

COMPANY NAME: _____

COMPANY NUMBER: _____

2018 MATE ROV COMPETITION
Jet City: Aircraft, Earthquakes and Energy
NAVIGATOR CLASS SAFETY CHECK LIST

Companies must bring this check list, the ROV, tether, surface controls, and any other item used in the deployment and operation of the ROV; they will all be inspected as part of the safety check. In addition, the SID, technical documentation, and any additional documentation needed to verify compliance must be made available to Safety Inspectors during the inspection process.

1.0 Initial Inspection Results	
	0 to 10 points
	Fluid Power appropriate for class (manual pumps only) – see section 4.0.
2.0 ROV Physical	
	All items attached to ROV are secure.
	Hazardous items are identified and protection provided.
	ALL Propellers are completely shrouded or are enclosed inside the frame of the ROV.
	No sharp edges or elements of ROV design that could cause injury to personnel or damage to pool surface.
3.0 ROV Electrical	
	Tether is properly secured at the ROV.
	No exposed motors.
	Brushless motors are considered exposed unless electrically sealed after purchase. Companies should provide proof of sealing procedure.
	No exposed copper or bare wire.
	All wiring securely fastened and properly sealed*.
	Any splices in tether are properly sealed*.
3.1 Surface Controls Electrical & Physical	
	Single attachment point to power source.
	Anderson Power Plugs for electrical attachment
	15 amp (or less) single inline fuse within 30cm of power supply attachment point.
	Surface control station is built in a neat and workmanship like manner. No Loose components or unsecured wires. All electrical components covered inside an enclosure.
	Tether is properly secured at the surface control.
	No exposed copper or bare wire.
	All wires entering and leaving the surface control station must have adequate strain relief and wire abrasion protection as the wires pass through the enclosure. Tape, zip ties, string and similar methods are not acceptable
	If used, 120VAC wiring is separated from the DC wiring (used for AC powered monitor).
	If used, 120VAC wiring must be clearly identified from the DC and control voltages with signage and/or wire color schemes. If color schemes, key provided for identification.

	Cameras operate off the MATE 12VDC power supply through the single attachment point to power source
	All connectors utilized are properly type rated for their application. AC only rated connectors not be used for DC

*Properly sealed means that the wires cannot be exposed to water. Tape only sealing will allow the conduction of electricity through water.

At minimum joints must be soldered, then sealed with silicone sealant and then finally taped. For in water taping, silicone self-vulcanizing tape is preferred over thermoplastic tape. Cables with exposed male connections on both ends are not allowed.

4.0 Pneumatic / Hydraulic (if applicable)	
	Pneumatic or hydraulic diagrams present?
	Hand or Foot pump only?
	Uses water or air only?
	No Pressure Accumulators?
	Any container that air is being pumped into is vented to the pool with vent holes at least ¼” (6.35mm) diameter?

5.0 Lasers	
	No Lasers Present – Not permitted in NAVIGATOR class

INSPECTION #1	PASSED: 10 POINTS
FAILED: Items to correct: (see rear of this sheet)	
INSPECTION #2	PASSED: 10 POINTS
FAILED: Items to correct: (see rear of this sheet)	
INSPECTION #3	PASSED: 10 POINTS
FAILED: Reason (see rear for details)	
Total Safety Points	
Initial Inspection [0 to 10] _____.	
On Site Inspection [0 to 10] _____.	
Total Points [0 to 20] _____.	

Inspection #1: Items to address **Judge:** _____

Inspection #2: Items to address **Judge:** _____

Inspection #3: Reason **Judge:** _____
