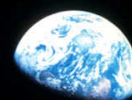




# MOPIA E-BULLETIN



## STRATOSPHERIC OZONE LAYER & ATMOSPHERE PROTECTION

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### 27th Meeting of the Parties to the Montreal Protocol Held



The 27<sup>th</sup> Meeting of the Parties to the Montreal Protocol (MOP 27) was held 1-5 November in Dubai, United Arab Emirates. Over 500 participated from among the world's 197 nations who are signatories to the Montreal Protocol along with lobbyists from major chemical companies and representatives from various non-government organizations.

Several proposed amendments to the Montreal Protocol with significant positive effects in reducing greenhouse gases were considered but resistance came from some developing nations who are concerned about high ambient temperature alternatives not being proven or widely available. They also want commitments of financial and technology support in any transition. On a positive note, a special MOP was proposed for 2016 to discuss HFCs.

Beyond the proposed amendments, many decisions were adopted ranging from exemptions and critical use allocations, appointment of members to the various panels, import and data reporting discrepancies and others.

MOPIA's Chair of the Board of Directors, John Kubilanski and Executive Director, Mark Miller attended and kept pulse of the emerging technological innovations and direction of ODS alternatives going forward.

See more MOP 27 highlights/details at:

[www.iisd.ca/ozone/oewg36-resumed-mop27/3nov.html](http://www.iisd.ca/ozone/oewg36-resumed-mop27/3nov.html)  
<http://ozone.unep.org/en/>  
<http://ozone.unep.org/en/meetings>

Pictured above Mr. John Kubilanski, Mr. Rajendra Shende and Mr. Mark Miller

### Montreal Protocols Cost Benefit Estimated at over \$1.8 Trillion USD



It is estimated that the Montreal Protocol's \$3.5 billion investment by Nations adopting requirements of the treaty have yielded \$1.8 trillion in health benefits by mitigating health care costs of cancer and eye cataracts along with another \$460 billion in avoided damages to agriculture, synthetic materials and fisheries by the middle of the century.

See Assessment Panel Reports at:

<http://ozone.unep.org/en/assessment-panels>

### Phone Tips Yield Investigations

MOPIA receives tips from consumers and even employees that allege companies are improperly repairing or topping-up air conditioning systems or equipment. Sometimes these tips are directed to the Provinces Consumers Bureau while others are directed to the Enforcement Division of Manitoba Conservation and Water Stewardship for follow-up.

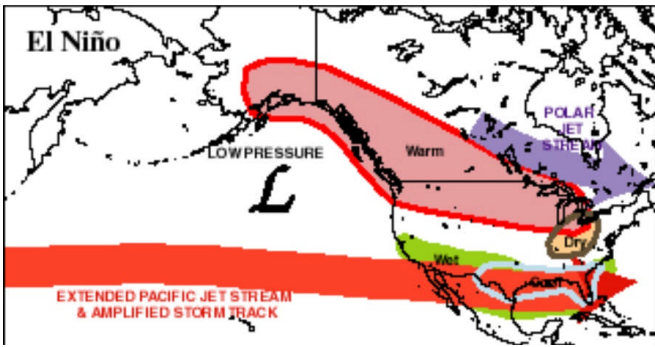
Recently, a rural trucking company was accused of topping up A/C systems and as such they are being investigated. Refrigerant use records will be obtained, as well as, other tactics to obtain evidence.

In another instance, an employee of a company reported that his boss/supervisor was instructing him to top-up and not record information on certain jobs. This company is also being investigated and when/if enough evidence is obtained, they will be charged.



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## El Niño Profile for Winter 2015-16



El Niño, a is expected to persist through the winter or 2015-16 for North America and South America due to above normal sea surface temperatures.

For Manitoba, it is expected that drier and warmer temperatures will persist until late winter when more moisture (snow) and colder temperatures could unfold. If the weather during the first part of November is any indication, higher temperatures have been obtained but there has been a seasonal amount of precipitation in the form of rain, instead of snow.

See more El Niño information at these links:

[www.cpc.ncep.noaa.gov/products/analysis\\_monitoring/ensodisc.html](http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/ensodisc.html)

[www.theweathernetwork.com/us/news/articles/us-weather/winter-preview-el-nino-contributes-to-a-tale-of-two-seasons/56531/](http://www.theweathernetwork.com/us/news/articles/us-weather/winter-preview-el-nino-contributes-to-a-tale-of-two-seasons/56531/)

## Refrigerant R-32 – What is it??

In 2012, Daikin (Japan) introduced residential A/C using R-32 and have sold over 3 million units. So what is R-32?

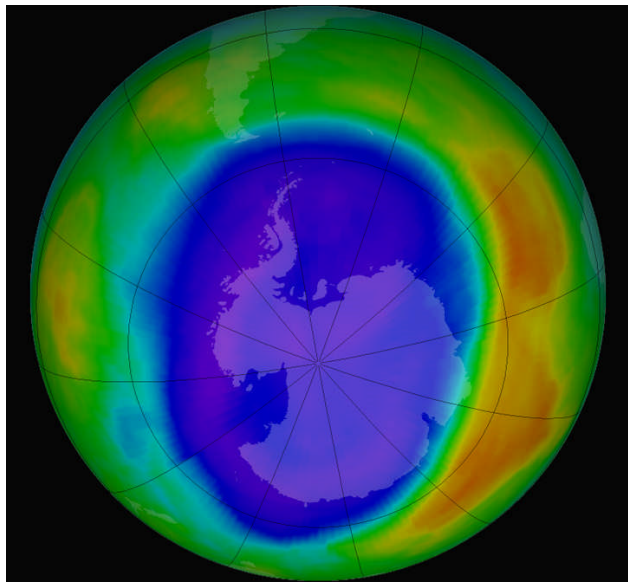
R-32, or HFC 32, has a 3x lower global warming potential (GWP) of 675 as compared to R-410a (GWP ~ 1,975) and has been recorded as having a higher efficiency. R-32 is a single component refrigerant. It is slightly flammable and so awareness of any use codes and protocol is essential. See more info via these links:

<http://refrigerants.danfoss.com/r32/>

[www.daikin.com/about/why\\_daikin/benefits/r-32/index.html](http://www.daikin.com/about/why_daikin/benefits/r-32/index.html)

[www.acr-news.com/daikin-to-ditch-r410a-in-favour-of-flammable-r32](http://www.acr-news.com/daikin-to-ditch-r410a-in-favour-of-flammable-r32)

## 2015 Ozone Hole 4<sup>th</sup> Largest



The 2015 ozone hole in the southern stratospheric ozone layer is still in a vulnerable state and has been recorded as the 4<sup>th</sup> largest in size at 28.2 million square kilometres since this type of satellite data began in 1979.

The largest ozone hole was recorded in 2000, at 29.9 million square kilometres.

The ongoing cause is the continued persistent impact of ozone depleting substances in the upper atmosphere and the cold temperatures over the Antarctic during September 2015.

Ozone depletion is among the worlds' most significant environmental challenges. Without the protection of the ozone layer, life on planet earth may not have existed or may have been significantly different. Ultraviolet radiation (UV) affects genetic material and as such all living species.

For more information, see these links:

<http://www.theweathernetwork.com/news/articles/2015-antarctic-ozone-hole-4th-largest-on-record/59102/>

<http://ozonewatch.gsfc.nasa.gov/monthly/SH.html>

<http://earthsky.org/earth/ozone-hole-2015>

## COP 21 in Paris...

30 November – 11 December – COP 21 in Paris  
<https://unfccc.int/2860.php>