Extreme Event Communication and Coordination

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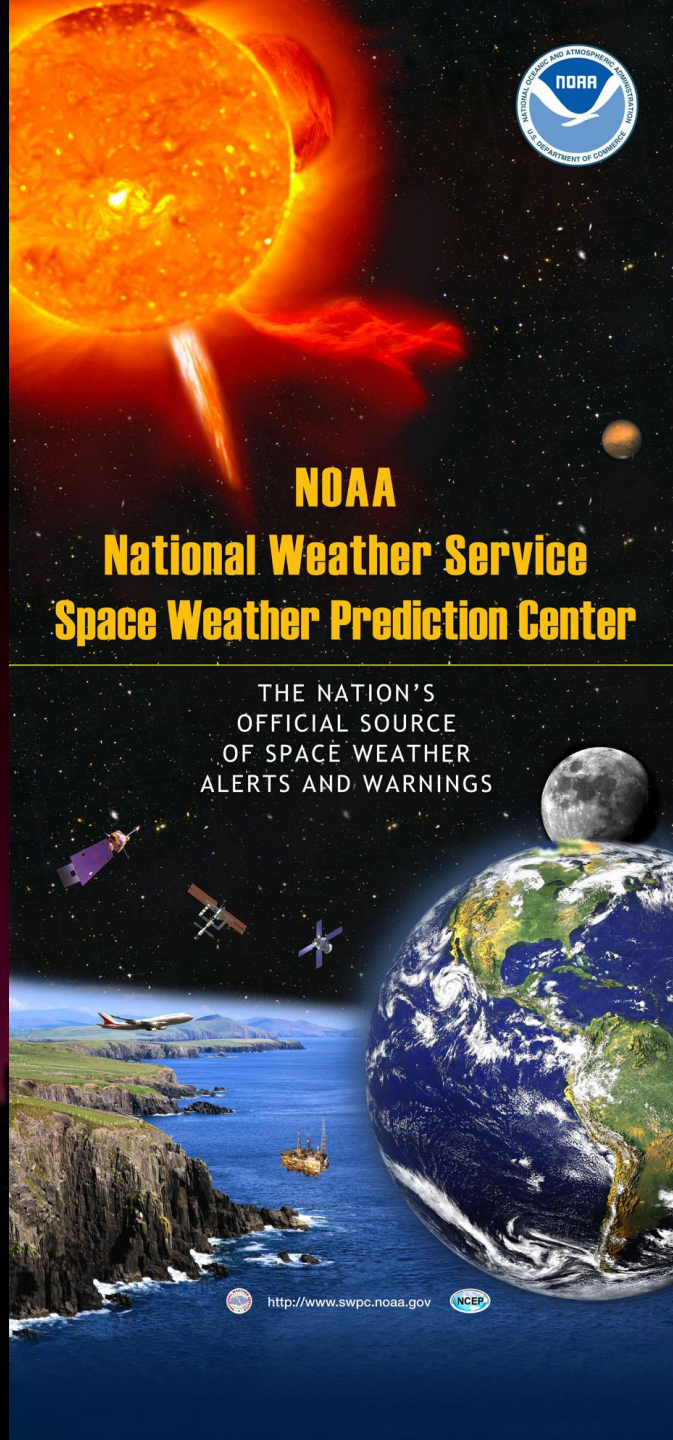

Practical Challenges

- Flare forecasting varies but flare probabilities will likely be high across the board for impressive regions
- Solar radiation storm forecasting roughly the same
- Geomagnetic storm forecasting likely the biggest challenge during extreme events
  - Arrival times improving, intensity forecasting still very subjective
  - Big events are generally easier to distinguish, but is it an October 2003 storm or a Carrington event?
  - No perfect correlation between velocity and intensity (e.g. March ‘89)
  - Once something hits the media, it’s essentially impossible to get it back…

