

Update on the PolarquEEEst analysis July-Sept 2018

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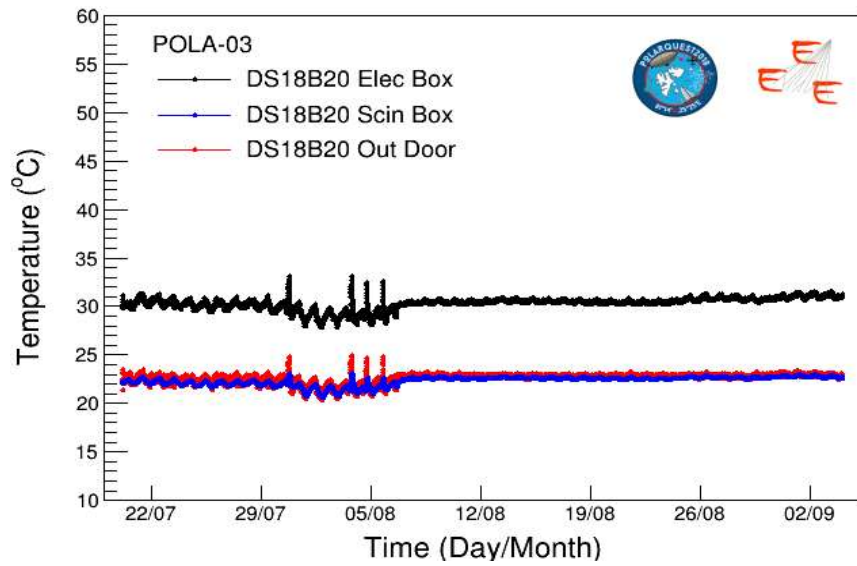
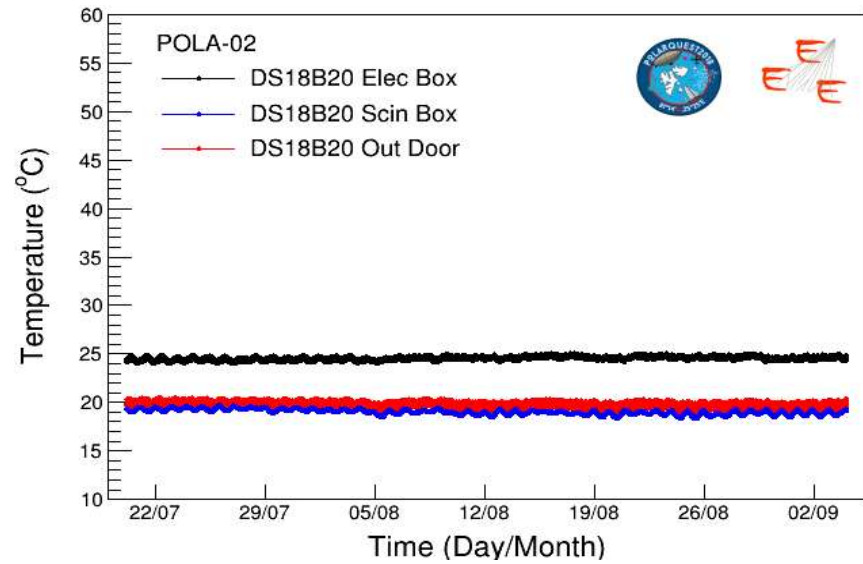
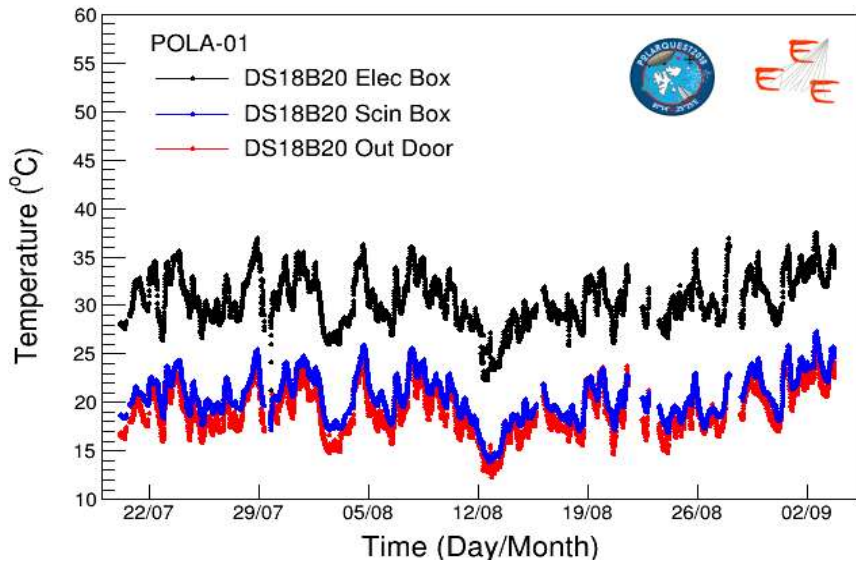
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Dec 4, 2019

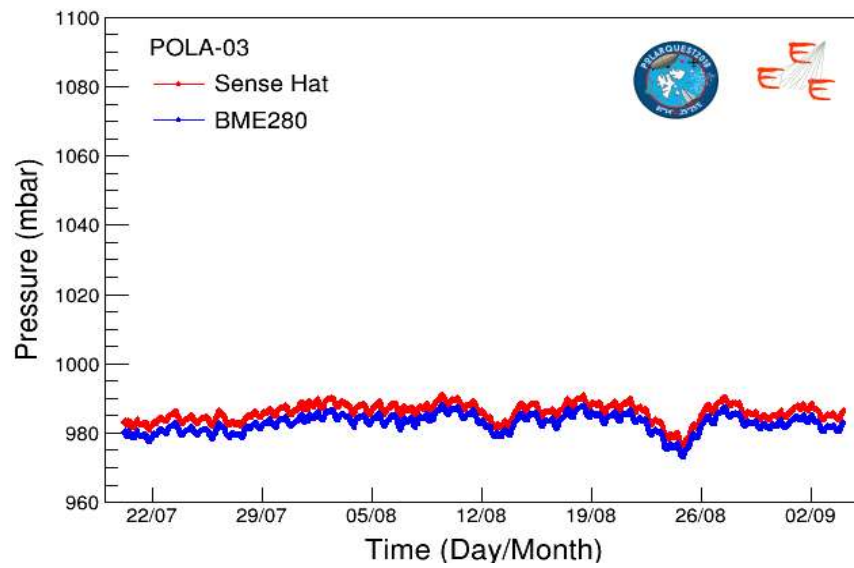
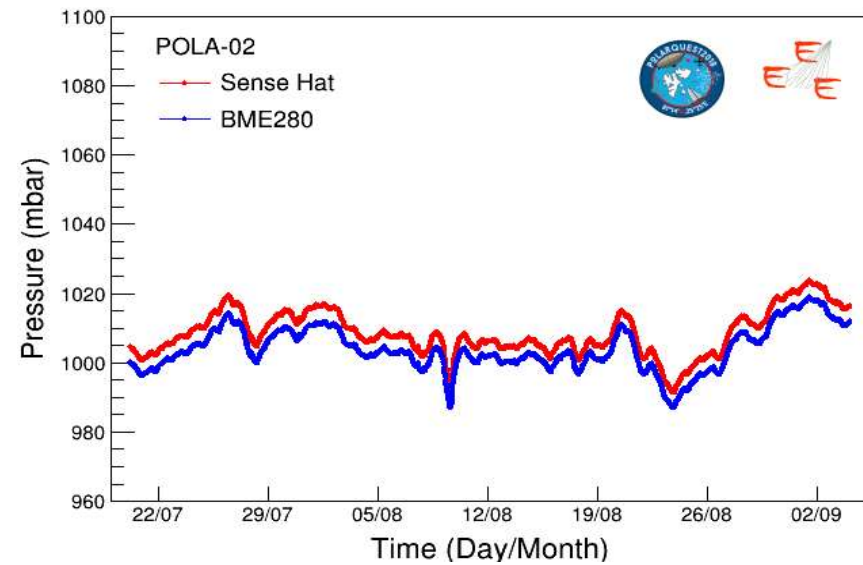
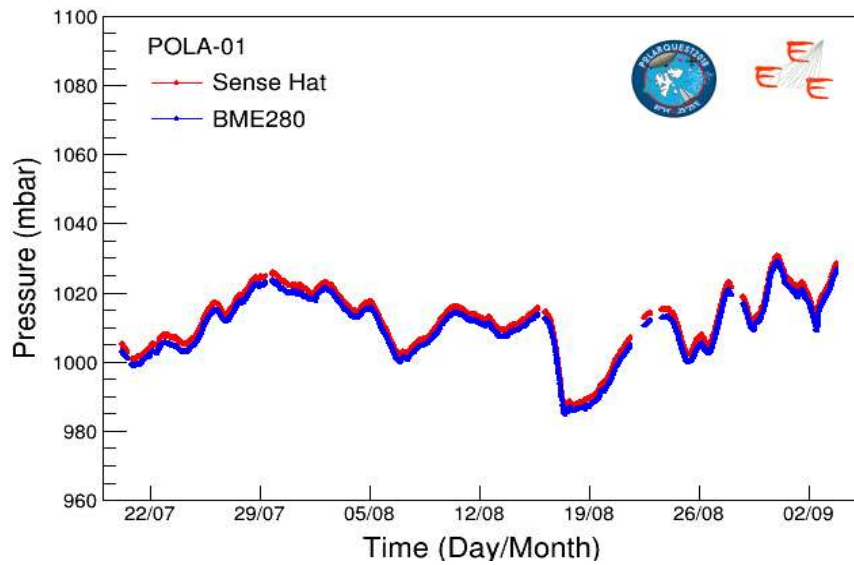
Polar instruments

