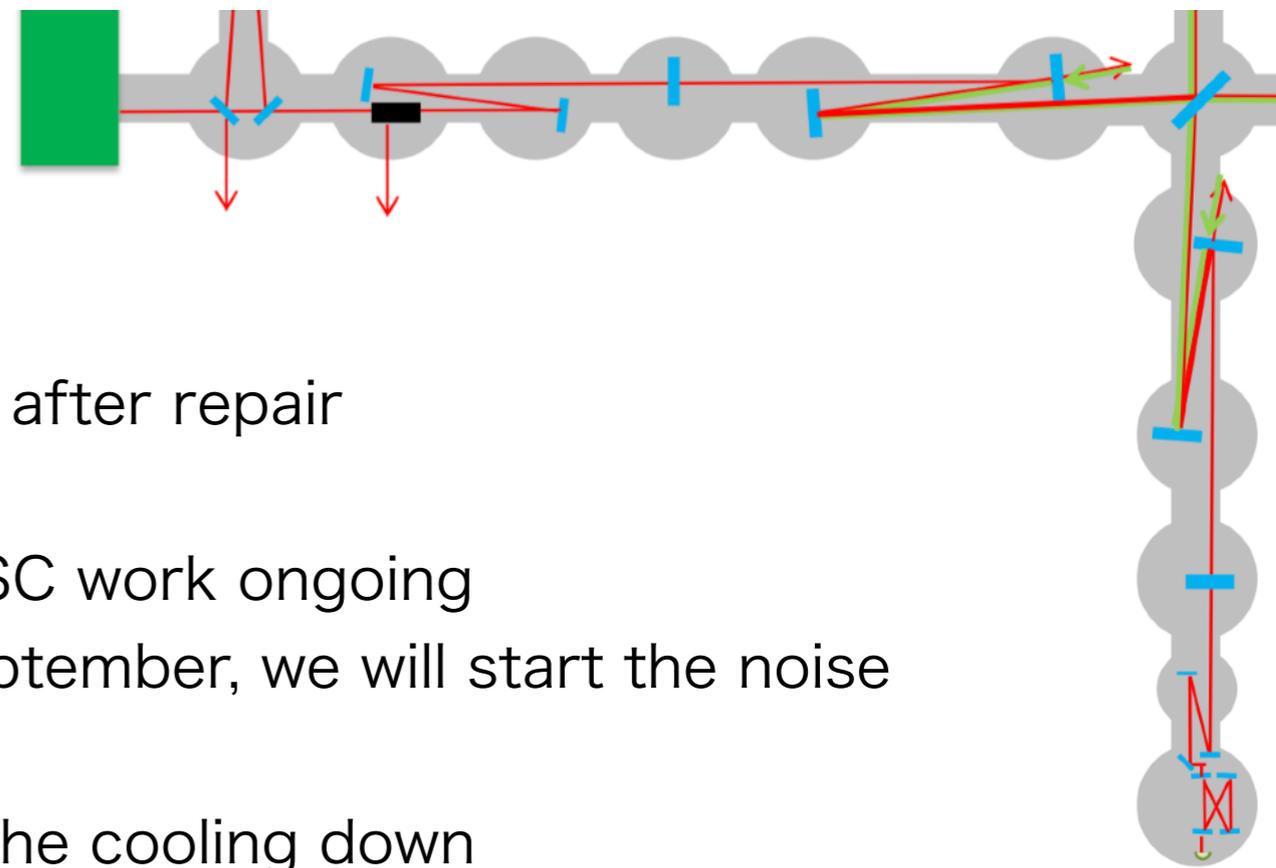


Status of KAGRA

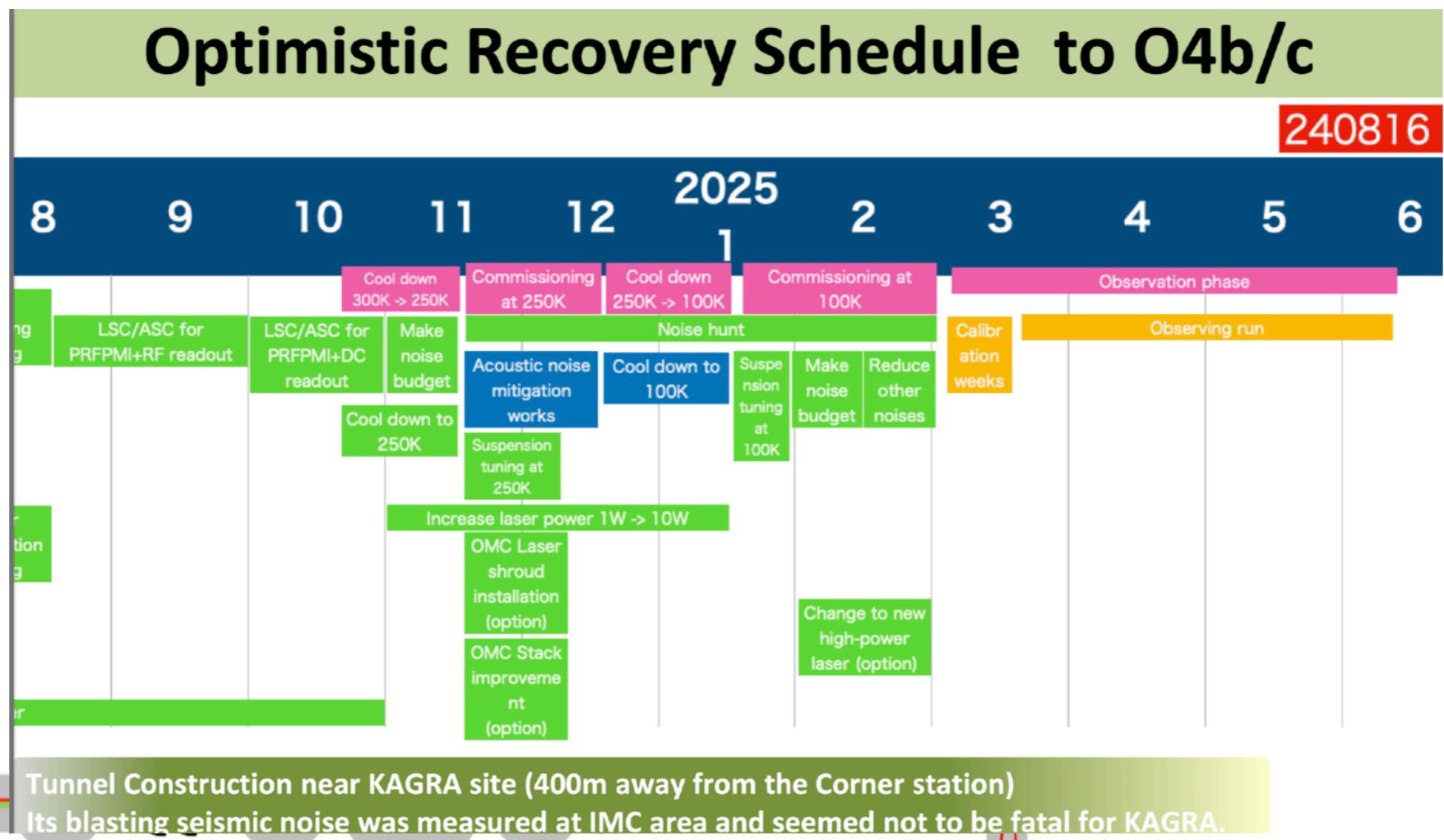
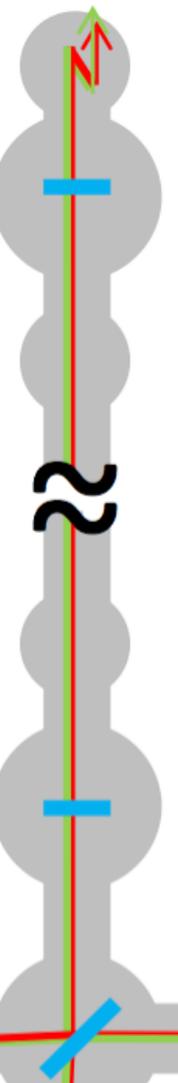
VK PEM meeting 240905
Takaaki Yokozawa



