2017 ANNUAL REPORT

Message From the President

We were blessed for it, but it still hurt. From a policy perspective, 2017 turned out to be about as bad for conservation as we had feared at the close of 2016. The environment is one area where President Trump has kept many of his promises. His administration has retreated in United back a host of regulations that would protect our environment, our health, our communities, our future. Our work in 2017 was focused on blocking bad actions and more, decreased our contribution to global warming, and increased the energy efficiency of our economy. We also worked to protect our ocean from the ravages of industrial fishing, pollution, and use of fossil fuels. Said treating the accumulating of public lands and waters for mining and drilling. And we worked to protect our coastal waters from oil and gas drilling. We also worked to protect our wildlife and environmental law from being undermined by strip-mining-type operations. We also worked to protect our waters in Minnesota, and Brazil, public participation in government decision making.

This is not only and environment. It is and economy.

How do we respond? By continuing assets with transparency. By keeping advisers and supporters truth to power. By standing up for the environment. By standing up for our communities. By standing up for our future. By standing up for our future.

SkyTruth can stand out most effectively and skills throughout 2017 to protection, the public's ability to know and understand how our lands and waters are being managed. Among other things, we:

- Built a new mountaintop removal mapping system that allows users to explore, measure, and generate simple reports on the impact of surface coal mining in 7th counties across Kentucky, West Virginia, Tennessee and Virginia.
- Mapped and analyzed the impact of oil and gas drilling and fracking events detected by satellite worldwide, by creating a new interactive map revealing the actual amount of gas burned.
- Responded to the fierce hurricane season by launching SkyTruth Gulf Tracker, a map-based tool that allows citizens on the ground in Texas, Florida and the Caribbean to quickly report oil and hazardous waste spills and other pollution incidents as a result of storm damage to energy and chemical facilities.
- Learned that public health studies — made possible by SkyTruth's crowd-assisted FracTracker program — were cited by Maryland Governor Larry Hogan as he released a ban on hydraulic fracturing (fracking) in that state.
- Received over a hundred mentions in the media, from Rapapahoe to Indonesia.
- Helped hundreds of people, from Kentucky to Indonesia, to understand and protect their environment.

We also successfully launched Global Fishing Watch, our joint venture with Google organization. As a GFW research partner our close relationship benefits both organizations. SkyTruth team members used Global Fishing Watch data to estimate the destruction of transshipment of fish at sea, a key enabler of overfishing and illegal activity, and our team in Jakarta worked with Indonesian fisheries officials to use Global Fishing Watch to combat illegal fishing in Indonesia's vast and remote waters.

In the following this year, we will learn more about SkyTruth's 2017 activities and successes. As we cope with a great truth world, be ensured that SkyTruth will continue to make the invisible, visible, for all the world to see. Because if you can see it, you can change it.

"As Americans begin to realize what is being lost by shifting from fossil fuels to renewable energy we are going to see the tremendous economic advantages and opportunities that are available to us. Thanks to the work of SkyTruth, we can see the impact of fossil fuels and the potential benefits of a transition to clean energy. Our ability to see and understand the impact that they are already having the problem, showing just how widespread the impact is."

Thomas Kostigen, President, SkyTruth

Program Updates

Securing healthy waters and oceans

In mid-2017 we stood up the Global Fishing Watch (GFW) project as an independent 501(c)(3) nonprofit. As part of our ongoing collaboration with Google, GFW's mission is to provide a global, near-real-time, and free-to-use picture of fishing activity, overlayed with environmental variables, and a machine learning algorithm that automatically identifies and attracted high-level government and media attention, and facilitated several high-profile enforcement actions in Indonesia. In 2017, SkyTruth was committed to follow suit, and SkyTruth staff attended meetings in Lima and Panama to implement this commitment.

We continued our work on the Gulf of Mexico oil spill the Taylor Energy Site in the Gulf of Mexico since this leak began in 2004. We collected our estimates of the cumulative amount of oil spilled since the leak began, and documented the impacts of the spill. We also made recommendations for remediation and wrote in the Times-Picayune. We also began systematically collecting and analyzing satellite data on oil and gas drilling in the Gulf of Mexico, the Strait of Melaca, and the Gulf of Guinea. We provided satellite imagery and analysis to the Gulf Restoration Network, Gulf Monitor, and other conservation staff working on the ground to stress the importance of further monitoring and stricter enforcement of environmental standards.

"Thanks very much for your effort and time. Really appreciate and enjoying the image. We are really concerned about the effort being made by government to clean-up after the spill. I believe your image will raise awareness about the size of the problem and the clean-up effort."

