Changes in Water Level Around Coastal Great Lakes due to the Presence of Ice

Keith A. I. Huckleby[1], Kristy Tiampo[2], & Ryan Cassotto[2]

1. Research Experience for Community College Students | Pikes Peak State College 2. CU Boulder, CIRES

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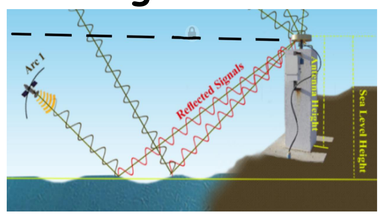

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- Detects changes in water level around coastal Great Lakes due to ice.
- Research Question: What does GNSS-IR data suggest about the impact of ice on water levels in the Great Lakes?

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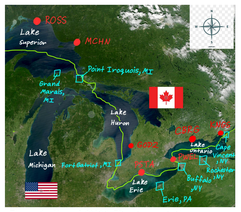

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References

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Acknowledgements

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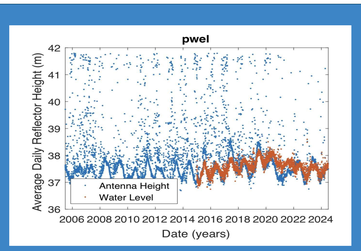

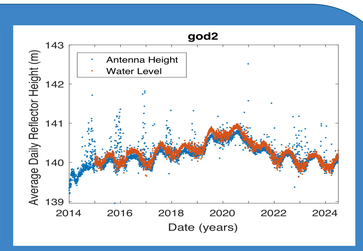

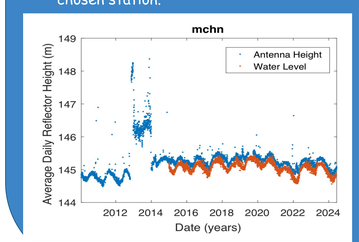

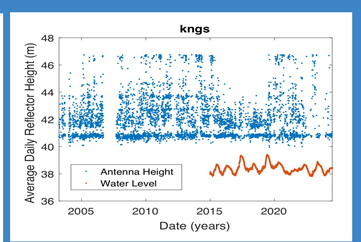

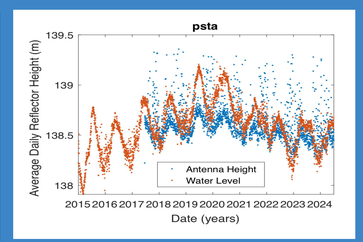

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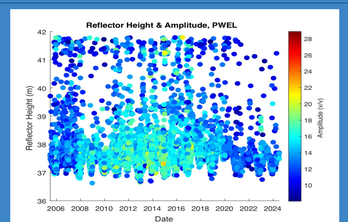

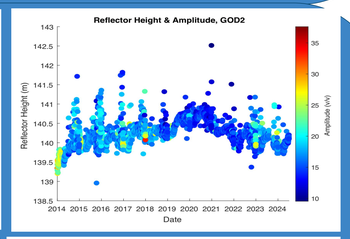

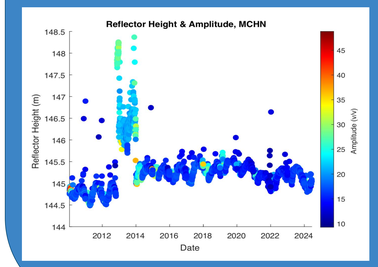

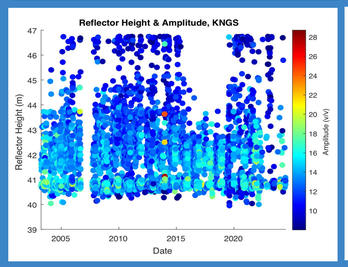

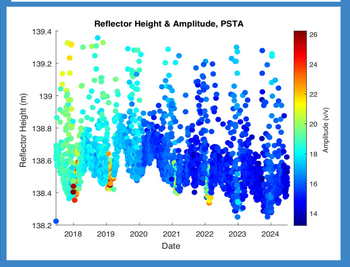

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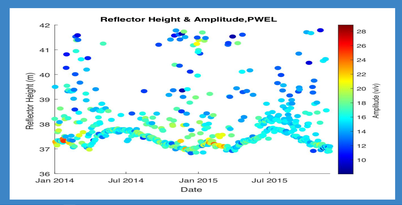

