http://epod.usra.edu/blog/2013/04/deceptive-skies.html

Pond Stars - EPOD - a service of USRA
epod.usra.edu/blog/2018/04/pond-stars.html

Apr 8, 2018 **...** Photographer: **John** A. **Adam** Summary Author: **John** A. **Adam** During a sustained sub-zero spell in mid-January this year I noticed some remarkable star-like patterns on a small pond next to my building at Old Dominion University. There were about a...

Langmuir Circulation - EPOD - a service of USRA
epod.usra.edu/blog/2016/11/langmuir-circulation.html

Nov 15, 2016 **...** Summary Author: **John Adam**. Have you ever noticed long streaks of foam on large bodies of water, especially on very blustery days? I took this photograph on a very windy afternoon (October 22, 2016) on a bridge overlooking the Lafayette River in Norfolk, Virginia. The streaks are caused by Langmuir ...

Estimating Tree Height Using Natural Pinhole Cameras - EPOD - a ...
epod.usra.edu/.../estimating-tree-height-using-natural-pinhole-cameras.html

Aug 14, 2016 **...** Photographer: **John Adam** Summary Author: **John Adam** Have you ever noticed the almost elliptical splashes of sunlight on the ground or sidewalk as you walk under a tree on a sunny day? Suppose the ellipse has a major axis of...

Cat's Paws on Grasmere - EPOD - a service of USRA
epod.usra.edu/blog/2016/06/cats-paws-on-grasmere-lake.html

Jun 16, 2016 **...** Photographer: **John Adam** Summary Author: **John Adam** When a puff of wind blows over a previously smooth surface of water, it can give rise to a patch of darkened ruffled water, caused by short-wavelength ripples (capillary waves) in its surface....

Encore - Web Iridescence - EPOD - a service of USRA
epod.usra.edu/blog/2016/05/encore-web-iridescence.html

May 27, 2016 **...** Summary Author: **John Adam**. This picture of a carefully constructed spider web was taken in Washington Oaks Gardens State Park, Flagler County, Florida. It was about 10 inches (25 cm) in diameter and exhibited greenish and pink iridescence when the viewing angle was just right. Depending on where I ...

Garnet Lake, California - EPOD - a service of USRA
epod.usra.edu/blog/2015/07/garnet-lake-california.html

Jul 28, 2015 **...** Photographer: Cindy Todd Summary Author: Cindy Todd Shown above is beautiful Garnet Lake, California, in the Ansel **Adams** Wilderness of the Sierra Nevadas. Banner Peak (12947 ft or 3946 m) and Mount Ritter (13143 ft or 4006 m) are in...

Giant's Causeway in Northern Ireland - EPOD - a service of USRA
epod.usra.edu/blog/2015/.../giants-causeway-in-northern-ireland.html

May 24, 2015 **...** Photographer: **John Adam** Summary Author: **John Adam** The Giant's Causeway is a huge deposit of columnar basalt found in County Antrim near the tip of Northern Ireland. The predominantly hexagonal-shaped columns were formed some 50 million years ago by cooling...

Encore - Shimmer Tree - EPOD - a service of USRA
epod.usra.edu/blog/2015/01/encore-shimmer-tree.html

Jan 23, 2015 **...** Summary Author: **John Adam**. What is going on here? Has the space-time continuum been distorted by a pulse of gravitational waves from a nearby supernova? Well, not quite. Gravity waves (not gravitational waves) are responsible for the shimmer effect: surface gravity waves on the surface of the pond.

Water, Wakes, Mountains, Trees and Sky Pools - EPOD - a service ...
epod.usra.edu/.../water-wakes-mountains-trees-and-sky-pools.html

Jun 29, 2014 **...** Photographer: **John Adam** Summary Author: **John Adam** On a recent trip to Glacier National Park I took a tour on Lake McDonald aboard the vessel DeSmet. I was particularly fascinated by the distorted reflections in the wake and waves produced...

Snow Eyes - EPOD - a service of USRA
epod.usra.edu/blog/2014/04/snow-eyes.html

Apr 16, 2014 **...** Photographer: **John Adam**; John's Web site Summary Author: **John Adam** Early in March 2014, I took this series of photographs on the way to my office at Old Dominion University in Norfolk, Virginia. There had been a snowfall of an...

