

# Communicate Your Science:

## *Turning jargon into easy to understand messages*

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Below are some examples of scientific information presented in an easy to understand message for a non-technical audience. When communicating scientific findings, craft a few key points, think about the audience, and speak in a clear and concise manner.

- 1. In addition to eustatic SLR, subsidence, oceanographic influences, and variations in sediment supply and organic accretion, there are complex morphological feedbacks, including ecological influences on coastal landform evolution.**

*Ecosystems can influence the coastal environment and make studying changes to the coast more complex when coupled with impacts from global sea-level rise, sinking land, wind and wave effects, and sediment deposits.*

- 2. Space weather activity and impacts can occur throughout the solar cycle. Satellite problems due to charging can occur more frequently during waning stages of sunspot cycle due to elevated electrons.**

*Energetic particles from the sun during the second half of the 11-year solar cycle, can cause more frequent damage to satellites and affect communication systems.*

- 3. Rising anthropogenic carbon dioxide (CO<sub>2</sub>) reduces ocean pH and causes wholesale shifts in seawater carbonate chemistry and the saturation horizon. The process of ocean acidification is well documented in field data, and the rate will accelerate over this century unless future CO<sub>2</sub> emissions are curbed dramatically. Acidification alters seawater chemical speciation and biogeochemical cycles of many elements and compounds. One well-known effect is the lowering of calcium carbonate saturation states, which impacts calcareous skeletal marine organisms from plankton to pteropod molluscs, foraminifera, echinoderms, and corals.**

*Ocean chemistry is changing at an unprecedented rate due to human-made carbon dioxide emissions. As the ocean absorbs more carbon dioxide, it becomes more corrosive and can cause problems for many important marine species that build shells or skeletons.*

### Workshop Examples:

1. Recent numerical tsunami modeling identifies the eastern Aleutian subduction zone as the “worst-case” distant source region for California, with a potential for great eastern Aleutian earthquakes to generate tsunami runups as high as 7-10 meters in some locations along the California coast, specifically north of Point Conception. California’s historical record of tsunami damage is short (~ 200 yr), but provides some evidence for strong, forceful surges generated from events originating from the Alaska-Aleutian subduction zones, including a teletsunami from the M 7.8 eastern Aleutian event in 1946 and the M 9.2 Alaska event in 1964.
  
2. We have used a combination of horizontal and vertical geodetic data from the U.S. Pacific Northwest to examine the active tectonics and dynamics of the region. Models of locking on the Cascadia subduction zone based on vertical and horizontal geodetic data indicate that locking is broader beneath the central Oregon section than to the south. Rates of moment accumulation are consistent with great earthquakes every few hundred years.
  
3. Your research/program: