

Exposing NASA's Earth Observations to the Applications Community and Public

PA11A-0201

earthdata.nasa.gov/worldview
earthdata.nasa.gov/gibs

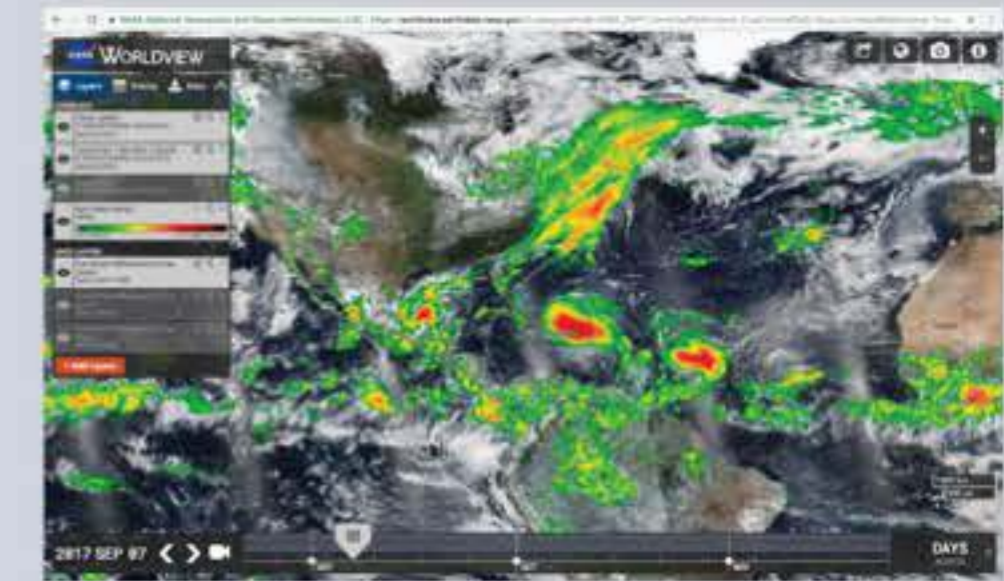


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Overview: NASA's Earth Observing System (EOS) generates a wealth of data products which are generally intended for scientific research. In recent years, however, this data has also become more accessible to the applications community and public through the Worldview app and Global Imagery Browse Services

(GIBS). These mapping interfaces provide historical and near real time access to NASA's Earth observations for a wide range of uses. This presentation will focus on how the applications community, public, and media use these interfaces for decision-making, leisure, and anything in between.



NASA Worldview web app showing hurricanes Irma (center) and Jose (right) approaching North America on September 7, 2017

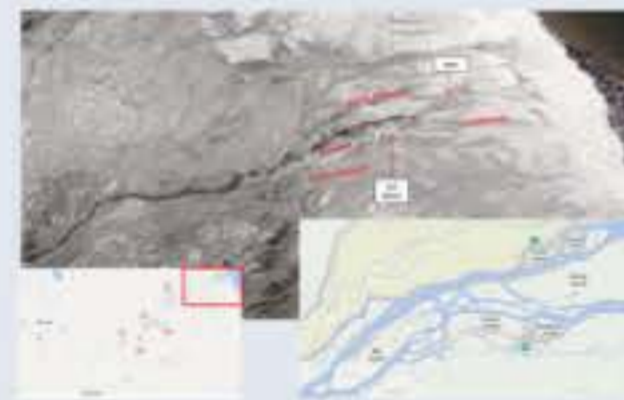
Applications Community

Monitoring Ice-Induced Flooding near Remote Communities

"Our Ministry is using the site to monitor river ice breakup in the Far North of Ontario where there are several remote fly in only First Nations communities that are highly susceptible to nearly annual ice induced flooding that has substantial financial and social cost. Your site is a very useful tool for this purpose.



April 11, 2017: "First signs of breakup at upstream end of Kenogami and just upstream of Hat Island" (Figure provided by Ontario Ministry of Natural Resources and Forestry)

