

NIAS Pre-Mission Condition Setting E-Checklist

Certificate of Authorization (COA) Missions

UNR AirCTEMP's Mission _____

Airframe Tail # _____

Check all Boxed Items and Fill in all **Highlighted Items** for EVERY Mission

- ND/Master Service Agreement/Teaming Agreement signed by NIAS.

- Pilot PIC (400' COA or 200' COA) licensing (FAA private pilot certificate or FAA Sport pilot certificate) and visual observer requirements met. Pilots, supplemental pilots, which are those pilots assigned unmanned aircraft light duties to augment the PIC, and observers must maintain a current third class (or higher) airman medical certificate that has been issued under 14 CFR Part 67, or an FAA accepted agency equivalent based on the application. NIAS needs a photo copy of the actual license.

- UAS location is not within the 5, 3, or 2 NM distance to airport with or without a control tower, or a heliport, glider port, or seaplane landing area listed in the Airport Facility Directory.

- Aircrew operator's manual – how you train your pilots and manage aircrew and airframe safety – how is maintenance integrated into your safety process?

- Maintenance Manual – how do you repair your systems, track parts, and ensure the required scheduled and unscheduled maintenance is performed.

- Land permission letter from owner.

- *Privacy requirements met: check NV Assembly Bill 239, CA Assembly Bill 2306. OR State House Bill 2710.

- Completed Risk Assessment: Signed off by NIAS. NIAS will send you a template and you can modify.

- Completed lease document with all signatures.

- Completed mission public aircraft declaration.

- Copy of insurance certificate: one pager with coverage limits listed – List NIAS as additionally insured. Contact NIAS/UAS Governing Body at the soonest if you don't have any coverage.

- Copy of the list of airframes (by VIN and registered through the FAA) and list of aircrews participating in testing/mission execution.

- Emailed listing by name and what position each individual will lead on mission day.

- CRM and risk management crew refresher test sent by NIAS/ UAS Governing Body and completed by all aircrews participating on mission—satisfies COA SMS requirements.

- Copy of PIC designation letter from UAS and a statement that the PIC currency requirements have been met – three takeoff and landings in the same type/series/model N-numbered UAS and current medical have been met. This currency includes a review of aircraft emergency procedures (lost link, inflight malfunction, and recovery of downed aircraft).

- Maintenance readiness of your two systems (primary and backup) participating in the flight. Will the scheduled maintenance be complete before the mission day?

- NOTAM filed not more than 72 hours in advance but no later than 24 hours out: 1-877-487-6867 (NOTAM Flight Service Station).

- Media coverage – No media unless cleared through GOED Director of Communications.

- Airworthiness Statement issued by NIAS/UAS Governing Body to UAS Company before the mission day (last conditions setting step).

*NV: A person shall not operate a UAS within 500 feet horizontal distance or a vertical distance of 250 feet from a critical facility without the written consent of the owner. A person who owns or lawfully occupies real property in NV may bring an action for trespass against the owner or operator of an unmanned aerial vehicle that is flown at a height of less than 250 feet over the property.

*CA: Check CA particularly around LA.

*OR: Property Owners have the right to sue for trespassing a drone owner/operator if: 1) the drone has been flown less than 400 a.g.l. over the owner's property at least once, 2) Property owner has communicated to the owner/operator that consent has not been given, and 3) the owner/operator proceeds to fly over the property again.

I. ND/Master Service Agreement/Teaming Agreement

Example

NAIS and the University of Nevada have signed a teaming agreement

II. Pilot PIC (400' COA or 200' COA) licensing (FAA private pilot certificate or FAA Sport pilot certificate) and visual observer certifications

Example

PIC Warren Rapp is an FAA certified commercial pilot certified and current. Backup Pilot Susan Welsh is FAA civilian pilot certified. Observers Tyler, Sladek, Adkins and Gaffney will receive their VO certification prior to the flight testing.

III. UAS location

Example

The proposed flight operations are proposed to take place at the Palomino Valley Turf Farm and/or the Reno Radio Controlled Club (RRCC) flying area in Hungry Valley NV. The Palomino Valley Turf Farm is within 2 NM of several private airstrips. The RRCC facility is 2.4 NM from the Spanish Springs (N86) airport and ~6.2 NM from the Reno-Stead Airport. Neither are towered facilities.

IV. Land permission letter from owner

Example

Permission from the Land Owner will be secured on Monday, November 16, 2015

V. Privacy requirements met

- a. The UNR UAS will not operate a UAS within 500 feet horizontal distance or a vertical distance of 250 feet from a critical facility without the written consent of the owner.

