

Scientists express concern over long-term vision for satellite-based research

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The U.S. has more than 30 civilian, Earth-observing satellites circling the planet, providing scientists with a torrent of crucial environmental and climate information. More satellites are on deck to launch in the next few years. But, according to an article in *Chemical & Engineering News* (C&EN), the weekly news magazine of the American Chemical Society, scientists have registered serious concerns over the lack of a long-term, cohesive vision for the scientific missions.

Jyllian Kemsley, a senior editor at C&EN, reports that satellites are marvels of technology. From their orbits up to thousands of miles above the planet's surface, they collect Earthly measurements and beam down to scientists information they can't get any other way. The satellites map cloud cover; they track snow and ice cover; they measure atmospheric carbon dioxide, a potent greenhouse gas; they detect chemical reactions in the atmosphere; they help meteorologists make weather predictions. Future launches will undoubtedly add to the treasure trove of scientific data.

But some scientists say that despite the state-of-the-art sensors the satellites are equipped with, a short-sighted vision may cause the resulting science to suffer. They say that the division between two agencies leading the way—NASA, which operates under a "first and best" vision, and the National Oceanic & Atmospheric Administration (NOAA), which takes the longer view—has created a "valley of death." This gap hinders the use of NASA's research instruments for NOAA's desired sustained monitoring, which is critical to understanding complex

systems of atmospheric chemistry and climate.

More information: Observing Earth -
cen.acs.org/articles/92/i36/Observing-Earth.html

Provided by American Chemical Society

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