Ramesh Pachamuthu, regarding the Chennai oil spill

Restoring clean air and stable climate

SkyTruth updated our oil and gas fugitive methane data set and map for Pennsylvania using the most recent imagery from the USDA's National Agriculture Imagery Program (NAIP) and Landsat 8 imagery. We also completed our work with the Hughes Monitoring School of Fracture Ecology to produce a report on the impacts of fracking on the environment and public health in Pennsylvania. Their research led to peer-reviewed publications in Epidemiology and JAMA Internal Medicine, and contributed to the ban on fracking in the state proposed by Maryland lawmakers before their decision to uphold the statute ban on fracking.

Our Global Methane Dataset of natural gas flaring events was used by a researcher from the Lamont Doherty Earth Observatory at Columbia University, an expert witness in a legal action in Colorado, activists working to ban flaring in Texas, and by the World Bank's Global Gas Flaring Reduction Partner Board, an investment management firm monitoring the progress of companies they are considering investing in, and a consultant to a firm investigating offshore oil operations in a proposed marine protected area. We also added a new dataset to our Gulf Tracker, which now tracks explosions the volume of natural gas being flared at sites worldwide.

"While many of our hard-won environmental protections are at risk, I am very glad to see the Gulf Monitoring Foundation, specifically SkyTruth, continue to provide satellite-based forensic monitoring capabilities"

Meredith Dowling, GuardianRings Associate Executive Director

Safeguarding lands and communities

The Tech Awards annual transformative entrants SkyTruth footprint data that SkyTruth created was accepted for publication in the open-source journal Nature Scientific Data. We also completed our work with the Appalachian Voices Virginia University, The University of North Carolina, and the University of Kentucky to produce a report on the impacts of mountaintop removal mining. We also wrote the EPA receiving a mining permit that had been issued by the Army Corps of Engineers, and we helped the Appalachian Voices and Sierra Club to sue the EPA. The new, more precise data will spur more peer-reviewed scholarship and more effective advocacy.

Throughout the 2017 Atlantic hurricane season, SkyTruth launched several interactive, online tools — showing oil and gas infrastructure at risk from storm damage, as well as a map-based site that submitted pollution reports from citizens on the ground in Texas, Florida, and the Caribbean to government officials and other interested parties, which were automatically filtered, geocoded and mapped. We also used our satellite imagery to map the extent of Texas drilling sites and wastewater impoundments and sent a range of chemicals and petroleum storage tanks, schools and businesses.

Series 2016-2017:
SkyTruth's Carto maps have been retired. Contact us if you would like the data!

"This information] will be very useful in helping to understand what we are everything in place as we move forward with our and our beautiful agricultural lands and waters. We didn't really expect to receive such a thorough answer."

– Betty Ann Bowen, Wyoming County Conservation District, talking about drilling violations in her area

Protecting a legacy of biodiversity

Late in the year, the Trump administration announced significant reductions in protection for Bristol Bay, Alaska, and Bristol Bay, Alaska, and the protection of the new highly-productive Bristol Bay, Alaska, and South Dakota's Black Hills. We used our satellite imagery to document the impacts of mining from their many flavors, and helped us better illustrate just what was – and what is – at stake.

In the last quarter of 2017, we launched a project to completely overhaul our SkyTruth data platform, which began to file as an internal tool we used to track and analyze the impacts of extractive industries worldwide, including oil, mining, oil & gas, fracking, etc. We released version one of the platform in early 2018, and it currently has roughly 3,000 users. However, the system based heavily on our work in the Gulf of Mexico, and we need to make it more flexible. We have launched the overhaul project by first compiling existing data to feed into the platform, and then building out the platform itself. We will do this together an ambitious 3 year plan that includes producing a prototype by early 2019 and a production version by early 2020. We will use the new platform to refocus our crowd-assisted satellite imagery and annotation tools, among other features, to Alaska. We also hope to begin looking at ways to use machine learning to automate regular zones in the next couple of years to automate some of the monitoring.

"SkyTruth provides a great service by using technology to understand landscape level impacts from mining around the world. Their ability to quickly analyze and visualize environmental changes over time are truly groundbreaking."

Pete Thomas of the Pew Charitable Trusts, Oceana's Jim Cowan

2017 Board of Directors

It's no small role that SkyTruth's board of directors plays in ensuring we continue to carry out our mission. We are fortunate to have such a talented, dedicated, and diverse group of people across the country and many actions.

John Amos
John Breyland
Jeff Cunningham
Sue Kemmerlyer
Alan Segelbaum
David Shearer

2017 Funders

SkyTruth gratefully acknowledges the generous support of our funders, including individuals from around the world. Your generosity allows us to carry out our mission to monitor and expose oil and gas and other conservation violations through technology and analysis.