- POLA-01: Nanuq boat from Iceland to Tromso
- POLA-02: Nesodden (Norway) 59.84° N, 10.68° E, 84 m of altitude
- POLA-03: Bra (Italy) 44.69° N, 7.86° E, 310 m of altitude

Temperature



Pressure

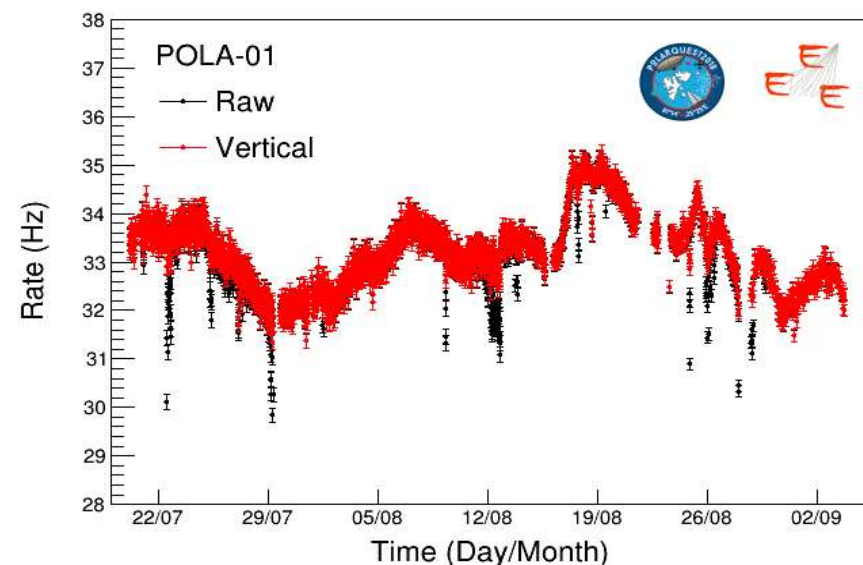
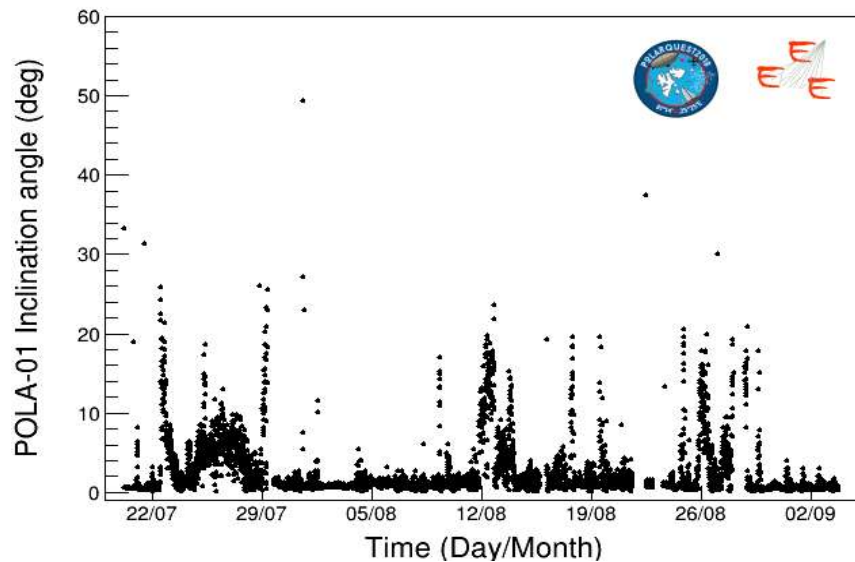


Rate

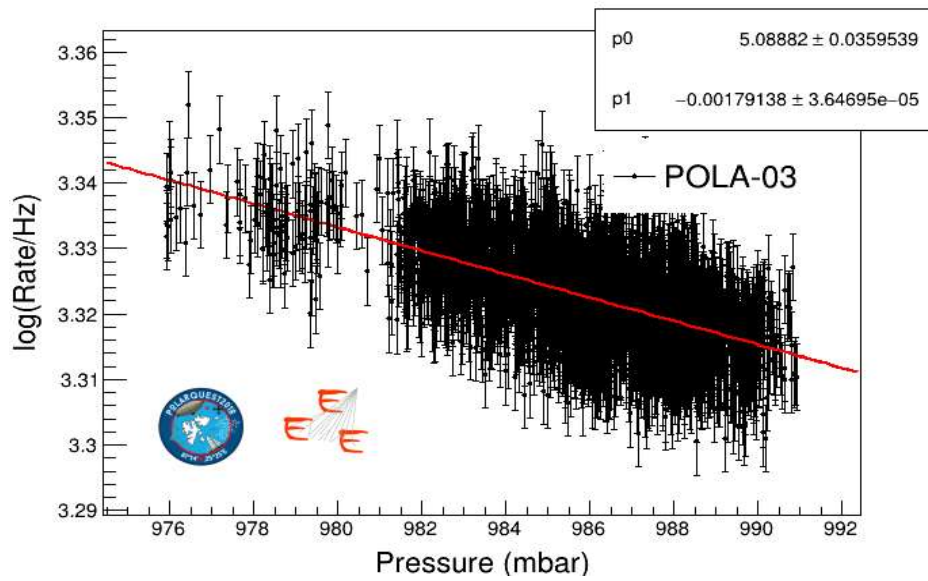
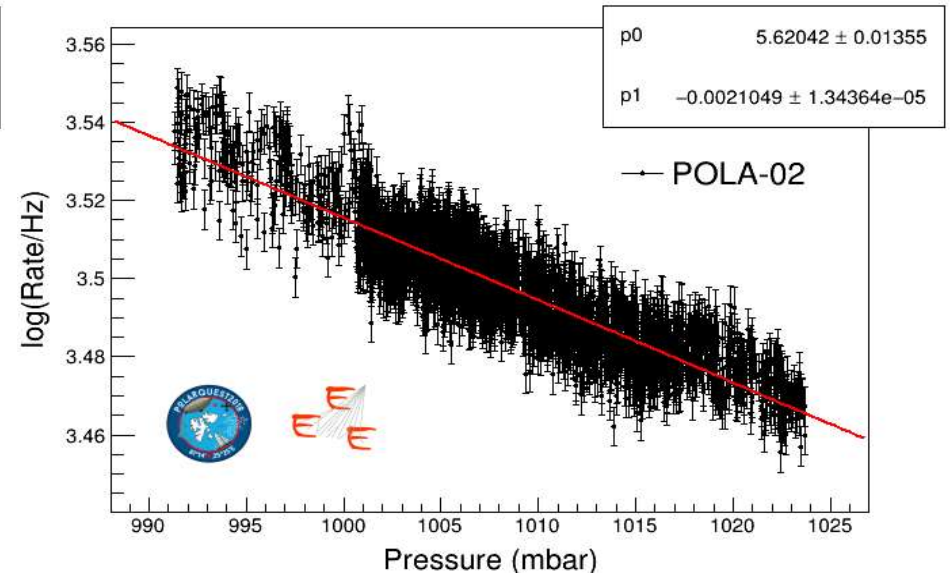
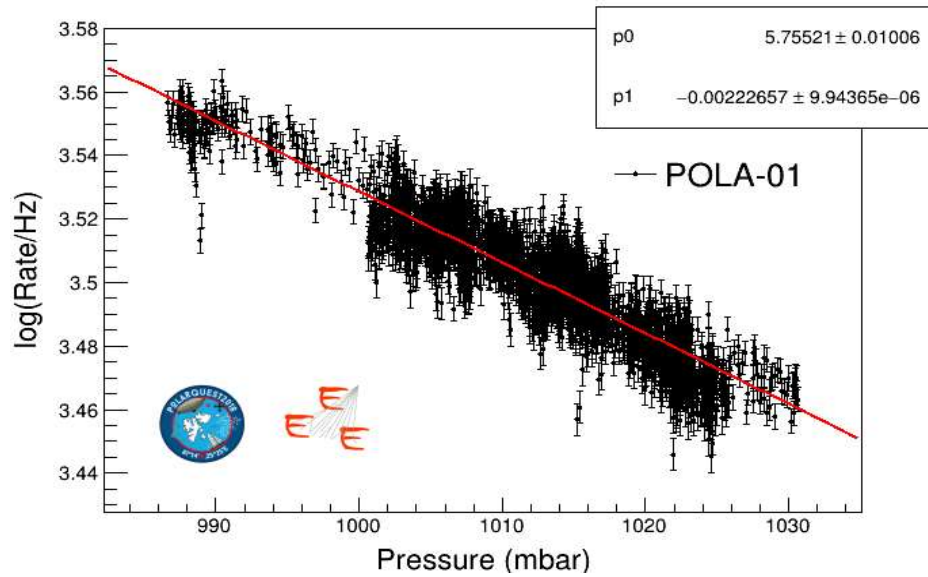
- Run based rate:
 - $\text{Rate} = \text{Trigger Counts} / (\text{Stop Run} - \text{Start Run})$
- Trigger counts: trigger counter scaler
- Start Run: enable trigger counter time
- Stop Run: disable trigger counter time
- Run duration: about 20 minutes