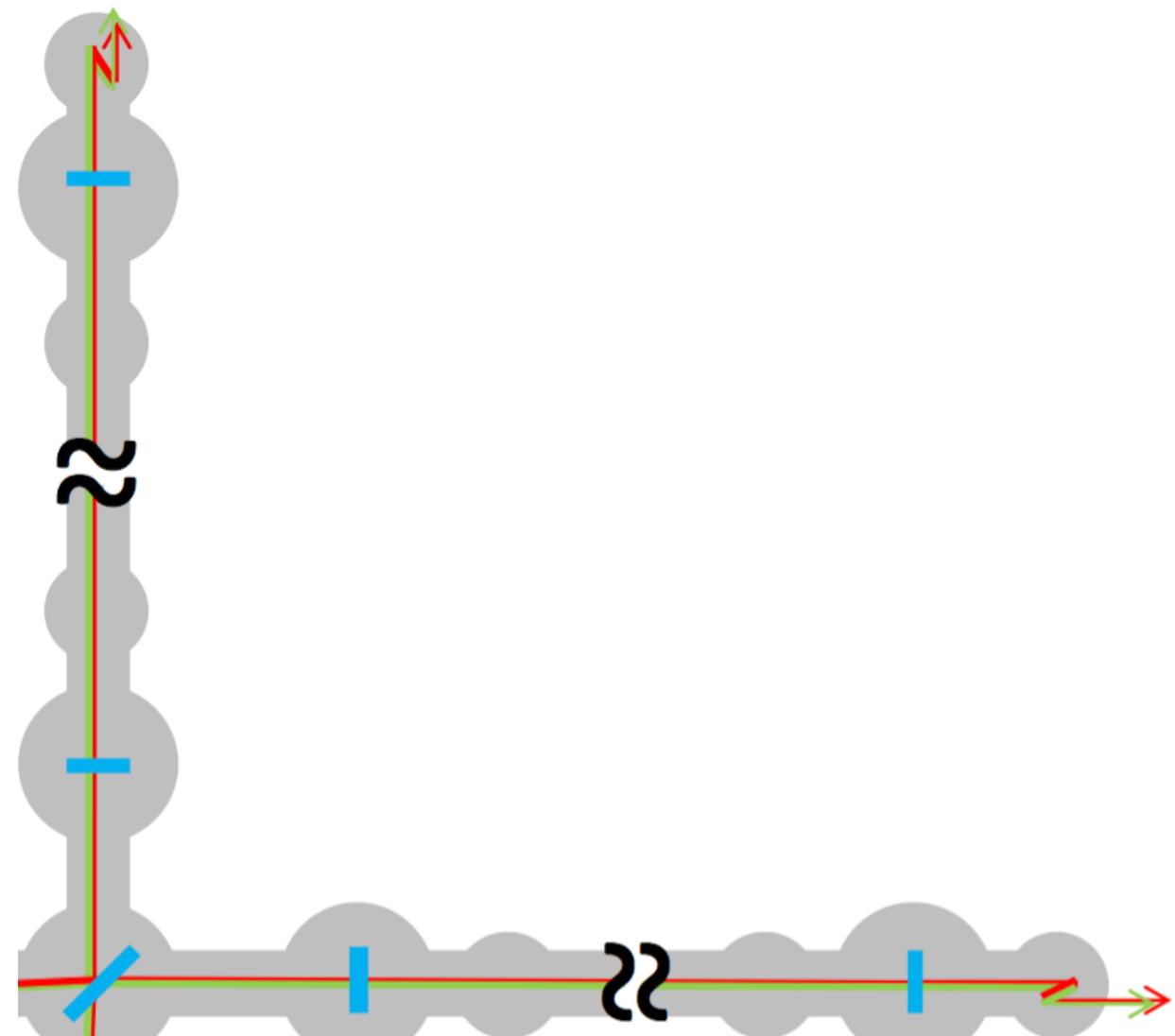
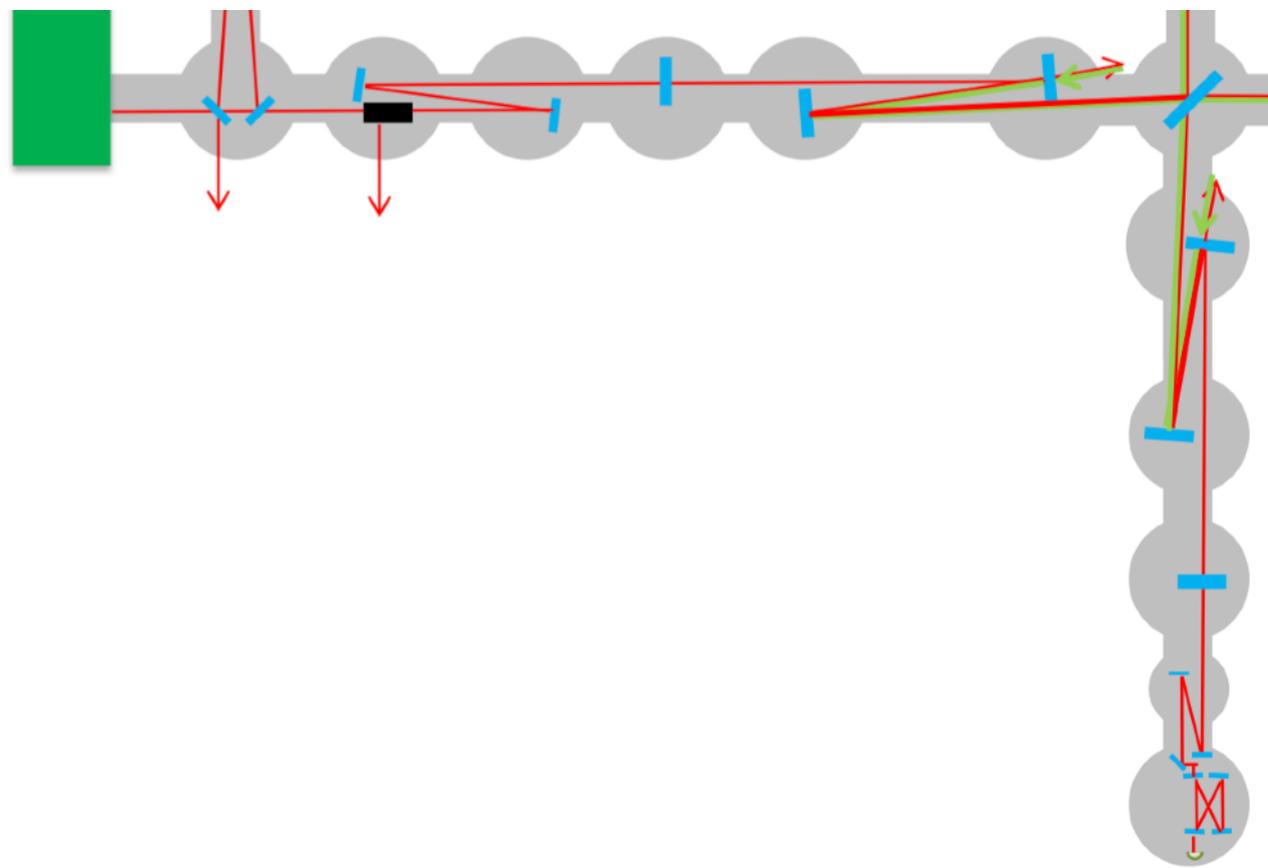
Progress from last meeting



