

NEW YEAR

Welcome to Issue #1 of our 8th year of the Partner School Science Program (PSSP) ASTRO Newsletter! Here you can find out all the latest news about space, science, PSSP, and Global Friendship Through Space Education (GFTSE).

We are proud to say that last year we celebrated our 10th anniversary with PSSP. The achievements and growth we have experienced together over past 11 years have been awe inspiring - working with 50 partner schools from 6 different countries on 3 continents. We hosted a special celebration at Space Camp Turkey with all of our staff to commemorate this milestone for PSSP and GFTSE. This showing of support and gratitude makes us better understand the importance of what we do here at PSSP - giving testament to how crucial and beneficial our program is to Space Camp Turkey, the students of PSSP, and all of our participants over the years.

We are also very excited to announce that PSSP recently hosted its 100th videoconference with NASA. This is a special moment for us because this achievement is unique in all of Europe. No other program or facility in Europe has enjoyed such a prestigious and productive relationship with NASA. Since the first GFTSE scholarship was awarded in 2003, thanks to the continuing efforts of Space Camp Turkey, NASA, GFTSE, and PSSP, over 6000 scholarship students have been given the opportunity to experience Space Camp Turkey.

E-Pal Week 2014 on June 29-July 5 was a great success as we hosted 174 students

and 28 educators, along with numerous other special guests, some traveling all the way from the USA. Our guests of honor for E-Pal week were: NASA astronaut Richard Linnehan and Scott Anderson from Marshall Space Flight Center in Huntsville, Alabama. Linnehan spent over 59 days in space and gave a wonderful presentation on his experiences as a veteran of 4 space flights and 6 EVAs (Spacewalks) as a Mission



Specialist during the Space Shuttle Program. Along with Linnehan was PSSP affiliate Scott Anderson who gave an inspirational presentation on careers at NASA.

Scott Anderson not only attended Space Camp Turkey as a speaker and guest of honor, he also served as an ambassador for NASA. During the ceremony at the end of E-Pal Week 2014, he presented GFTSE Manager Tolga Yildirim with the Digital Beagle Award. This was an unforgettable moment for both GFTSE and Space Camp Turkey, as the prestigious Digital Beagle Award is only awarded to educators who have given great efforts to help NASA's Digital Learning Network. We are very proud to have a member of the exclusive Digital Beagle club on staff here at GFTSE and Space Camp Turkey. Congratulations Tolga!

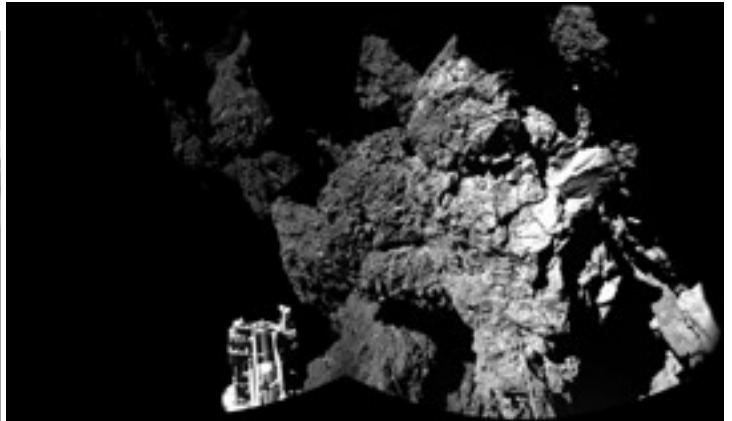


PSSP SCHOOLS

1st Meet and Greet Success!

On November 3, 2014 - Children's World Academy (Quebec, Canada) and Metu College (Ankara, Turkey) were able to have their first Meet and Greet Videoconference this year, and start the new season at PSSP off with a bang! The members of each schools Space Clubs were able to call each others names, step forward, and meet their Epals. They began to ask questions about one another and the kids are very excited to begin their new projects together. We are all ready for another year of fun and learning at GFTSE with our beloved PSSP Participant schools!





Left: Comet_67P/C-G - This photo was taken from the Rosetta Orbiter from about 3km away from the surface of the comet. (photo credits - European Space Agency - esa.int)

Above: First Images From the Surface - This photo was one of the first images taken by the Philae Lander just after landing on November 12, 2014 at 1pm EST. (photo credits - European Space Agency - esa.int)

ROSETTA MISSION - Philae Lander

*****WARNING*** Must click on Rosetta mission link to watch ESA five minute film *Ambition*.**

On [Wednesday November 12, 2014](#) another monumental first for mankind was achieved - the "capturing" of a [comet](#), by soft-landing a lander, named [Philae](#) onto the surface of a comet streaking through our Solar System. The lander, which is part of the [Rosetta mission](#) by the European Space Agency (ESA) with contributions by NASA, bounced twice before making a successful stable landing on the comet with gravitational pull fractions of that on Earth.

It is believed that the Philae lander has settled into a hole on the surface about 2 meters deep and 2 meters wide, after problems deploying the anchoring harpoons, it is also believed to be on its side. Despite these mishaps, the lander is doing remarkably well and most of its [scientific instruments](#) seem to be working flawlessly and already reporting data back to Earth.

This marks the beginning of a one-year observation of [Comet 67P/Churumov-Gerasimenko \(Comet C-G\)](#). Both the [Rosetta orbiting satellite](#) and the Philae lander will stay with the comet as it races towards the sun and the comet's Perihelion (closest approach to the sun).

The 21 combined scientific instruments on Rosetta and Philae will send back large amounts of valuable data about the comet as it melts and changes. This melting and change is due to comets being mostly made of frozen ice and dust that begin to melt and send out it's spectacular "comet's tail" as it gets closer to the sun.

This approach and soft-landing on Comet C-G is part of the [final stages](#) of [Rosetta's Primary Mission](#). Rosetta was first launched from ESA's launching facility in French Guyana, South America on top of an Ariane 5 G+ rocket in March of 2004. On its way, weaving past and using the gravity of planets Earth and Mars and also studying two asteroids [Steins](#) and [Lutetia](#) - Rosetta finally caught up with Comet C-G in May 2014. Since the summer, Rosetta has studied the comet from a distance, until it deployed the lander just days ago.



Finally Touching Down - An artistic representation of the Philae Rover first landing on the Comet 67P/C-G.
(photo credits - European Space Agency - esa.int)

Both Rosetta and Philae will [continue their missions](#) until Perihelion sometime around August 2015. The mission is due to conclude sometime in December 2015.

NASA AND ROSETTA

3 of the 21 instruments involved with Rosetta and its lander Philae - ALICE an ultraviolet spectrometer, MIRO a microwave remote sensing instrument, and IES the Ions and Electron Sensor are directly [contributed by NASA](#). Along with these direct contributions, the main electrical systems on ROSINA, another Ion sensing instrument were developed by NASA.