

Department of Electrical & Computer Engineering

Airborne Sampling/Sensing of Distal Volcanic Ash

Project Group Meeting #19

Minutes

**Minutes of the weekly meeting 26 August 2016**

**Present:**

Maan Alkaisi, Adrian Weller, Jamie Van de Laar, Jake Campbell, Mike Shanaher, Ryan Taylor

**1. Apologies:**

Parth Thakur

**2. Minutes from last meeting**

* (refer to Minutes, August 19 2016)

**3. Matters arising**

* Jamie and Maan will be absent from next meeting so a change in location is likely.

**4. Correspondence**

* All are CC’d in emails

**5. Progress Reports:**

* Mike Shanaher
  + Has gotten working telemetry. Now up to doing range testing.
  + Able to integrate the code in with the code Jamie has written for the two sensors.
  + Shielding of the electronics from the emi may be needed.
  + Asked Kelvin Barnsdale about telemetry range.
* Jamie Van de Laar
  + Measured the low rate of the OPCN2 to be 300-400 ml/min without the housing.
  + Conducted a smoke test on the housing and found the smoke is dispersed out of the sides rather than the outlet.
  + Looked at isokinetic inlets for the sensors that force the air in and subisokinetic inlets that slow down the airflow.
* Jake Campbell
  + Looked into the thermal constraints of the airplane. The inside temperature of the components has been assumed to be sufficiently high to prevent operation at too low temperatures.
  + Will look at the tether for the balloon as the orientation of the plane determines the sampling direction.
  + Investigate other airframe designs to get the best glide ratio and chance of returning.

6. **Other business:**

* Maan:
  + Pointed out that there is realistically only three weeks of progress left on the assignment.
* Adrian:
  + Reply from CAA, but non conclusive.

**Meeting ACTION LIST**

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| **ACTION** | **ASSIGNED TO** | **DUE DATE** |
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**Next meeting date: 2nd September 2016, 10.30am**