# Comparison of Rayleigh Wave Recoveries of Differing Observation Lengths

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## Independent Parameters

- Detectors used:
  - 300, 800, A4100, C4100, D4100, B4850, C4850, D4850, ROSS, YATES
- Channels used:
  - HHE, HHN, HHZ
- Recovery bin size: 6°
- ∈ : 0.7

### Parameters Continued

Recovery Frequency (f) [Hz]	Rayleigh Wave Speed ( $v_R$ ) [m/s]	α [m]
0.1	3,100	15,500
1	1,300	650
3	862	144

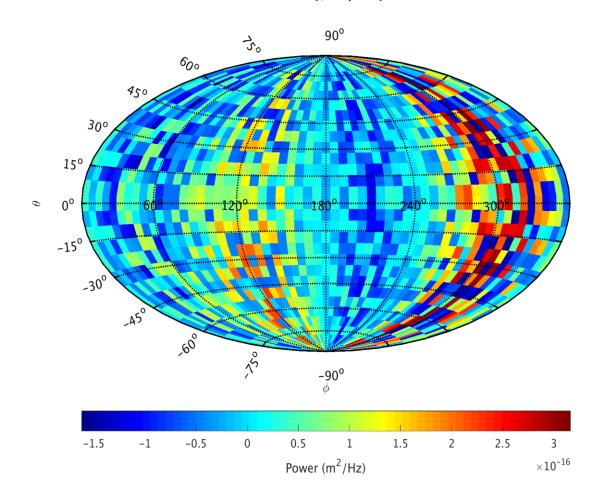
**Table 1**: Values for wave speed were calculated using the relation:  $\alpha = \frac{v_R}{2f}$  for what was considered reasonable values for the recovery frequency (f).

- Observation times were chosen to be centered around GPS time: 1107461150 [s], i.e.
  - Observation length of 100 s: 1107461000 [s] 1107461100 [s]
  - $\circ$  Observation length of 1/2 day (43,200 s): 1107439550 [s] 1107482750 [s]
  - Observation length of 1 day (86,400 s): 1107417950 [s] 1107504350 [s]

