**June 27, 2016 – OSU UAS Airfield**

UTC = local time + 5 hrs

Flights conducted 15-20 yards away from the Washington Mesonet Tower

Front

Back

Windsonde 733

Windsonde 739

Windsonde 737

Windsonde 738

All Windsondes located under the rotors and shielded by small PVC pipes (not in contact). See pictures below.

Flight 1 (Iris+)

Battery Number: 4

Windsondes: 733, 737, 738 & 739

Start Battery: 12.4 V

Start Direction: 96° E

Ascent Start: 19:31:19 UTC

Landed: 19:32:44 UTC

Second Ascent Start: 19:33:40

Landed: 19:34:16

Third Ascent Start: 19:37:03

Landed: 19:37:43

End Battery: 11.6 V

Remarks: The flight plan was to test all the variable systems of the Iris+ and make sure all of the failsafes were working. We were going to test the auto landing function as well as the battery failsafe. Due to testing these features we flew tethered with the fishing pole at a height no greater than 10m.

Flight 2 (Solo)

Start Battery: 98%

Start Direction: 96° E

Ascent Start: 20:22:14 UTC

Landed: 20:22:39 UTC

Second Ascent Start: 20:22:58

Landed: 20:24:10

Third Ascent Start: 20:25:16

Landed: 20:25:30

Fourth Ascent Start: 20:26:07

Landed: 20:27:13

Fifth Ascent Start: 20:29:02

Landed: 20:29:27

Sixth Ascent Start: 20:31:13

Landed: 20:40:32

End Battery: 6%

Remarks: Tested the failsafe and landing functions of the iMet Solo. Thermistors A and B were facing east. Sensors briefly dropped the signal approximately 10-12 times.

Flight 3 (Iris+)

Battery Number: 7

Windsonds: 733, 737, 738 & 739

Start Battery: 12.4 V

Start Direction: 96° E

Ascent Start: 21:16:04 UTC

Departed from 10m Aspiration: 21:16:17 UTC

Reached 100m: 21:16:57 UTC

Reached 200m: 21:17:39 UTC

Reached 300m: 21:18:24 UTC

Decent commenced: 21:18:34 UTC

Landed: 21:23:14 UTC

End Battery: 11.2 V

Remarks: The flight plan was to take off and fly to 10m and hover to aspirate the sensors. We would then go up to 300m at an assent rate of 2.5m/s. At 300m it will loiter for 5 seconds and then descend at a rate off 1.5m/s.

Flight 4 (Solo)

Start Battery: 94%

Start Direction: 96° E

Ascent Start: 21:42:49 UTC

100 meters: 21:43:55 UTC

Maximum Height (122 meters): 21:44:08 UTC

Landed: 21:47:18 UTC

Second Ascent Start: 21:48:52 UTC

100 meters: 21:49:46 UTC

Maximum Height (122 meters): 21:49:58 UTC

Landed: 21:51:15 UTC

Third Ascent Start: 21:51:30 UTC

100 meters: 21:52:54 UTC

Maximum Height (122 meters): 21:52:36 UTC

Landed: 21:53:49 UTC

End Battery: 37%

Remarks: Flew to 100 meters, then as high as the Solo would go, which is limited to 120 meters. Thermistors A and B were facing east. Sensors briefly dropped the signals approximately 10-12 times.