Practical Challenges

- Lead time will be limited…
  - Wait times for LASCO data can be a problem; initial customer notification could go out without a single coronagraph image
  - Tracking gaps for STEREO data can also result in limited data, and fitting from LASCO alone has large ambiguities
  - Analysis and ensemble model runs take time
  - Huge problem for very fast CMEs
- Geomagnetic storm magnitude predictions and arrival times vary wildly today, even for modest events
- Big events could look big, and it might be easier to agree
- Quick and easy communication interface could help increase community consensus, but in the end, each entity may need to stand behind its own decisions

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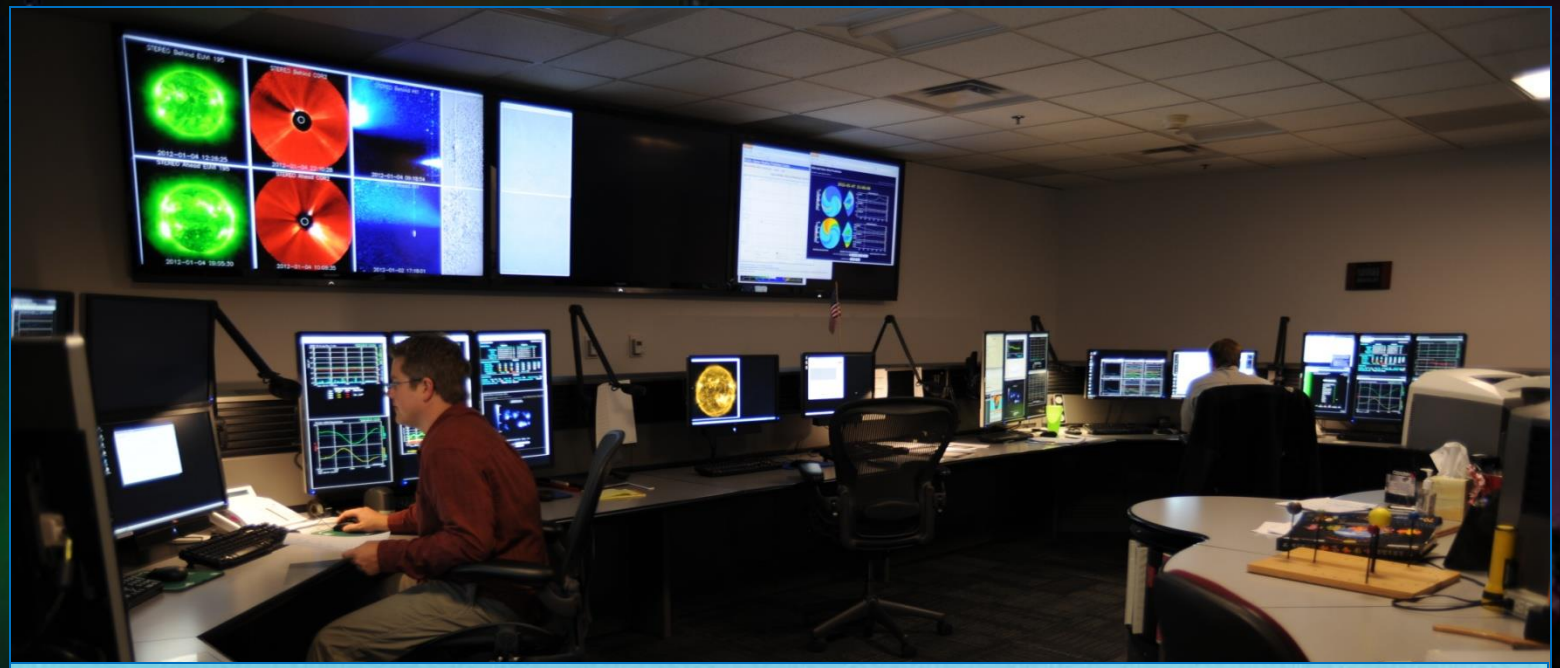

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