Rate correction

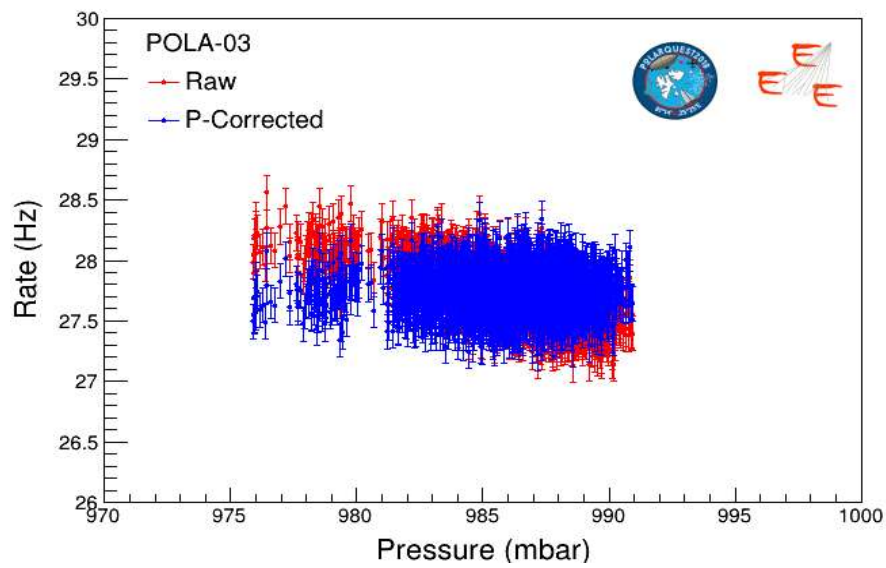
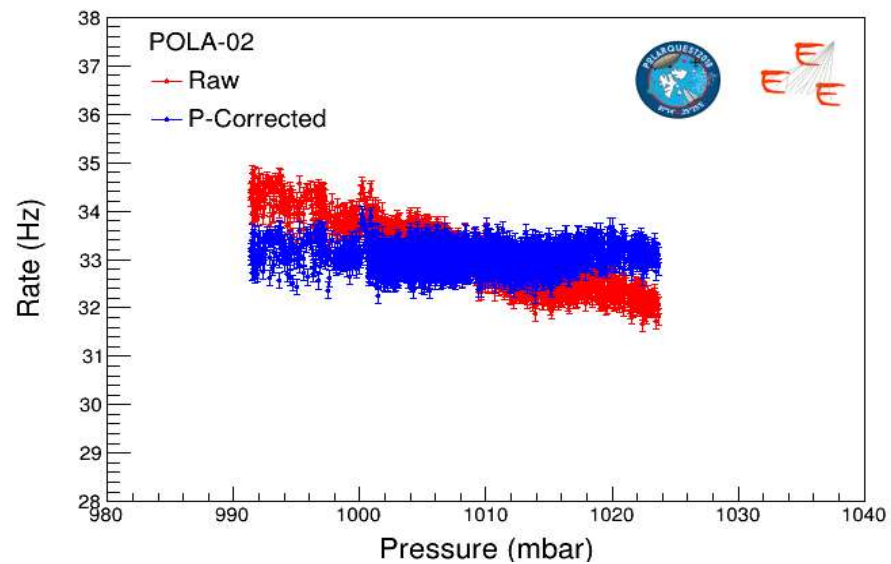
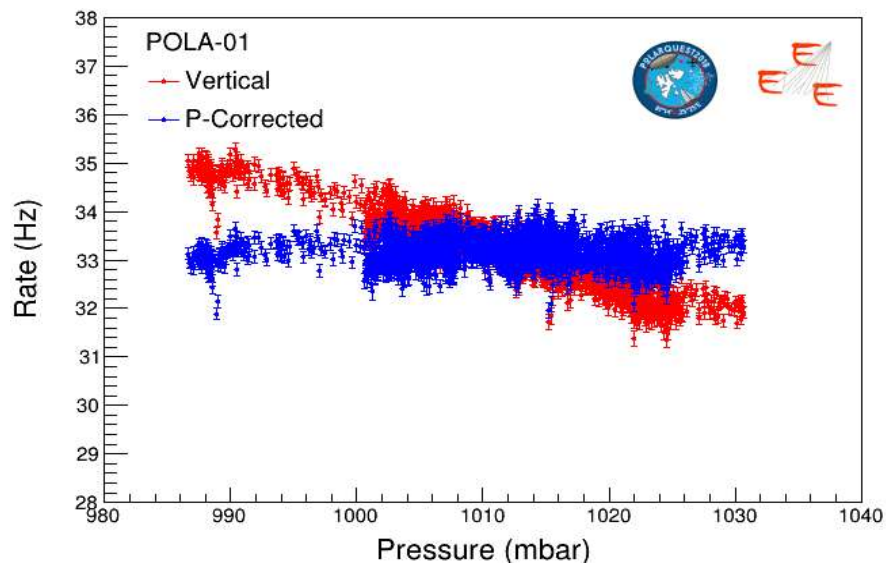
- POLA-01: inclination angle (gyroscope)
- Barometric effect



