

# Flying Futaba Newsletter

April 2025



As my friend Suart Claire would say, "How much is too much?"

## He who has the most toys wins (part 2)

This publication is primarily about flying, promoting Futaba products is part of that. Bear that in mind so with my salesman's hat on, shouldn't that saying read "He who sells the most wins." Which begs the question, how many is too many? I culled quite a few models three years ago with a view to finishing three build projects. One of those was a scale air racing event in Melbourne. Just when I thought that event was sorted and my workshop/hangar organised things changed. Again.

Children off my hands I downsized to a one bedroom flat eight years ago. Eight kilometres from the CBD my models are hangared in a car size storage unit at Kennards just down the road. There are a myriad of business operating here. Twenty four hour security at Kennards is a bonus. Another good thing about this arrangement is I can stuff around late into the night or early morning and not disturb the neighbours. Firing up the Dremel makes enough noise to wake the dead but I've never had a complaint from the Funeral Directors next door. Should a build or repair project turn into a six can job I can leave the car or motorbike and walk six hundred metres back home.

The workshop was sorted nicely until I put in a wall of Futaba gear six months ago. Then I had to re-arrange it again to fit a motorbike in. It's a tight squeeze now and I have to be very careful moving models around. With so many models monitoring battery pack conditions becomes an important consideration. So is maintenance. Remembering how to fly each type isn't much of a problem but which switches do what across multiple types becomes a challenge.

How big is too big? I don't know but the push towards half scale models has been on for some time now. Size is another consideration. Needing a team of people to put a giant model together does not interest me in the slightest. Everything in my hangar is a single pilot operation. Transported, assembled at the field to be flown by myself.

Back to the first question though. How many is too many? Geared up in flying condition I have seventeen. One of my mates has fifty, ready to go. A good number of those are in the 25 kg category. I won't get to that level nevertheless a few recent purchases playing catchup created space problems. Friendly competition between mates by way of banter fuels this fire. Mine's bigger than yours or look what I've got plays out right across the country at flying fields and garages every day.





Built by Craig Brister in Victoria I had to go to NSW to get it

Two of my recent acquisitions were of the two wheeled variety. Which is another interest for many aeromodellers. Quite a few also build guitars. Not me, although later in life after taking up playing keyboard I'm in a five piece band. Out of a large number of applicants I ended up as the singer too. If you think learning to fly a chopper is hard try singing and playing at the same time. A few songs playing Mode 2 are okay but introducing the left hand whilst singing still results in crashing. Destroying may be a lot cheaper and less time consuming compared to RC helis but three minutes on stage when it isn't working seems an eternity. .

### Scale Thermal Soaring

For yonks I've avoided making a start on the four and a half metre glass and foam Foka 5 purchased three years ago. Problem fixed, although I will have to hang my head in shame if I bump into Craig Brister or Tim Nolan around

the traps. A ready to go one came up on a Facebook site. Bought the fuselage from Tim, Craig put me in touch with Wayne Jones who to cut a beautiful set of foam cores. In my defence the components have been passed on to someone who will do a beautiful job of it. If he ever gets around to it. I've seen his workshop. And I thought I'd hung on to old stuff way too long.

What appealed to me about the Foka was simplicity. Plus I had a 2.5 metre Graupner one as kid. Two channels and a nasty tip stall. Milking low lift on sand dunes at Point Impossible Torquay I repaired those wing numerous times This big one has fixed gear and ailerons. No flap and I sourced a set of Aircraft Mechanics electric spoilers. These are available from a Model Engines dealer.

I've always wanted a Salto. Eyeing off the 4.2 metre Valenta Gilders version on Radio Active I bought one.



Four and a half metre Salto by Valenta Gliders will be my first SBus setup





More space needed

The website didn't have much information and I was expecting a glass fuselage with built up wings and stab. A phone call answered that and when it arrived I started unpacking an all composite model. Fixed gear, four flap wing with spoilers. Nifty canopy release that works well. Spot on sharp control surface fits, very happy with the quality. Six servo wing this will be my first SBus setup.

Amongst the many things competition flying has taught me, travelling long distance to any meeting with one model risks disappointment. The answer is a back up. Hence the Salto. Gliding is relaxing and the thrill of hooking a thermal and working back up to altitude is an enjoyable challenge. For me that can be from 100 feet to 1,000 or 1,500 depending on the ceiling height. A job made easier with an altimeter/variometer. Mine is set to



HD Model Design Extra professionally built in the 1990s by Bob Hurst

voice rather than beeping or buzzing. Landing and rolling it up to your feet sets off a nice flight too.

