

Improving the Interactive, Real-time Snowfall Rate Website

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Objectives

- Update the current Snowfall Rate (SFR) [website](#) using **React**
- Provide forecasters with accurate, near real-time SFR data in a more accessible and shareable format

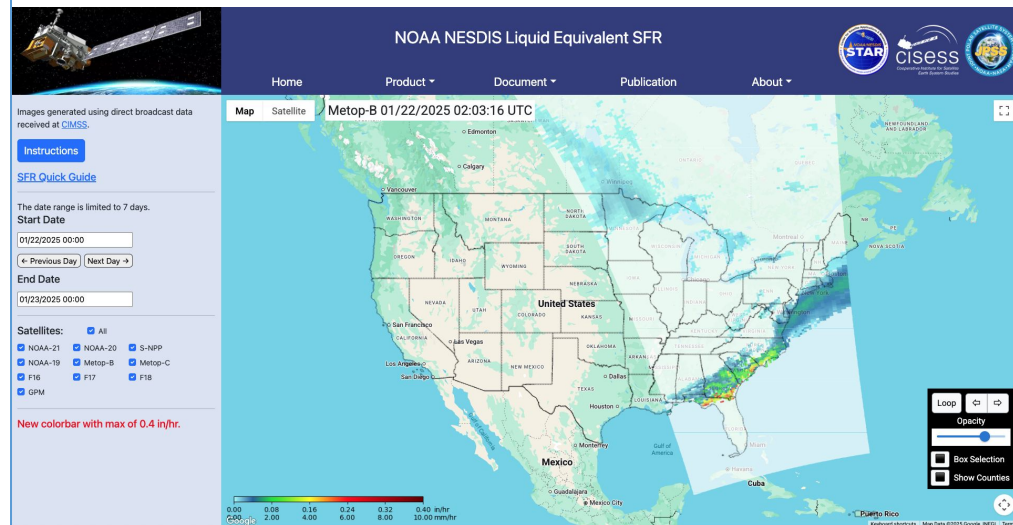
Results

- Key updates are highlighted in the next slide

Future Work

- Develop a satellite swath prediction program using TLE data with the SGP4 **Python** library
- Integrate the program into the SFR website to improve swath visualization and increase processing efficiency

Figure



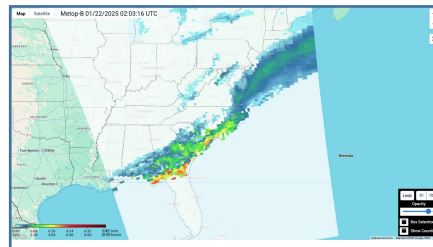
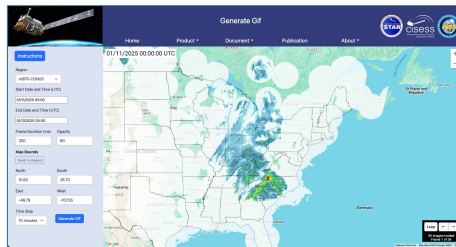
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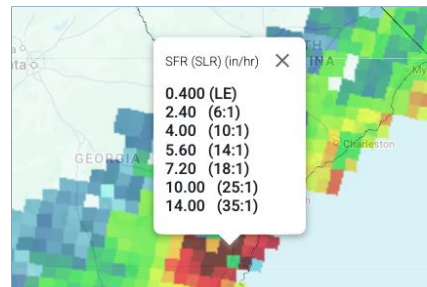
Updates

- Developed a GIF generator
- Added query parameters to the URL
- Implemented dynamic regions and satellites with centralized configuration for easier updates
- Ported satellite swath API requests from **PHP** to client-side **JavaScript**
- Added a detailed SFR and Snow-to-Liquid Ratio (SLR) label
- Updated the date picker with improved navigation and consistency
- Worked on an internal statistics page to track unique user count and location

Figures



sfr.umd.edu/?page=SFR-CONUS&img=1&opacity=80&start=2025-01-22-05-00&end=2025-01-23-05-00&sats=0000100000&lat=35.17&lng=-77.46&zoom=5.74



Start Date

End Date