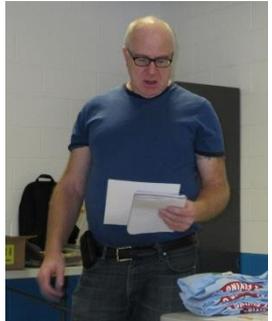


Meeting Report - March 8, 2017

Minutes of the BBMFC March 8, 2017 Meeting

<u>Item</u>	<u>Discussion</u>	<u>Action</u>
Meeting called to order	<ul style="list-style-type: none"> by President Chris Brownhill at 7:32 pm 	
Attendance	<ul style="list-style-type: none"> 14 members and guests were present. 	
Minutes	<ul style="list-style-type: none"> Acceptance of the minutes of the February 2017 meeting as published on the BBMFC web-site was moved by Naomi Macklem and seconded by John McFayden - carried 	
Financial report	<ul style="list-style-type: none"> Treasurer Naomi Macklem reported that the Club's coffers stand at \$2,472.49. Acceptance of the Treasurer's report was moved by Chris Hubbard and seconded by Bill Bowmer - carried. 	
Club Business		
	<ul style="list-style-type: none"> Chris summarized the discussion at the recent meeting to discuss the future of the Sport Race event. Following from the discussion at that meeting, the following rules were proposed for a replacement event - LA .15 Scale Racing (The following summary of the rules is unofficial). The complete proposed rules and a scale diagram of the OS LA .15 engine can be found on the BBMFC website) <ul style="list-style-type: none"> OS LA .15 engines will be distributed at the beginning of the race and collected afterwards. Doug Blackmore proposed that a pool of 8 engines will be maintained - he will be contributing 4 engines and hopes others will contribute. Chris Brownhill and Len Bourel said they would each contribute one engine It is intended that the engines would have C/L venturis. If only R/C engines are available (and replacement venturis/needle valves cannot be obtained), the carb will be wired open and the rear-mounted needle valve will be used. Only the Sig Shoestring and Buster kits can be used. Aircraft parts can be replaced with substitutes of the same 	

	<p>dimensions. The aircraft must be decorated as a racing aircraft with canopy, coloured finish and racing number on both sides of the fuselage and the top of the left wing.</p> <ul style="list-style-type: none"> ○ The landing gear can be modified provided the wheels are 3" apart and at least 1" in diameter. Len Bourel suggested 1.5" for grass surfaces and 1" for pavement. ○ The Dubro 402 2oz tank must be used and is to be mounted on the outside - unfaired, unpainted, and exposed. A fuel shut-off is allowed but is not mandatory. Refuelling will be accomplished using only a clear syringe. ○ Controls must be mounted and routed on the outside of the aircraft. ○ 52' x 0.015" lines will be used ○ A commercially available 7x6 propeller will be used. ○ There is no BOM rule but a single plane can only be entered once in a given race. ○ 100 laps for qualifying heats with 2 pit stops - 200 laps for finals with 4 pit stops - all races with two or three aircraft. ● Chris Brownhill moved and Doug Blackmore seconded a motion that the Club would purchase two additional LA .15 engines to make up the full pool of 8 engines - carried. 	<p>Club to purchase two OS LA .15 engines.</p>
<p>Club T-shirts</p>	<ul style="list-style-type: none"> ● John McFayden distributed the club shirts that were ordered previously - thanks to John for organizing the purchase 	
<p>T&D contest events</p>	<ul style="list-style-type: none"> ● FAI and 80 mph combat (Sat/Sun) ● Profile and MAAC stunt (Sun) ● Profile and Fun scale (Sat) ● LA .15 Scale Racing (Sat) ● John felt that we should limit the number of non-combat events per day to two - the two scale events essentially amount to a single event 	

60 th Anniversary contest events	<ul style="list-style-type: none"> • FAI combat (Sat) • Old time stunt (Sat) • Vintage scale (Sat) • "Old" Plane fun-fly (Sun) 	
SOCC events	<ul style="list-style-type: none"> • FAI and 80 mph combat (Sat/Sun) • MAAC and profile stunt (Sun) • Old Time stunt (Sat) • LA .15 Scale Racing (Sat) 	
April meeting venue	<ul style="list-style-type: none"> • Chris has lined up his church facilities for this meeting. He will advise of the location. • The Building/Beauty contest will be held as usual during this meeting. 	

Adjournment

	<ul style="list-style-type: none"> • Meeting adjournment was moved at 8:30 pm by Len Bourel and seconded by John McFayden - carried. 	
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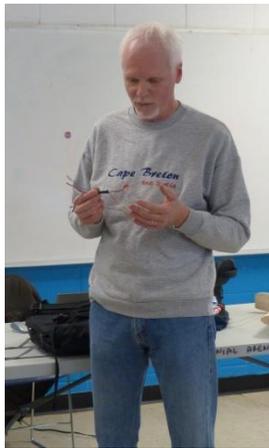
Special feature - Show'n'Tell

- Chris showed his 1.5x Skywriter for a .25 (original was powered by an .09)
- The wing was cut by Jack Nagao as reported during an earlier meeting and Chris lightened the wing by cutting out the bays between ribs.