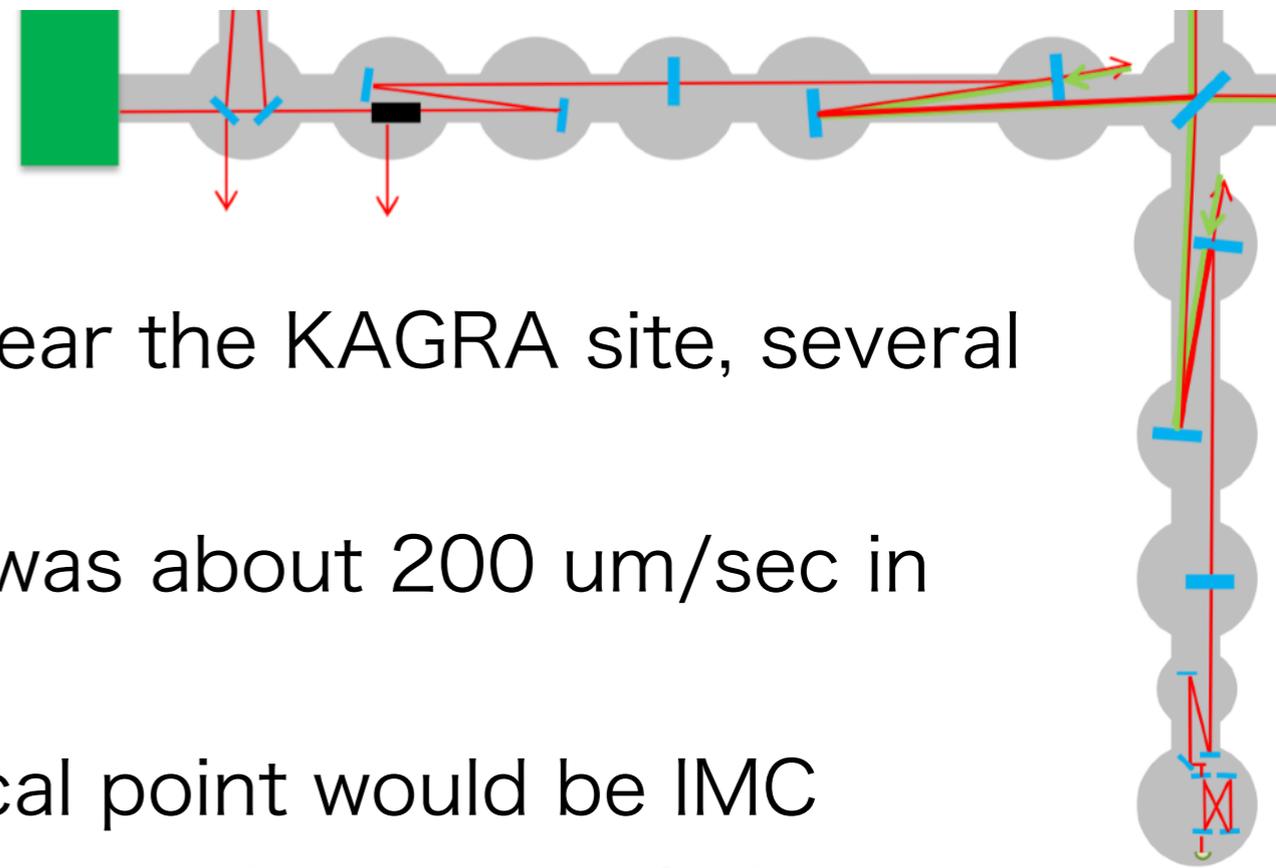
- Closed all chambers
- OMC repair work and characterization after repair
- Interferometer recovery
 - Now PRFPMI RF lock recovered, ASC work ongoing
 - (Maybe) after the middle of the September, we will start the noise hunting
- It is still unknown for the schedule of the cooling down
 - It may be possible to do the IFO noise hunting during the cooling down



