

The English School in Nicosia, Cyprus reaches for the stars with Polycom® Trio™

“We were able to leverage all aspects of the Polycom Trio 8800 Collaboration Kit, the call, sharing visuals to the projector, even recording the historic event via USB drive.”

Chris Makovets, PM ICT Solutions



A wise person once said, “you should never stop learning, searching for purpose, and striving for greatness.” In Nicosia, the capital city of Cyprus, The English School recently excelled through its Amateur Radio Club by successfully calling the International Space Station (ISS). You might ask what Polycom has to do with amateur radio. Is there a new device on the market for calling to the stars?

One of many standout teachers at The English School is Ms. Katie Demetriou. Katie has taught at the school since 2010. She holds a B.Sc. Honors in Physics, from the University of Kent, and M.Sc. in Space Science from University College, London. A few years ago, one of her students proposed that the school’s Amateur Radio Club apply to speak with the astronauts onboard the ISS via the international Amateur Radio on the International Space Station (ARISS) program. After doing some research, Katie found the appropriate contacts and applications to start the long process. She also partnered with the Cyprus Amateur Radio Society and the national amateur radio organization for Cyprus.

The process began in November 2016 with the official request to the ARISS organization. Although hopeful, Katie had her concerns that her students may graduate before realizing their dream to speak to the astronauts. She felt that the small nation of Cyprus, with no financial contribution to ISS, had little chance to be approved. Furthermore, the average wait time, once approved, can be as long as three years. As it turned out, the application was accepted very quickly, and within 14 months, the school would be talking to an astronaut on the ISS.



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“I was so proud of my students as they stood to ask their question to astronaut Mark Vande Hei and thrilled the audience could hear the amplified exchange loud and clear.”

Katie Demetriou, The English School

As a matter of process, ARISS/NASA required a monthly check of each academic activity relating to science and astronomy. The reports covered such topics as the study of the Cassini spacecraft, its mission, and the results of its final plunge onto the surface of Saturn on September 15, 2017. The students also participated in teleconferences with the USA and Kition Planetarium and Observatory, where a former JPL engineer spoke about their involvement in building instruments for Cassini.

With the academics progressing, another challenge was how the students were going to make the connection to ISS. The school consulted with Chris Makovets, Managing Director of PM ICT Solutions, and Nestor Jacovides, President of the Cyprus Amateur Radio Society to provide technical expertise.

After research, the team decided a telebridge call would deliver the best results. This option involved a teleconference setup between The English School and an amateur radio ground station acting as a bridge between the teleconference and the radio link to the ISS.

The ARISS organization added a requirement that the selected conference phone be able to interconnect to the auditorium public address system and be able to avoid audio feedback—quality was mission critical.

Chris and Nestor decided to make the connection to the telebridge through the most awarded conference phone in its class—the Polycom Trio™. The call was to be placed over business-quality telephony (SIP) lines, as well as through a backup using the mobile phone network, both supplied by Cyprus Telecommunications Authority. Due to the requirement of high quality and availability, CYTA was the natural selection.

Astronaut Mark Vande Hei would need to hear each student on the large stage through Trio extended microphones. There was also a need to amplify the audio through the auditorium speaker system as well as share projected visuals. Trio's Collaboration Kit has flexible media options including audio line-out and the ability to wirelessly send content to a display or projector. Trio's Collaboration Kit was the perfect solution to interconnect to the theater audio system. It also allowed the audience to view shared visuals of the space station's location as it flew over the Earth. Chris knew the importance of the event and decided to record the audio by the Trio onboard USB drive.

The team completed the technical setup and testing. The event was a GO! On January 24, 2018, hundreds of students from neighboring schools, parents, news media, radio enthusiasts, and the Minister of Transport, Communications and Works gathered at The English School to witness this exciting event. Thousands more joined to see this first-ever ARISS contact for Cyprus over YouTube live streaming, and the ARISS Echolink channel broadcast live over amateur radio across the world.

At approximately 9:00 AM, the day's activities started with workshops about amateur radio and astronomy. Volunteers from the Cyprus Amateur Radio Society (CARS) introduced students to amateur radio and explained how it would be used to connect The English School to the ISS. Staff from Kition Planetarium & Observatory (KPO) taught a class on the ISS. At approximately 10:30 AM, everyone filtered into the auditorium to watch the connection to the space station. The questions had been prepared and sent to Mark in advance so as not to miss a single second of opportunity. The window for questions was only going to be 10 minutes long!

“We are thrilled to see this successful partnership between education and industry. The efforts of all involved inspire young people in Cyprus to think about worthwhile and attainable careers in space science and satellite communications, as well as the dream of becoming an astronaut.”

Marios Demetriades, Minister of Transport, Communications, and Works

On stage sat 15 students and Katie prepared to speak with Mark Vande Hei as he passed overhead at roughly 17,150 miles (27,600 km) per hour. The excitement was building as the telebridge ground station began to signal the ISS “NA1SS, NA1SS this is W6SRJ calling from California. W6SRJ this is NA1SS how do you read me?” [YouTube Link](#).

The ability to see visuals of the space station as it passed over the Earth added to the experience. One-by-one, the students exchanged their questions with Mark. The connection was so flawless in the 10-minute window that Mark prompted the students for an additional five questions—something rare indeed.

This groundbreaking collaboration between students, technology, ISS and the community helped demonstrate that Polycom Trio delivers quality and flexibility that is unsurpassed in the market.

The English School set itself apart by getting behind its students and staff. They partnered with their community and connected not only to the ISS but the nation of Cyprus. Their efforts will be felt for decades as students around the world think about how they can reach the stars.

About Polycom

Polycom helps organizations unleash the power of human collaboration. More than 400,000 companies and institutions worldwide defy distance with video, voice and content solutions from Polycom. Polycom and its global partner ecosystem provide flexible collaboration solutions for any environment that deliver the best user experience and unmatched investment protection.

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