

Department of Electrical & Computer Engineering

Airborne Sampling/Sensing of Distal Volcanic Ash

Project Group Meeting #20

Agenda

Date: Friday September 1st 2016

Time: 10.30 am

Venue: Room 901, Central Library

Chair: Jake Campbell

Secretary: Parth Thakur

1. Apologies

Maan Alkaisi, Jamie Van de Laar.

2. Minutes

(Attached)

3. Matters arising

4. Correspondence

All CC’d in all correspondence

5. Progress Reports:

* Ryan – Ash sample capture, plane ash chamber
* Mike – Telemetry
* Jake – Other airframe design
* Parth – Electrostatic sensor

6. Other business:

* Next meeting – 9th Sep

Minutes from last meeting below:











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
  1. Has gotten working telemetry. Now up to doing range testing.
  2. Able to integrate the code in with the code Jamie has written for the two sensors.
  3. Shielding of the electronics from the emi may be needed.
  4. Asked Kelvin Barnsdale about telemetry range.
* Jamie Van de Laar
  1. Measured the low rate of the OPCN2 to be 300-400 ml/min without the housing.
  2. Conducted a smoke test on the housing and found the smoke is dispersed out of the sides rather than the outlet.
  3. Looked at isokinetic inlets for the sensors that force the air in and subisokinetic inlets that slow down the airflow.
* Jake Campbell
  1. 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.
  2. Will look at the tether for the balloon as the orientation of the plane determines the sampling direction.
  3. Investigate other airframe designs to get the best glide ratio and chance of returning.

6. **Other business:**

* Maan:
  1. Pointed out that there is realistically only three weeks of progress left on the assignment.
* Adrian:
  1. 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**