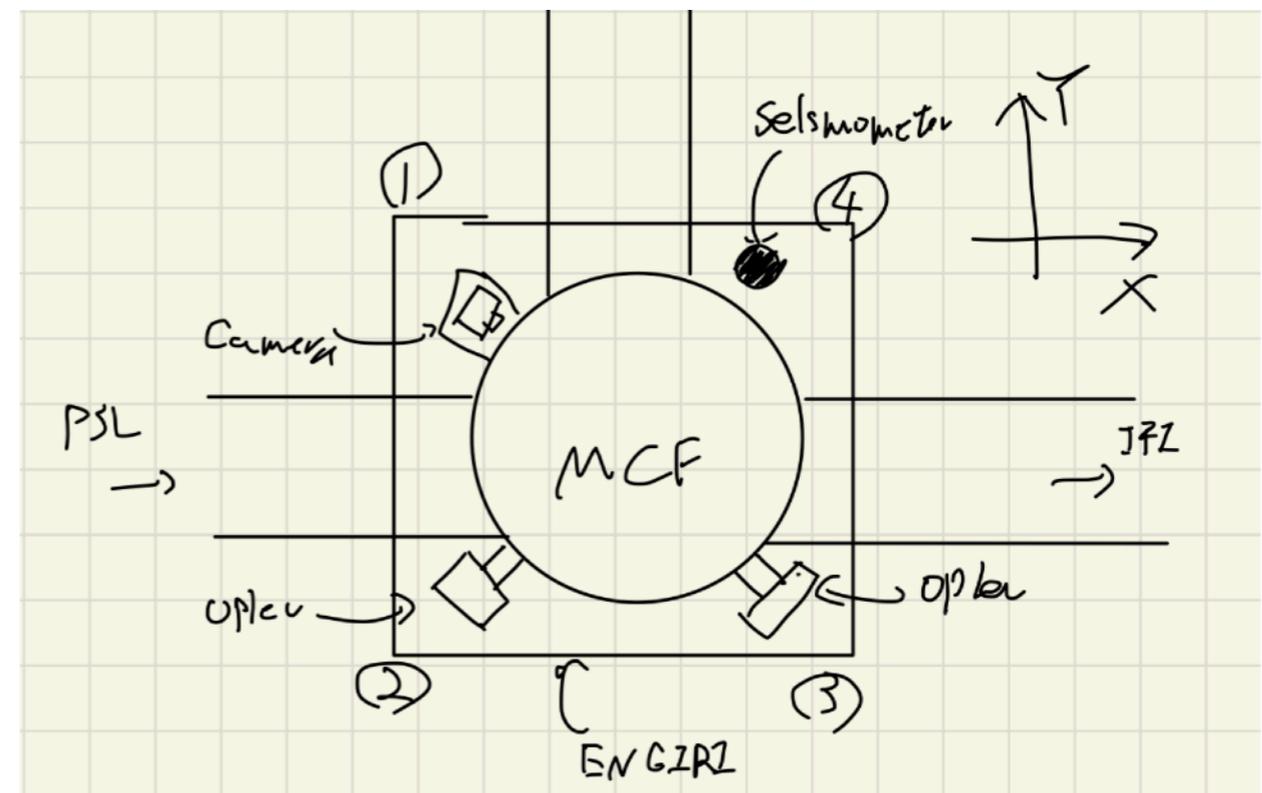
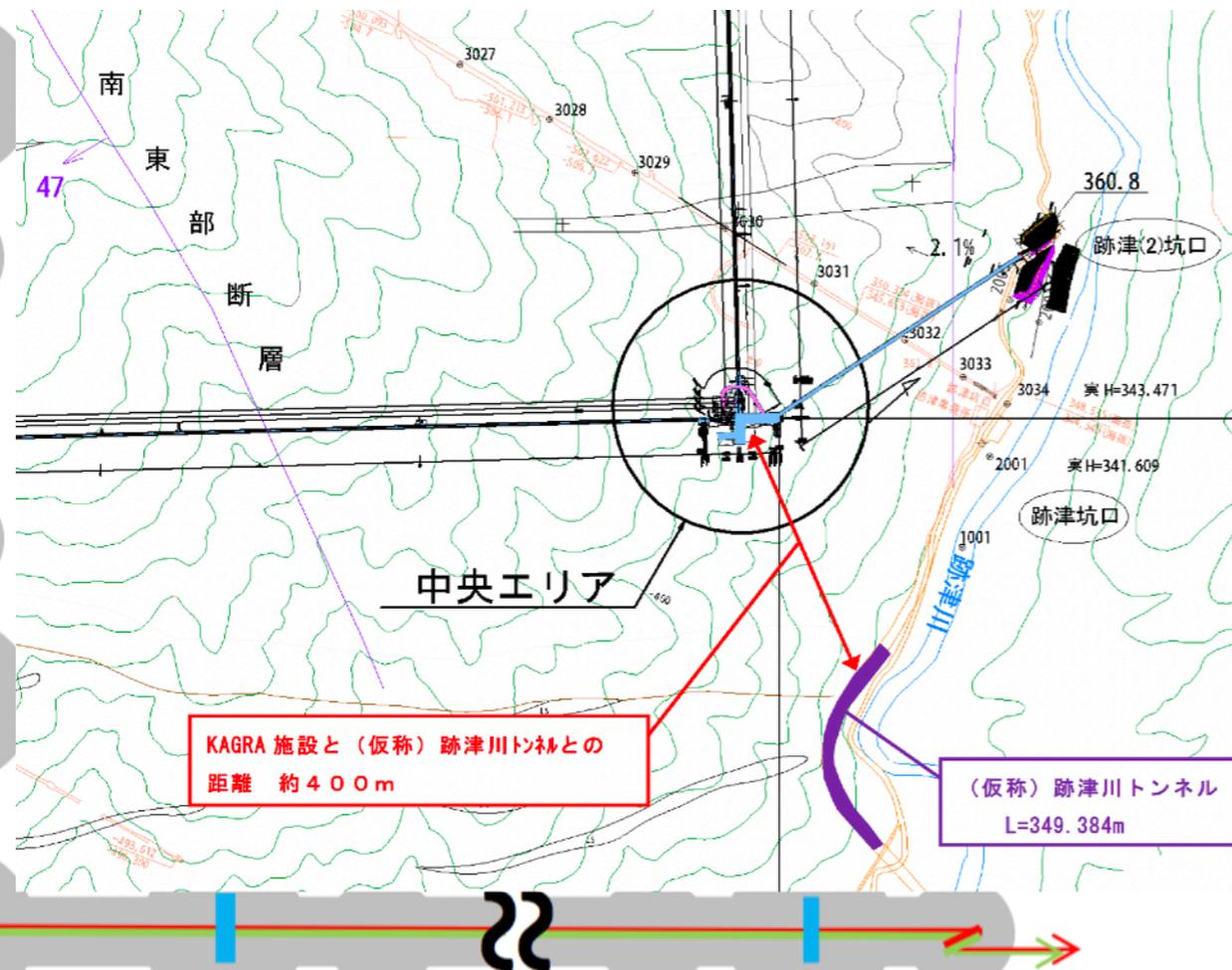
Blasting



