

WEYMOUTH ASTRONOMY

Sky Watcher

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Trips / Events

Ideas for trips and events
always welcome!

events@weymouthastronomy.co.uk

- ◆ 14 Dec WAS—Public Event at Durlston
- ◆ 20 Dec CADAS—Christmas Social and members short talks

Programmes for many local Societies will be available in the near future.

Check their websites for more details.

If you are interested in giving a talk or workshop, let the organisers know. They like to offer new titles in their programme line-up.



WAC Upcoming Events:

The 2018 programme is being finalised! Be sure to check the website for the January speaker.

More to come in 2018!



www.AstronomyClub.com - 317



WAC News—

During a recent trip to the west of Scotland en route to Skye we came across a unique city twinning! In 2012, Nasa's roving robotic laboratory, Curiosity, headed for a geological feature on the Red Planet that has been called Glenelg. Back on Earth, residents of Glenelg in the west Highlands held celebrations, which included a twinning ceremony and a ceilidh. Apparently, the tiny Highland village of Glenelg (Earth) has the distinguished honour of being the only place on Earth to be "twinning" with a namesake on another planet.

<http://www.glenelgscotland.com/glenelg-mars.htm> Until next month year! ~ SK



Seeing Dark Skies in Dorset

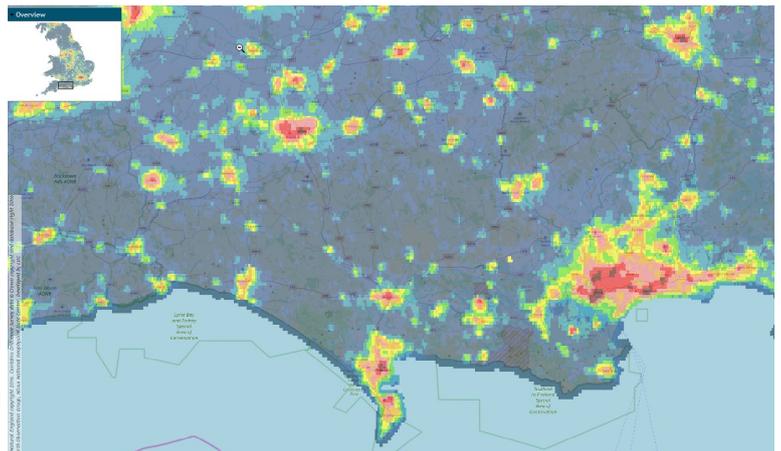
By Bob Mizon



The lack of government regulation which allows artificial light to taint the night sky means that there are but few areas left in the UK where a natural night sky can be appreciated in all its wonder. It is England, the most densely populated country of the United Kingdom, that fares worst. It is extremely difficult to find a location there where a pristine night sky can be observed. The Commission for Dark Skies (CfDS), the Campaign to Protect Rural England (CPRE) (www.britastro.org/dark-skies, www.cpre.org.uk/dark-skies) and other environmentally conscious bodies have been striving for decades to stem the tide of light pollution, working towards star-quality lighting and a better view of the heavens. There are however reasons for optimism. Sites endorsed by Dark Sky Discovery (www.darkskydiscovery.org.uk), a UK-wide network of good observing places nominated by local groups, have increased in number. Public awareness of the need to counter light pollution has been raised by initiatives from the CfDS, CPRE and other groups. Their efforts have, as the lighting industry freely admits, been a weighty factor in the introduction to our main roads in recent years of strictly downward-directed road lights. Almost all of the new LED road lights in the

UK are designed to avoid upward emissions (though many are too bright!). The American International Dark-Sky Association (IDA), based in Tucson, Arizona, has added its weight to national efforts with its Dark Sky Places scheme: islands of guaranteed darkness are now established beneath some of our remaining starry night skies. UK astronomers, and indeed anybody who enjoys the rare sight of a pristine, star-filled sky, should be proud that their country has more dark-sky protected areas than any other in the world outside the USA. The large-scale organised protection of our stars began in November 2009, when the IDA awarded Galloway Forest Park in south-west Scotland the title of International Dark Sky Park: the first in the UK and only the fourth in the world.

Dorset may soon have its own protected dark



<http://nightlight.cpre.org.uk/maps/>



Dorset (more!)

skies. The Cranborne Chase Area of Outstanding Natural Beauty still retains dark night skies. On light-pollution maps of southern England, it stands out as the darkest area of south central England.

The AONB's Dark Sky Project will culminate in 2018-2019 in the award to the of the coveted and prestigious International Dark Sky Reserve (IDSR) status of the IDA. The AONB is working towards mitigating the encroachment of light pollution into the area; measuring (in collaboration with the Commission for Dark Skies and the Wessex AS) the darkness of its skies with Sky Quality Meters; raising awareness of its wonderful stars with public events; working with local people and organisations to enhance the night-time ambiance of the AONB, and bring communities within that area into the project; and enlisting the help of local communities and organisations.

How can you help? Ask Bob Mizon for further information and literature. See:

- The AONB website www.ccwwdaonb.org.uk
- The BAA Commission for Dark Skies www.britastro.org/dark-skies
- The International Dark Sky Association www.darksky.org



Studying Storms from the Sky by Teagen Wall

The United States had a rough hurricane season this year. Scientists collect information before and during hurricanes to understand the storms and help people stay safe. However, collecting information during a violent storm is very difficult. Hurricanes are constantly changing. This means that we need a lot of really precise data about the storm. It's pretty hard to learn about hurricanes while inside the storm, and instruments on the ground can be broken by high winds and flooding. One solution is to study hurricanes from above. NASA and NOAA can use satellites to keep an eye on storms that are difficult to study on the ground.

In Puerto Rico, Hurricane Maria was so strong that it knocked out radar before it even hit land. Radar can be used to predict a storm's path and intensity—and without radar, it is difficult to tell how intense a storm will be. Luckily, scientists were able to use information from a weather satellite called GOES-16, short for Geostationary Operational Environmental Satellite – 16.

The "G" in GOES-16 stands for geostationary. This means that the satellite is always above the same place on the Earth, so during Hurricane Maria, it never lost sight of the storm. GOES-16's job as a weather satellite hasn't officially started yet, but it was collecting information and was able to help. From 22,000 miles above Earth, GOES-16 watched Hurricane Maria, and kept scientists on the ground up to date. Knowing where a storm is—and what it's doing—can help keep people safe, and get help to the people that need it.

Hurricanes can also have a huge impact on the environment—even after they're gone. To learn about how Hurricane Irma affected the Florida coast, scientists used images from an environmental satellite called Suomi National Polar-orbiting Partnership, or Suomi-NPP. One of the instruments on this satellite, called VIIRS (Visible Infrared Imaging Radiometer Suite), took pictures of Florida before and after the Hurricane.

Hurricane Irma was so big and powerful, that it moved massive amounts of dirt, water and pollution. The information captured by VIIRS can tell scientists how and where these particles are moving in the water. This can help with recovery efforts, and help us design better ways to prepare for hurricanes in the future.



Caption: These images of Florida and the Bahamas were captured by a satellite called Suomi-NPP. The image on the left was taken before Hurricane Irma and the image on the right was taken after the hurricane. The light color along the coast is dirt, sand and garbage brought up by the storm. Image credit: NASA/NOAA

By using satellites like GOES-16 and Suomi-NPP to observe severe storms, researchers and experts stay up to date in a safe and fast way. The more we know about hurricanes, the more effectively we can protect people and the environment from them in the future.

To learn more about hurricanes, check out NASA Space Place: <https://spaceplace.nasa.gov/hurricanes/>