Log(Rate) Vs Pressure



Rate Vs Pressure

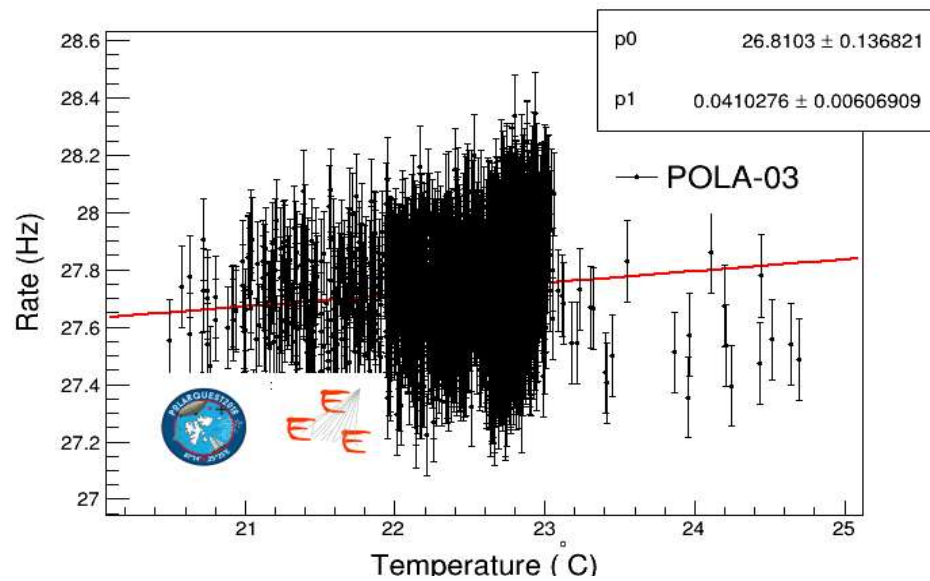
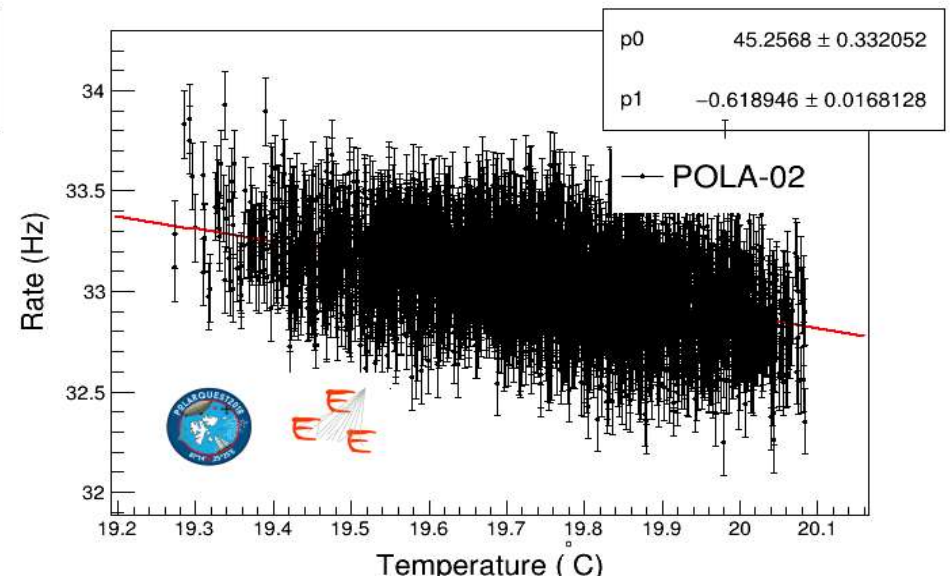
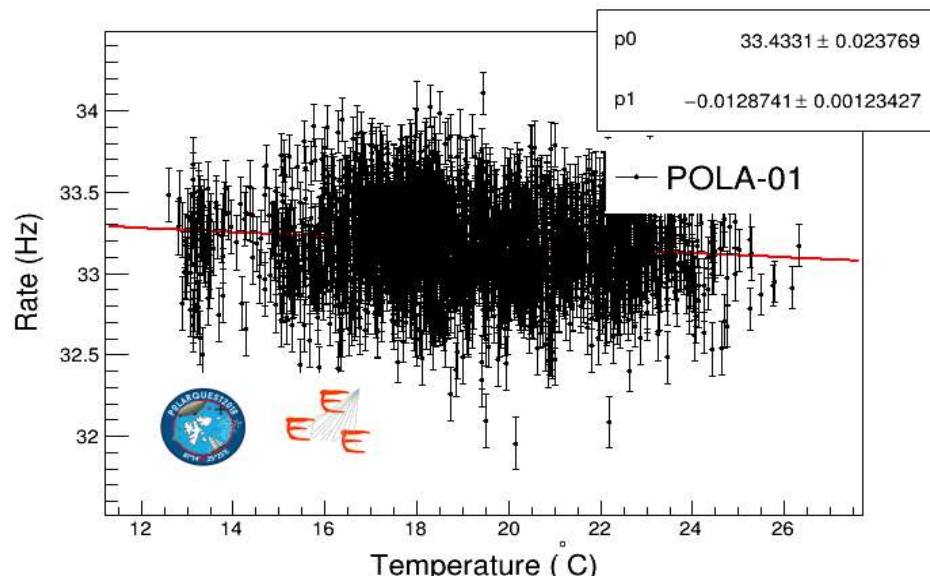


POLA-01: $\langle P \rangle = 1011.85$ mbar

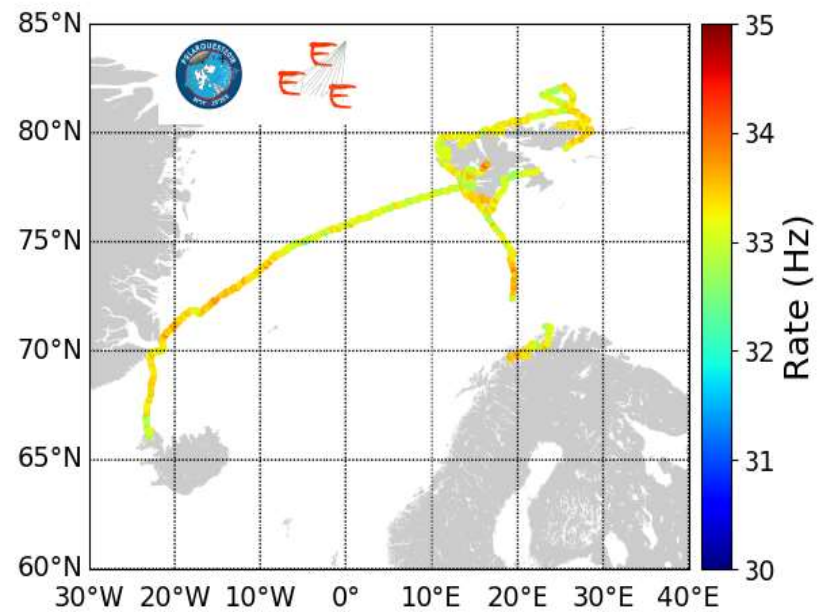
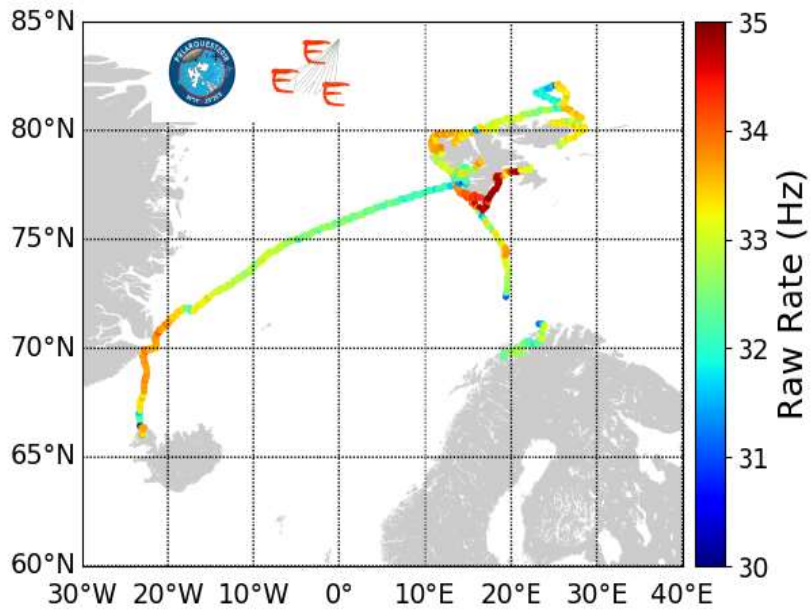
POLA-02: $\langle P \rangle = 1008.53$ mbar

