36.318 UE Woods was successfully launched from White Sands Missile Range, NM on June 1, 2016. The primary objective for this mission was to provide an underflight calibration for the EUV Variability Experiment (EVE) aboard the NASA Solar Dynamics Observatory (SDO) satellite. The EVE program provides solar EUV irradiance data for NASA’s Living With the Star (LWS) program, including near-real-time data products for use in operational atmospheric models that specify the space environment and to assist in forecasting space weather operations.

This was the fifth underflight calibration for the EUV Variability Experiment (EVE) aboard the NASA Solar Dynamics Observatory (SDO) satellite. Prior calibration missions have been flown on May 3, 2010, March 23, 2011, June 23, 2012, and October 21, 2013. This mission also provides underflight calibrations for solar EUV imagers aboard SDO, SOHO, GOES, Proba2, Hinode, and SEM irradiance instruments aboard SORCE XPS, TIMED SEE, and SOHO.

The Principal Investigator is Dr. Thomas Woods/University of Colorado/LASP
Rocket Week at Wallops

41.116 UO Koehler - RockOn! launched June 24, 2016

For the ninth year in a row the RockOn! student mission was flown successfully from Wallops Island, VA. The launch occurred on Friday, June 24th at 06:06 EDT with over 200 excited students watching their experiments head for space.

Three types of experiments were included in the 2016 RockOn! flight: RockOn Workshop experiments, RockSat-C experiments and Cubes in Space.

RockOn workshop experiments are constructed the week before launch at Wallops Flight Facility. Students arrived on Friday, June 17th and started experiment construction on Saturday. All experiments were ready for integration into the payload by Monday afternoon.

RockSat-C experiments are more advanced and designed and constructed by the students. This year nine Colleges and universities participated in RockSat-C with 93 students attending the launch on Wallops Island.

Cubes-in-Space is a program for students age 11 to 18. One inch cubes with student designed experiments are flown in the nosecone of the rocket. Students and teachers submit a proposal for an experiment to the Cubes-in-Space program. The proposals are reviewed and 80 teams are selected for flight on the rocket.

Click for more information on:
RockOn!
RockSat-C
Cubes-in-Space
The Wallops Rocket Week includes the Wallops Rocketry Academy for Teachers and Students (WRATS) workshop. The workshop is hosted by the Sounding Rockets Program Office and NSROC with support from the Wallops Education Office. 2016 was the 5th year of the workshop with 20 teachers selected from over 80 applicants. Teachers came from as far away as New York state and as near as Accomack County, VA. All participating educators teach STEM topics at the High School Level.

WRATS offers a unique, in-depth, learning experience were teachers not only get hands-on practice building rockets but are exposed to rocket physics through interactive lectures conducted by Office Chief Phil Eberspeaker. Topics such as aerodynamics, propulsion, recovery system design and trajectory simulations are covered in detailed presentations and then put into practice with rocket and payload construction activities.

WRATS starts with overviews of the sounding rockets program and model rocketry, followed by construction of an E-powered model rocket. Tours of sounding rocket Testing and Evaluation facilities and a visit with the RockOn workshop students are also included. By the end of the first day all teachers have a flyable model rocket.

On the second day teachers build an electronic payload to measure acceleration, temperature and pressure during flight. The payload is based on the Arduino microprocessor and inexpensive sensors. Recovery system design and construction are also completed.

Once all the construction activities are completed the models are launched and recovered at Wallops Flight Facility. Flight data is then plotted and analyzed.

The week ended with the launch of the RockOn! mission from Wallops Island.
Integration and Testing

36.301 & 36.306 GE PFAFF – Neutral Jets in Auroral Arcs
The main objective of this investigation is to understand the height-dependent coupling processes that create localized neutral “jets” in the upper atmosphere associated with the aurora, their driving conditions, and their associated heating and neutral structuring.

The auroral neutral jets experiment consists of two rockets launched simultaneously with different apogees -- 350 km and 175 km. Each rocket will be instrumented with plasma and neutral gas detectors as well as electric and magnetic field detectors. The high and low platforms will determine the jet characteristics simultaneously at different altitudes and show how the driving electric field and particle input vary within the 150 to 300 km range. In conjunction with independent wind measurements from TMA trails to 160 km, wind data will be gathered with in situ measurements to extend the jet profile to 350 km. Simultaneous measurements by the imaging Fabry-Perot system will enable a launch in the presence of a well-defined auroral neutral jet. This mission is scheduled launch in February 2017.

Testing of the water recovery system was conducted at the Chincoteague Bay Field Station (CBFS) boat dock on May 26, 2016. The payload, without instruments other than what was required to measure parameters applicable to the recovery system, was suspended from a crane and dropped into the water. The test simulated, as closely as possible, the environment during an actual mission. A successful test indicated that the system worked as designed with no water entering the payload.
Irvin and Bill working on RockOn and RockSat-C.

Shane practicing for 36.317 Hesh.

Valerie!

Nate and Terry teaching interns about rotation and alignment.

Still can’t find it!

On the web at: http://sites.wff.nasa.gov/code810/
## Launch Schedule CY 2016

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</table>

WS - White Sands  
WI - Wallops Island  
NOR - Norway  
FB - Fairbanks

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**From the archives – 36.150 NP Murbach, launched September 18, 1998**

[Image of rocket and team members]

Left side, front to back: Chuck Brodell, Mark Murbach, Tony Baldwin, Ed White, Right side front to back: Carl Snow, Will Holmer, Harold Cherrix

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**Want to contribute?**

Working on something interesting, or have an idea for a story? Please let us know, we’d love to put it in print!

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