

Gary T. Mitchum,
B. Hamlington, D. Masters,
M. Merrifield, R. S. Nerem,
and P. Thompson

Vertical land motion errors at the tide gauges and sensitivity of altimeter drift estimates to these errors



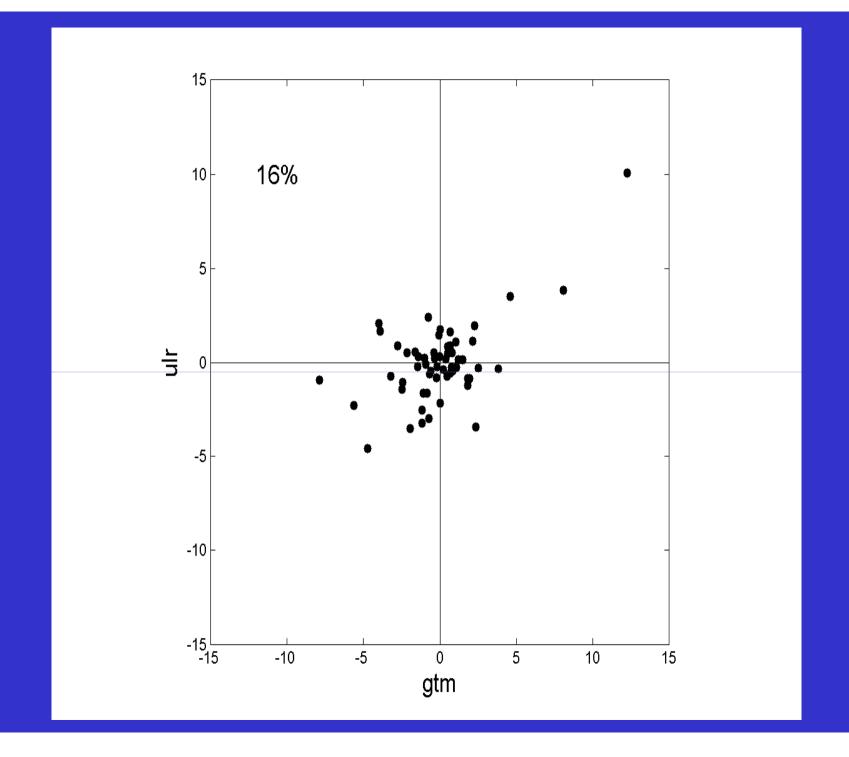
## Intercomparisons of different VLM estimates at tide gauges

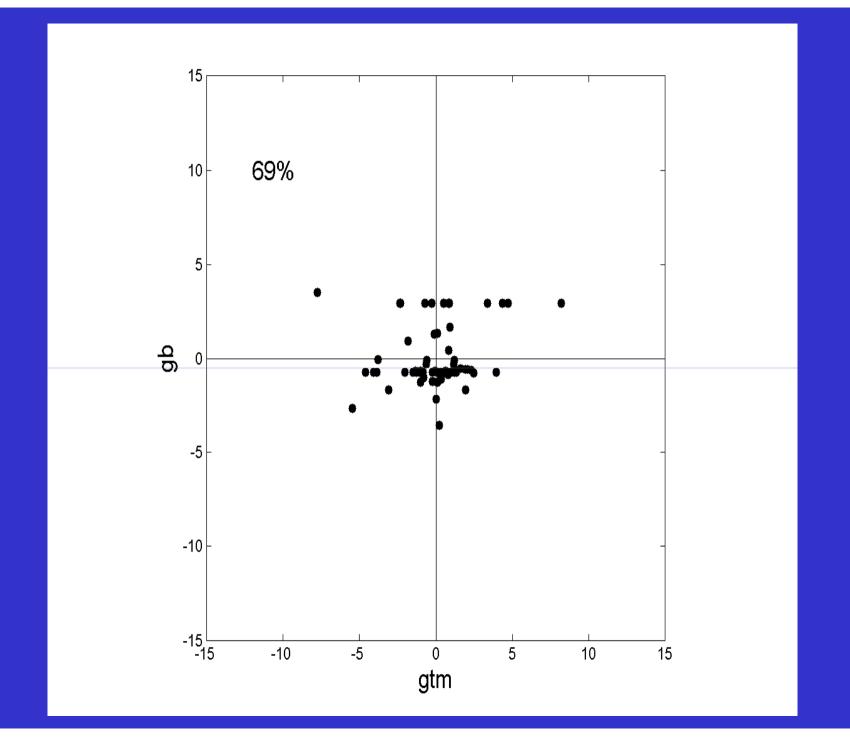
Impact of these estimates on altimeter drift estimates

