aut. Paweł Ziemnicki 05.12.2018

ICEYE-X2 AND PW-SAT2 IN THE ORBIT ALREADY. SPACEX IS BREAKING RECORDS

Falcon 9 launch vehicle owned by the Space Exploration Technologies company has successfully delivered several satellites into the outer space. The satellites have been placed in a heliosynchronous Low Earth Orbit. Among the platforms launched, numerous Polish accents could have been found.

Falcon 9 lifted off on Monday, 3rd December this year, 7.34 PM Warsaw time, from the Space Launch Complex 4E at the Vanderberg AFB, US Western Coast. The launch vehicle carried 64 satellites belonging to 34 entities from 17 different countries, including the ICEYE X2 satellite belonging to the ICEYE company founded in Finland and now also conducting its business activities within the territory of Poland.

Furthermore, ICEYE also works closely together with the Creotech Instruments company based near Warsaw. The aforesaid entity made significant contributions to the ICEYE-X2 building process. ICEYE-X2 is a microsatellite that is to gather radar imagery of the Earth's surface, with the use of a Synthetic Aperture Radar.

According to ICEYE, it was on 3rd December at 7.58 PM CET, when the first communications have been successfully established with the ICEYE-X2 satellite. Soon, procedures are going to continue, on checking whether the components of the satellite operate correctly. This is to prepare it for operational activities in the future.

> *If it weren't for the incredible hard work of our teams, as well as the continued support from our investors and advisers, we would not be where we are today. Although there's always challenging work to be done, we are extremely proud of the progress we've made within just one year. We're excited for what is to come in the near future and look forward to pushing the boundaries of what is possible even further.*
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> *Rafal Modrzewski, CEO and co-founder of ICEYE.*

When compared to the ICEYE-X1 platform launched in January, the X2 is capable of capturing hi-res imagery. ICEYE-X2 has been fitted with thrusters that make it possible to precisely control its position.

PW-Sat2 satellite was also launched with the use of the very same launch vehicle. This Polish satellite has been built by the students of the Warsaw University of Technology. This, in general, is the fourth

fully Polish satellite placed in the outer space, second one built by the students. Work on that satellite took more than five years, while the team involved in this mission has seen work of more than 100 persons.

PW-Sat2 has been sent to LEO, placed at altitude of 575 km. Its main task is to test a deorbiting sail that could be used as a rapid deorbiting tool. The sail will deploy around 40 days after the launch vehicle is sent into the outer space. This will happen automatically, should circumstances emerge in which communications are lost.

The aforesaid SpaceX launch vehicle also sent the ESEO/S-50 ESA educational satellite into the outer space. In case of its telecommunications suite, Warsaw University of Technology was greatly involved.

The lower stage of the launch vehicle has been reused for the third time in a row, with Falcon 9. This is the first case like that ever recorded. The said rocket landed successfully on a barque named “Just Read the Instructions” anchored in the middle of the Pacific Ocean. SpaceX also broke another record, delivering 64 satellites at once into the outer space. This is the largest quantity ever delivered, in case of the US launches.