## Recovery Frequency: 0.1 Hz

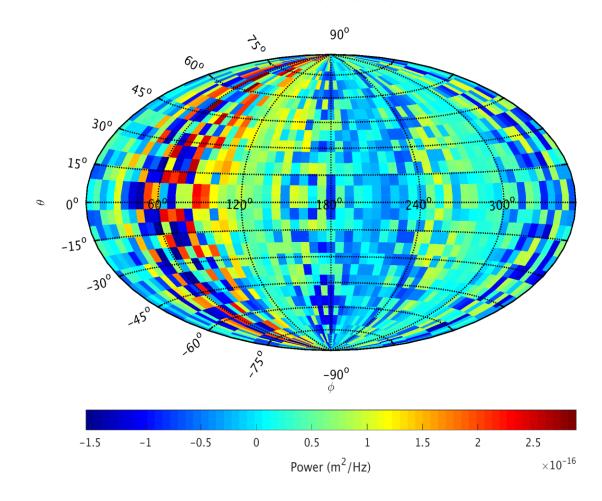
#### **Observation length: 100 sec**

r-wave recovery, frequency 0.1 Hz



#### **Observation length: 1/2 day**

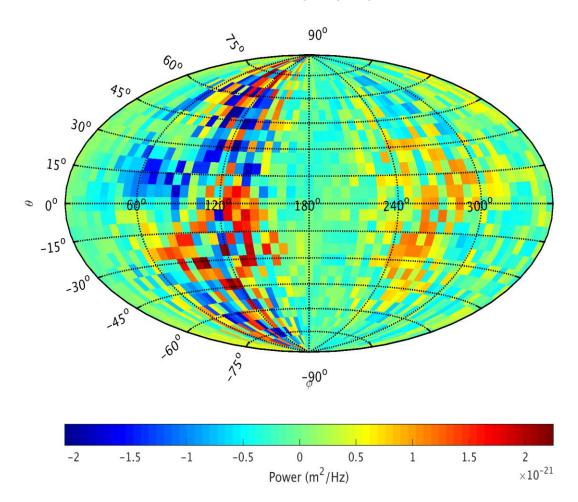
r-wave recovery, frequency 0.1 Hz



### Recovery Frequency: 1 Hz

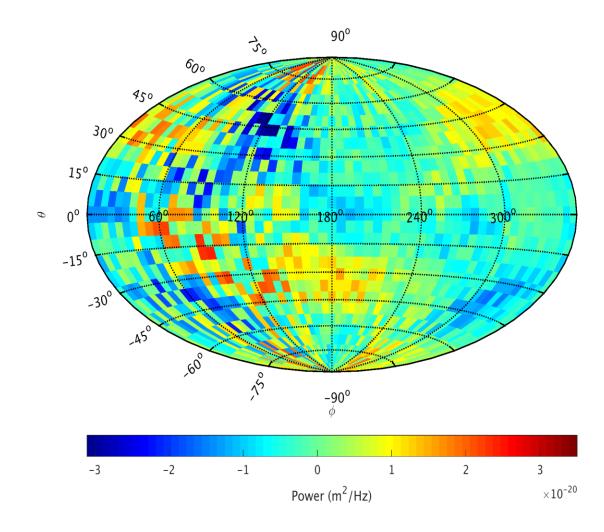
#### **Observation length: 100 sec**

r-wave recovery, frequency 1 Hz



#### Observation length: 1/2 day

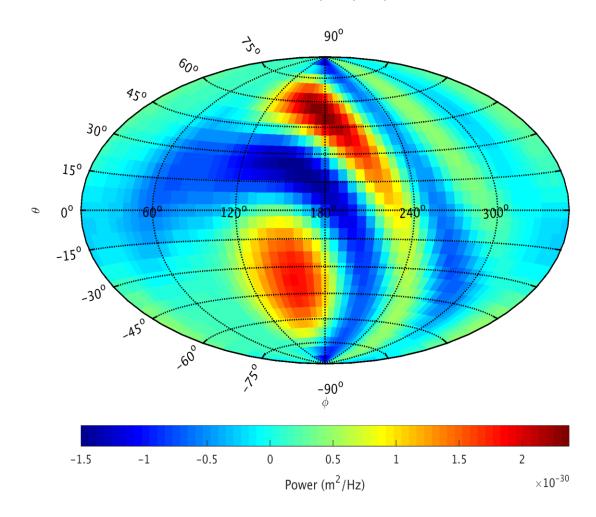
r-wave recovery, frequency 1 Hz



### Recovery Frequency: 3 Hz

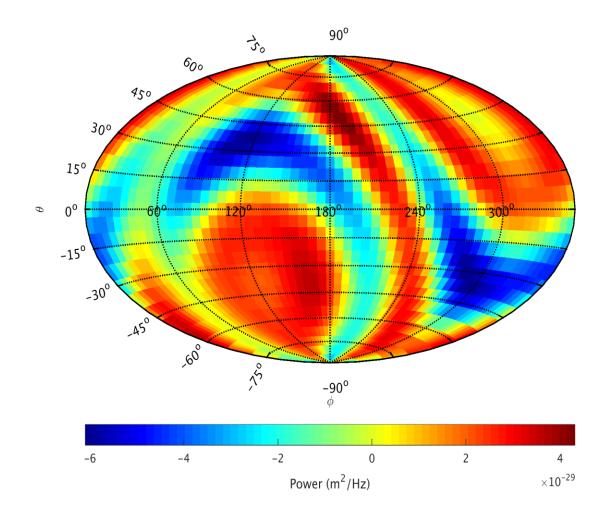
#### **Observation length: 100 sec**

r-wave recovery, frequency 3 Hz



#### Observation length: 1/2 day

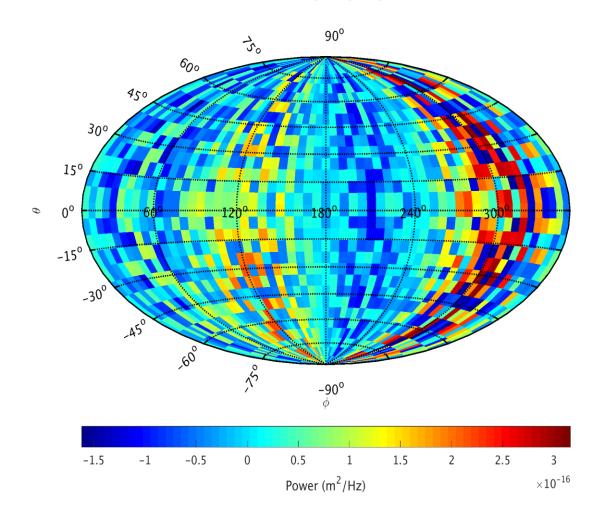
