

## **An EO conference roundup: RSPSoc 2013 and the ESA Living Planet Symposium**

It's conference season! I'm at my 2nd conference in 2 weeks, both in Scotland.

Last week was the Remote Sensing & Photogrammetry Society Annual Conference, #RSPSoc2013, hosted in Glasgow. It included a broad range of sessions and scientific output within the 'family' atmosphere that you find within societies.

The conference started off with a keynote from Dr. Stewart Walker (BAE Systems and President-Elect of the [American Society for Photogrammetry and Remote Sensing](#)) reviewing the history and innovations in photogrammetry. I was fascinated to find out that in the early days of remote sensing (1960's) US military satellites ejected cans of photographic film, picked up by aircraft as they fell to Earth, to get high resolution data.

He also showed that since then the number of high resolution optical satellites and the capacity of those satellites to capture information has continuing to increase; in addition to the speed at which an end user can receive captured data. Today Autonomous Unmanned Vehicles (AUVs) have the capability to take [very high resolution video that can see objects as small as a songbird](#).

For me the most incisive comment he made was when he was summarising his own career, where he said that leaders don't only develop science, but also develop people who develop science. Something worth remembering by every scientific business.

The second keynote was by provided by Craig Clark MBE (Clyde Space), which showcased the growth of the company that is leading the UK Space Agency's programme to design and launch a cubesat; [UKube-1](#) which is due for launch in December.

Cubesats are small satellites, built in units of 10 cm cubes, with Ukube-1 being 3u i.e. 3 cubes in size (length). These are not the smallest satellites to be launched, but offer the potential to provide scientific quality missions at a much lower cost than conventional satellites; allowing developers to be more innovative with technologies and off the potential for constellation, rather than single, missions. This won't be the end of conventional larger satellites, as they are still needed for the capture of complex high quality data sets. But these two technologies will give greater flexibility for data capture.

This week I'm at European Space Agency's Living Planet Symposium <http://www.livingplanet2013.org/>. Still a 'family' atmosphere, but a much larger family with around 1,700 attendees in Edinburgh. The conference has showcased ESA's historical, current and future missions including [SWARM](#) that will be launched in November and the first Copernicus mission ([Sentinel 1](#)) that will launch in 2014.

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The SWARM constellation (3 satellites) will measure the Earth's magnetic field which protects us from cosmic radiation and charged particles arriving from the Sun. Whereas Sentinel 1 is a radar mission, which has many different applications as it provides a view of the surface roughness - a rough surface will reflect strongly while a smooth surface will reflect weakly – which is available during the day and night irrespective of cloud cover. Examples include tracking vessel movements at sea, monitoring forests and looking at the growth of mega-cities.

The last week has reminded me that remote sensing and photogrammetry are changing and fast moving fields; new technologies are offering us greater opportunities and flexibilities. But as Dr Walker reminded us, behind all these developments are some amazing people.