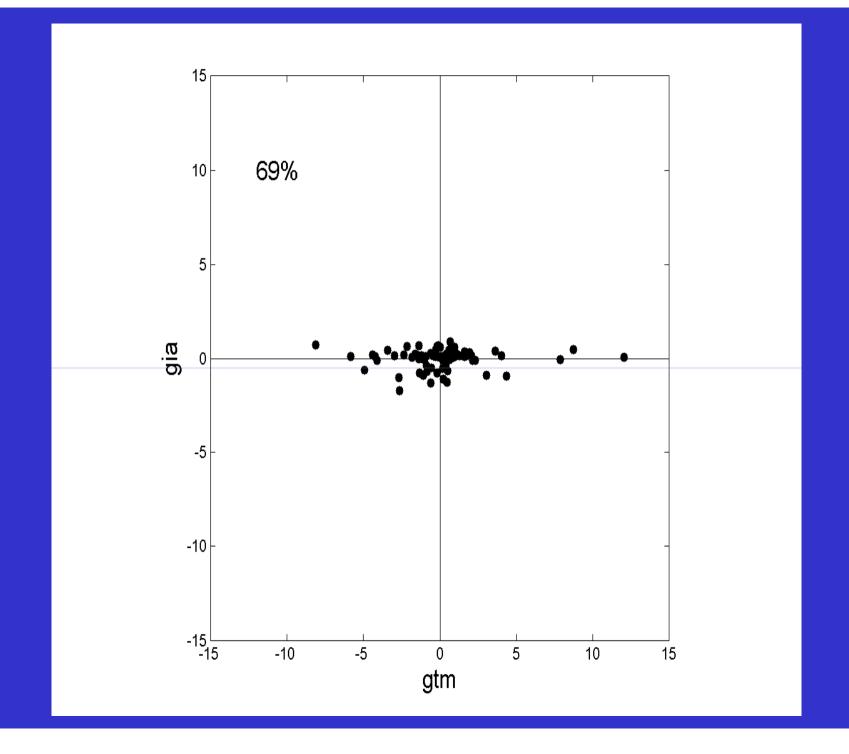
Speculations about land motion estimates effects on acceleration estimates

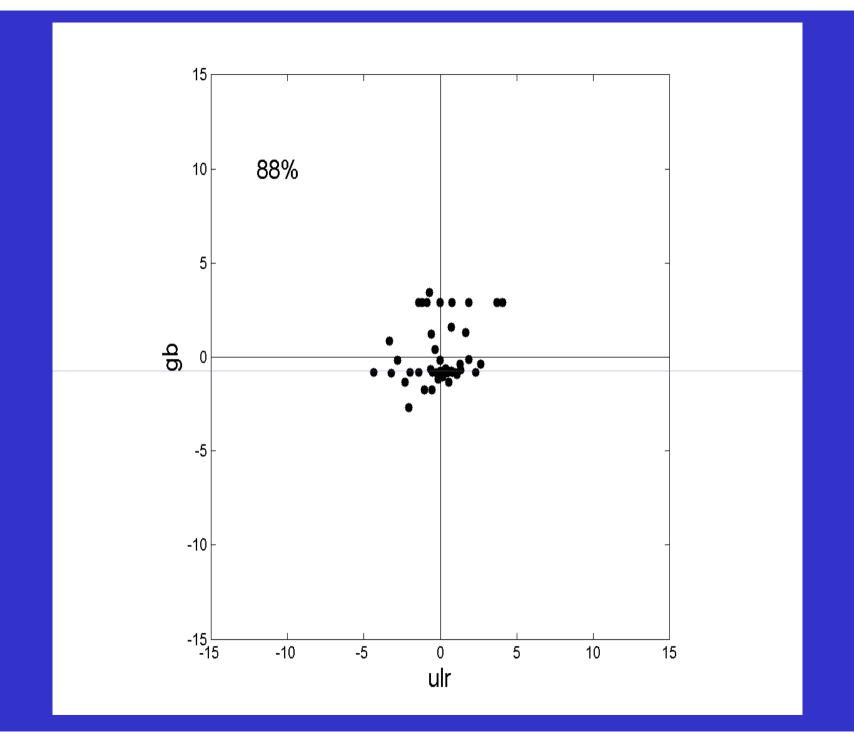
First, we created land motion estimates from several sources for the tide gauges that I use in my analyses.

