**3June 6, 2016 - Kessler**

UTC = local time + 6hrs

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

Front

Back

Windsonde 732

Windsonde 738

Windsonde 733

Windsonde 737

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

Flight 1

Start Battery: 12.4 V

Start Direction: 260° W

Windsondes: 732 & 737

Ascent Start: 18:30:57 UTC

Reached 100 m: 18:33:22

Reached 200 m: 18:35:47

Max Height: 760 ft

Coming Down: 18:36:14 UTC

Landed: 18:42:46 UTC

End Battery: 12.55 V

Remarks: The flight plan was to go up to a maximum height of 1000 feet at a 3 meter per second assent rate. We will climb to 10 meters and loiter for 5 seconds, and then proceed to 1000 ft. Times will be recorded every 100 meters on the assent. The flight was aborted early due to the assent rate being below expected at only 1 meter per second.

Flight 2

Start Battery: 12.4 V

Start Direction: 270° W

Windsondes: 738 & 733

Ascent Start: 18:39:49 UTC

Left 10m: 18:50:02 UTC

Reached 100 m: 18:50:58 UTC

Reached 200 m: 18:51:49 UTC

Reached 300 m: 18:52:37 UTC

Max Height: 330 m

Coming Down: 18:53:18 UTC

Landed: 18:57:45 UTC

End Battery: 11.04 V

Remarks: The flight plan was to go up to a maximum height of 1000 ft while recording time every 100m. We took off and ascended to 10m and loitered for 5 seconds before continuing the assent. A weather balloon was launched at the same time and we matched their assent rate. The decent rate averaged 2 meters per second.

Flight 3

Start Battery: 12.4 V

Start Direction: 260° W

Windsondes: 732 & 733

Ascent Start: 19:12:18 UTC

Left 10m: 19:12:35 UTC

Reached 100 m: 19:13:21 UTC

Reached 200 m: 19:13:56 UTC

Reached 300 m: 19:14:50 UTC

Max Height: 330 m

Coming down: 19:15:01 UTC

Battery Voltage at Max Height: 11.56 V

Landed: 19:18:29 UTC

End Battery: 11.24 V

Remarks: The flight plan was to go up to a maximum height of 1000 ft while recording time every 100m. We took off and ascended to 10m and loitered for 5 seconds before continuing the assent. A weather balloon was launched at the same time and we matched their assent rate. The decent rate averaged 2 meters per second.

Flight 4

Start Battery: 12.4 V

Windsondes: 738 & 737

Ascent Start: 19:27:46 UTC

Reached 100 m: 19:28:40 UTC

Reached 200 m: 19:29:20 UTC

Reached 300 m: 19:30:00 UTC

Reached 400 m: 19:30:40 UTC

Reached 500 m: 19:31:19 UTC

Max Height: 500 m

Battery Voltage at Max Height: 11.5 V

Coming down: 19:31:23 UTC

Landed: 19:36:45 UTC

End Battery: 11.0 V

Remarks: The plan was to climb to 500 meters at an assent rate of over 3 meters per second. Decent speed was around 1.5 meters per second.

Flight 5

Start Battery: 12.4 V

Windsondes: 732 & 737

Ascent Start: 19:47:25 UTC

Left 10m: 19:47:47 UTC

Reached 200 m: 19:49:02 UTC

Reached 300 m: 19:49:42 UTC

Reached 400 m: 19:50:23 UTC

Reached 500 m: 19:51:03 UTC

Reached 600 m: 19:51:41 UTC

Max Height: 606 m

Battery Voltage at Max Height: 11.4 V

Coming down: 19:51:41 UTC

Landed: 19:53:27 UTC

End Battery: 10.9 V

Remarks: The plan was to climb to 606 meters (2000 feet) at an assent rate of over 3 meters per second. Decent speed was around 1.5 meters per second.

Flight 6

Start Battery: 12.4 V

Windsondes: 733 & 738

Ascent Start: 20:13:25 UTC

Left 10 m: 20:13:50 UTC

Reached 100 m: 20:14:26 UTC

Reached 200 m: 20:15:06 UTC

Reached 300 m: 20:15:48 UTC

Reached 400 m: 20:16:31 UTC

Reached 500 m: 20:17:10 UTC

Reached 600 m: 20:17:46 UTC

Max Height: 606 m

Battery Voltage at max height: 11.35 V

Coming down: 20:18:05 UTC

Landed: 20:24:18 UTC

End Battery: 10.8 V

Remarks: The plan was to climb to 606 meters (2000 feet) at an assent rate of over 3 meters per second. Decent speed was around 2.5 meters per second. The voltage dropped to 12 V before 100 m, so we went up by 100m revaluating the voltage after 400m. We reached a max of 606m (2000ft).

For next time: Bring batteries (8 AA) for the transmitter.