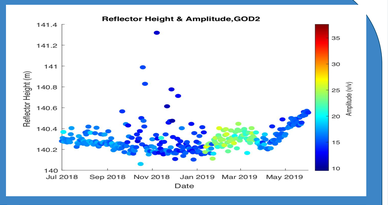

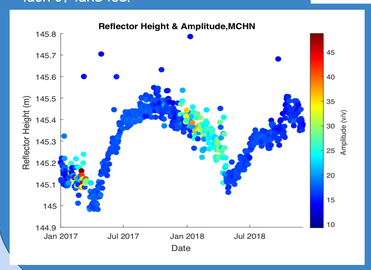

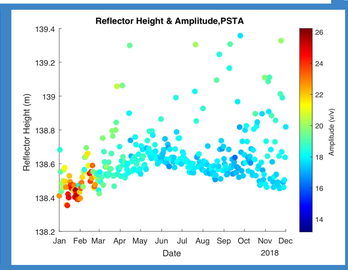

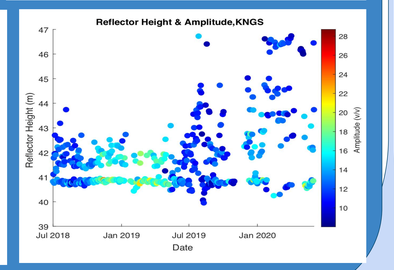

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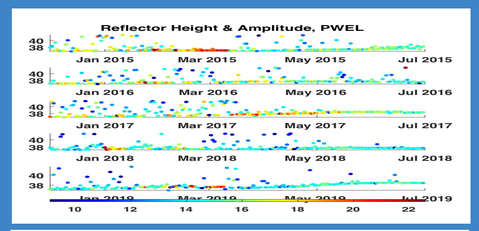
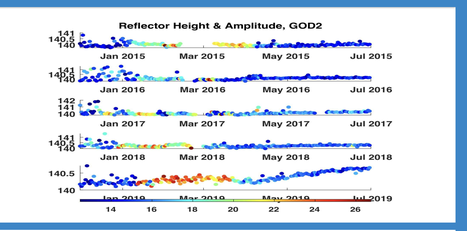
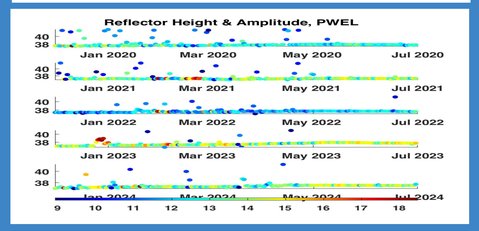
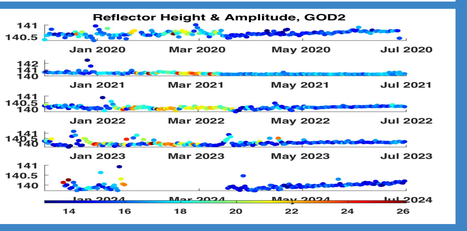
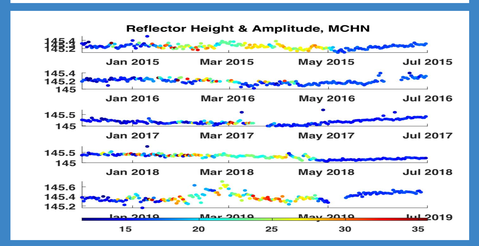
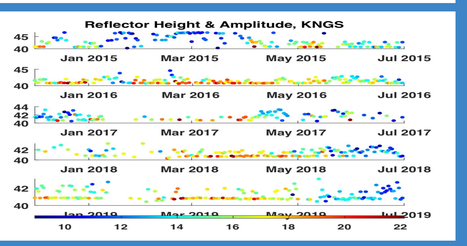