POLA-03: $\langle P \rangle = 985.87$ mbar

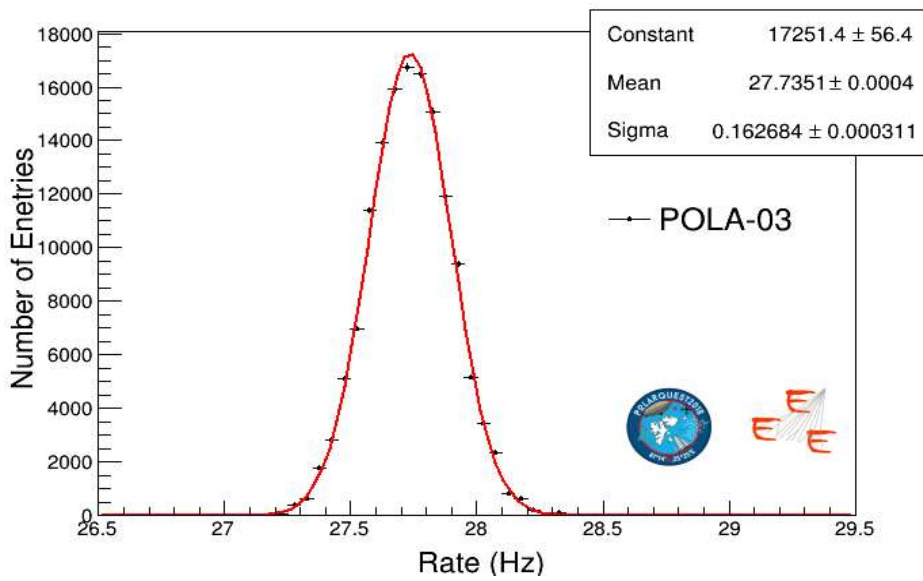
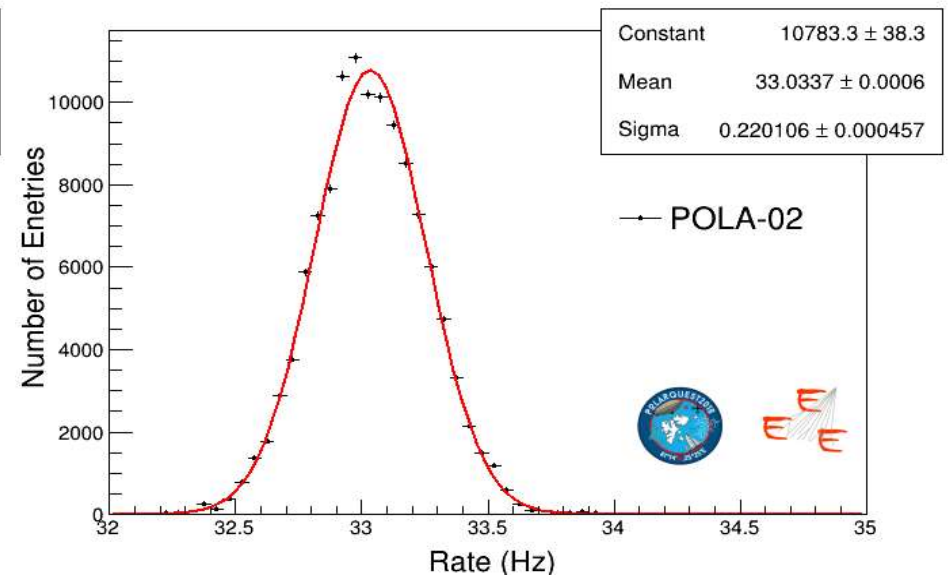
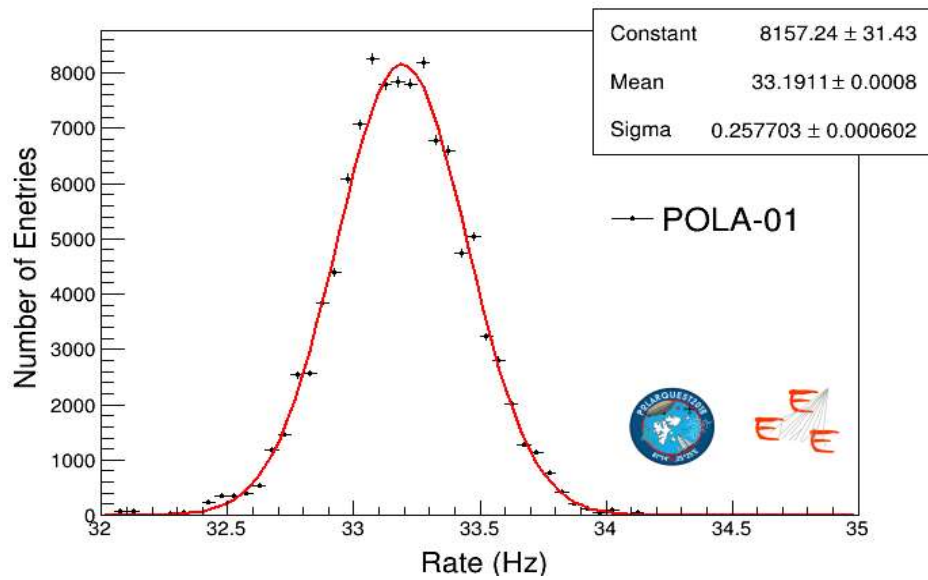
Rate Vs (Local) Temperature



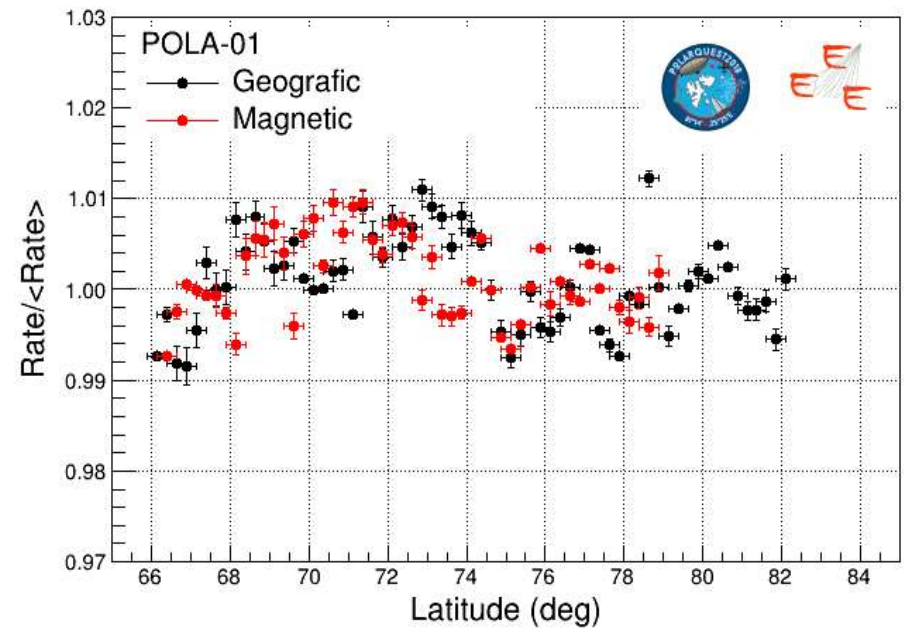
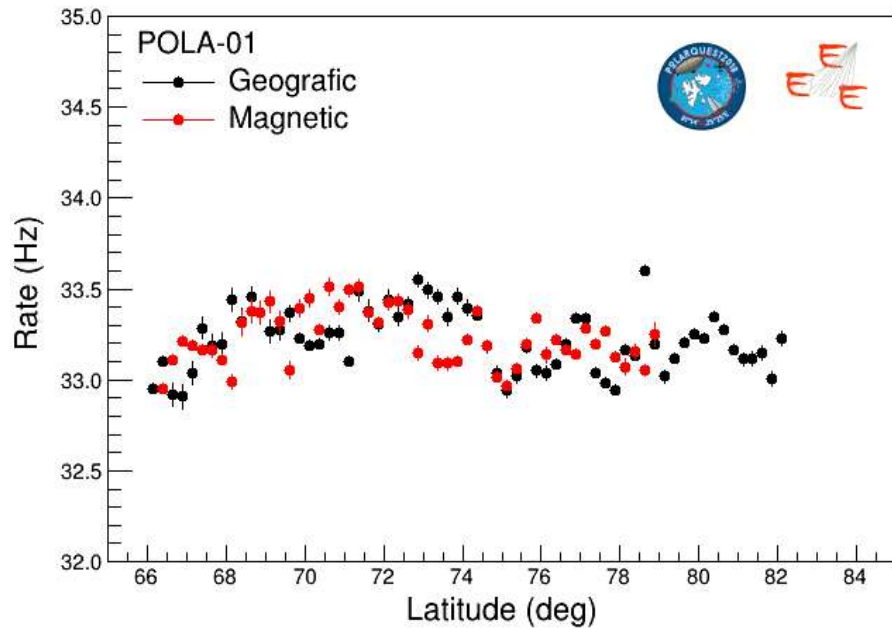
POLA-01 Rate Map