r-wave recovery, frequency 3 Hz



## Recovery Frequency: 0.1 Hz

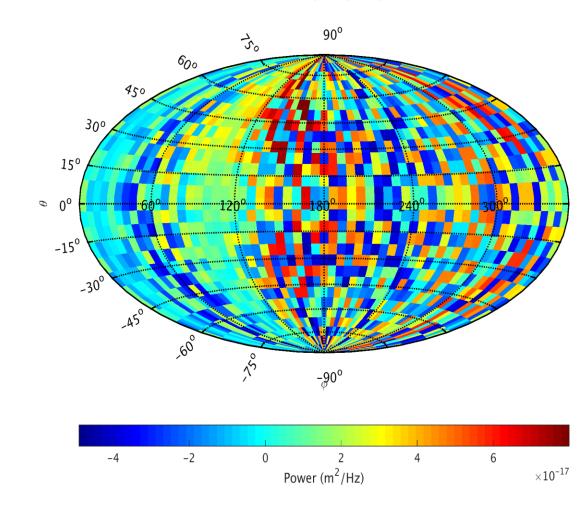
#### **Observation length: 100 sec**

r-wave recovery, frequency 0.1 Hz



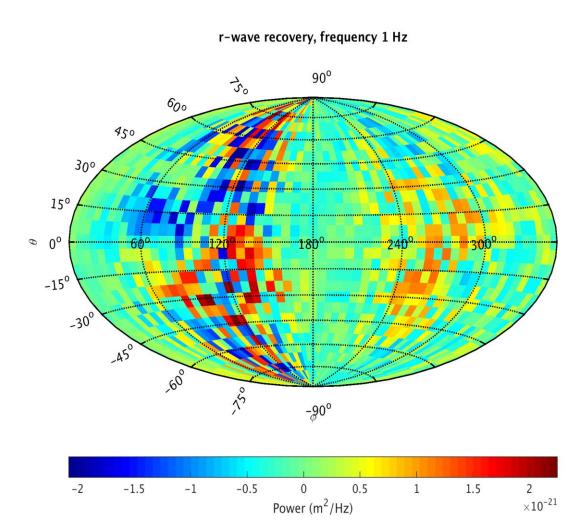
#### **Observation length: 1 day**

r-wave recovery, frequency 0.1 Hz

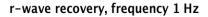


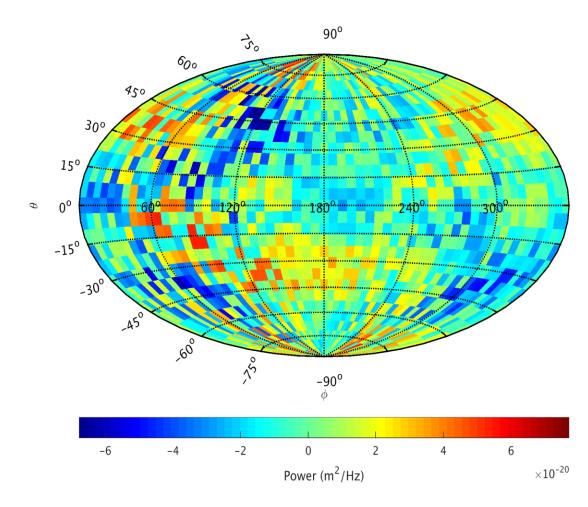
### Recovery Frequency: 1 Hz

#### **Observation length: 100 sec**



#### **Observation length: 1 day**

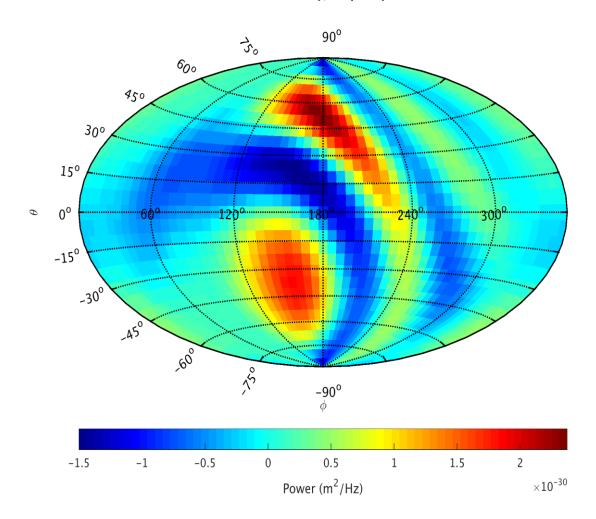




### Recovery Frequency: 3 Hz

#### **Observation length: 100 sec**

r-wave recovery, frequency 3 Hz



#### **Observation length: 1 day**

r-wave recovery, frequency 3 Hz

