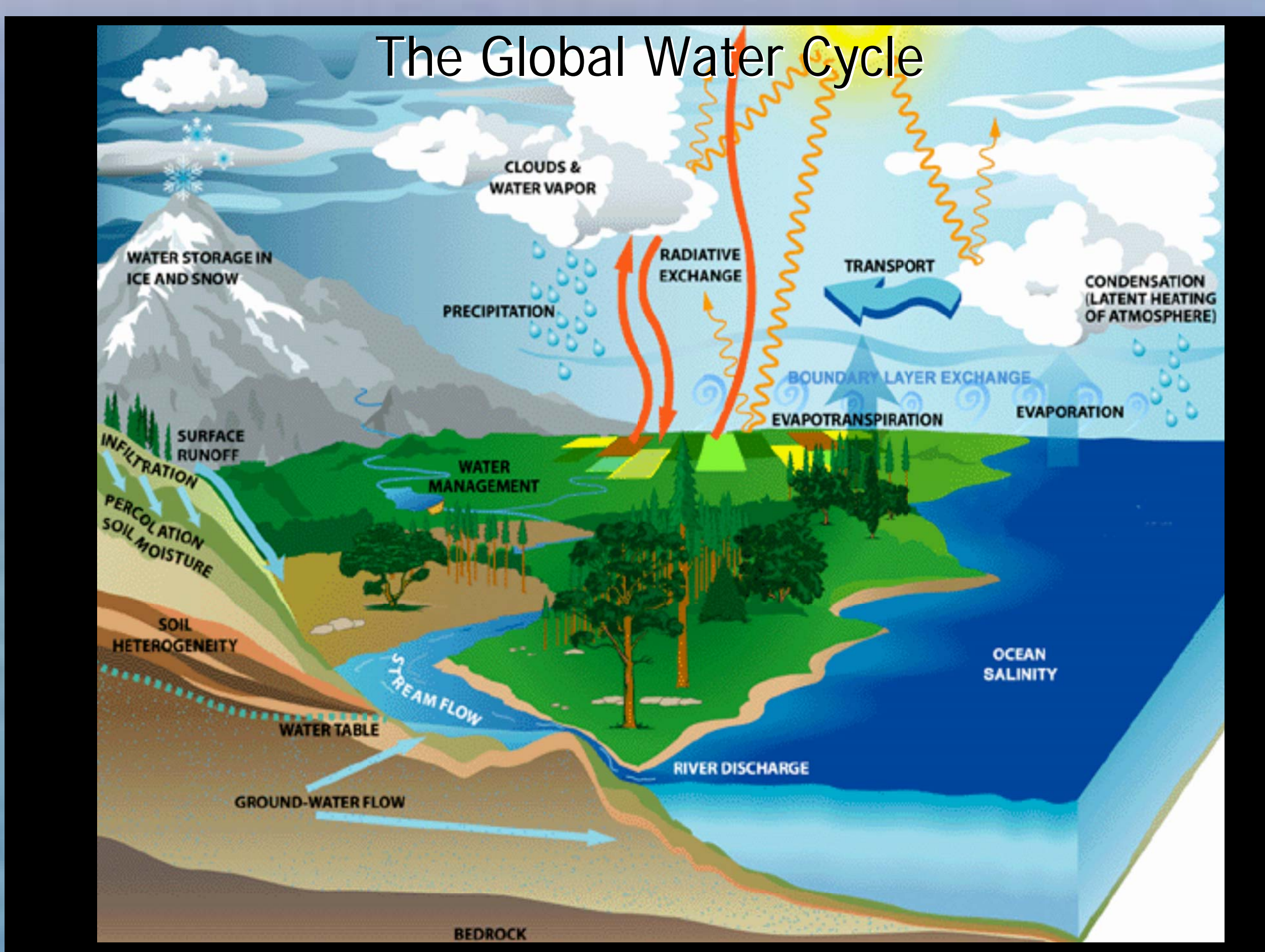


Satellite Observations of Sea Level Change

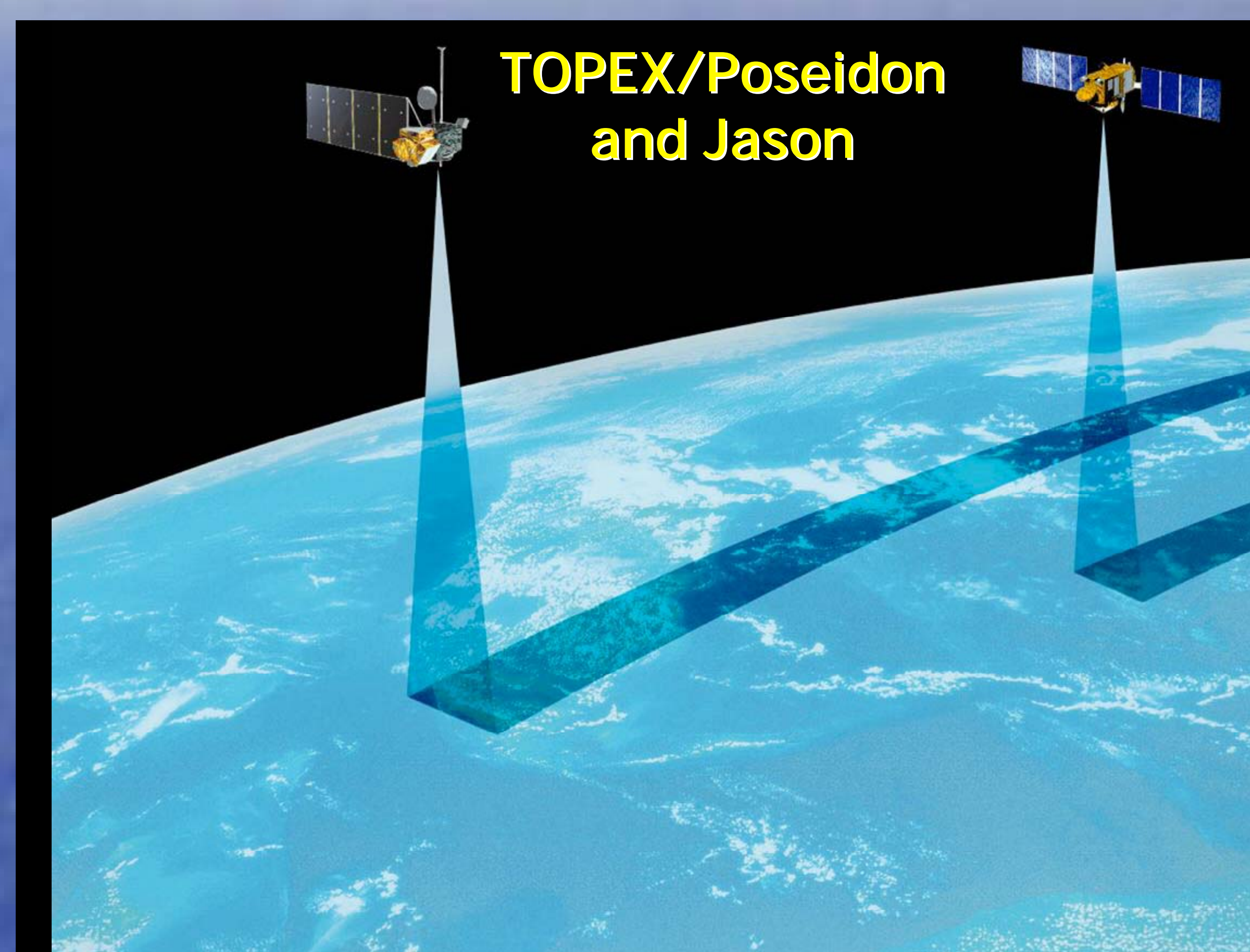