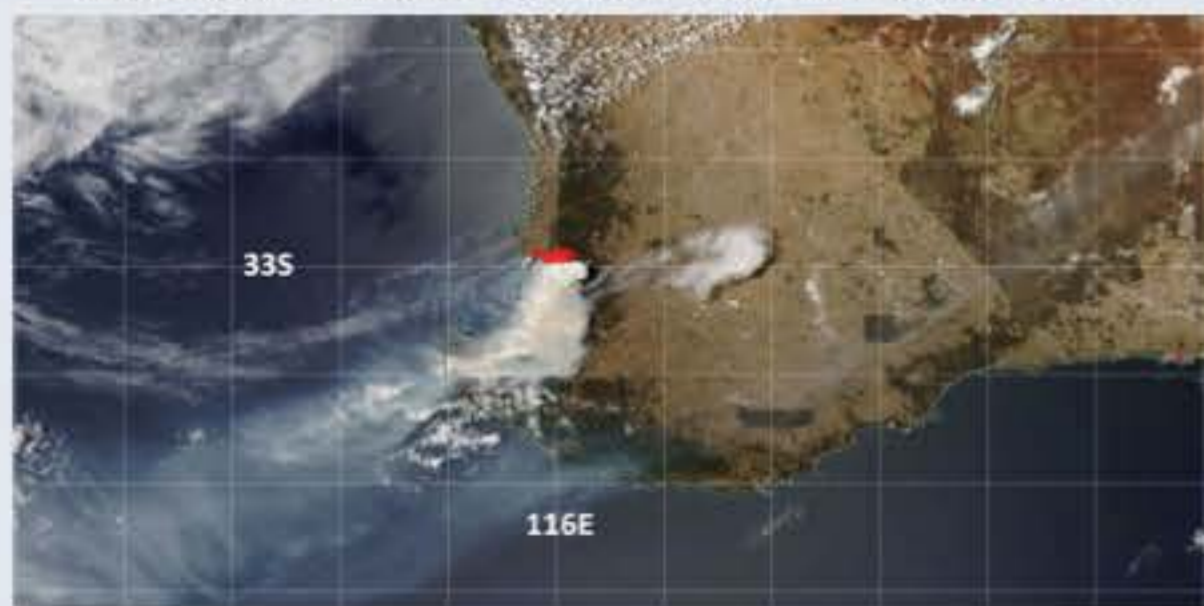


May 4, 2017: "North channel open to head of Albany Island" (Figure provided by Ontario Ministry of Natural Resources and Forestry)

"We're using worldview to investigate the historic breakup patterns to provide context to the near real-time images that we view during breakup. For example, if we see the Kenogami starting to breakup, how long until breakup reaches the communities based on historic observations obtained from worldview? This will help inform emergency managers and help assess timing of potential risks."

- Hydrometric Specialist, Ontario Ministry of Natural Resources and Forestry Remote Sensing Group and Surface Water Monitoring Centre

Studying Extreme Weather Caused by Wildfires



Wildfire-induced storm near Perth, Australia (Figure provided by Naval Research Laboratory)

"Worldview is our go-to resource for near-real-time monitoring of pyrocumulonimbus (pyroCb) storms and high altitude smoke plumes. Worldview reveals an active pyroCb next to the large fire, and a separate high-level smoke plume injected by an earlier pyroCb. Such information is rapidly disseminated to a global community interested in extreme behavior and global effects of wildfire."

- Meteorologist, Naval Research Laboratory

Public

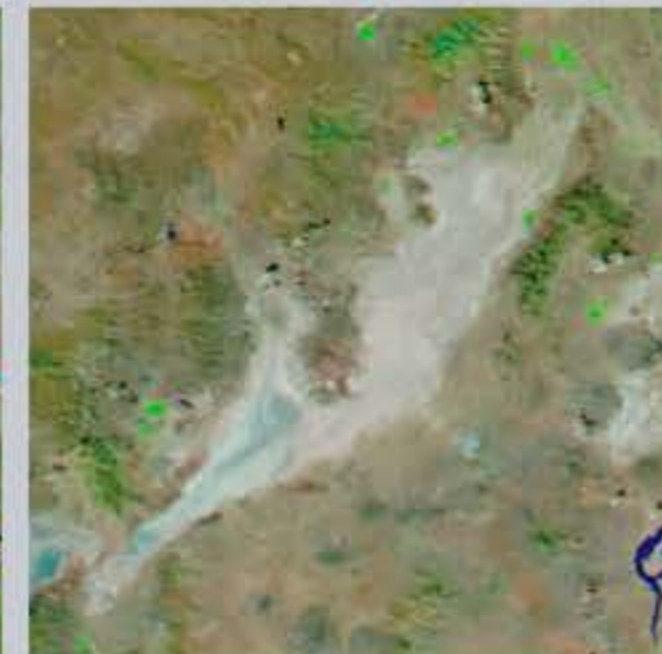
Waiting for a Dry Desert to Launch Rockets

"The hobby/high power rocketry community loves this tool. Using the MODIS Aqua data and filters, we are able to watch our favorite launch site (Black Rock, NV) slowly dry out! We're all hoping for a dry playa by September."

- Member, National Association of Rocketry



April 1, 2017: False-color imagery of Black Rock, Nevada shows water / snow detections in bright blue



September 24, 2017: Playa is dry enough for launch!

Media



A 5,000-mile-long 'river in the sky' targets the Pacific Northwest with heavy rain and snow

By Jason Samenow October 13



Satellite image showing clouds stretched across the entire Pacific. (NASA)

A fascinating weather pattern is in place in the Northern Hemisphere this week. It's a river in the sky that spans the full width of the Pacific Ocean from Asia to North America. The phenomenon is remarkably obvious — a plume of clouds with a few areas of low pressure embedded, transported at shocking speeds across the planet's largest ocean via the jet stream.

Plainly spoken, it's a train of rain on its way to Washington State.

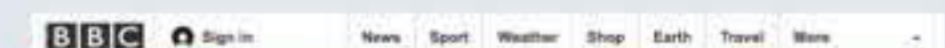
<https://www.washingtonpost.com/news/capital-weather-gang/wp/2017/10/17/rare-5000-mile-long-river-in-the-sky-to-bombard-pacific-northwest-with-heavy-rain-and-snow/>

Investigating Power Outages in Puerto Rico after Hurricane Maria



8:04 PM - 11 Oct 2017

<https://twitter.com/MaryHenryGEO/status/918281168423923712>



NEWS

World Africa Asia Australia Europe Latin America Middle East

Portugal and Spain wildfires: Dozens dead and injured

18 October 2017 Europe

A wave of wildfires in central and north Portugal which started at the weekend has killed at least 31 people, civil defence authorities say.



Source: NASA Worldview Earthdata, 15 Oct

<http://www.bbc.com/news/world-europe-41634125>