

Interactive comment on “Autonomous underwater vehicle based marine multi-component self-potential method: observation scheme and navigational correction” by Zhongmin Zhu et al.

Zhongmin Zhu et al.

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Dear Anonymous Referee,

Thank you very much for your comments and suggestions. According to your advice, we have revised this manuscript as follows. 1 Comment 1: “It is suggested to provided more details, such as the spectrum analysis method and other parameters, about how the frequency spectrum (Figure 4) of the electric field time series obtained.”, Response: Thank you , We calculate the power spectrum of time series and convert the unit in dB by using $10\log_{10}(p)$, the spectrum is obtained using `pspectrum` function in matlab. The main text is also update.

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2 Comment 2: “The relationship between the spectrum of electric field and the propeller speed (Figure 4a) should be analyzed in more detail”, Response: Agree, The frequency components of 1.4 Hz and 3.5-4.5 Hz are caused by the speed of propellers The 1.4 Hz corresponds to the speed of 85 turns/min, the peaks of 3.5 - 4.5Hz corresponds to the speed from 210- 285 turns/min. The main text is also modified.

Once again, thank you very much for your comments and suggestions.

Sincerely, Zhaoyang Su

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