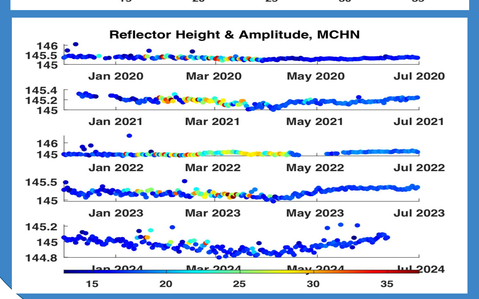


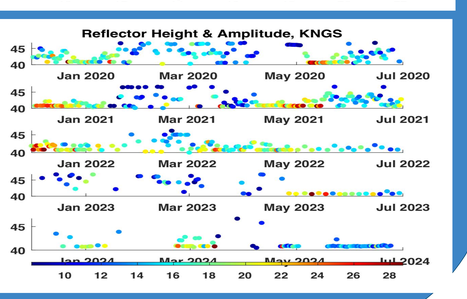








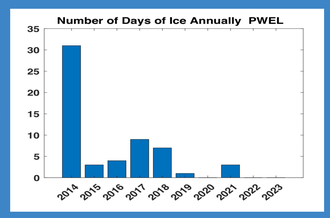


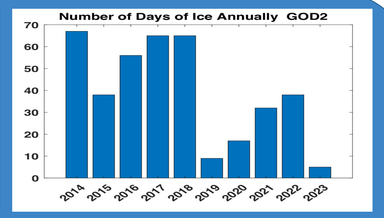


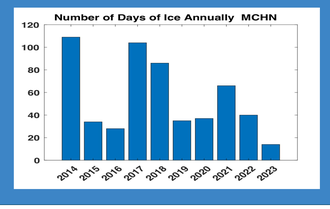
Number of Days of Ice vs. Year

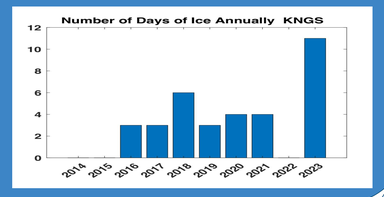
Figure 5: We summarized our data from Figure 4 in bar graph format, where we analyzed the number of days of ice annually. Here we selected an with an amplitude threshold of 20 for the occurrence of lake ice.

This allowed us to see how much the GNSS-IR signal can measure or detect ice over the past decade.









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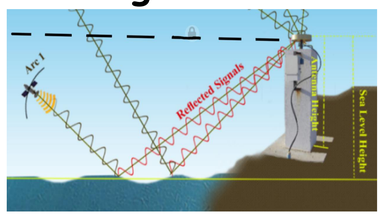

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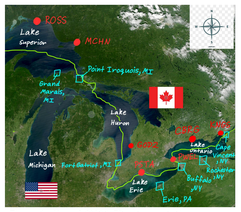

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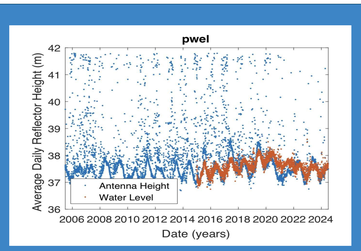