R. S. Nerem (1), J. Choe (1), and E. Leuliette (2)

(1) CCAR/CIRES, University of Colorado, (2) NOAA Laboratory for Satellite Altimetry

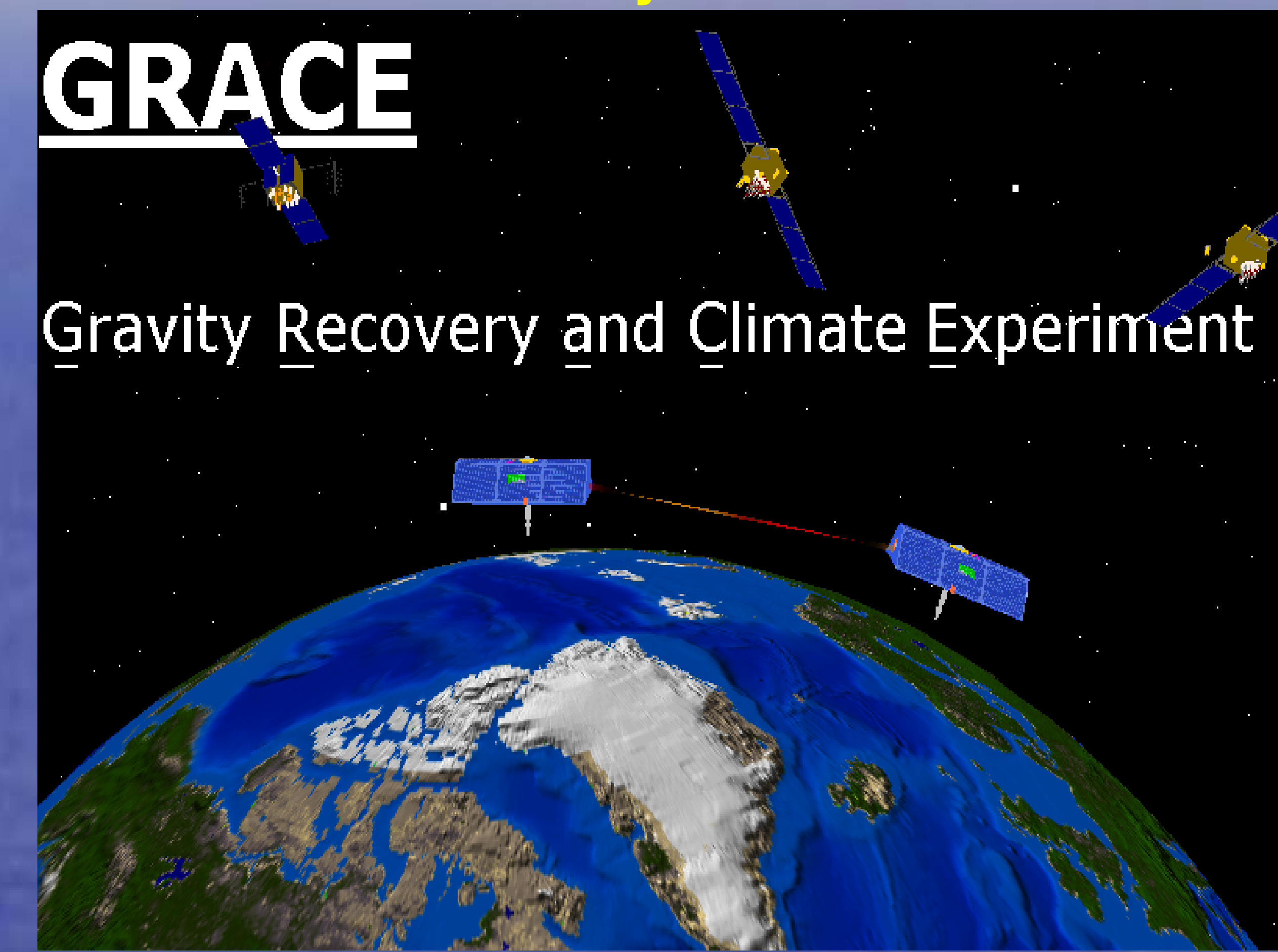
Introduction



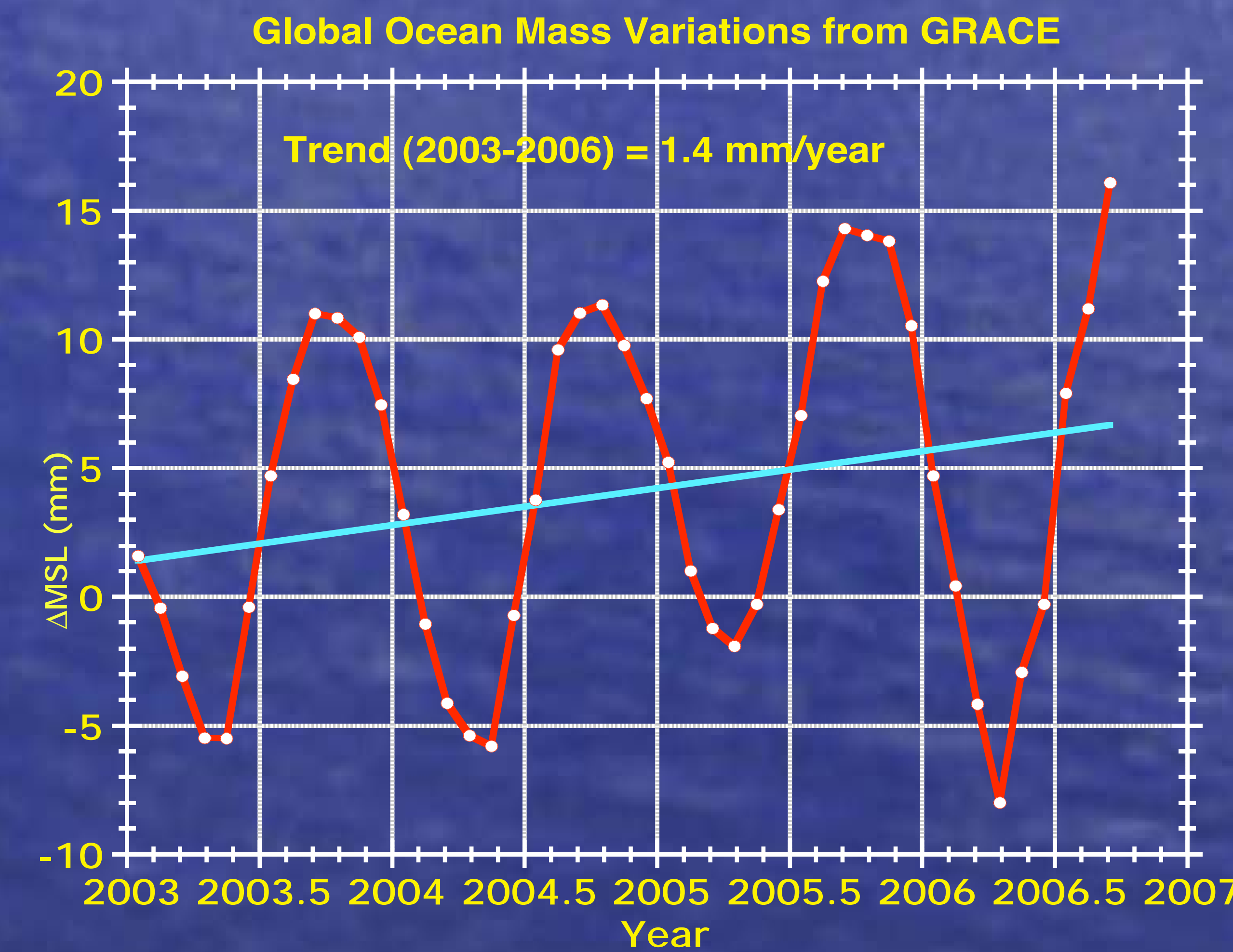
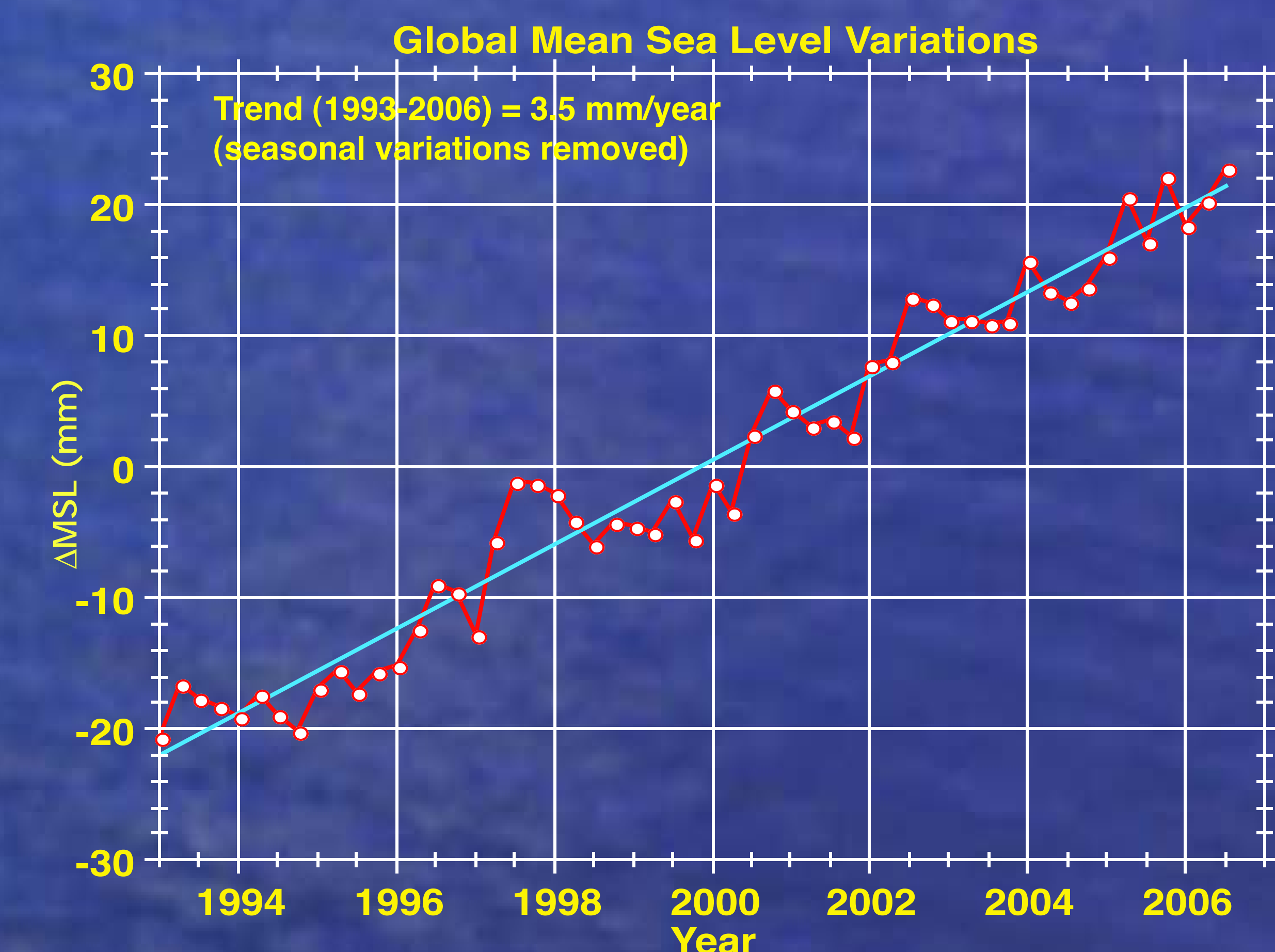
