**3x3 WIND TUNNEL**

**REQUEST and TEST PLAN**

SUBMIT TO: wind3x3@uw.edu

Project name:

Project Category (funded research, unfunded research, A&A academic, non-A&A academic, etc.):

Primary contact name, email, department:

PI/Supervisor name, email, department (PI MUST APPROVE TEST PLAN IN WRITING):

# of days requested including setup and testing:

Preferred dates for test (1 MONTH NOTICE REQUIRED):

List of names and UW email for **ALL USERS** attending the test:

\*\*ALL UNDERGRADUATE USERS must be registered for AA299, AA321, AA322, or be on an approved AA Capstone Team. By submitting this form, you agree that **YOU WILL NOT permit anyone into the 3x3 facility** other than those who have been approved IN WRITING by the wind tunnel manager. By submitting this form, you agree that **YOU WILL NOT WORK ALONE** in the 3x3 facility at any time. A minimum of two approved team members must be present to operate the wind tunnel.

Type of data to be collected:

Requested support (please include specific details).

Equipment:

Engineer assistance:

**TECHNICAL INTAKE**

1. Test velocities / velocity range: 5-50 psf / ~60 m/s:
2. Test article form (airfoil, full model, half model, car, boat, aircraft, etc.):
3. Test article weight and approximate dimensions:
4. Mount configuration (strut(s), tunnel roof, tunnel floor):
5. Will model mounting components and hardware be supplied by your team, borrowed from wind tunnel stock or need to be designed and/or fabricated by department staff?
6. What model motion is desired, the axis of motion and the ranges: angle of attack? yaw? translation?
7. What measurements are to be recorded and what are the anticipated magnitudes (forces, moments, pressures, rpm, vibration, strain)? Anticipated force/moment (rough estimate)?
8. Are the measurement transducers built into the model and/or supplied by the test team or is the tunnel supplied equipment to be used?
9. What, if any, observations are to be recorded (Flow visualization techniques -oil, clay, smoke, tufts-, photography, etc.)?:
10. Is data acquisition and recording hardware to be supplied by team or will facility hardware be required?
11. Is data acquisition and recording software to be supplied by team or will it need to be provided by department staff?