As a general comment I suggest to improve and to add details in all parts. For example,

when describing the hardware tools developed for 4 different sensors (that is great!), it

is not clear whether these tools might be useful in other sensor-digitizer configurations

or are they specifics for the GAIA acquisition system. It appears as GAIA datalogger

does not have a calibration system and mass re-centering system and the author had

to supply these missing tools.

The GAIA gain box can be used for all acquisition systems, providing they have a suitable connector. This applies also to the seismometer boxes, providing they have a function for determining a pendulum position, calibration and its centring. We have complemented the text accordingly.

Regarding the software: are the methods applicable automatically to the whole AA dataset? Do these tool still require a significant human intervention?

At the moment, the software was applied only on data from the Czech MOBNET stations included in the AA dataset, but it could be applied on the whole data set, in case of AA interest. We intend to show in the paper the importance of data quality checking before their supplying into the data centres. As we present in the Introduction, even if there are some quality controls in the data centres and potential errors could be identified, it remains on data providers to correct data.

In the whole paper there is a large misuse of the "the". Please check it and I would

suggest a grammar correction by a native english speaker.

We did our best to improve the articles in the text.

More detailed comments below.

Abstract: P1 - L11: scientific methods –> seismological applications P1- L12: observatory

–> you mean "Seismological observatories" P1- L12: full –> the whole P1- L14:

paid –> dedicated to crucial issues like the detection of .... P1- L19: THE beneficial ...

having large reliable set of high quality data from each group...

All suggestions incorporated

Introduction: Add some state of the art informations on the data quality control. Mention

in the AA part the AA complementary experiments like EASI.

We complemented Introduction.

P1-L22: .. extend and dense stations distribution, .... for modern Earth interior researches.

P2-L1: uses –> makes use of P2-L21: and upper mantle, from the Earth’s

surface down to \_600 km of this extremely .... P2-L25 and later: Define MOBNET P3-

L 4: The main purpose... P3- L8-10: rewrite the last phrase ??????

All suggestions incorporated

Deployment of MOBNET: - Clearly separate the two experiments (EASI and AASN)

AlpArray-EASI and AASN were separated more clearly in section Deployment.

- - Describe the AA noise requirement and AASN geometry rules for both experiment

The noise requirements and geometry of the networks (spacing, extent) are described in the 3rd par of Section Deployment

- Add more discussion and details in the noise PSD description and relate it to the

stations setting (thermal insulation? building? enviroment?) - Why might be the reason

for the long period horizontal noise exceeding the max noise level? How is the thermal

isolation achieved? Or you could move the noise level description in the chapt 4.1?

We have extended discussion on seismic noise in Section 4.1. In case of the AASN station we used plastic cover filled with foam material as the thermal insulation.

P4-L1: was finished–> ended ; the twenty.. P4-L5: ... sites are classified as urban-free

field locations P4-L6: .. noise, most of the stations meet the ...

All suggestions incorporated

Seismometer and GAIA control calibration devices: - Please expand the section with

a bit more technical details. Now the section is too short and the real work don by the

author do not appear properly. Moreover the reader need to know when do you use

these devices, if they are a special tools to supply to GAIA datalogger functionalities,

how do they work and if they are of some benefit for other sensor-digitizer couples.

The text was expanded with several details. We pointed out benefits over the standard manufacture devices. Usage of the devices is also marked in the workflow.

P4-L30-31: I do not really get the first phrase. P5-L1: incorporated between: –>

Connects

The suggestions incorporated and the sentences reformulated.

Data quality control: P6-L10/L12: Delete first phrase (it is already clear). Re-phrase

the second phrase. P6-L12: .. the necessary step to achieve and maintain an high

quality level of recorded data. We ..... applied during stations installation.... P6-L14:

not sure that "ex-post" exist P6-L16: The measure of seismic ambient noise level is

nowadays a... when searching and selecting. Once the station is installed, the ambient

noise level has to be frequently checked to monitor... P6-L26/27: .... stations deployed

in AlpArray-EASI and AASN. While the noise level for... requirements for most of the

stations and for the three components, ....

All suggestions incorporated

- Please add more detailed discussion here (why for short period in some stations the

noise level is high? and for long period? Possible explanations?) - Do you usually do

noise measurement before selecting a site?

Possible explanation – end of 2nd par of Section 4.1

Yes, we do noise measurements before station installation, but it is only for relatively short time interval and civilization/technical noise can change in dependence on daily hours or season.

P7-L1: decipher–> spot?

Not accepted.

Sensor orientation P7-L21/22: do you guess why?

Explained in the 3rd par of Section 4.2

P7-L23: daily means –> daily averages

We prefer keeping daily means, if it is acceptable

- Is this control to be done manually on each station or is it automated?

Measurements with gyrocompass are done manually upon each station visite, software method can be done automatically.

Timing issues: - Is this methods applicable to the whole AA dataset, for example? and

to permanent stations? Discuss this issue

Sentence added at the end of Section 4.3

P8-L9: the time, the added

Interchange of components P8-L25/26: raise the suspect that the three components

of the signal are not correctly labelled and they might have accidentally been interchanged.

Though it sounds improbable, but it happends. We complemented the Section4.4

P9/L4: in dependence on —> against the ? corrected

P10-L22: amplitude means –> amplitude averages means kept

Conclusions P10-L27: preceding –> previous P10-L30: ... in situ and allow to check

the gain and the polarity of all three components. P11-L1: ... spectra ratios, average

daily amplitude and...

All suggestions incorporated.

Discuss here the applicability to other pool of your hardware devices and to other

dataset (like the whole AA data).

At the beginning of Section 3.5 we write that the GAIA gain and calibration unit

can be used for calibration of any type of digitizers as well (Kinemetrics, Nanometrics, Reftek, Guralp etc.), after being equipped with corresponding connector reductions.

Control and calibration units for appropriate seismometers can be used directly.

We added a sentence that:

The fully-automated software methods could be used for whole the AlpArray data set.

Team list: Add the full names: Now on AA web site.

We added list of full names as on the AlpArray web page

Figures: Figure 1: updated version of the AAstation map?

Updated map of final AASN deployment added.

Figure 2: expand the caption describing explicitly the various dots and triangle and the period of deployment

We extended caption of the figure.

Figure 3/4: label each subfigure with a), b) etc and describe what we see

Captions of Figures 3 and 4 were extended.