Covering letter

Authors' Response

Dear Editor and Reviewers,

Thank you for your valuable time in reviewing our manuscript (Manuscript ID: electronics-4032066, titled "An Zero-Point Drift Suppression Method for eLoran Signal Based on Inaction Algorithm"). We are grateful for your detailed comments, which have helped us improve the quality of the paper. The reviewers' concerns are addressed in the order in which they are mentioned. The comments are pasted below in *red* and *italics*, and our responses follow closely.

Thank you again for reading our work and responses.

Sincerely,

The Authors

Response to reviewer 2's comments:

1、summary

Thank you for your thorough review and careful consideration of this issue. We have addressed your concerns as follows:

2、Reviewer's Evaluation

Questions for General Evaluation	Reviewer's Evaluation	Response and Revisions
Does the introduction provide sufficient background and include all relevant references?	Yes	I will give my corresponding responses in the point-by-point response letter.
Is the research design appropriate?	Yes	
Are the methods adequately described?	Yes	
Are the results clearly presented?	Can be improved	
Are the conclusions supported by the results?	Yes	
Are all figures and tables clear and well-presented?	Yes	

3、Point-by-point response to Comments and Suggestions for Authors

Comments 1: *[Avoid excessive paragraph breaks for Equations. For example, sentences starting with "where" when describing parameters in the equations should be in the same paragraph as the equation being described, with no indentation spaces. Up to Equation 34, there are too many paragraph breaks, which may easily confuse readers in terms of textual logic.]*
Response 1: *Thank you for pointing this out. We agree with this comment.*
[It has been carefully revised in the original manuscript.]

Comments 2: *[Please provide the calculation formula for the Signal-to-Noise Ratio (SNR). Regarding the particularity of 25 μs in Equation 16, why is 25 microseconds chosen? Is it the signal duration? Is 25 μs adopted for all other waveforms? From Figure 3, it seems that 25 microseconds is not the part where the signal is the strongest. This still makes the SNR definition be confusing.]*
Response 2: *Thank you for your thoughtful review and careful assessment of our manuscript. We*

have revised this to emphasize this point.

[The 25 μs were selected according to the definition of signal level outlined in the General Technical Conditions for Marine Loran-C Receiving Equipment (Reference 31). The SNR established for the subsequent waveforms were all determined based on this definition]

Revised manuscript:

$$E = \frac{env(25)}{\sqrt{2}} \quad (16)$$

$$SNR = \frac{E}{E_N} \quad (17)$$

where" $env(25)$ "denotes the 25 μs point level at the onset of the eLoran pulse envelope, " E_N "denotes the noise level.

The SNR established for the subsequent waveforms were all determined based on this definition.

For simulated atmospheric noise, the noise level E_N is defined by the following formula:

$$E_N = \sqrt{X^2 + WP(AX)^2} \quad (18)$$

where " X "denotes the random noise level, with $W = 30\mu s = 30 \times 10^{-6} s$, " W "denotes the single-tone pulse width at 100 kHz, " P " denotes the average number of single-tone pulses per second, typically ranging from $P = 40 \sim 60$, " AX " denotes the effective value of a single-tone pulse at 100 kHz, and " A " denotes a constant.