Sediment and shelf-basin exchange fluxes

Wide-ranging conversations, but several general priorities emerged:

• Use available resources for what they are best at: models, satellite, and in situ observations
  • Use and/or develop models to constrain physical transports
  • Target field and satellite observations to areas of high variability to constrain fluxes through focused studies (models can help!)
  • Synthesis and data mining of existing field and satellite data
  • Nested models to address different temporal and spatial scales
• Accountability in data management, submission, sharing (e.g. higher-resolution version of GLODAP for coastal oceans)
• Funding to support data mining and synthesis!
Sediment and shelf-basin exchange fluxes

Changes most affecting these flux predictions => specific needs:

- Changes in frequency and magnitude of storms, and the magnitude and composition of resulting events
  - Need for geostationary satellites
  - Sustained monitoring of inputs (e.g. river networks)
  - Combination of satellite and in situ sensors to address surface and benthic fluxes
- Changes in temperature and ocean $O_2$ concentrations on rates of C transformations in coastal oceans and related biogeochemical processes (e.g. denitrification)
- Land/coastal use changes affecting erosion, etc.
- Others?