

# Report on single dish monitoring: Torun, Poland

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## 1 Summary

We are continuing monitoring of G25.65 on 6.7 and 22 GHz. Methanol maser does not show high variability and is still around 150 Jy in brightest feature (see attached file, top left is dynamic spectrum and bottom right lightcurve for chosen channel), there are some fluctuations but right on the border of our 10% calibration precision so its nothing certain, unless other observatories see something similar? We'll continue to monitor this line since it would be interesting to capture the moment when methanol switches back to 100 Jy as it did in previous flares.

In water line, our observations were not as frequent as I would want, mostly due to autumn weather, but with coming winter this should change. Source seems to be highly variable in very short timescales and with observations only 3 days apart we completely missed November 20 flare! (attachment, not calibrated data so its in K and not Jy), I think that with this kind of variability multiple, daily observations are necessary and coordinating them between observatories in different time zones would be beneficial. Velocity structure is also changing, even more rapidly in non flaring features.

Gordon, Georgij we probably can start monitoring other sources you mentioned, any source on similar or higher DEC as G25.65 can be observed and tracked with good precision on our antenna. CepA and W3OH are perfect since they are always visible for us.

On the topic of "predicting" next flares, I remember Olga mentioning something about almost periodic repeatability of those flares (please correct me if i'm mixing facts, there's too much periodic masers in my life to keep a track of :) ). Did anyone did periodic analysis on this data? It would probably be helpful to look at integrated flux lightcurve.

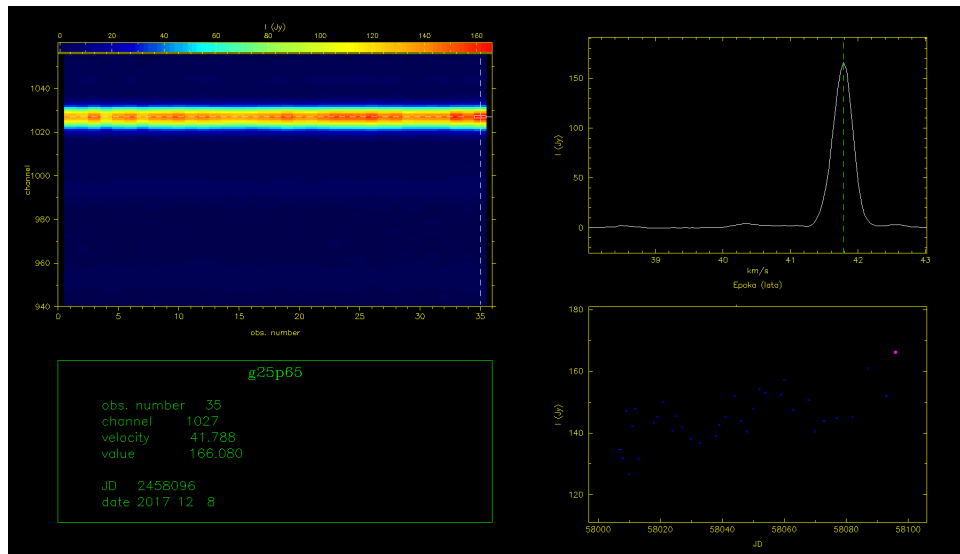


Figure 1: Monitoring data of G25 at 6.7 GHz

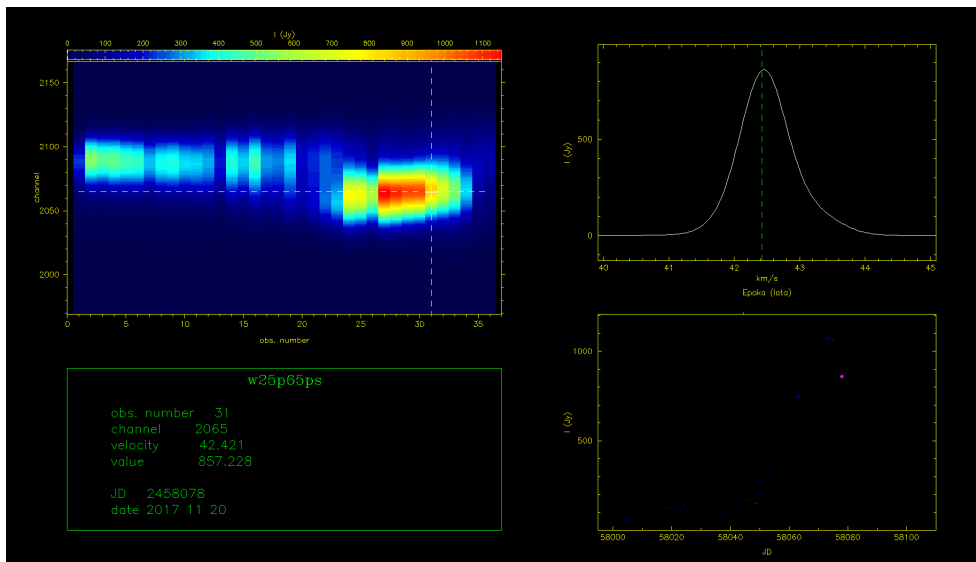


Figure 2: Monitoring data of G25 at 22 GHz