

# Beyond the Mouse – A Short Course on Programming

## 0. Introductory Motivation

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Fairbanks

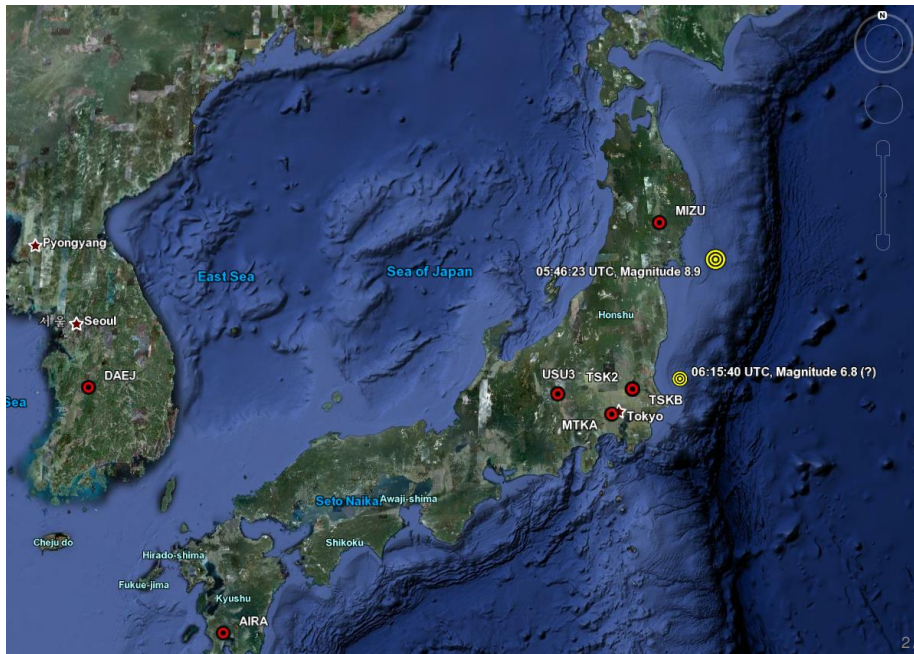
September 8, 2011

YOU'LL NEVER FIND A  
PROGRAMMING LANGUAGE  
THAT FREES YOU FROM  
THE BURDEN OF  
CLARIFYING  
YOUR IDEAS.

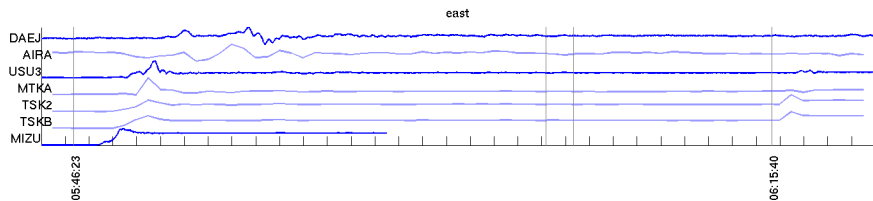


"The Uncomfortable Truths Well",  
<http://xkcd.com/568> (April 13, 2009)

# M9.0 Tohoku-oki: March 11, 2011, 5:46:23 UTC...

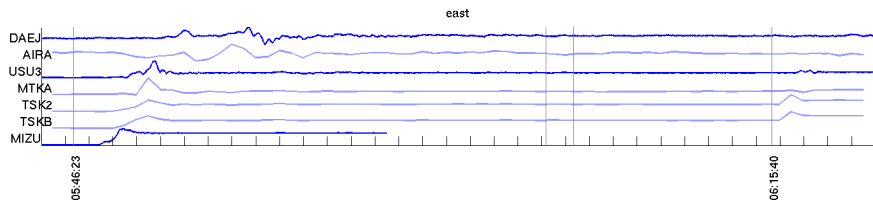


# The Project . . .



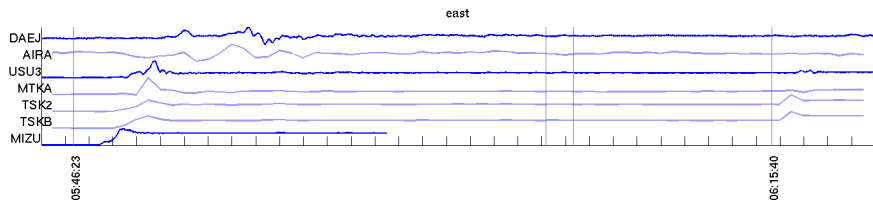
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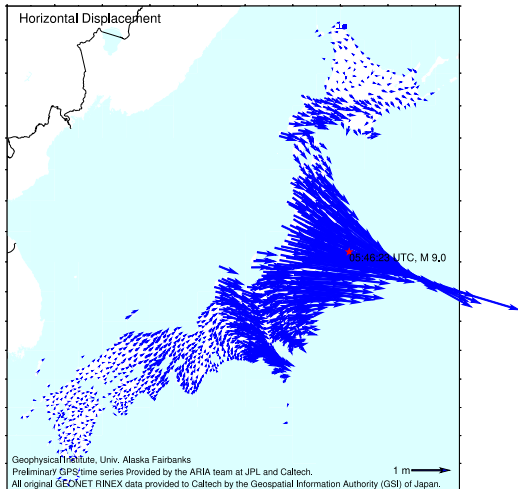
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- this website published processed positioning time series data for >1200 GPS stations
- something cool has to be in there!

