

2018 NORTH CAROLINA SPACE GRANT CONSORTIUM

# AIRCRAFT READINESS ENGINEERING WORKSHOP

AT CRAVEN COMMUNITY COLLEGE IN HAVELOCK, NC MAY 20-25, 2018

IN COLLABORATION WITH NC STATE UNIVERSITY AND FLEET READINESS CENTER-EAST



Experience working directly with Department of Defense engineers from the Navy's Fleet Readiness Center-East Facility and discover the exciting world of supporting military aviation. Activities include:

- Hands-on exposure to topics such as Mishap Investigation, Power and Propulsion, Air Frames, and Composite Repairs
- Interactive squadron/flight line tour of military VTOL aircraft and simulators\*
- Exploration of Navy/Marine Corps Aircraft such as, V-22 Osprey, H-53 Heavy Lift Helo, AH-1 Cobra, and AV-8 Harrier Jump Jet
- RC build and fly competition



Registration Cost: \$1,300

## Workshop Registration Includes\*:

- Room, meals, and transportation to/from New Bern airport
- Workshop learning materials
- Aircraft Readiness Workshop T-shirt

*"It [the workshop] has opened my eyes to the aerospace world which I would not have even considered beforehand. The experience was truly life changing and has potentially opened a few doorways with a future in aerospace or something related."*

*"It gave me a refreshing taste of what it's like to be around really passionate engineers who are genuinely interested in the work they do and the purpose they serve"*

*"The tours this week have been mind blowing"*

Previous Participants

\*All schedules are subject to possible changes.

## Application Requirements:

- Must be age 18 or over
- Must have completed 1 year of college (university or community college level)  
*Mechanical and Aerospace Engineering, Aviation majors preferred*
- Must be a US Citizen

To apply, go to:

<http://ncspacegrant.org/aircraft-workshop>

by March 16, 2018

*Tuition and transportation assistance may be available through your local [Space Grant Consortium](#). Contact*



For more information please go to <http://ncspacegrant.org/2018workshop> or email Jobi Cook ([jobi\\_cook@ncsu.edu](mailto:jobi_cook@ncsu.edu)) or Susan Lloyd ([slprice@ncsu.edu](mailto:slprice@ncsu.edu))

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## Sunday

Arrival Day, Meet and Greet, RC Helicopter/Car Activity  
(Students will fly RC aircraft/cars, indoors/outdoors)

## Monday

Introduction to Military Aircraft Readiness, Overview tour of NAVAIR Facilities,  
Personal accounts of engineering's role in readiness, RC Aircraft Design &  
Construction Techniques  
(Student teams will be instructed on the design and building of RC aircraft)

## Tuesday

Mishap Investigation, Airframe Testing Methods, Aircraft Structures  
(Students will build a Remote Control Aircraft)

## Wednesday

Travel to Air Station, Air Vehicle Performance and Maintenance, VTOL  
**Squadron/Flight Line Tour** (Interactive tour of military VTOL aircraft with  
Active Duty Personnel and DOD Engineers ), Pilot Q&A, RC Design and  
Construction  
**Student interaction with a military simulator\***

## Thursday

Power/Propulsion, Aircraft Avionics  
(RC Construction and testing)  
UAV Flight Demonstration (Multi-copters)

## Friday

Operations Sustainment  
**Student RC Flight Competition**  
(Student built aircraft will be flown in live Dog Fight),  
**Semi-Formal Awards Celebration Ceremony**

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For more information please go to <http://ncspacegrant.org/2018workshop> or email  
Jobi Cook (jobi\_cook@ncsu.edu) or Susan Lloyd (slprice@ncsu.edu)