A Neighborly CHA Above Norfolk, Virginia - EPOD - a service of USRA
epod.usra.edu/blog/.../a-neighborly-cha-above-norfolk-virginia.html

Jun 15, 2013 **...** Photographer: **John Adam**; John's Web site Summary Author: **John Adam** On Saturday May 25, just before 2 p.m., I walked across the street and startled a neighbor by asking, "Have you noticed that?" Clearly, she hadn't, but as she wearily...

Land of Green and Yellow - EPOD - a service of USRA
epod.usra.edu/blog/2012/08/land-of-green-and-yellow.html

Aug 1, 2012 **...** Photographer: **John Adam**; John's Web site Summary Author: **John Adam** When I was growing up in England several decades ago, I never saw bright yellow fields; even wheat fields were more golden in color. But in recent years more and...

More on the Interplay of Sunlight and Water - EPOD - a service of ...
epod.usra.edu/.../more-on-the-interplay-of-sunlight-and-water.html

Jan 3, 2012 **...** Photographer: **John Adam**; John's Web Site Summary Author: **John Adam** The interplay and light on water is an endless source of fascination. Take a source of light (usually the Sun), add water and a little wind or in this case...

Scalloped Blue Ice - EPOD - a service of USRA
epod.usra.edu/blog/2011/11/scalloped-blue-ice.html

Nov 1, 2011 **...** Photographer: **John Adam**; John's Web site Summary Author: **John Adam** The photo above shows a chunk of scalloped ice, about 65 ft (20 m) in width that broke off from the Sawyer Glacier near Tracy Arm Fjord in southeastern Alaska....

Reflection Glitter Path and Blue Color - EPOD - a service of USRA
epod.usra.edu/blog/2011/.../reflection-glitter-path-and-blue-color.html

Sep 1, 2011 **...** Photographer: **John Adam**; John's Web site Summary Author: **John Adam** This well defined glitter path is produced by sunlight reflected off the iceberg and then reflected yet again in a set of parallel waves in the foreground. Note the soft...

Wave-rippled Glitter Path - EPOD - a service of USRA
epod.usra.edu/blog/2011/06/wave-rippled-glitter-path.html

May 31, 2011 **...** Photographer: **John Adam** Summary Author: **John Adam** A golden glitter path has its linear form furrowed by the waves emanating from a passing speedboat. As the waves expand and arc out, the reflection sites change and a previously undisturbed 'cylinder...

Rain Streaks: How Fast Does It Rain? - EPOD - a service of USRA
epod.usra.edu/blog/2010/10/rain-streaks.html

Oct 13, 2010 **...** Photographer: **John Adam**; John's Webpage Summary Author: **John Adam** This rather pedestrian photograph was taken from a sheltered area outside the Mount Washington Resort, in Bretton Woods, New Hampshire. Thanks to the heavy rains from Tropical Storm Nicole on September...

Long Hole Punch - EPOD - a service of USRA
epod.usra.edu/blog/2010/08/long-hole-punch.html

Aug 22, 2010 **...** Photographer: **John Adam**; John's Webpage Summary Author: **John Adam** On the morning of 30th July 2010, I was walking across the Old Dominion University campus in Norfolk, Virginia and couldn't help but notice a very long “hole punch” with a...

Pentagonal Symmetry - EPOD - a service of USRA
epod.usra.edu/blog/2010/05/pentagonal-symmetry.html

May 30, 2010 **...** Photographer:**John Adam**; John's Webpage Summary Author: **John Adam** The flower depicted above is called Nigella (Nigella damascene), sometimes known as "love-in-a-mist." I noticed these attractive flowers when visiting Wing Haven Gardens and Bird Sanctuary in Charlotte, North Carolina several ...

A Halo-laden Walk - EPOD - a service of USRA
epod.usra.edu/blog/2009/11/a-haloladen-walk.html

Nov 1, 2009 **...** Photographer: **John Adam**; John's Web Page Summary Author: **John Adam** Walking on my way to work at Old Dominion University in Norfolk, Virginia, on the morning of October 22, I was treated to this fine display of halo phenomena. Needless...

