Dr. Tom Yunck, Class of 1967, takes the stage…again!

Okemos to Space

October 1st, 2018

With a special invitation from 6th Grade Kinawa Montessori, Tom Yunck came back to Okemos as an inspiration for future rocket scientists.

The invitation from 5/6 teacher, Margaret Terry, was enthusiastically accepted by the Okemos track and cross-country legend and presented to 100 students at the Kinawa auditorium.

The original classroom presentation was moved to the auditorium when other

classes found out he was coming, “signed up”.

Tom graduated with the Okemos class of 1967, having left with cross-country (10:51, 2 mile) and track (4.21 mile and the first sub 2-minute half mile) records, then off to Princeton for Electrical Engineering, Yale Ph.D. and 1978 to NASA’s Jet Propulsion Laboratory in Pasadena, California. Early, in his lengthy career at JPL as Manager and Research Scientist, he proposed to GPS signals for atmospheric

Dr. Yunck shows the picture of his instrument and assistant measuring Continential Drift, in their textbook!

soundings and "fine tune" there signal from a 20-yard accuracy to an unheard-of millimeter precision. To test his new technology, he measured, mapped and **proved Continental Drift!** His worldwide sensors unraveled the mystery of Techtronic Plate continuous movement and allowed scientists to redraw the evolutionary map of Earth. Tom received a pleasant surprise to find a picture of his measurement instrument being field installed by his assistant, IN THE 6TH GRADE TEXTBOOK being used by the Okemos class! His technology is now even being used to predict earthquakes.

Tom started his presentation by asking if any of the students in the auditorium wanted to fly in space? To which most of the kids raised their hand! "Great,

because it will probably be someone from their generation that will fly to Mars", Tom predicted.

Proving Continental Drift was just a demonstration of what could be measured with his new technology. In 1988, Tom had "proposed" that by measuring the bend in a light signal, scientists could record measurements in the earth's atmosphere that could predict weather! The light signal was the GPS signal from a satellite and his patented technology could make the precise measurements. For pioneering the use of GPS for civil and scientific uses, Tom was inducted into the Space Foundation's Space Technology Hall of Fame. Besides "holding the patent", Tom has been involved in every aspect of using GPS signals to sound the Earth's atmosphere for weather prediction and climate change.

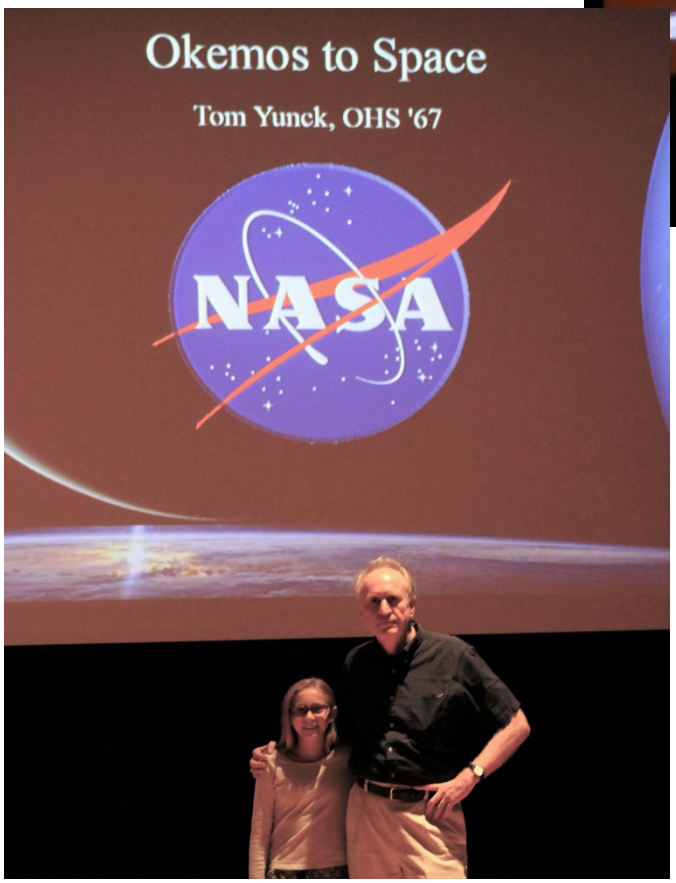
Tom Yunck tells the history of the US space program.

In 2005, Tom started GeoOptics and partnered with JPL for the next 3 years to develop a new design for

satellites to take advantage of miniaturization of electronics. By 2015, Tom's company was ready to launch a galaxy of "bread box" size satellites that would replace the out dated, SUV sized, behemoth's currently in orbit. By then, the US was out of the rocket business and the Russian Soyuz put the US on hold. Space X was not yet ready with their new rockets. Finally, in 2017, a rocket company in India "gave them a ride" with a perfect launch. Next, after many long drawn out launch delays, Rocket Lab in New Zealand [launched Tom's CICERO spacecraft on November 10 at 10pm (click here to watch the whole launch).](#) When all in place, the satellites will improve weather accuracy and detail by 30 times at about 1% of the cost. It will change weather forecasting forever.

1964 caught Tom daydreaming when pictures were sent back by a satellite that was sent crashing into the moon. "Live from the moon" and yet "we couldn't get TV from Europe back when I was in Okemos"!

All from our Okemos grad, class of 1967! Thanks, Tom, for your generosity of giving back to the latest generation of "Rocket Scientists" at Okemos.



"The Spark of Interest!" 7th grade Addie Terry wanted to hear Tom's presentation.