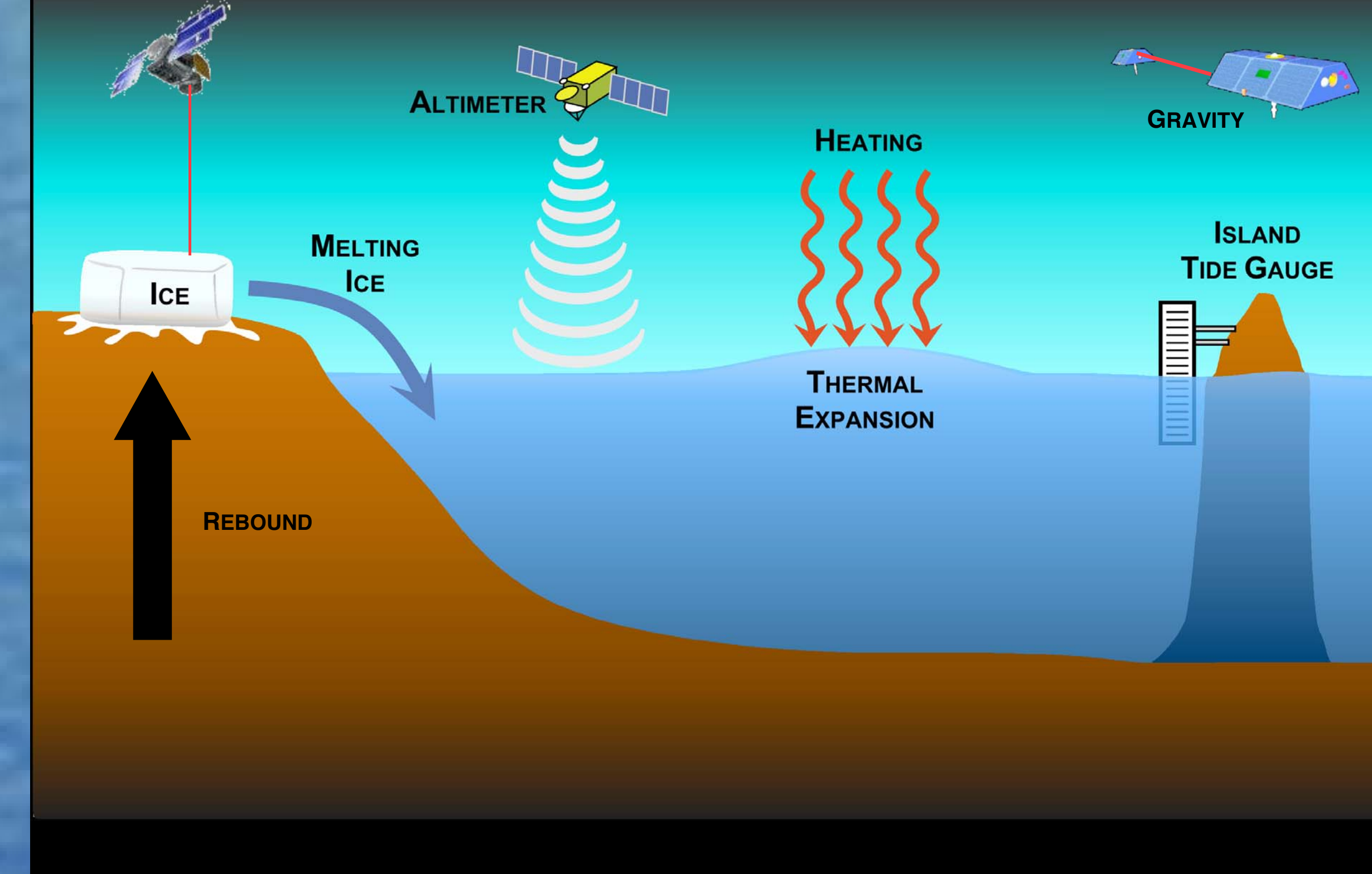
Satellite Radar Altimeter Measurements



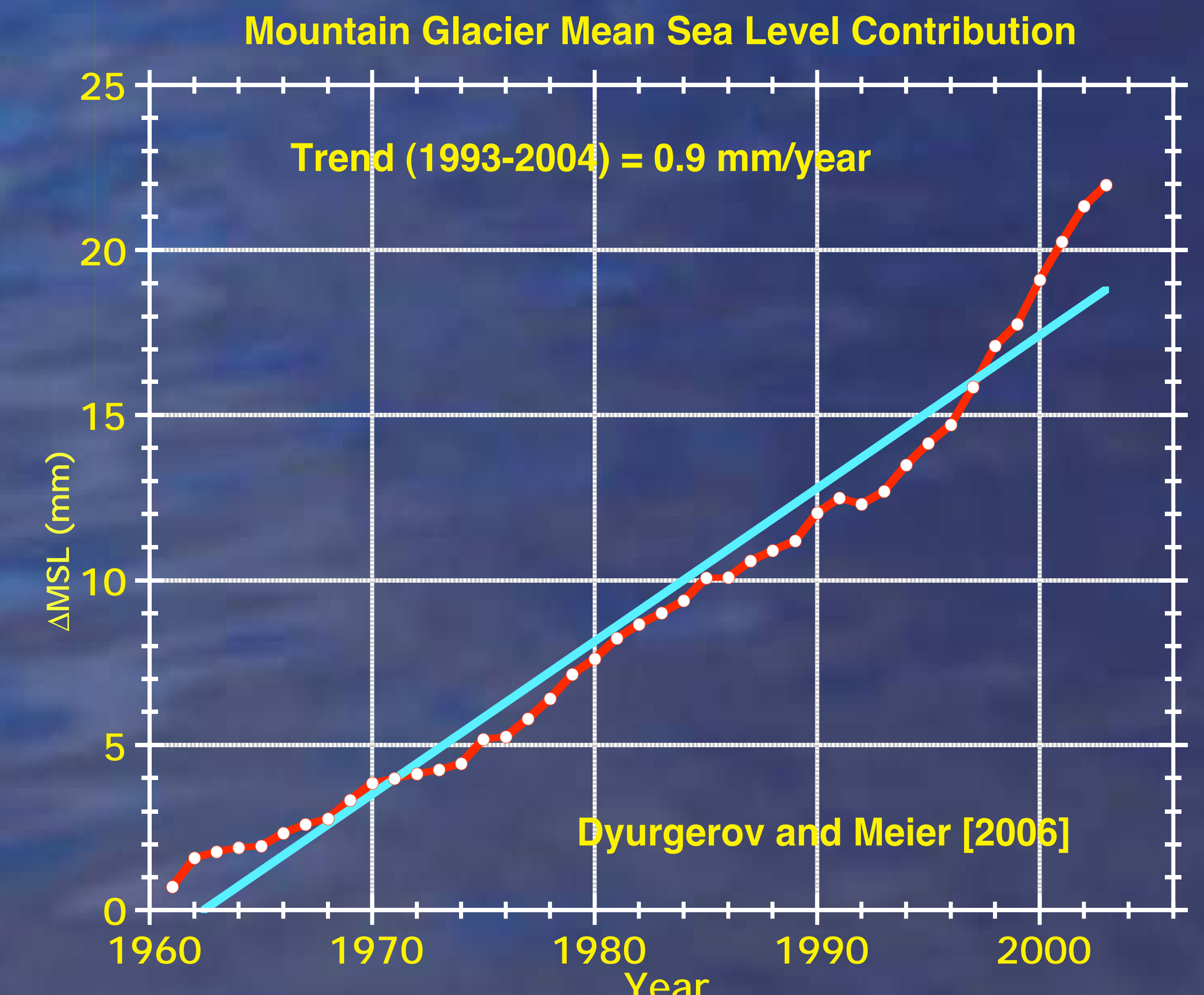