String of Pearls - EPOD - a service of USRA
epod.usra.edu/blog/2009/07/string-of-pearls.html

Jul 6, 2009 **...** Photographer: **John Adam** Summary Author: **John Adam** The photographs above showing raindrops on a leaf were taken following a rain shower, at the edge of a field of lupines, just outside the town of Rangeley, New Hampshire. In the picture. ..

Braided Pollen Streams - EPOD - a service of USRA
epod.usra.edu/blog/2009/06/braided-pollen-streams.html

Jun 10, 2009 **...** Photographer: **John** A. **Adam**, **John's** Homepage Summary Author: **John** A. **Adam** I was walking to the office around the middle of April this year, a day after a heavy downpour had occurred. At each successive puddle, I noticed what appeared...

Land of Multiple Suns - EPOD - a service of USRA
epod.usra.edu/blog/2009/05/land-of-multiple-suns.html

May 5, 2009 **...** Photographer: **John Adam** Summary Author: **John Adam** Move over, Tatooine; in this land there are many Suns! While raking in my back yard near Norfolk, Virginia, I glanced up and noticed these reflections from a slightly silvered, glass garden globe....

Tree Tumors - EPOD - a service of USRA
epod.usra.edu/blog/2009/04/tree-tumors.html

Apr 8, 2009 **...** Photographer: **John Adam**, John's Homepage Summary Author: **John Adam** This tree "tumor," "ulcer" or "burl" was encountered while we were hiking a short section of the Appalachian Trail, near Front Royal, Virginia (off the Skyline Drive) in March 2009. This...

Lightning Strikes a Tulip Poplar - EPOD - a service of USRA
epod.usra.edu/blog/2009/02/lightning-strikes-a-tulip-poplar.html

Feb 23, 2009 **...** Photographer: **John Adam**, John's Home Page Summary Author: **John Adam** Early one Saturday morning this past November, I was listening to the sounds of heavy rain outside and jumped out of my chair at the crack of a loud thunderclap.. .

Ice Hoodoos - EPOD - a service of USRA
epod.usra.edu/blog/2008/08/ice-hoodoos.html

Glory and Honor - EPOD - a service of USRA
epod.usra.edu/blog/2007/06/glory-and-honor.html

Aug 10, 2008 **...** Provided by: **John Adam** Summary Author and Editor: **John Adam**, Stu Witmer A trail around the base of Mt. Edith Cavell, in Jasper National Park, Canada, leads to the glacier you see in the background of this picture. High and...

Circumzenithal Arc Over Norfolk, Virginia - EPOD - a service of USRA
epod.usra.edu/blog/.../circumzenithal-arc-over-norfolk-virginia.html

Jun 10, 2007 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This glory was photographed on 13th March 2007, not long after take-off from London's Gatwick airport. The plane was close enough to the cloud bank...

Roll Waves at Myrtle Beach - EPOD - a service of USRA
epod.usra.edu/blog/2007/01/roll-waves-at-myrtle-beach.html

Feb 8, 2007 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This colorful circumzenithal arc (CZA) was part of a magnificent display of arcs and parhelia observed during the late afternoon of November 27th (2006), in...

Jan 29, 2007 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** These waves were photographed in the Spring of 2006, just south of Myrtle Beach, South Carolina, as the stream on which they formed moved down...

Contrail Tic -Tac -Toe - EPOD - a service of USRA
epod.usra.edu/blog/2006/12/contrail-tic--tac--toe.html

Dec 5, 2006 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This photo showing criss-crossing condensation trails (contrails) was taken from about 33000 ft (about 10000 m) somewhere above the Mid-West U.S. I was traveling from...

Calm Symmetry - EPOD - a service of USRA
epod.usra.edu/blog/2006/10/calm-symmetry.html

Oct 3, 2006 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This is a nice example of reflection symmetry photographed from about halfway round the walking trail of Emerald Lake, in Banff National Park, Alberta, Canada....