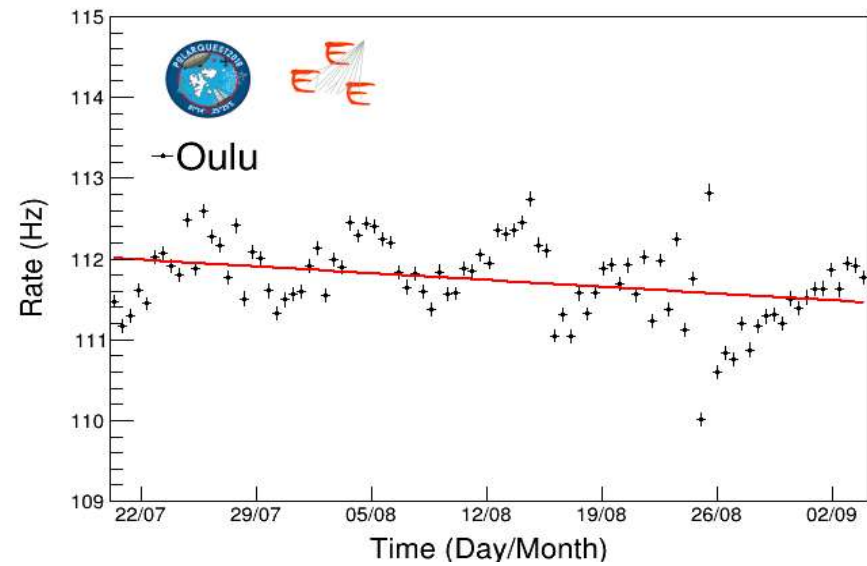
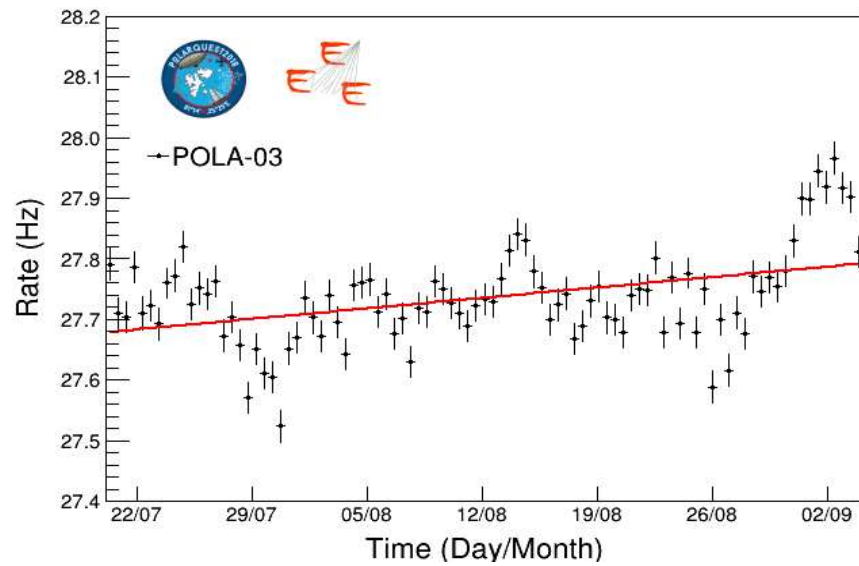
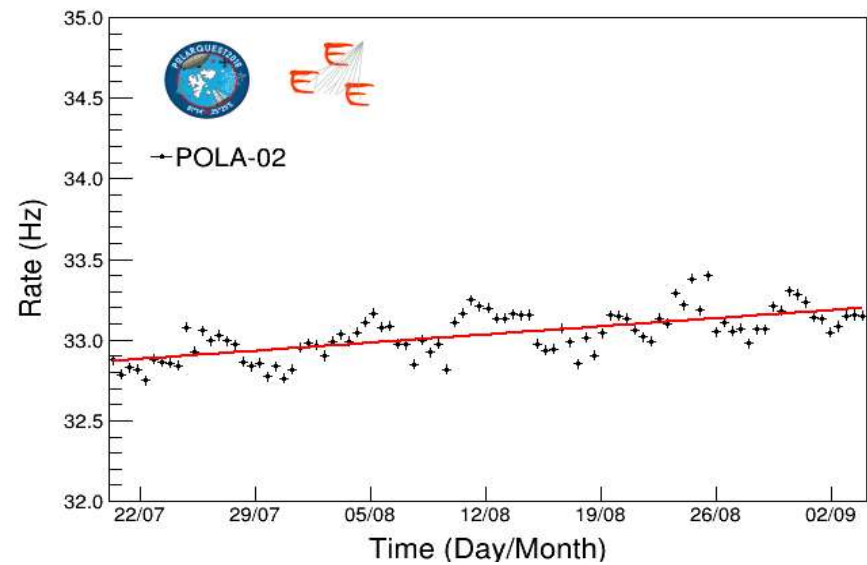
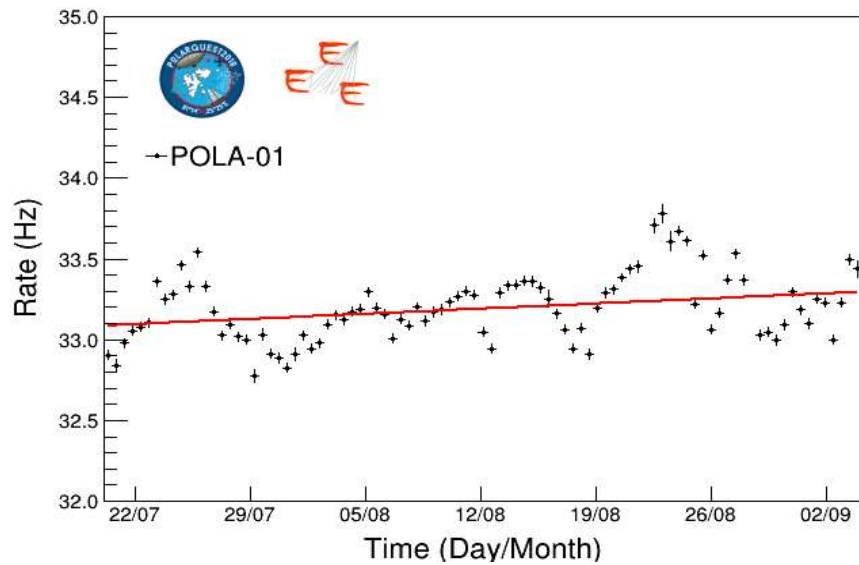
Average Rate