VI. Completed Risk Assessment

Example

VII. Completed lease document with all signatures.

Example

If the aircraft and airframe are owned by the University of Nevada, Reno and operated by UNR. No lease agreements are required. Otherwise, a lease agreement is required.

VIII. Completed Mission Public Aircraft declaration

Example

The aircraft is solely owned by the University of Nevada, Reno. The University of Nevada, Reno is a public institution.

IX. Copy of insurance certificate(s)

Example

Insurance is provided by the University of Nevada under its State of Nevada insurance. A copy of the certificate will be provided.

X. List of airframes (and list of aircrews participating in testing/mission execution)

Example

DJI Phantom 2

PH646026958

N81NV

Aircrew: W. Rapp, C. Sladek, S. Tyler, R. Gaffney, S. Welsh

XI. Emailed listing by name and what position each individual will lead on mission day

Example

Scott Tyler: Visual Observer

Chris Sladek: Visual Observer and Drone Operator

Rowan Gaffney: Visual Observer

Warren Rapp: PIC

Susan Welsh: Back up Pilot

XII. CRM and risk management crew refresher test sent by NIAS to UAS and completed by all aircrews participating on mission

Example

All crew members have taken the refresher test.

XIII. Copy of PIC designation letter from UNR that the PIC currency requirements have been met – three takeoff and landings in the same type/series/model N-numbered UAS and current medical have been met. This currency includes a review of aircraft emergency procedures (lost link, inflight malfunction, and recovery of downed aircraft)

Example

See Attached PIC designation letter at the end of this document.

XIV. Maintenance readiness of system participating in the flight

Example

The DJI Phantom 2 has been pre-flight checked as per maintenance log and will be prepared for flight on Tuesday November 17, 2015.

XV. Notam filed not more than 72 hours in advance but no later than 24 hours out: 1-877-487-6867 (NOTAM Flight Service Station)

Example

To be filed after NAIS review of documents.

XVI. Media coverage

Example

No media coverage is planned for this activity.

XVII. Airworthiness Statement issued by NIAS to UNR

Example

See attached Airworthiness statement.

COLLEGE OF SCIENCES



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November 12, 2015

RE: PIC Designation for AirCTEMPS Mission Scheduled for November 17, 2015

Dear Chris

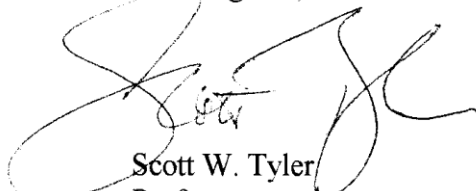
Warren Rapp, UNR's NAASIC business manager, will serve at Pilot in Command (PIC) for missions scheduled for November 17, 2015. Mr. Rapp has an FAA Commercial Pilot rating. He will serve as PIC for missions flown by N80NV and N81NV. Mr. Rapp is current in both aircraft, having performed multiple landings and takeoffs of these aircraft in Mongolia between September 30 and October 10, 2015. He is current in medical, and has reviewed the emergency procedures for these aircraft as laid out in CTEMPS Aircrew Operators and Maintenance Manual.

Again, thank you for the opportunity to support this outstanding researcher and educator.

Dr. Susan Welsh will serve as backup Pilot; Dr. Welsh will complete her FAA Class 3 Medical examination by November 17, 2015.

Please do not hesitate to contact me at 775-224-3815 or styler@unr.edu if I can provide any additional information.

Best Regards,



Scott W. Tyler
Professor



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16 November 2015

**SUBJECT: Airworthiness Statement (AWS) for operation of the UNR (Hydrogeology Dept.)
DJI Phantom 2 (N81NV) and DJI Phantom 3 (N80NV)**

1. **Scope:** This letter constitutes an AWS authorizing operation of the UNR (Hydrogeology Dept.) DJI Phantom 2 (N81NV) and DJI Phantom 3 (N80NV) UAS for operations at locations authorized under the NIAS/FAA OTA agreement. This AWS is intended to support the issuance of a Certificate of Waiver or Authorization (COA) from the Federal Aviation Administration (FAA). This UAS meets applicable airworthiness standards and requirements of the Nevada Institute for Autonomous Systems (NIAS) as outlined in the NIAS Aviation Safety Inspection, document number PMOUAS-AS-777-FLT-1-6-004, Rev#1 and according to a safety review board conducted the week of 16 November 15.

2. **Validity:** This AWS is valid for the period of performance outlined in the approved COA. Unless specifically reviewed by the NIAS Director of Technical Operations, this AWS is terminated upon changes in configuration of the subject equipment beyond authorized payload changes, or upon issuance of a later AWS, whichever occurs first. This AWS is valid only for the operations specified within the approved locations authorized under the FAA /NIAS OTA agreement.

3. **Point of contact (POC):**

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