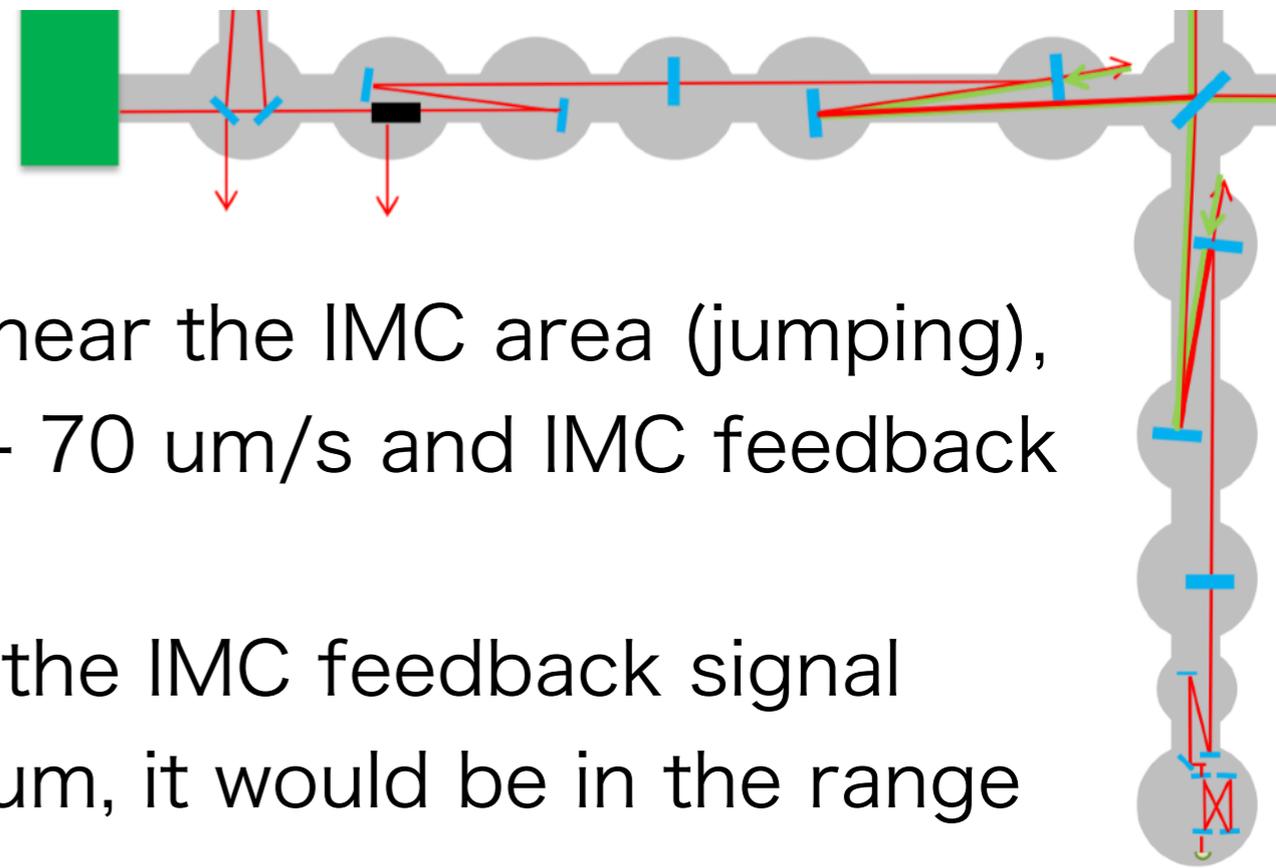
Motivation



- For the tunnel excavation work near the KAGRA site, several blasting actions were planned
 - Estimated the ground motion was about 200 $\mu\text{m}/\text{sec}$ in center area
 - From our experience, the critical point would be IMC
- We performed the pre-test and check the signal of blasting



