General Comments

This paper presents the effects of geomagnetic field variations, particularly Pi2 and Pc4 geomagnetic pulsations, on the recordings of STS-2 seismic sensors, especially when they are placed at high geomagnetic latitudes.

The paper is technically correct and the subject matter is suitable for publication in GID. However, minor changes and a general review of the English language are needed. Some modifications are suggested below.

The weakest point of the article is the very small number of cases analyzed: only two examples of geomagnetic disturbances and two glacial earthquakes (no teleseismic records have been considered). Such a small number strongly diminishes the soundness of the conclusions.

As the problem studied can have important implications in the analysis of waves generated by teleseisms and glacial earthquakes, and the number of seismic studies at Polar latitudes is increasing, this paper can be an important reference for the future.

Specific comments

The correlation between seismometer recordings and magnetic disturbances (Section 4) is a critical point in the article and deserves more attention.

Please, comment the reason why the correlation between the Z-component of the STS-2 and the Z-component of magnetic field is greater than for the other components.

Technical corrections

1. Small changes

Considering the seismological terminology, “collocated” could be replaced by “installed”, “placed”, “located” ….. in many phrases.

Page 108, line 25: change “in 60th” / “in the sixties”
Page 109, line 1: change “in 80th” / “in the eighties”
Page 109, line 18: change beside”/ “besides”
Page 109, line 24: please, define SFE
Page 109, line 28: what does PC mean? Please, explain or delete.
Page 110, line 5: change “in”/ “on”
Page 110, line 22: change the order to obtain “Effects of natural magnetic disturbances on seismic recordings may be significant”
Page 111, line 2: Add “geographic” before “Coordinates” to differentiate from geomagnetic.
Page 111, line 4: Idem
Page 111, line 3: What does “corrected” mean? Please, explain or delete.
Page 113, line 10: change “adopted” / “adapted”?
Page 116, line 7: change “Gulielmi” / “Guglielmi”
Page 116, line 19: change “depends” / “depend”
Page 117, line 10: Please, define “MLT”
Page 117, line 7: Delete “during”
Page 117, line 25: change northern/Northern
Page 118, line 23: Delete “of” before “glacial”

Page 121, line 2: add “the” before “top”
Page 121, line 24: add “the” before “Z-component”
Page 122, line 22: change “that” / “those”
Page 123, line 4: change “Liley” / “Lilley”
Page 124, line 12: change “GIS” / “GIC”
Page 126, line 16: change “also” / “the”

2. Paragraphs to be rewritten because their meaning is not clear

Page 109, line 21: “Among them…….our knowledge”
Page 110, line 16: “In Sect. 4…….. high latitudes”
Page 120, line23: “In the present……in Fig. 10”
Page 126, line 11: “However……pair of instruments”

3. Figures

Figure 1: The referee supposes that “Mag Pole” stands for “Geomagnetic Pole”. Please, confirm it. Symbols used for earthquake epicenters, geomagnetic pole and stations should be different.
Figure 3: change “correspondent” / “corresponding”.
Figure 4: change “seosmometer” / “seismometer”.
Figure 5: unify panel size. Add “Frequency, mHz” to X-axis at a, b and c panels.
Figure 11a: change “residue” / “residual” in the lowest panel.
Figure 11b: Idem
Figure 13: rewrite the caption. Change “seconds”, “thirds” by “in the second line” and “in the third line”