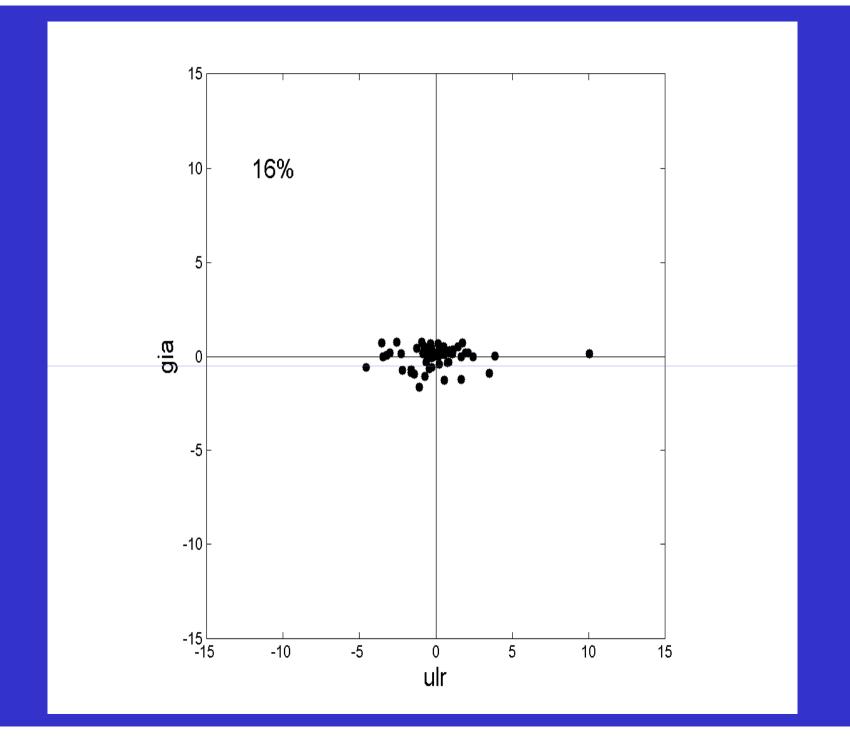
We will first look at the differences between the land motion themselves without any reference to the tide gauges.