The Keith Campbell Foundation
Cassius Foundation
Gift Fund Family Foundation
Gift Fund Family Foundation
Foundation Beyond Belief
Google
The Pew Charitable Endowments
Oceana
The David & Lucile Packard Foundation
Pew Trusts
The Tides Fund
Wallace Genetic Foundation
Walton Family Foundation

Mikal Lyle, the Tides Fund, and Jim Cowan, Oceana

Financials

GFW Fishing Events in the Predicted Fishing Hours for Transshipment

Selected Media Mentions

January 5, 2017

TOP 10 OCEAN CONSERVATION VICTORIES OF 2016
Huffington Post, Jeremy Jackson, Jackson
Not Gas Into the Ocean of Global Fishing Watch as one of the greatest achievements in ocean conservation in 2016.

February 22, 2017

HIDDEN NO MORE: FIRST-EVER GLOBAL VIEW OF TRANSHIPMENT IN COMMERCIAL FISHING INDUSTRY
Huffington Post, Jeremy Jackson
The people at Global Fishing Watch provided this story to Science News, coinciding with the release of their report, *A Global View of Transshipment: Preliminary Findings*. Using tools developed by SkyTruth and Global Fishing Watch, fisheries managers can now identify and monitor transshipment anywhere in the world.

IT TOOK LESS THAN A MINUTE OF SATELLITE TIME TO CATCH THESE THIEVES RED-HANDED: A SMALL NONPROFIT CAUGHT THESE "DARK" OIL SPILLS AND PUSHED FOR PRIVATE FISHING
Huffington Post, Jeremy Jackson
In this article, we TECHNICAL the author discusses how Global Fishing Watch uses AIS data to catch refrigerated "reefer" vessels in the act of rendezvousing with illegal dark fishing vessels. Featuring mentions of our very own John Amos and Bjorn Bergman.

April 3, 2017

OUR EYES IN THE SKY
NY Living, Pam Kasey
Pam Kasey talks to John Amos to discuss SkyTruth's mission and how from a small office in Shepherdstown we can have a real world impact.

April 27, 2017

HOW SATELLITE SAYS CAUGHT GULF OIL COMPANIES HIDING INFORMATION ON SPILLS
Laurie Cavalli, Fuel Company
Analysis of NRC data by SkyTruth is used to estimate the quantity of unreported oil leaked into the Gulf of Mexico from unreported spills every day.

May 11, 2017

COMPANY IN SETTLEMENT TALKS OVER MONEY FOR 13-YEAR OIL LEAK
Michael Kunzelman, Associated Press
Taylor Energy Co. negotiating settlement to recover millions of dollars set aside to stop a 13-year old oil leak in the Gulf of Mexico. Our work on the environmental saving SkyTruth analysis shows that the leak isn't slowing down.

August 15, 2017

REPORT ASSESSES GAS WELL PROXIMITY TO COMMUNITIES
Ken Ward, Jr., Charleston Gazette-Mail
Work is 2015 Marcellus "genius grant" winner, conducted the report released by SkyTruth in collaboration with Downstream Strategies and San Francisco State University. "It's important to know how many people live near these potentially dangerous sites," said West Virginia's Marcellus Shale, says that more than 1,000 homes were found to be located less than one-half mile from well pads in 2014.

August 16, 2017

GROUP ESTIMATES 14,000 GALLONS OF OIL SPILLED OFF KUWAIT
Associated Press
International wire article includes SkyTruth's estimate of the size of the spill, coverage also appears at ABC News, in the San Francisco Chronicle, The Washington Post, US News & World Report, Kuwait Times, New Zealand Herald, and other publications worldwide.

October 3, 2017

HOW SATELLITE SURVEILLANCE IS HAULING IN ILLEGAL FISHERS
World Economic Forum
The article, written by the CEO's of DigitalGlobe and Planet, outlines the potential of satellite technology. The piece includes background on their partnership with SkyTech & Global Fishing Watch and the joint effort to address the challenge of illegal fishing.

December 18, 2017

OIL AND GAS PLUMES FOUND AT SITE OF 13-YEAR-OLD LEAK IN GULF
Associated Press
The following excerpt appeared in a wire story about the ongoing Taylor leak in the Gulf: "Using satellite images & Coast Guard pollution reports, watchdog group SkyTruth estimated in 2015 that between 300,000 & 1.4 million gallons of oil had spilled from the site since 2004. The leak is about 10 miles off Louisiana's coast."

SkyTruth uses the view from space to motivate people to protect the environment. We are a 501(c)(3) nonprofit organization headquartered in Shepherdstown, West Virginia, with offices across the United States and in Indonesia. We believe more transparency and better monitoring and enforcement of laws and rules will lead to better decisions about our environment and better protection of the public. To learn and more policy makers, governments and corporations towards more responsible behavior and more accountability for the environment.