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Interactive Tool to Visualize Space Weather Scenarios

The Space Weather Scenario Tool is an interactive, web-based tool designed to allow users to explore sequences of space weather events, from physical drivers to technology and human impacts.

Motivation

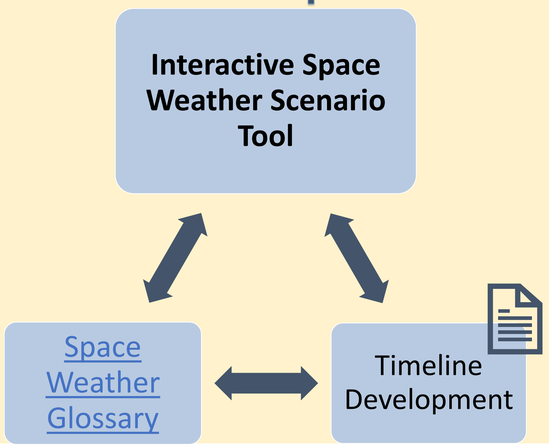
Education & training

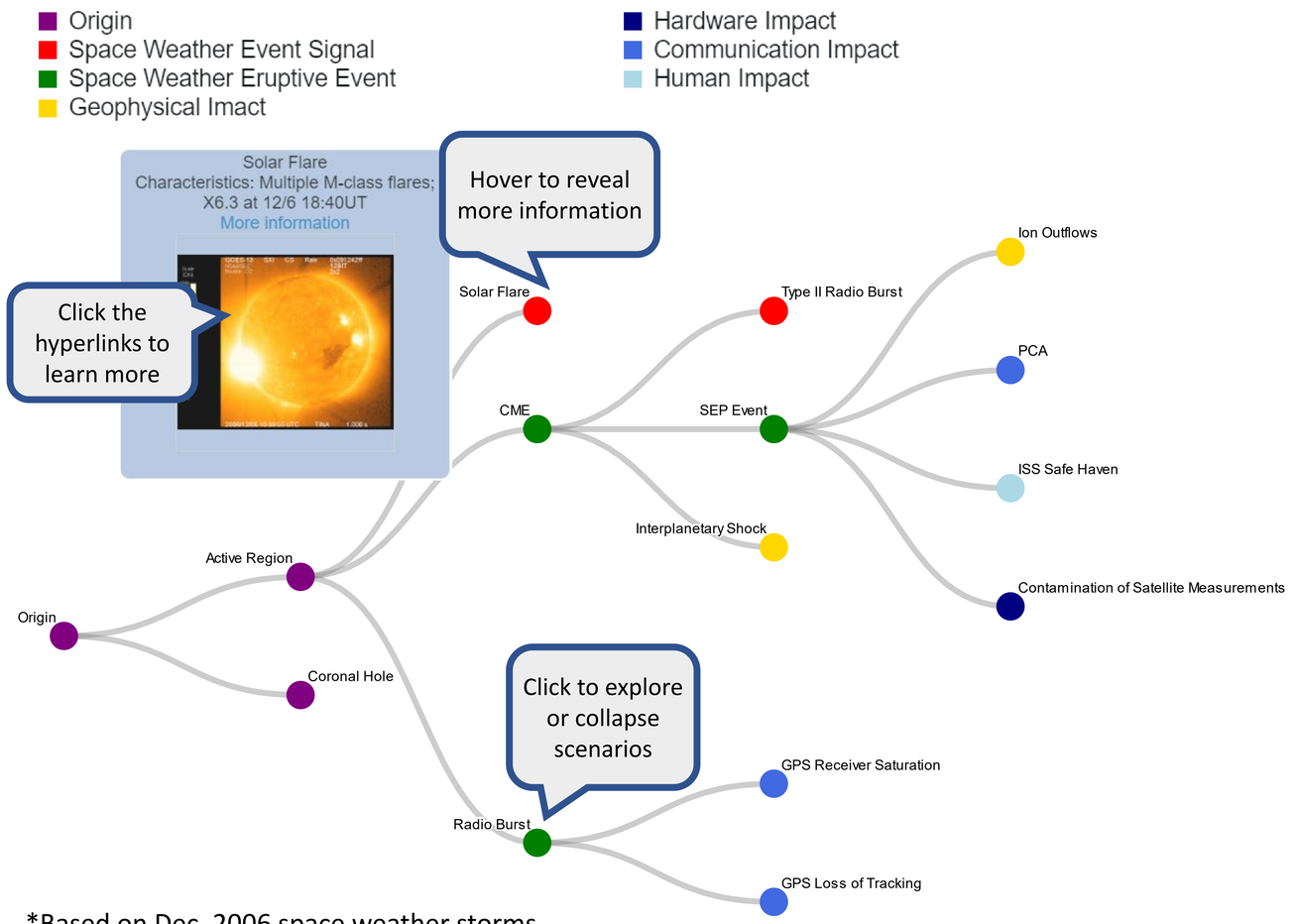
Space weather forecasters, satellite operators, trainees, and students could all learn and prepare for severe space weather events by mapping out space weather storms and impacts.

User-informed interactive tool

We have developed the Space Weather Scenario Tool, an interactive, web-based resource for users to map out sequences of space weather events. The practical tool is based on case studies and draws connections between space weather storms and the different geophysical, engineering and human impacts that can arise.

An iterative process





*Based on Dec. 2006 space weather storms

Insights

Ongoing conversations with space weather forecasters from the UK and NOAA SWPC have deeply informed the direction of the tool development

Using real case studies to develop space weather scenarios

Collaborative team with diverse perspectives leads to success

Ongoing work

Expand to include more space weather case studies

Refine with more characteristics and likelihood estimates

Collect and implement **feedback** from educator and forecaster partners

Iterate

Share with the community after further development!

References cited in this paper!