Show movie ...

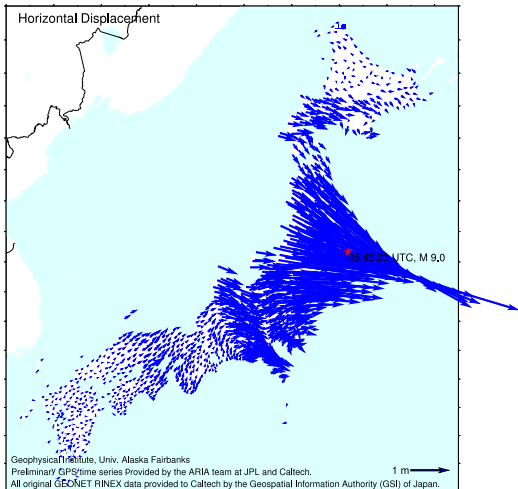
# The Program ...



Program consists of 3 shell scripts:

- `make_vel_frames` – filtering, data re-formatting

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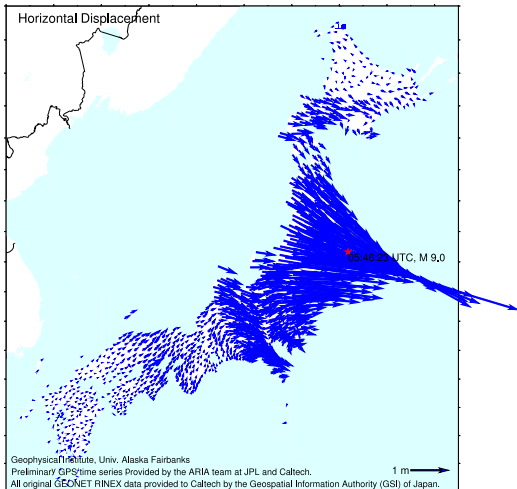


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- `aria_animate.gmt` – create map for each time step, call `make_movie`



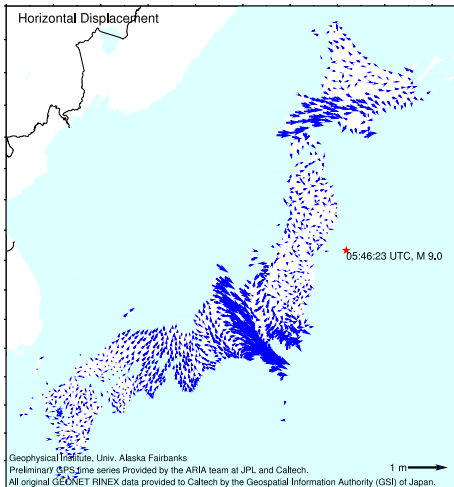
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- `make_movie` – create .avi, .mp4 files

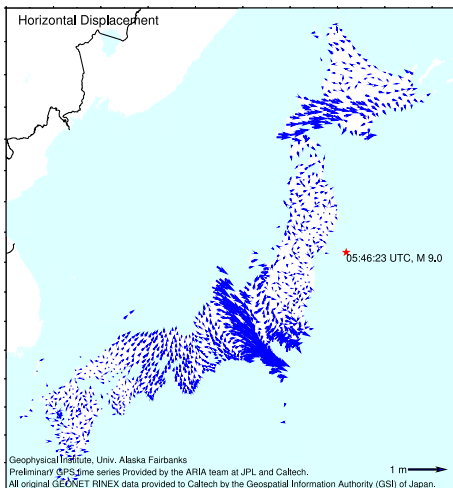
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Tools used:

- `tcsh` scripting language

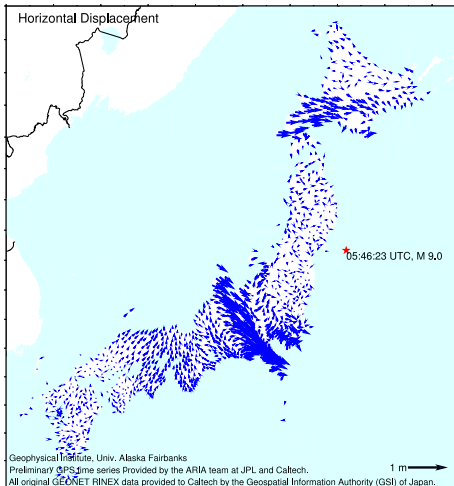
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- **Unix programs:** `basename`, `head`, `touch`, **`awk`**, **`grep`**, `paste`, `convert`