The other part of this activity is a glider tug. Or two. The new Seagull Cassutt airframe pictured on the left. The old one weighed in at almost 9kg. The new one should shave off some weight. The old one wasn't standard. Repairs after and engine failure found a wire fence, plus a smoke system, differential wheel brakes, altimeter, airspeed indicator and RPM, plus the 534g stunt pilot added up. Still it comfortably towed up a 9kg six metre glider at 500 fpm.

Number number two is the Extra 300. Glass fuselage has a ton of room for fuel. And a smoke tank for my Stunt Pilot WG Gilderslag. Engine wise I'm thinking a Zenoah G80 twin with spring start. Magneto ignition means one less battery to charge. A bit of nostalgia there too. I used to rely on those marvellous engines for commercial ops and they never gave me any problems.

## JET

Three engines in the cupboard and a half finished F-100 hanging from the roof. The thought of when will I ever get around to finishing it hanging over my head, I bought a MB-339 by Hangar 9. Was three grand for a film covered balsa ply film ARF good value? Yes. Nicely engineered construction and electric retracts, trailing link suspension and brakes, things have come a long way since I reviewed the ABS plastic fuselage Panther twenty years ago. One



The hangar before Futaba



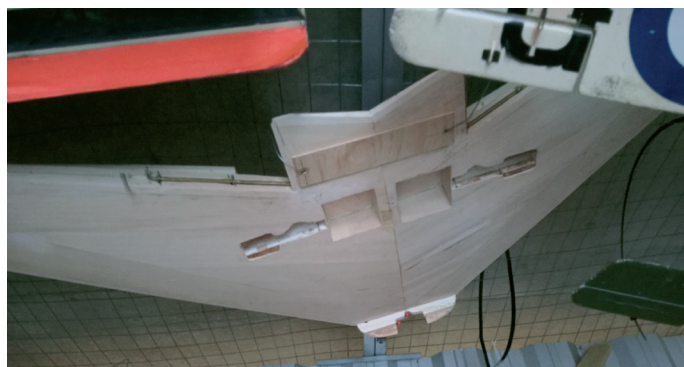


## F100 for 13 kg thrust

thing that impressed me was the 100 mm diameter twin wall tail pipe. That feature will restrict engine capacity to the recommended 6-8 kg thrust. Thus removing the temptation for people to overpower the model. Which is what happened to a number of those Panthers when “experts” started blowing the wings off. The last jet I had was this ABS plastic fuselage balsa-ply film covered BD-5.

Engine was another German Behotec 8.5 kg thrust with auto start. Butane was preferential to LPG as that gas tended to freeze up the valves during startup. Not long after it lit up the kerosine pump would start. That process took about one minute. Both models did a lot of flying. The retracts worked reliably but those oleo struts. Man they took a lot of work to sort out. Required constant maintenance too. The BD-5 the only jet invited to fly at the Grand Southern Cross Scale Rally at Luskintyre Park in 2012. Model was retired a few years later after flying at a full size airshow in the Yarra Valley.

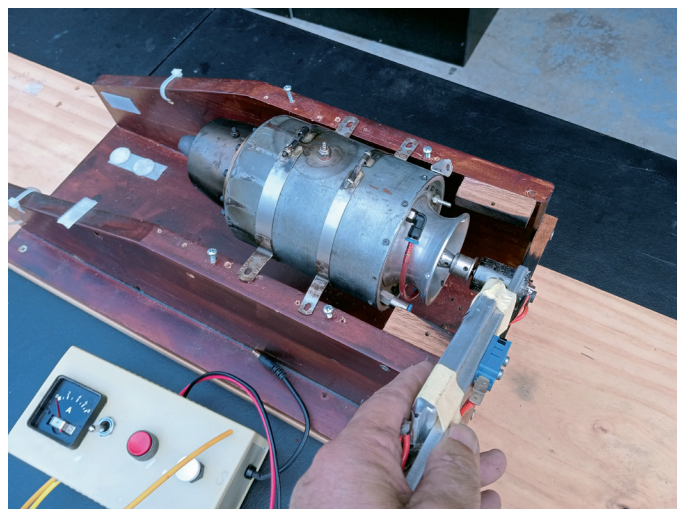
Flawless starts are the go today and from what I’ve observed the main reason for hot starts, flame belching out the tailpipe, with modern engines is filling the case with fuel when refuelling. A modern FADEC kero start engine I would bolt straight into the film covered airframe and fire it up. The manufacturer quotes 6-8kg thrust. Kingtech 8kg would be my preferred choice. Which I would purchase from Radio Active RC. That is a full time business that carries stock. Having known Steve Richardson for years I am already recommending his after sales service and back up, should it be needed.