Three Worlds - EPOD - a service of USRA
epod.usra.edu/blog/2006/08/three-worlds.html

Jul 31, 2006 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This intriguing shot was taken from the edge of Lake Louise, in Banff National Park, Alberta, in mid May 2006. I call it “Three worlds”...

Pigeon Lake Wave Clouds - EPOD - a service of USRA
epod.usra.edu/blog/2006/07/pigeon-lake-wave-clouds.html

Jul 15, 2006 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** The lens like clouds in this picture were formed over Pigeon Mountain, in Dead Man's Flats, near Canmore, Alberta, about ten kilometers from the entrance...

Constable Pillar - EPOD - a service of USRA
epod.usra.edu/blog/2006/03/constable-pillar.html

Mar 13, 2006 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** The early development of this magnificent upper sun pillar attracted my attention one evening in late November. I took many pictures over a period of...

Dusty Sunbeams - EPOD - a service of USRA
epod.usra.edu/blog/2006/03/dusty-sunbeams.html

Mar 2, 2006 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** I took this picture one summer's day while walking to work through this delightfully shady arboretum. These sunbeams are really local examples of crepuscular rays:...

Glory Trails - EPOD - a service of USRA
epod.usra.edu/blog/2006/01/glory-trails.html

Jan 17, 2006 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This picture was taken on November 1st, 2005, at about 40000 ft (12192 m) above the Atlantic Ocean, on a flight from London to Charlotte,...

Constable Sky - EPOD - a service of USRA
epod.usra.edu/blog/2005/12/constable-sky-1.html

Dec 29, 2005 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** I've often thought that some paintings look like photographs. Rarely have I noticed skies that looked like paintings, but one evening in mid- November I was...

Double Dog - EPOD - a service of USRA
epod.usra.edu/blog/2005/08/double-dog.html

Aug 14, 2005 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This photo of what appears to be a double sundog was taken in Norfolk, Virginia, one evening early this past June. Clearly, the lower coloration,...

Fingers of Gollum - EPOD - a service of USRA

epod.usra.edu/blog/2005/07/fingers-of-gollum-.html

Jul 17, 2005 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This intriguing wave cloud photo was taken from the grounds and gardens of the Alhambra, near Granada in southern Spain, on a very hot afternoon...

Old Dominion Sunset - EPOD - a service of USRA

epod.usra.edu/blog/2005/04/old-dominion-sunset-.html

Apr 28, 2005 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** The above photo showing a fiery sunset was taken during the fall of 2003 from Norfolk, Virginia. I was on the 5th floor of an...

Kelvin-Helmholtz Contrail Above Norfolk, Virginia - EPOD - a service ...

epod.usra.edu/.../kelvinhelmholtz-contrail-above-norfolk-virginia.html

Mar 1, 2005 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** The above photo showing a Kelvin-Helmholtz contrail was taken in the afternoon of a spring day in 2003, from Norfolk, VA. Kelvin and Helmholtz contributed...

Curvy Cirrus - EPOD - a service of USRA

epod.usra.edu/blog/2005/01/curvy-cirrus.html

Jan 22, 2005 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** The above photo showing a formation of curvy cirrus clouds was taken in Norfolk, Virginia, late in the summer of 2004, about mid-morning. What caught...

Fractal Oak - EPOD - a service of USRA

epod.usra.edu/blog/2004/11/fractal-oak.html

Nov 25, 2004 **...** Provided and copyright by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This stately old oak was photographed in the village of Woodcote, England (near Reading), in March of 2003. It's about 50 ft high...

Iridescence on A Summer Afternoon - EPOD - a service of USRA

epod.usra.edu/blog/2004/.../iridescence-on-a-summer-afternoon.html

Sep 22, 2004 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** The photo above showing cloud irisation was taken in mid August 2004 just south of the Peak District in central England. The morning had been...

Scarlet Billows - EPOD - a service of USRA

epod.usra.edu/blog/2004/08/scarlet-billows.html

Aug 19, 2004 **...** Provided by: **John** A. **Adam**, Old Dominion University Summary authors & editors: **John** A. **Adam** This brilliant, scarlet cloud was photographed in late November, 2003, about 20 minutes after sunset, from Norfolk, Virginia. The underside of this linear cloud looks...