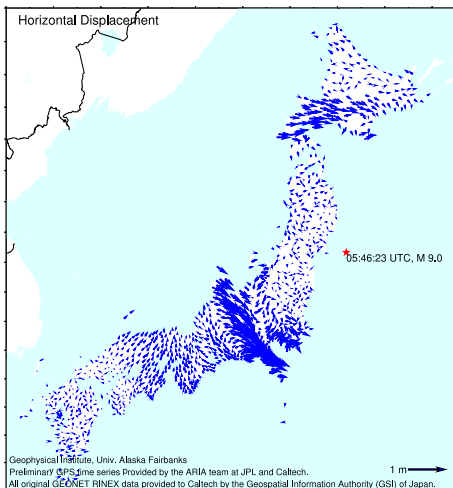
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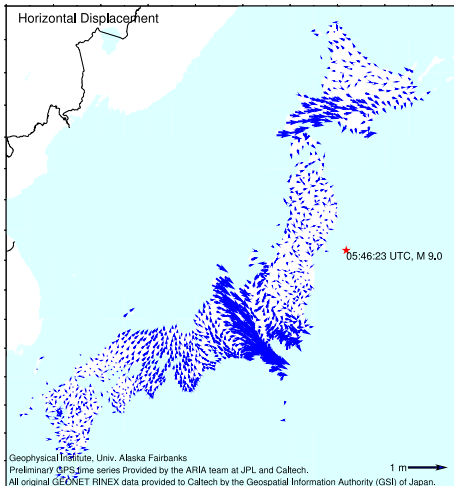
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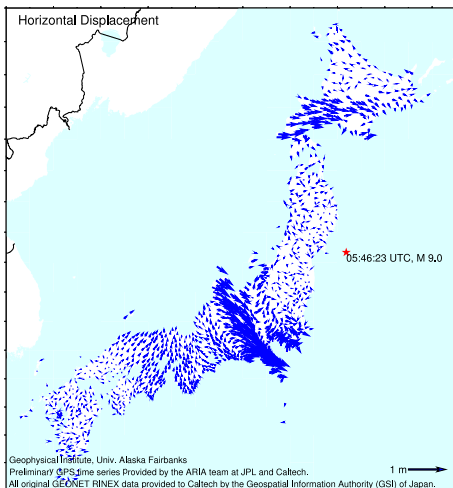
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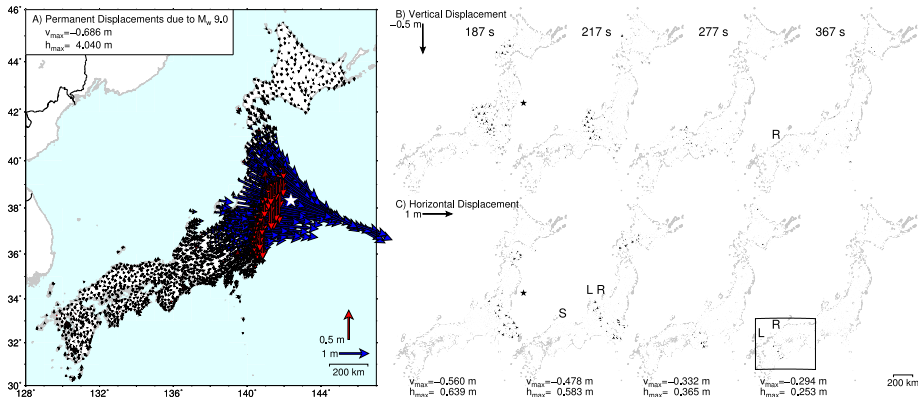
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- HTML to link to YouTube ...

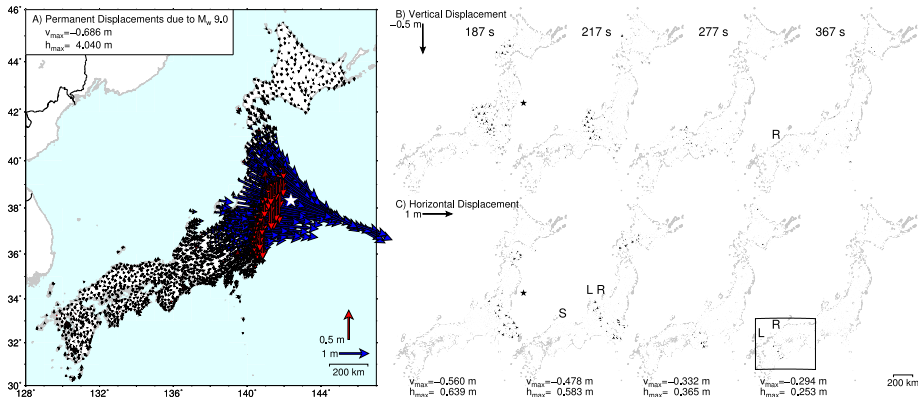
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- many lessons learned in science politics
- mode of visualization seems to catch on
- useful experience in terms of event response