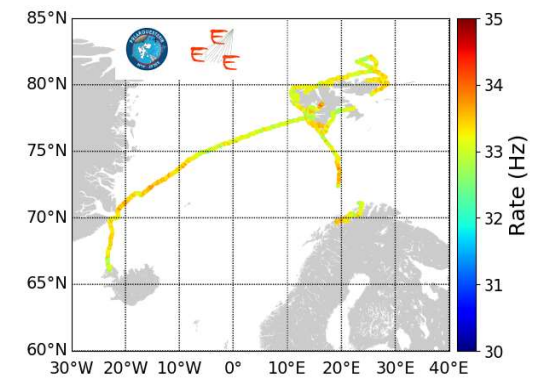
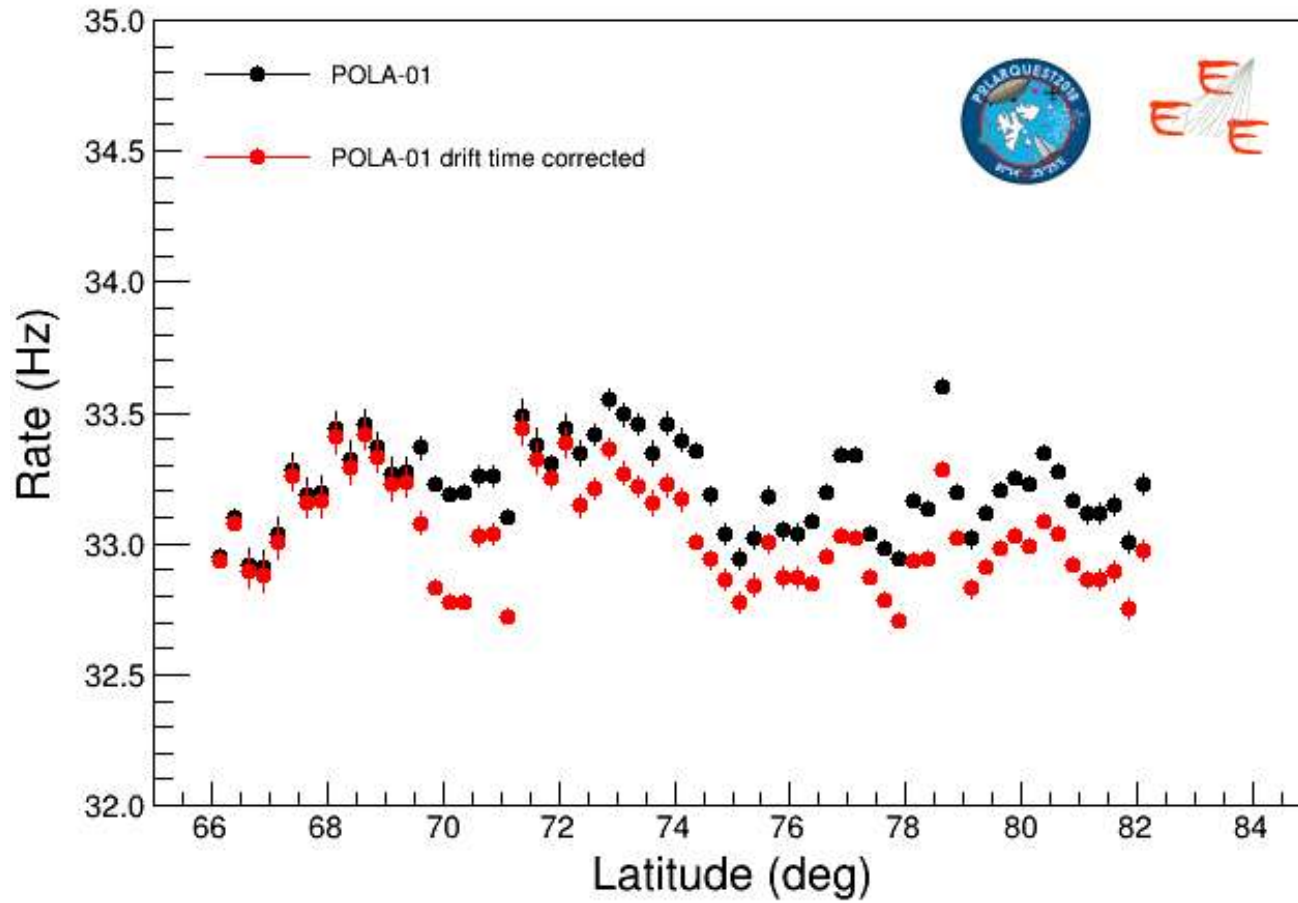
POLA-01 Rate Vs Latitude



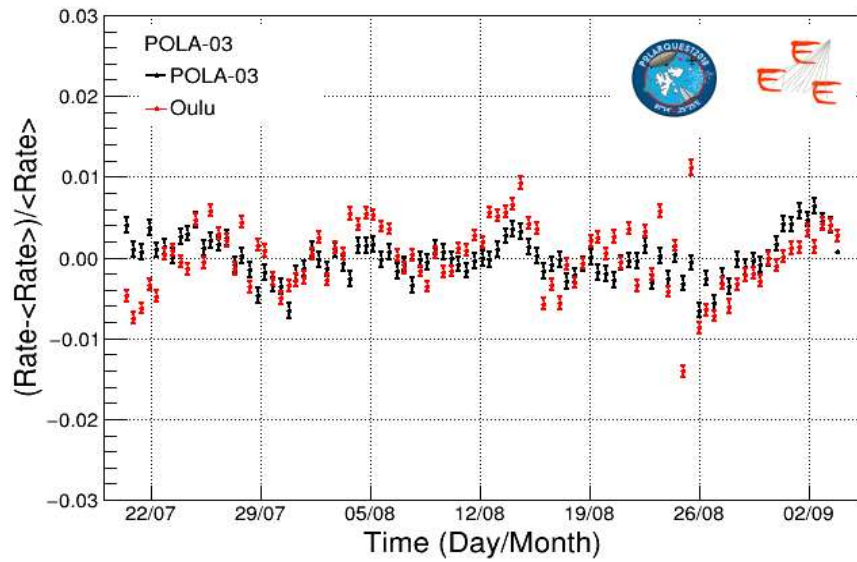
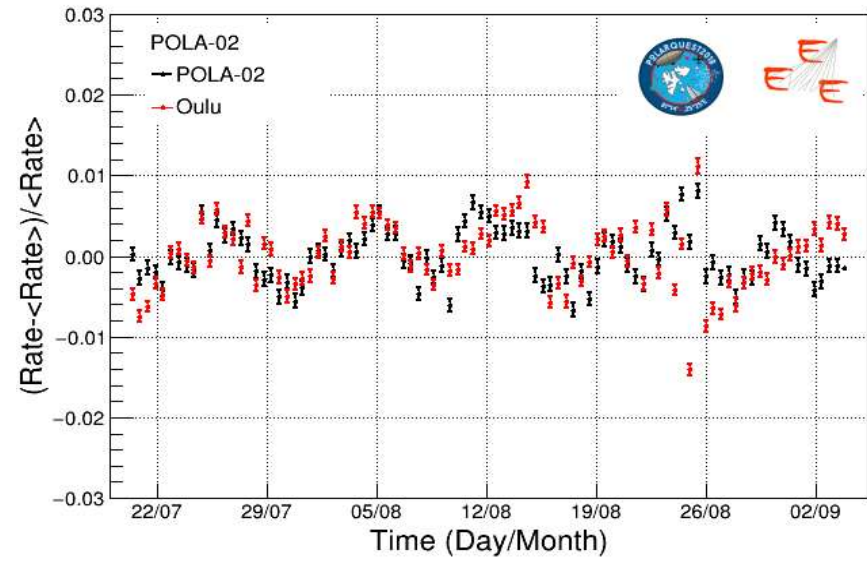
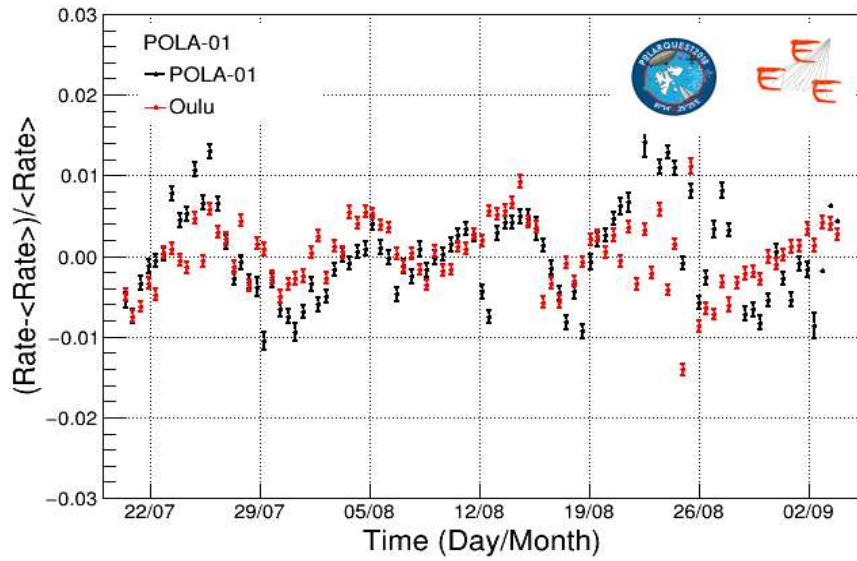
Rate Vs Time (12h time bin)



