COSMOS+ NEWSLETTER #25
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Rosetta Update

Video wrap-up of last week's incredible comet landing

Rosetta made history by delivering the Philae lander to the surface of a comet. This film covers the exciting events at the Rosetta mission control room at the European Space Operations Centre at Darmstadt, in Germany, from the moment of touchdown on 12 November to Philae’s hibernation.

It shows the celebrations and explains the race against time to ensure that the lander’s science experiments were completed before its batteries died. It also covers the extraordinary three touchdowns, as imaged by the OSIRIS camera on the Rosetta orbiter, the discovery of organics and Philae's hibernation.

See Full Video

Cometwatch

Cometwatch

After last week's intense activities centred on Rosetta's lander Philae and its descent to the surface of Comet 67P/Churyumov-Gerasimenko, it's time to take another look at this beautiful comet through Rosetta's navigation camera.

Cometwatch

The sound of touchdown

Sensors in the feet of Rosetta's lander Philae have recorded the sound of touchdown as it first came into contact with Comet 67P/Churyumov-Gerasimenko. The instrument, SESAME-CASSE, was turned on during the descent and clearly registered the first touchdown as Philae came into contact with the comet, in the form of vibrations detected in the soles of the lander’s feet.

Listen to the touchdown

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COSMOS is financed by the European Commission, DG Enterprise & Industry within the 7th EU Framework Programme.
**ESA Rosetta and Philae Cartoons - Once upon a time**

ESA makes Rosetta space probe kid-friendly with cartoons. Not just for kids, mind you, are the collection of videos commissioned by the European Space Agency for the robotic space probe Rosetta.

Named after the Rosetta Stone, translator of Egyptian scripts, Rosetta is placed in a number of cartoons that make learning fun. What could be better than that?

- Wake Up Rosetta
- Rosetta Are We There Yet
- ...Are we there yet?
- Rosetta Are We There Yet – Fabulous fables and tales of tails
- ...Preparing for Comet Landing

We are waiting for the next cartoon!

[ESA Rosetta and Philae Cartoon Channel](#)

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**Save the Date**

**10 Ilan Ramon Annual International Space Conference**

**28 – 29 January 2015 at the IAF Center, Herzlia (Israel)**

The Conference provides an open forum for the national and international space community to engage in informative discussions about current technologies, programs and strategies. Accompanied by an exhibition of aerospace companies, it culminates with the publication of a conference book, which is distributed widely and used extensively by the space community as an important research tool.

The Ilan Ramon International Space Conference is hosted every year at the Fisher Brothers Institute for Air and Space Strategic Studies in the Israel Air Force Center. This two-day gathering is a living tribute to Israel’s first astronaut, the late Colonel Ilan Ramon, who perished with his colleagues on the space shuttle Columbia on February 1, 2003.

The registration will open soon

[Further Information](#)

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Summertime ozone in the Mediterranean

A new study using data from EUMETSAT satellites has shown that ozone reaches high values that are a cause for concern in the Mediterranean atmosphere during summer.

Sarah Safieddine, a PhD candidate at Pierre et Marie Curie University in Paris, led the research showing interesting maximum ozone values in the Mediterranean occurring during each of the summers of the period 2008-2013 that are detected and quantified using satellite measurements.

The research recently published in Atmospheric Chemistry and Physics adds another piece to the puzzle of ozone behaviour and transport, notably in the Mediterranean troposphere. The study shows that both modelling and satellite remote sensing data are able to detect a summertime ozone maximum in this area.

Further Information

UN Spider - Featured:
Application of the month

In each monthly UN Spider Update one example of satellite data application is presented. The October data application is ‘Measuring soil moisture’.

Assessing and monitoring soil moisture provides important input for both drought and flood risk reduction. Soil moisture is measured by active microwave scatterometers, as well as by passive microwave radiometers. All these active and passive microwave sensors are weather-independent, i.e. they can look through clouds, and they can take images at day and night. Satellite imagery for soil moisture estimation is partly available free of charge, for example data of Sentinel-1 and Landsat-8. Others have to be purchased.

The good news is: You do not have to start from scratch and process raw data to derive soil moisture information. Many soil moisture datasets elaborated by different institutions are listed and linked to in the UN-SPIDER database on data sources.

Application of the Month  Knowledge Portal