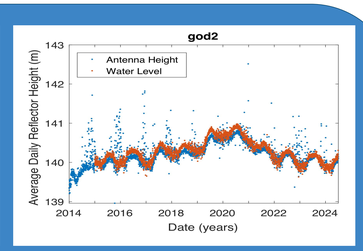

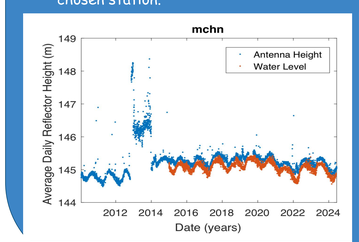

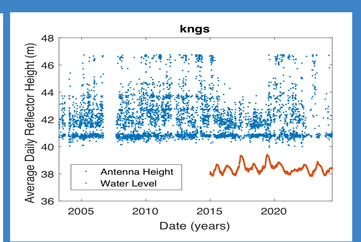

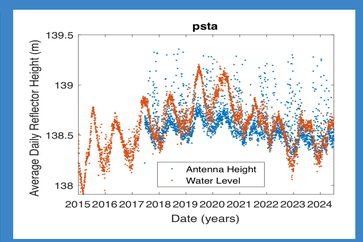

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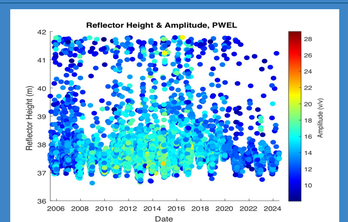

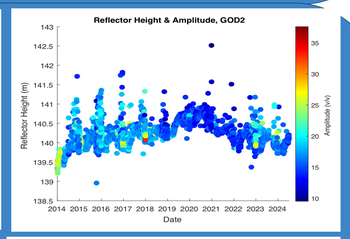

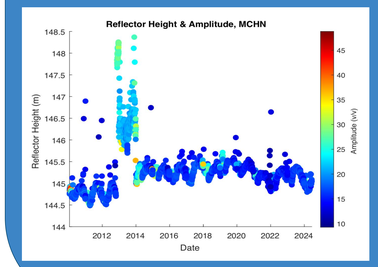

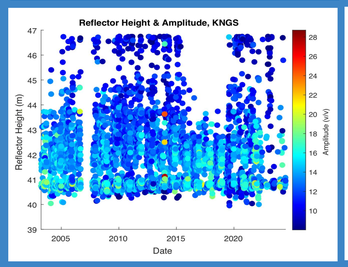

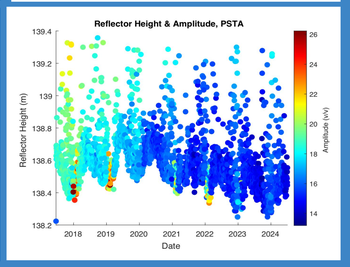

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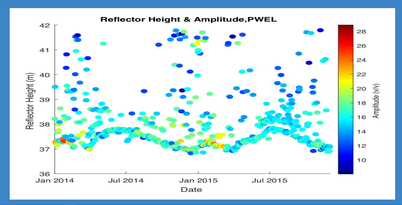