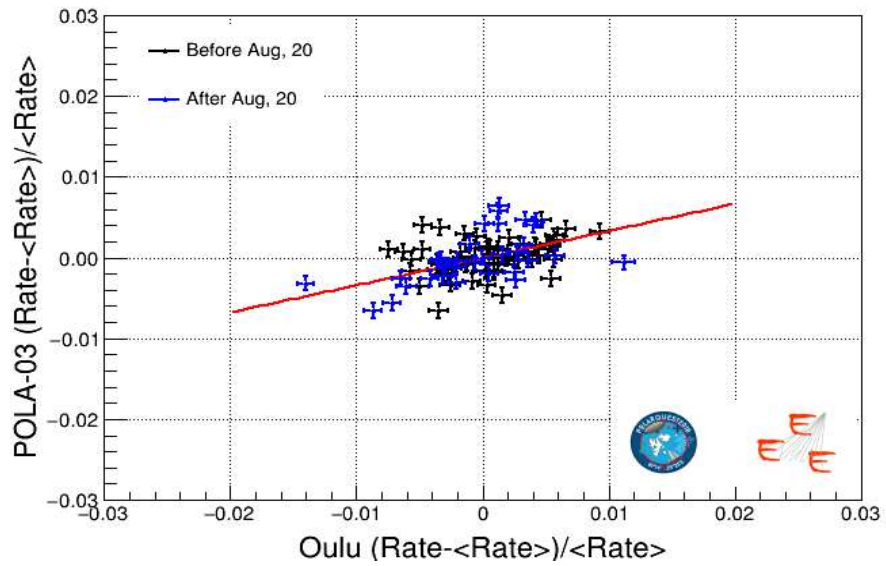
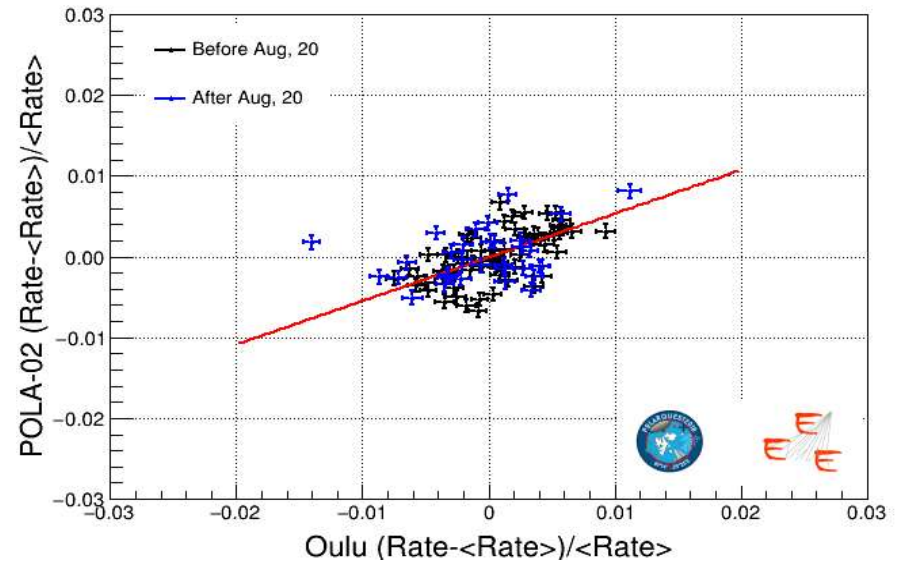
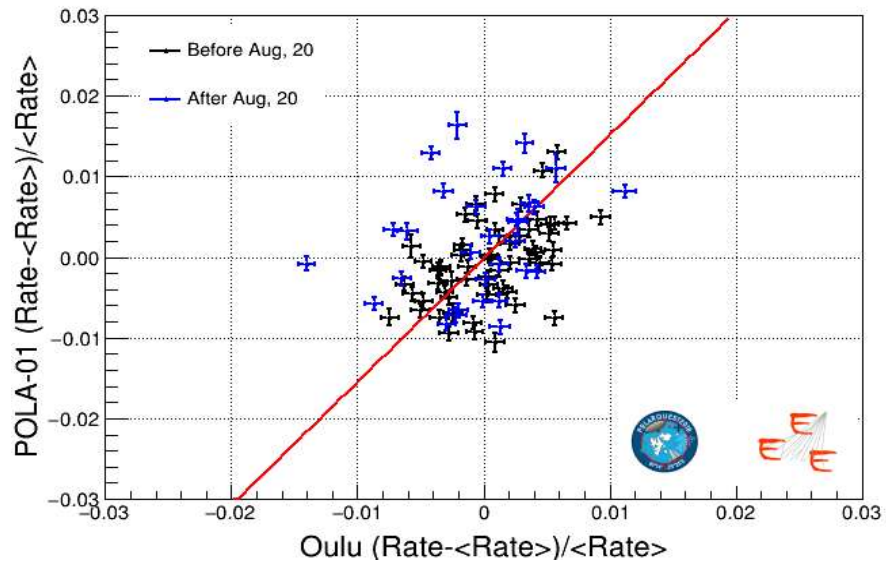
POLA-01 Rate vs Latitude



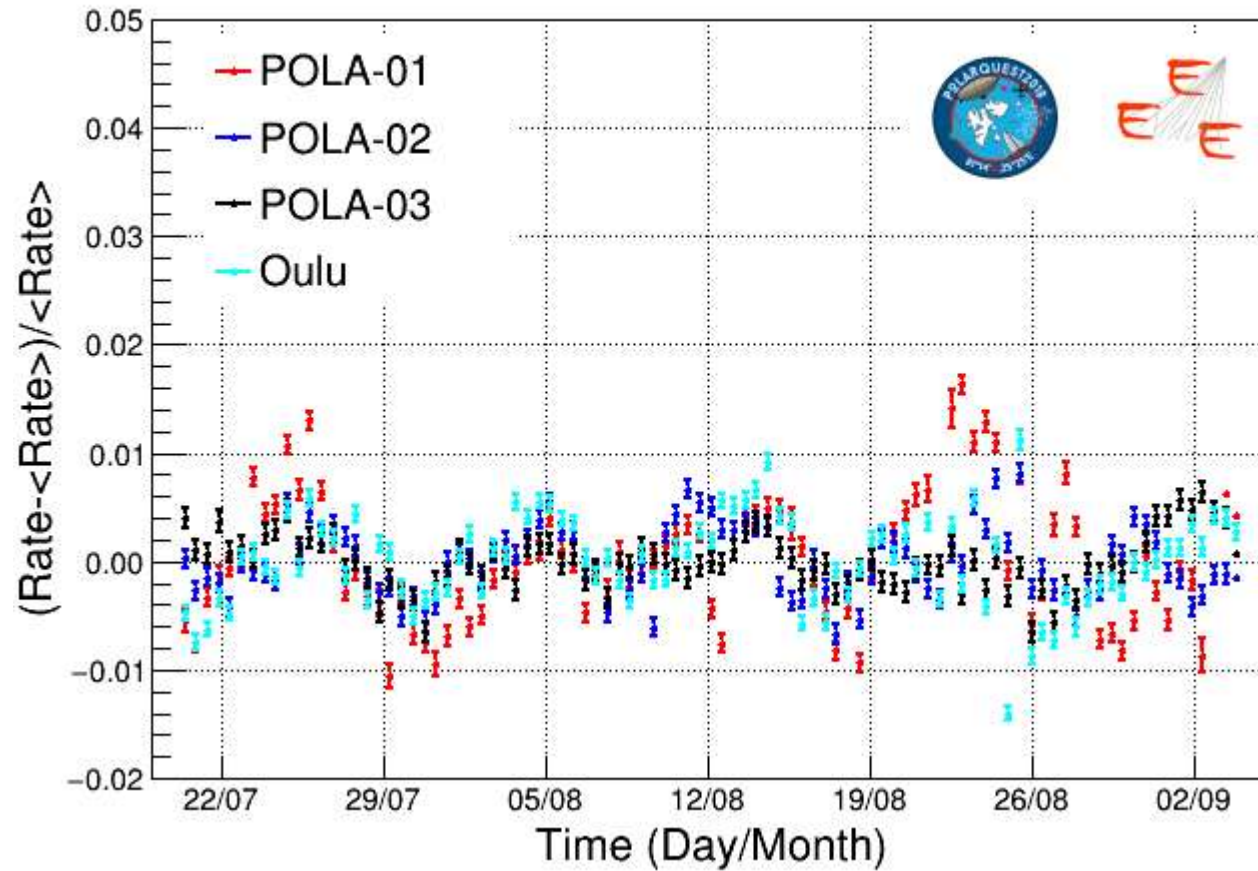
POLA Vs Oulu



POLA Vs Oulu



POLA-01, -02, -03 and Oulu



POLA-01 Vs POLA-02