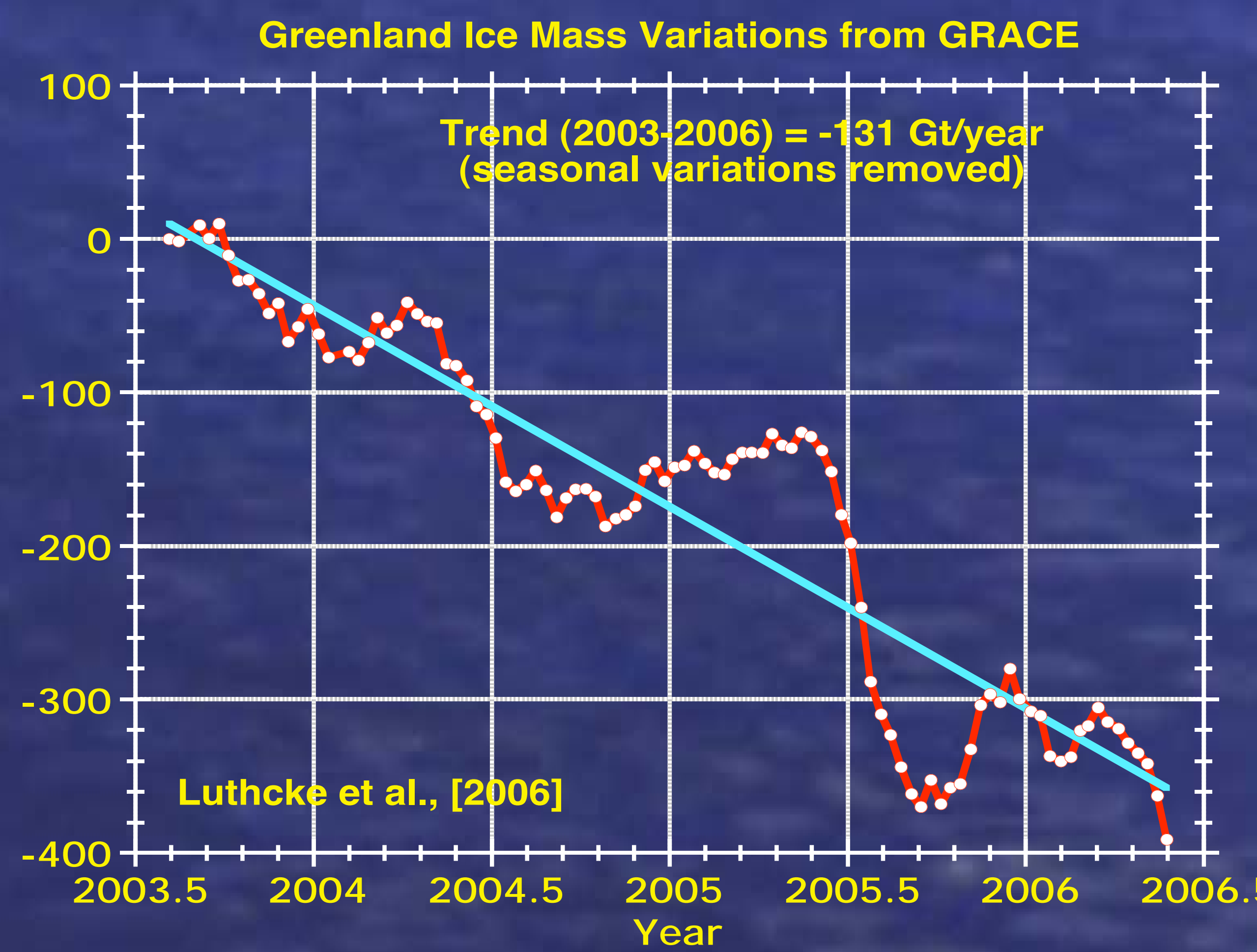
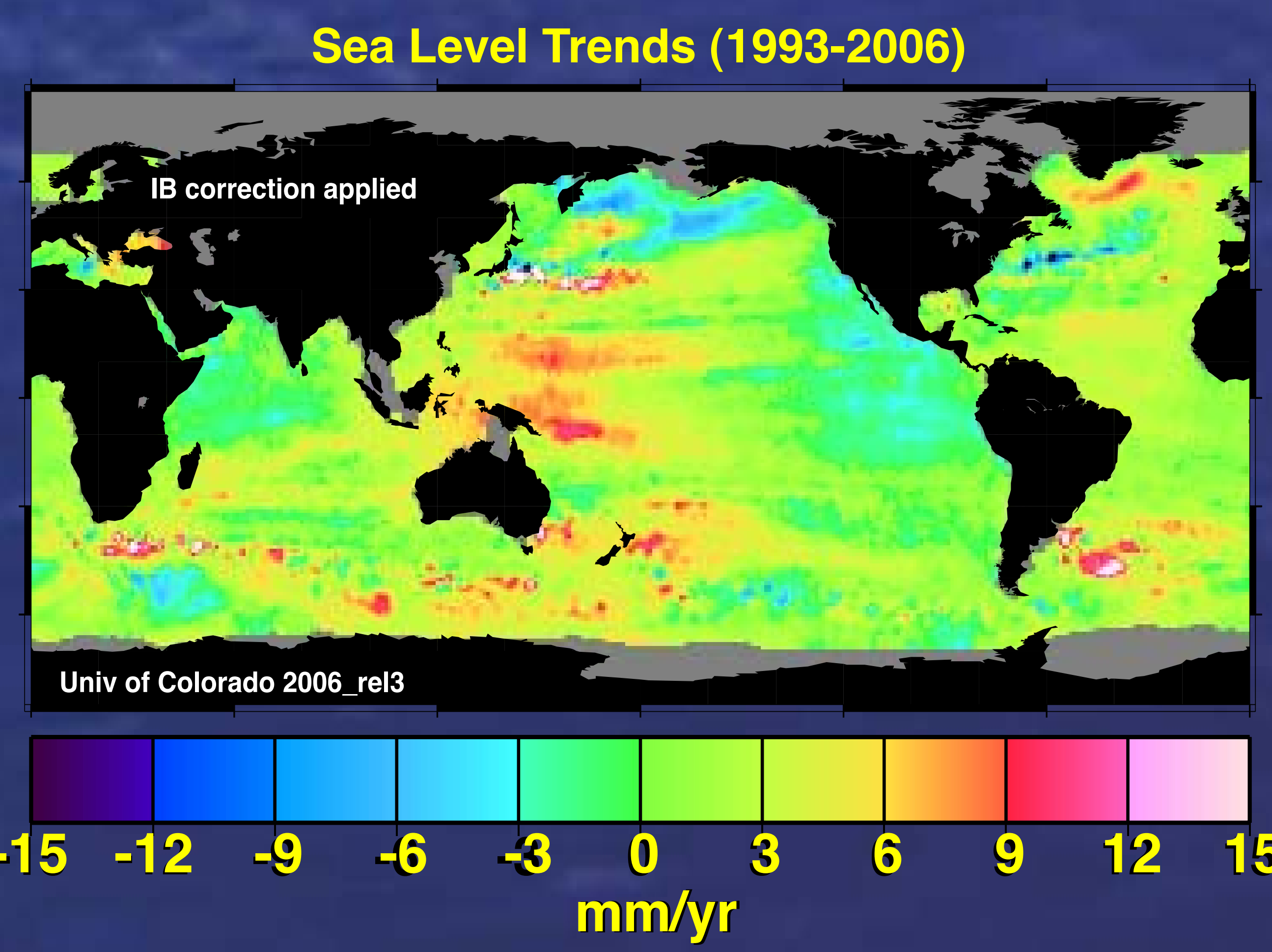
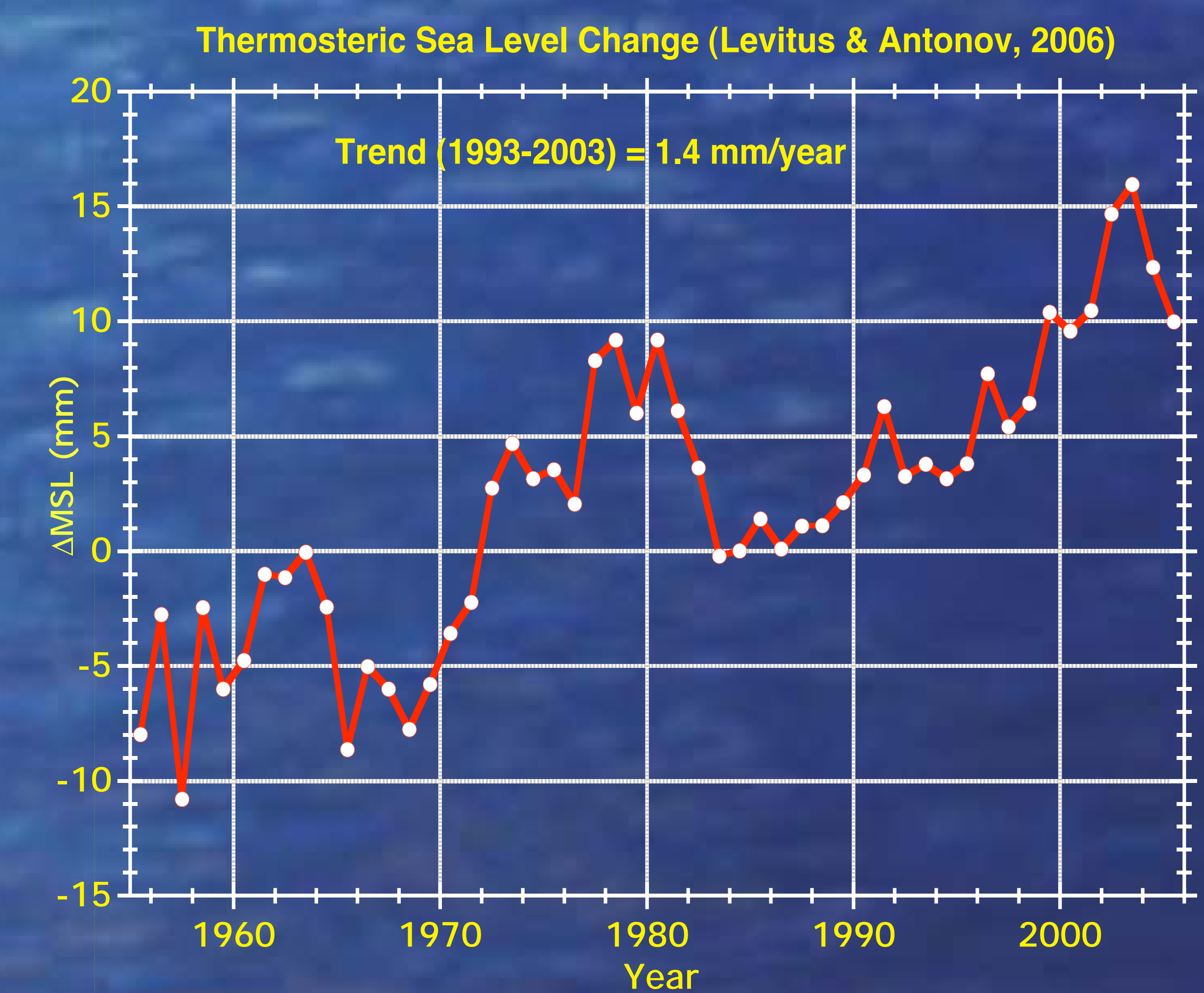
Satellite Gravity Measurements



Satellite Measurements of Sea Level Change



In Situ Measurements



Sea Level Budget (IPCC, mm/year)

	1993-2003	1961-2003
Thermal Expansion	1.6 ± 0.5	0.4 ± 0.1
+ Mountain Glaciers	0.8 ± 0.2	0.5 ± 0.2
+ Greenland Ice Melt	0.2 ± 0.1	0.1 ± 0.1
+ Antarctic Ice Melt	0.2 ± 0.3	0.1 ± 0.4
+ Land Water Storage	?	?
= Total of Observed Contributions	2.8 ± 0.7	1.1 ± 0.5
Observed Sea Level Change	3.1 ± 0.7	1.8 ± 0.5