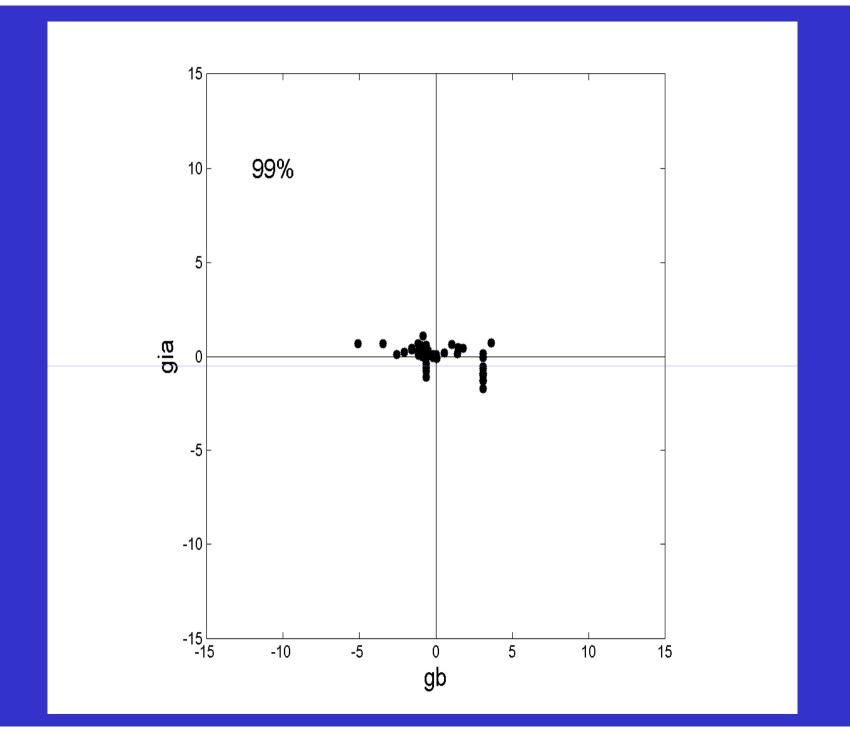








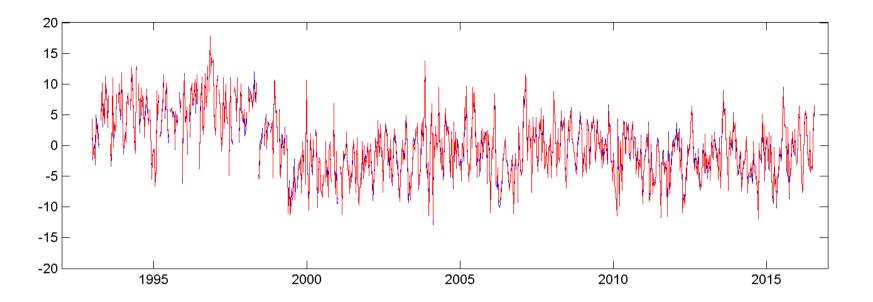


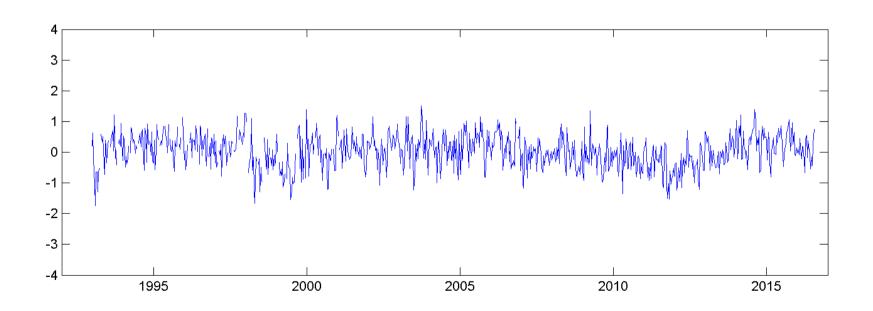


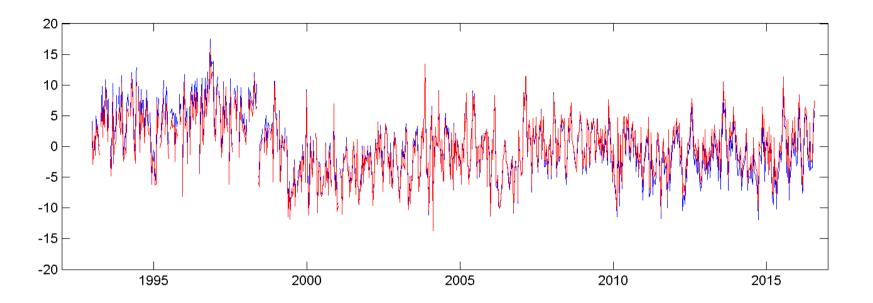
I think it's fair to say that the different land motion estimates have a bit of scatter to them.

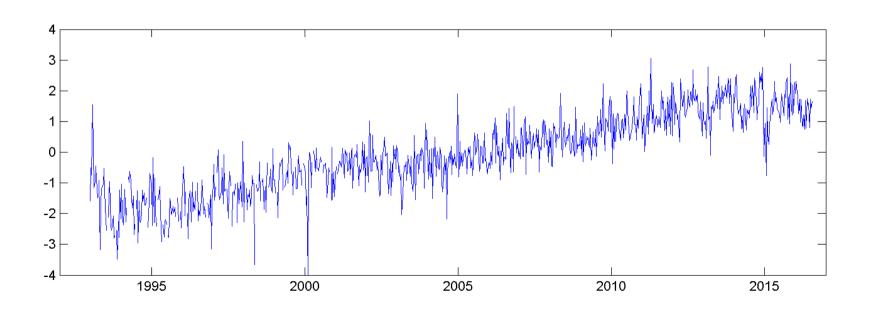
Does the altimeter drift estimate care?