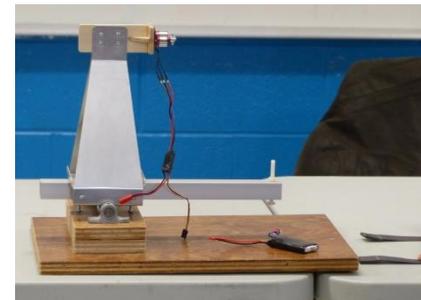


Special feature - Electric power primer

- Paul Emmerson provided a primer on electric power for control-line
- Brushless motors, electronic speed controls, timers, batteries, and chargers were covered by Paul.
- Timers are essential for control-line if electronic throttle control is not used - otherwise the battery will discharge below the safe level (3.0V/cell). The timer and speed control maintain a consistent rpm (with sensored motors).
- Advantages of electric power:
 - Low noise and vibration
 - No need to fuel-proof the aircraft and no cleaning-up after a flying session
 - Multi-engine aircraft are not as challenging and electric motors are usually easier to cowl (with cooling)



- Consistent power with rpm drop (warning) near end of timed run
- Considerations
 - Provide cooling airflow and/or heat sink for the electronic speed control and motor
 - Li-poly batteries need to be treated with care and respect - don't physically damage them - don't discharge too far - store and charge in a fire-proof bag/container (store at around 3.9v/cell) - limit the charging and discharging current based on the battery ratings - don't overheat
- Paul also showed his test-stand



Building a 50's era kit - by Rob Pringle

For the vintage scale event, bonus points are awarded if the aircraft is built from a pre-1970 plan or kit and uses a pre-1970 engine. I had picked up an "old" kit of unknown origin (no brand name) for a Skyraider AD-4 from everyone's favourite auction site some time ago so I thought I would build this kit for the event. This model is rated for a .29 - .36 cu.in. engine and has a 36" wingspan so I decided to use a Super Tigre .29 (FISE - not the rear valve racing model) that I have had for many, many years but which did not seem to be particularly well suited to a "normal" scale aircraft (no throttle) or a stunt/sport aircraft. The following ruminations summarize my thoughts so far on the process of building this kit.....

The trials and tribulations of building a 1950's control-line scale kit

- Wow – look at that nice spun-aluminum radial cowl – aren't radial engines supposed to be round?
- How old is the kit? How do I find out? The person or company that produced it was not even proud enough of their effort to sign the box or plans (or date them) - I don't think I would have either!
- Finding an engine of comparable vintage that actually turns over. Confirming that the engine you found might have enough power (when it turns over). When the kit calls for a .29 - .36, does it mean a 1950's .29-.36? How does a 40's, 60's, 70's, 80's (choose one) .29 - .36 compare? Oh well, some power is good, more is better, and too much is just right (or so they say).
- But oh that nice spun-aluminum radial cowl.....
- Fuselage formers and keels made from some ancestor of lite-ply glued together with horse glue or mucilage somewhat past their "best by" date– so fossilized that you can return these parts to their original form (unlaminated) without working up a sweat – have to replace them I guess...
- Fuselage formers with longeron and motor mount notches that do not line up and, if used, would result in a fuselage shaped somewhere between a banana and a Twizzler – have to replace these I guess....

- But oh that nice spun-aluminum radial cowl.....
- A fossilized plastic canopy that shows the effects of being made from a somewhat asymmetric form with plastic from a cookie package - plus 50 years of heating/cooling cycles and not-so-gentle handling. If a pilot sat under that, he would probably see three (or four) of everything in dubious focus - have to replace that I guess
- Plans that just maybe were printed on white paper originally (although you wouldn't know it now as they have developed a nice sepia patina)
- Plans that don't show (among many, many other things) what the wings and fuselage are to be covered with - there's enough sheet "balsa" to cover the wings (and I can't see another use for it) with some left over but the leftovers are not sufficient to cover the fuselage - going to be kind of draughty in there...
- Hmm - that symbol that I assume denotes the intended centre of gravity is awfully far back.
- Wing spars made of some exotic oriental wood (at least I think it's wood) - so dehydrated that they crack if you so much as look at them - have to replace them I guess...
- But oh that nice spun-aluminum radial cowl.....
- Where are the decals? Silly me - maybe decals weren't invented yet!
- Leadout guide/exits? What leadout guide? What exits? Where does it/they go? Leadouts? What leadouts? I wonder if that piece of string in the box was supposed to be used for leadouts.
- Interesting bellcrank - was the word "bushing" even in the dictionary of the day. Looks like they stamped it out with a crowbar and a sledgehammer - have to replace it I guess - now where is it supposed to go - can't see it on the plan.
- Why does the landing gear wire bend around the wheel when photographs show that it should extend straight down? Oh but they did a pretty good job of bending it - even looks pretty square in all three dimensions.
- I guess that engine was produced before mufflers were invented. What's that funny lever mounted on the front of the crank case? Why does the propeller have only one blade? (Just joking - I've always had a thing for old Super Tigres - the ones made in Italy)
- But oh that nice spun-aluminum radial cowl.....
- Those engine mounts look iffy - feel like Gummi Bears - they even curve to match the fuselage sides (OH - the fuselage sides are not THAT curved) - have to replace them I guess...
- Oh boy - cloth elevator hinges - my favourite - or at least I think they were cloth at some point in the distant past - now they look like discarded wrappings from an Egyptian-era zombie.
- This kit was apparently made in Japan and, also apparently, balsa wood could not be found in Japan at the time - so just what is the kit made of?
- A plan that doesn't match the kit parts. Do plans shrink? Or did the parts grow? Maybe when I taped the pieces of the plan back together, I was a little fuzzy on the alignment (probably should have left the wine alone until AFTER I did the taping...)
- Nice script on what little text was placed on the plan - at least they labelled the engine - otherwise I might not know where to put it - I guess the kit was not only designed to challenge your building skills - but also to challenge your mystery-solving skills.
- Did I happen to mention that nice spun-aluminum radial cowl?