Pre-test

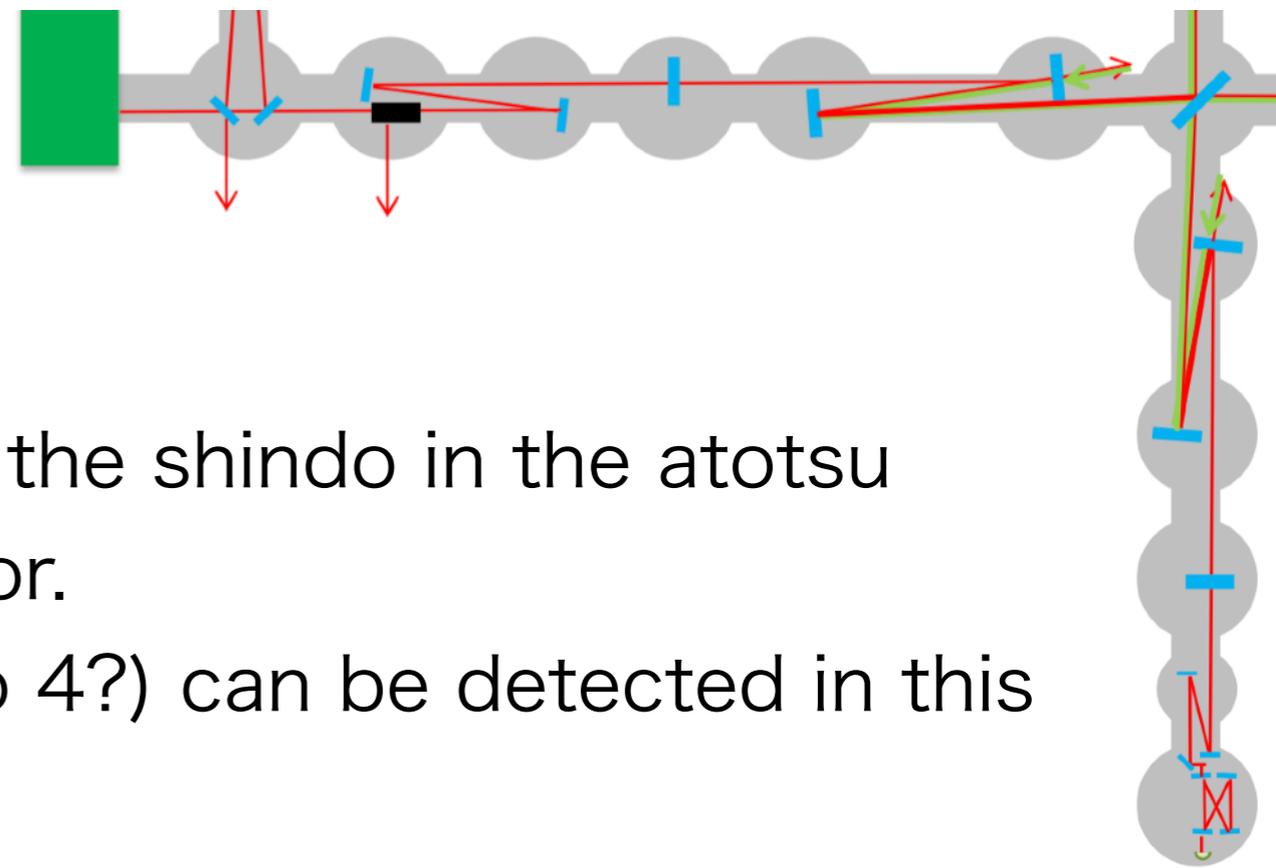


- Even we tried to have excitation near the IMC area (jumping), we can excite only about the 60 - 70 $\mu\text{m}/\text{s}$ and IMC feedback signal was about ± 0.2 V.
- if we interpolate to 200 $\mu\text{m}/\text{s}$, the IMC feedback signal became about 0.8 V at maximum, it would be in the range of control (± 5 V)

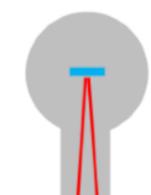
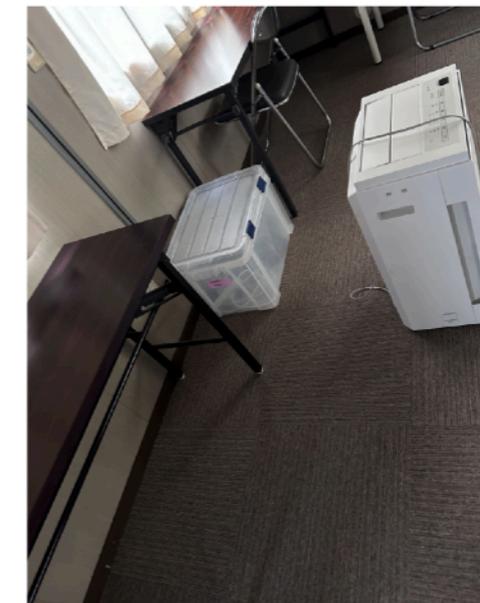
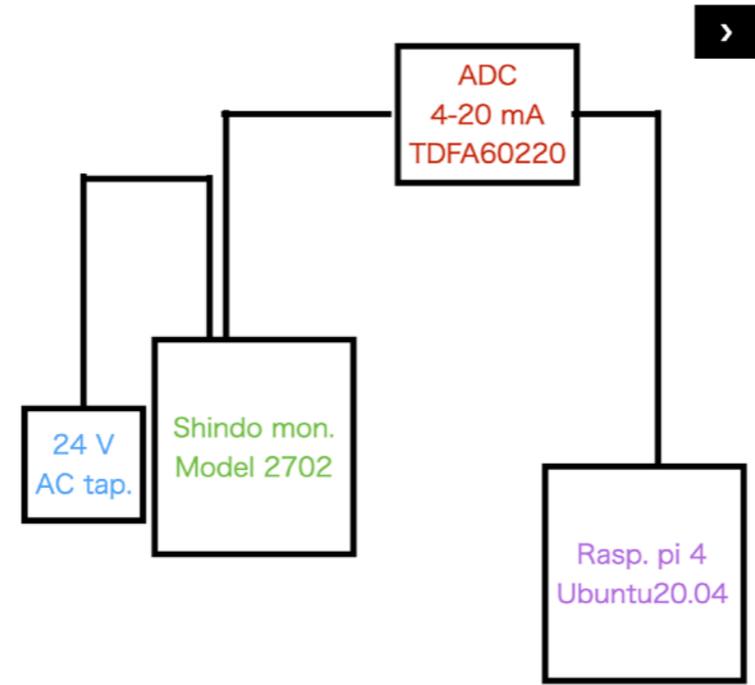
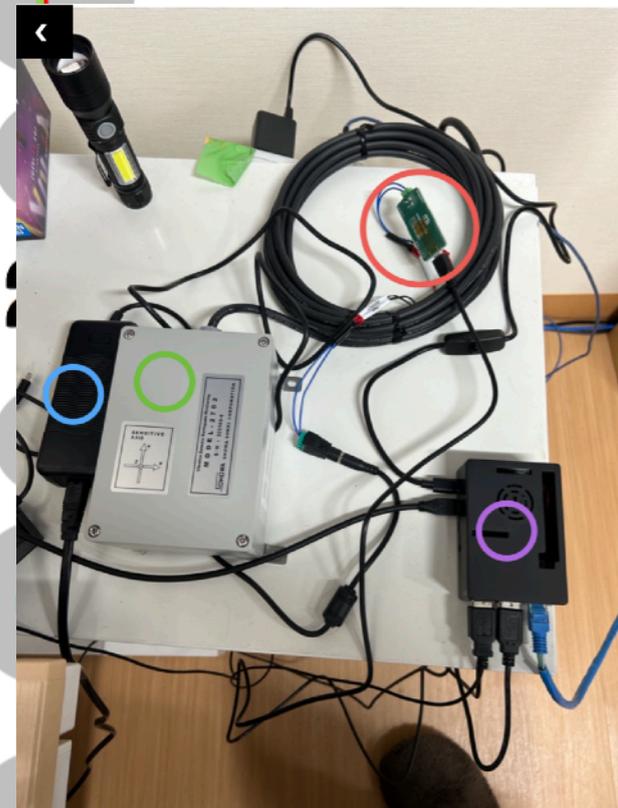




