Multi-hop, High-Frequency Radio Propagation Near Japan

Team 93463

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To whom it may concern,

When reading our solution, we hope that you are can read our document in Adobe Acrobat Reader as we have `.gif` files that can only be played with that particular PDF reader. Please visit `https://get.adobe.com/reader/` to download it if need be.

We are trying to put our best foot forward and we would appreciate if you receive our work as intended. It is worth it. We promise. Thank you.

Respectfully,
Team 93463

Abstract

We attempted to model high frequency radio-waves and their interactions with the ionosphere, turbulent and calm oceans, and smooth and rugged terrain. To do this, we used used a simple and isotropic model for the ionosphere, modifying the Chapman Law to make it time-dependent, i.e. dependent on the time of day and the time of year. To model the ocean, we had a simple model in which ocean wave amplitude and wavelength are varied. By doing this we are able to change its index of refraction.

Using this we found...

Hi team, here is what we *need* to have in our report (according to the MCM overlords):

- Restatement and clarification of the problem
- Explain assumptions and rationale/justification
- Include your model design and justification
- Describe model testing and sensitivity analysis
- Discuss the strengths and weaknesses

They also claim to judge the quality of our writing. So remember our good friend Williams. ¯_(ツ)_/¯
