CanberraUAV Minutes/Notes

# Meeting 11 Oct 2012

Present:

Andrew Tridgell, Stephen Dade, Matt Ridley, Michael Fagan, Chris Gough, Jack Pittar, Andrew Moss, Dave Woodgate, Jonathon Parrott, Callum McKenna, Paul Tridgell (via phone)

## Incorporation

* Discussion of incorporating CanberraUAV into an incorporated association
  + Gives us legal protection on a personal level
  + We look more professional
  + Finances are held an a CanberraUAV account, rather than someone’s personal account.
* Vote taken – all in favour of incorporating.
* Office bearers – we need a President, Vice President, Secretary and Treasurer.
* We’ll use Tridge’s place as our “base of business”.
* President
  + Stephen Dade – nominated by Tridge and Michael. All in favour.
* Vice President
  + Chris Gough – nominated by Tridge. All in favour.
* Secretary
  + Andrew Tridgell – nominated by Andrew Moss and Michael. All in favour.
  + All in favour of Andrew Tridgell being the Public Officer too
* Treasurer
  + Paul Tridgell. All in favour

## Review of 2012 Outback Challenge

1. The good:
   1. Our airframe was far larger and powerful that any other team’s airframe. Good for flying in strong winds (which we did)
   2. Procedures and Checklists – we avoided potential disaster a number of times due to this
   3. Ground Control Station – many screens and operators to reduce the individual workload
   4. Testing – Our testing regime ironed out many bugs before they caused disaster in the Mugin
   5. Image Scoreboard – the judges were quite impressed by the easy readability of this
2. The not-so-good
   1. In flight troubleshooting. We’d never done this before. We should have a small team standing by to come up with reasons/solutions to any in-flight issues.
   2. Engine monitoring – we need (more) sensors on the engine. This includes: RPM meter, fuel meter, engine head temperature.
   3. Tail-mounted camera. So we can see exactly what is happening to the UAV when out of line of sight
   4. Better earpieces for ground communications. Walkie-talkies can’t be heard over the engine.
   5. Formal language and terms. There were some occurrences of people not being sure of what was being said.
   6. Direct GCS computer to pilot communications. The pilot needs error/altitude/speed readouts with low latency
   7. We had no recovery/packup procedure after flight.
   8. The pitot tube needs to be moved to the wing, where it has less of a chance of being damaged
   9. The antennas would work better if moved to the wings
   10. Dual APMS. We didn’t have time to fully implement this.
   11. Different bottle drop mechanism. This is fairly obvious.

## The Way Forward

* How far do we want to go with developing UAV’s?
* How commercial do we want to be?
* <Much debate ensured>

**Our Vision is thus:**

**CanberraUAV is a not-for-profit organisation dedicated to developing and promoting the field of civilian UAV’s**

CanberraUAV will focus on two major items (apart from the 2014 Outback Challenge):

1. Research and Development of hardware/software parts for amateur civilian UAV’s
   1. This will all be open source
   2. Piece-meal approach. We won’t be deploying complete UAV systems (apart from the Outback Challenge and flight testing)
   3. Any CanberraUAV member can R&D anything they think is worthwhile.
2. Educating the public about the potential uses of civilian UAV’s
   1. Collaborating with local search and rescue organisations with what they want from UAV’s
   2. Showing that open-source UAV’s are easy-to-use, safe, accessible, practical and affordable.

CanberraUAV funds will be used to achieve the above goals. The CanberraUAV membership will decide the level of funding any R&D sub-projects.

## Cyber Technology

* They have offered us another airframe
* We’re not sure if the airframe this will be suitable for us
* Jack will talk with them to get an idea of what they’re exactly offering and we’ll make a decision from there

## UAV mini-Challenge

* Andrew Moss’ idea
* Like a mini-outback challenge – smaller scale and easier
* Make it more fun and festival-like
* We could perhaps have a $1000 entry fee that would include a ready-to-go APM + plane to make it easier for high schools
* We could have a university division that has a slightly harder challenge
* CanberraUAV could do flight demos
* MHV could demo some ground-based robots
* Include a “multicopter rodeo”
* The high schools will need access to experienced RC pilots for the build-a-plane process. These could be drawn from the retirees at CMAC

## 2012 Outback Challenge

* If we have enough people, we could field 2 teams
* One traditional (Mugin) team
* One experimental (X8) team
* One team could be made up from the Dickson College students, but they would need mentoring

## Banking/Insurance

* Paul will handle to accounts and will start setting them up
* When this is done, Stephen will transfer the remaining CanberraUAV funds into this
* Best way for insurance to via the Outback Challenge
* It will be very hard to go-it-alone. Insurance companies are very nervous about UAV’s
* Thus, the insurance will only cover Outback Challenge preparation activities

## Money

* We need to sort out who owes who for all the Kingaroy expenses
* CanberraUAV will give Jack $400 for fuel (since he was towing the trailer)
* Andrew Moss will figure out accommodation payments and get back to us
* 3D Robotics has offered us $10,000 sponsorship

## Misc

* We need business cards. Stephen will look into this
* Certificates of appreciate for current sponsors – Stephen
* Update website and add a OBC 2012 page – move most stuff there