Prepare the shindo sensor



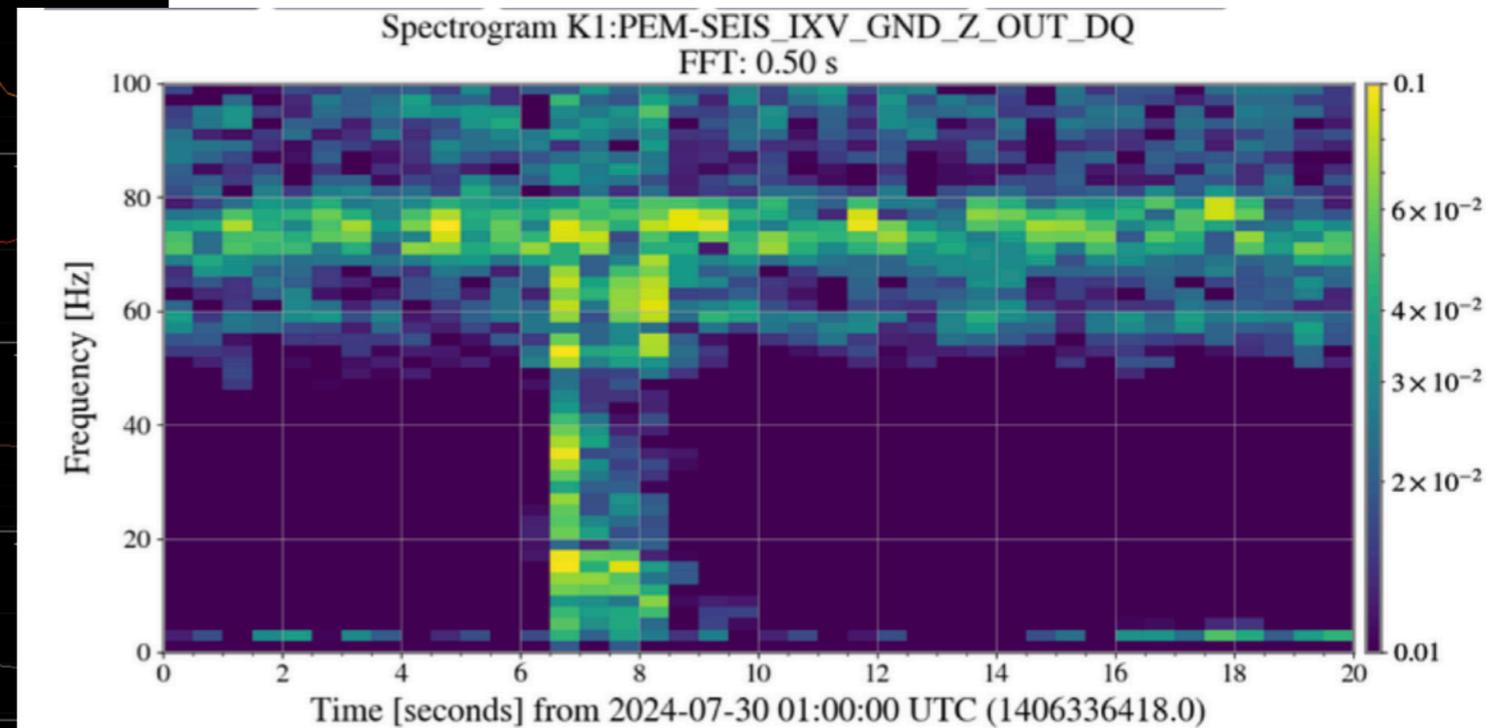
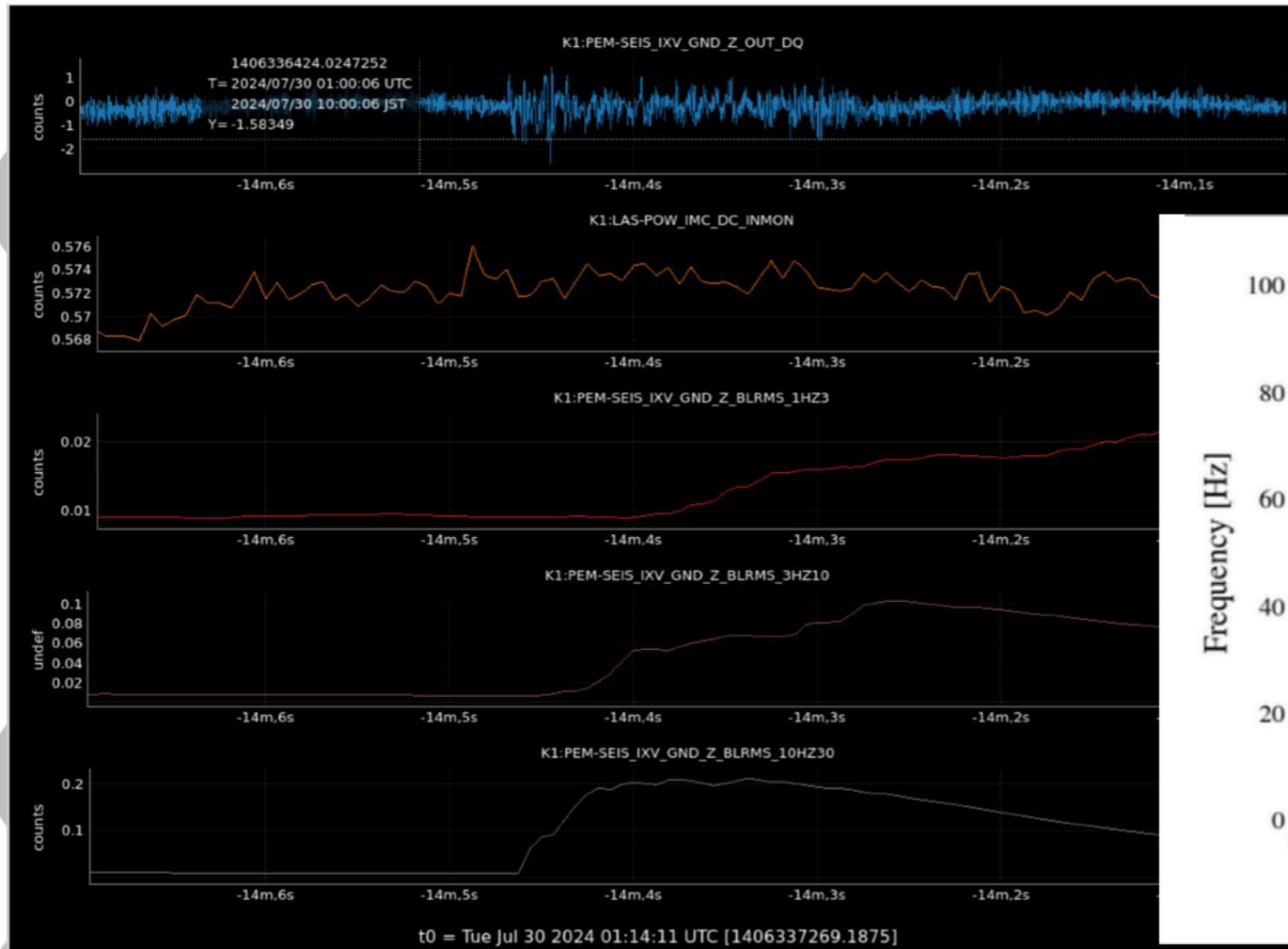
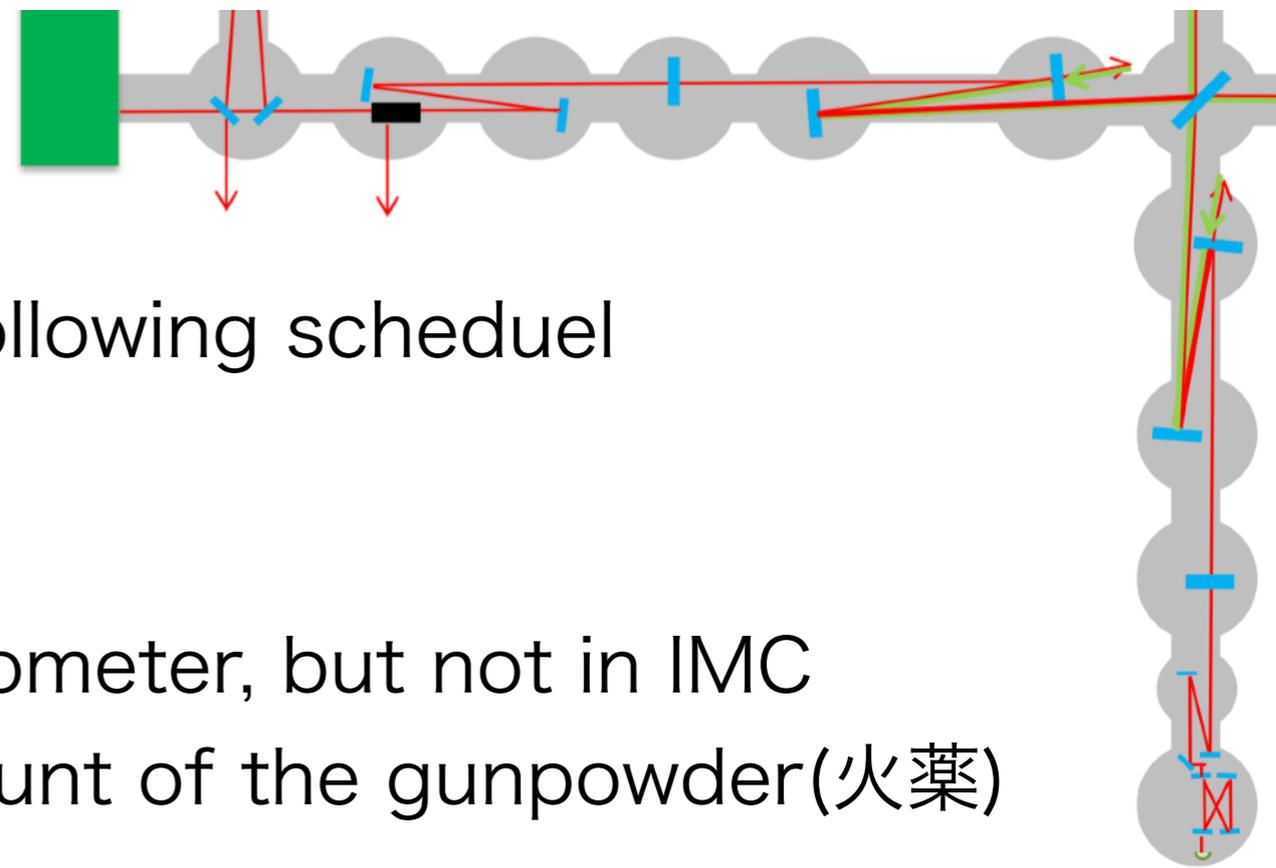
- Now, we continuously monitored the shindo in the atotsu entrance using the shindo monitor.
- But, only large shindo (~shindo 4?) can be detected in this seismometer





Blasting

- There are already blasting in following scheduel
 - 30th Jul.
 - 1st Aug. (Two times)
- Some signal detected in seismometer, but not in IMC
- We received the distance, amount of the gunpowder(火薬)



Blasting