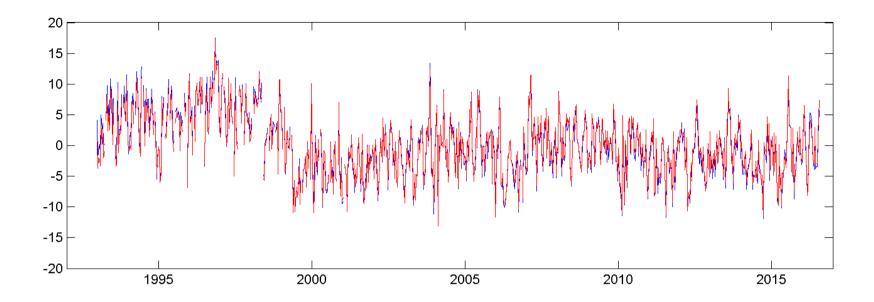
This is, of course, the big question.

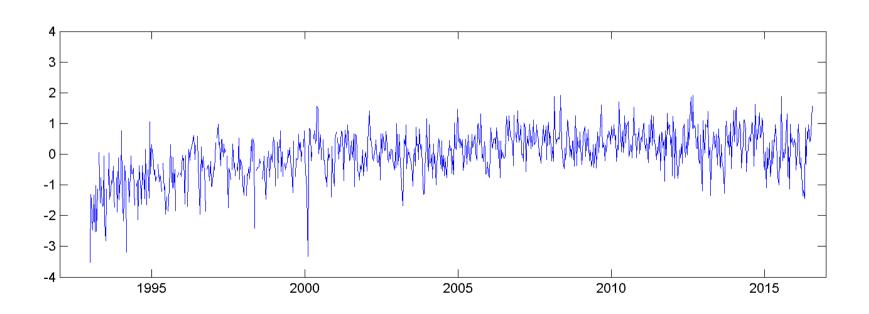


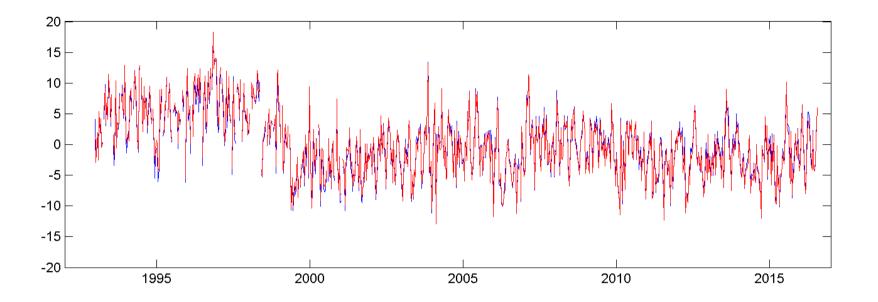


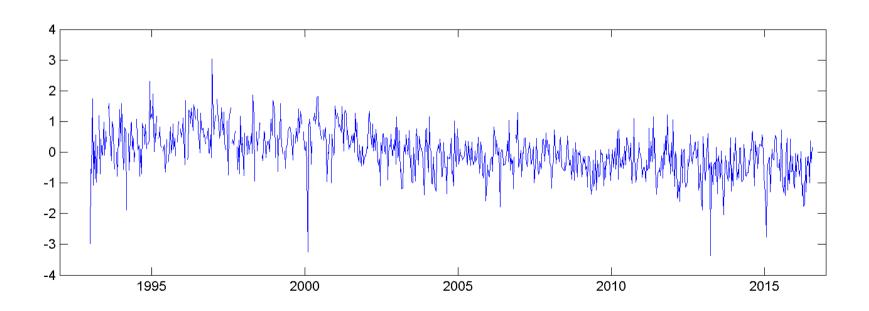








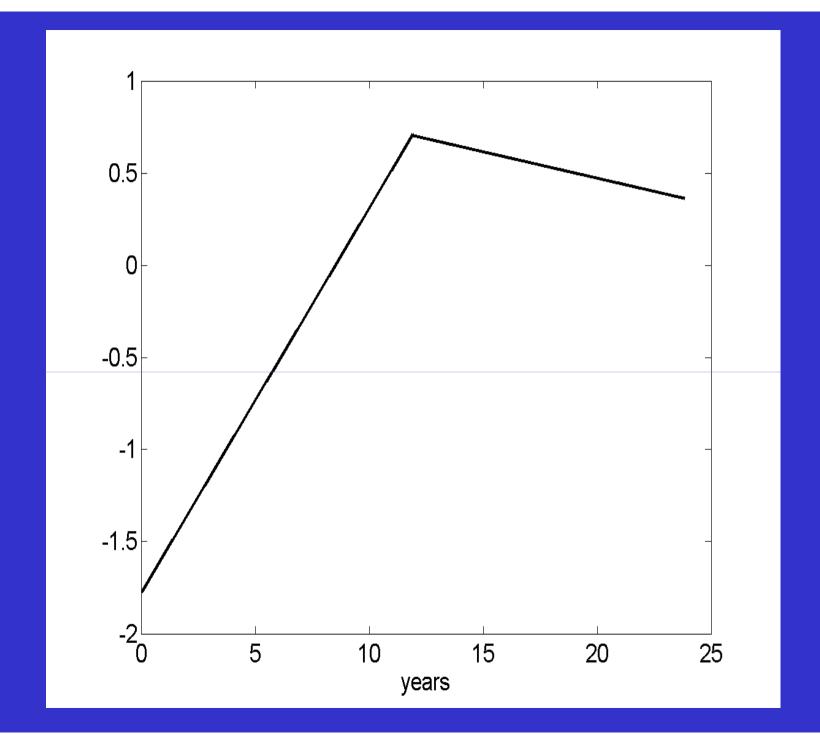


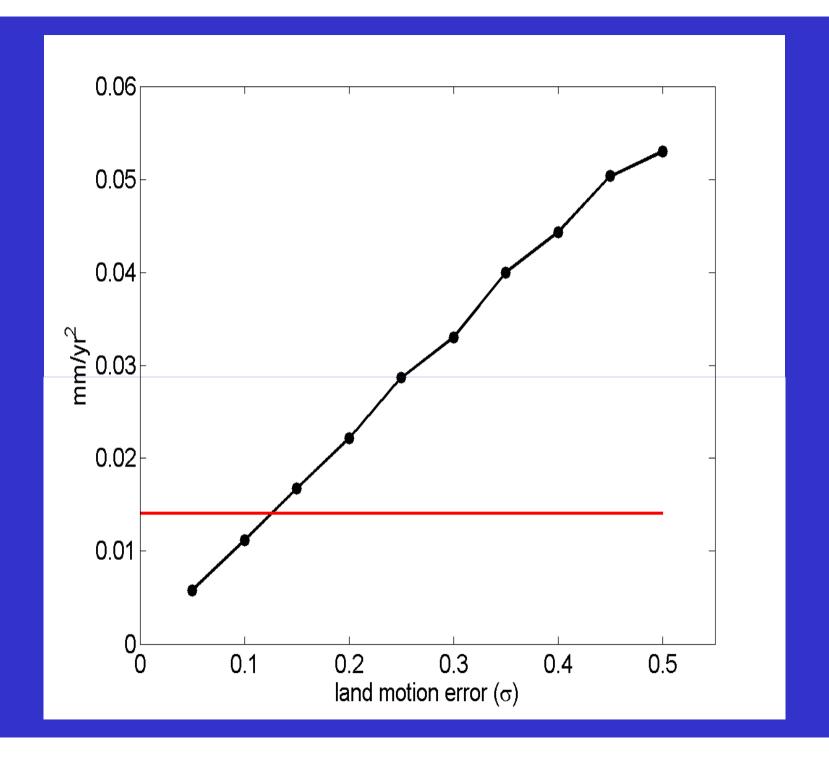


So the land motion correction can change the linear drift estimate at the order of 0.2 mm/yr, but that is not surprising.

Can it change the acceleration estimate? That is an important question.

The following is mainly a cautionary tale. This work has just begun.





## Questions?