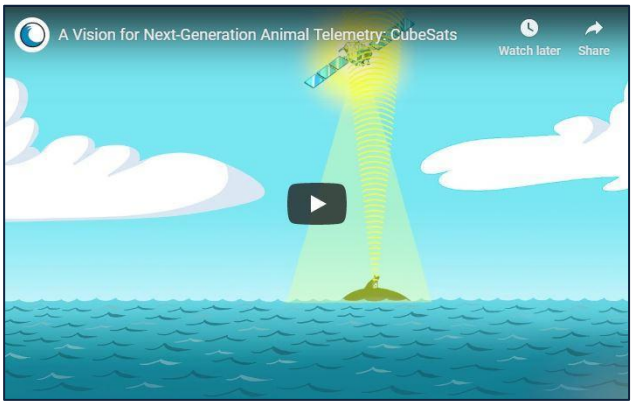
BOEM
Bureau of Ocean Energy Management

Science Notes
Science for Informed Decisions

August 28, 2019

Dear Reader,

BOEM's decision-making process is based on the best available science, and this month's Science Note highlights a new BOEM video that showcases the potential for small satellites to improve our ability to protect endangered and vulnerable marine species. BOEM has partnered with NASA on the concept, which envisions a state-of-the-art network of small, open source satellites, combined with autonomous vehicles in the air and sea, to enhance and potentially replace current methods of collecting animal telemetry data. Satellite telemetry involves receiving data from a tagged animal and transmitting the data to a receiving station with details about the animal's identity, location, behavior, and environment.



Small satellites may be able to track the movement of marine animals such as whales, sharks, and sea turtles with more precision than is possible today, thus affording the collection of dramatically more data on the ocean conditions they experience.

Imagine if we could have animals traveling the seas, reporting back on the salinity, acoustic environment, and temperature around them as they swim. All that becomes much more possible with improved data bandwidth. This is based on the prospect of having a system of low-cost, small satellites with broad geographic coverage that can pick up signals from tagged animals whenever they surface. The satellite data will be useful to BOEM, other federal agencies, state agencies, academia, and conservation organizations concerned with protecting and conserving marine wildlife. Visit this link for more background on the project.

The video is the latest example of BOEM's redoubled efforts to transform our science communication through engaging, easy-to-understand story-driven products. Visit the BOEM videos page for other materials related to offshore marine acoustics, renewable energy, and the Ocean Reporting tool.

BOEM's Environmental Studies Program develops, funds, and manages rigorous and innovative scientific research such as this project to inform policy decisions on the development of energy and mineral resources on the Outer Continental Shelf (OCS). Collectively, the data collected provides important environmental context that supports all of

the partner agencies' missions and helps us make sure the environment is protected. Enjoy the video, and please send your comments to us at boempublicaffairs@boem.gov.

Sincerely,

William Y. Brown
Chief Environmental Officer

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