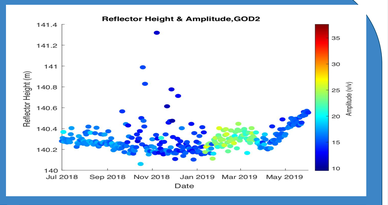

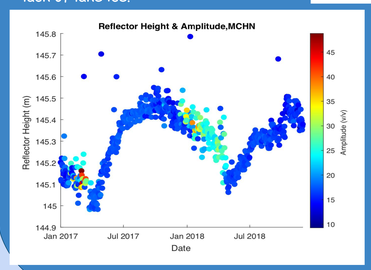

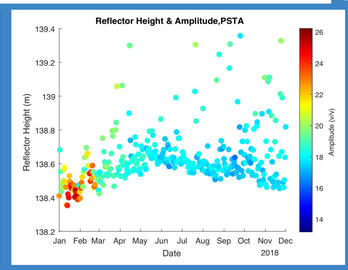

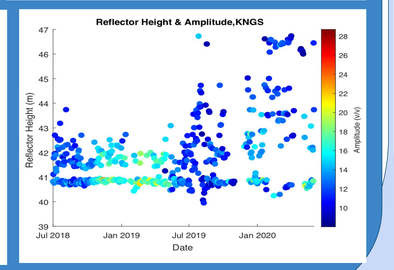

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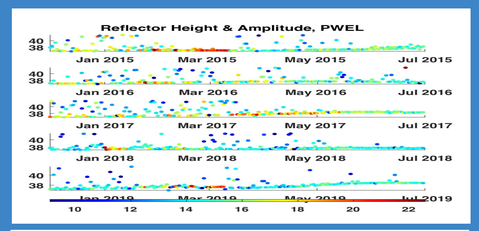

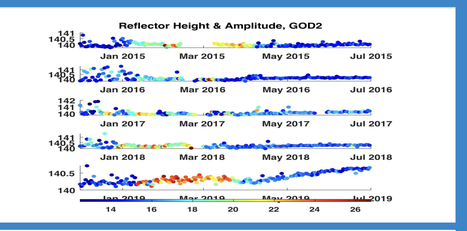

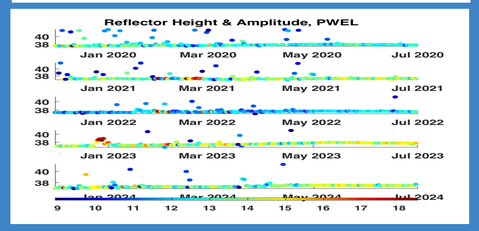

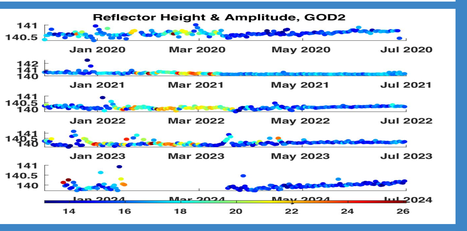

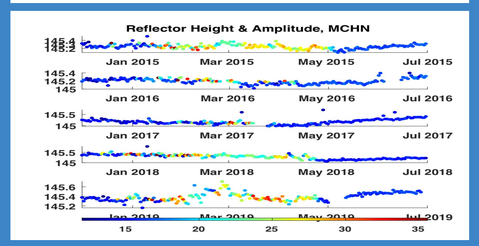

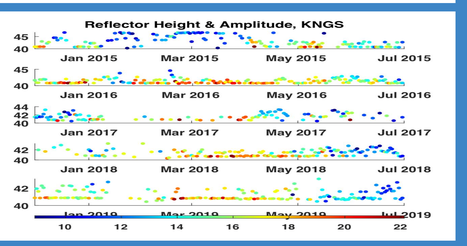

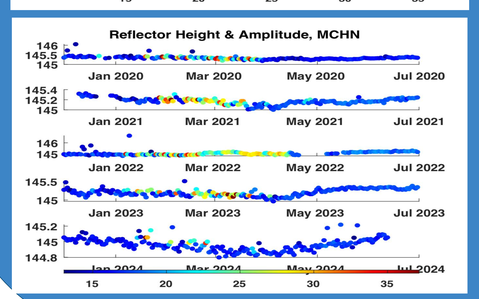

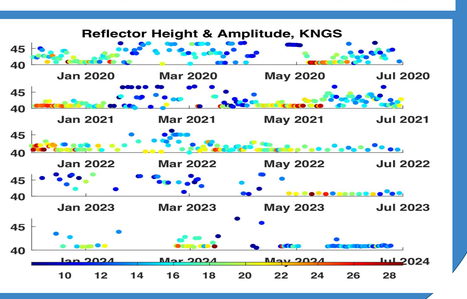

Number of Days of Ice vs. Year

Figure 5: We summarized our data from Figure 4 in bar graph format, where we analyzed the number of days of ice annually. Here we selected an with an amplitude threshold of 20 for the occurrence of lake ice.

This allowed us to see how much the GNSS-IR signal can measure or detect ice over the past decade.