Before making a decision on an engine I thought to put this GT2000 on the test stand and fire it up. The last time I remember flying it was at Phillip Island in 1999. Electronics are very simple. Idle and full power is limited by a case pressure switch. If I remember, 1.2 bar limits the thrust to 7kg at around 125,000 rpm. Throttle management is a delay timer (aka servo speed) with a servo driven fuel shut off. From memory the spool up time from idle was five seconds. Which is quite long by modern standards.



## Bolly Scorpion with an aerobatic wing

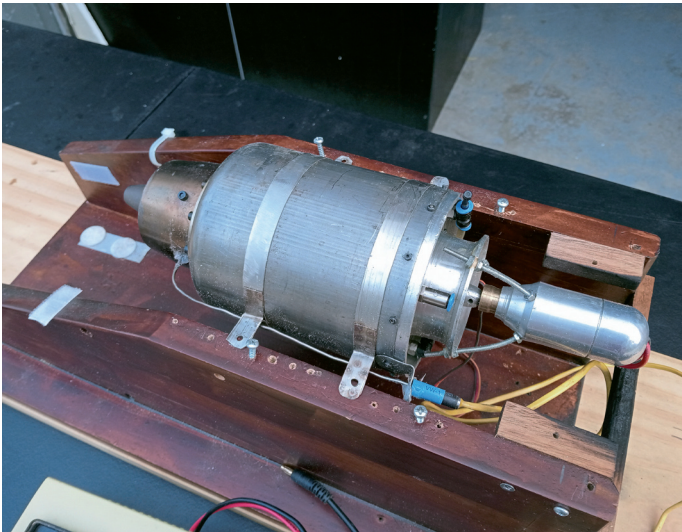


## GT 2000 manual start

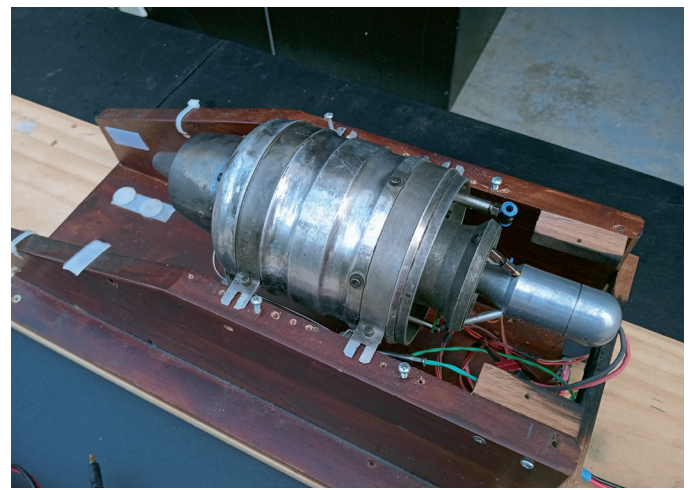


Standard 3.5kg/cm ball race servos all round proved up to the task in these 9 kg jets





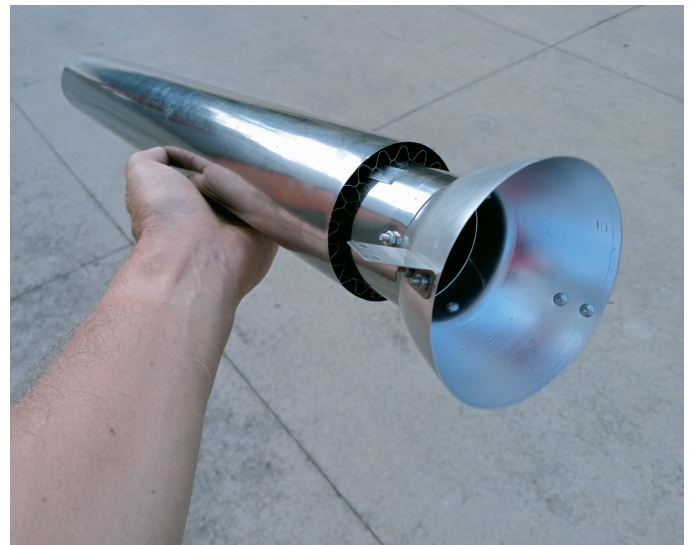
10 kg version



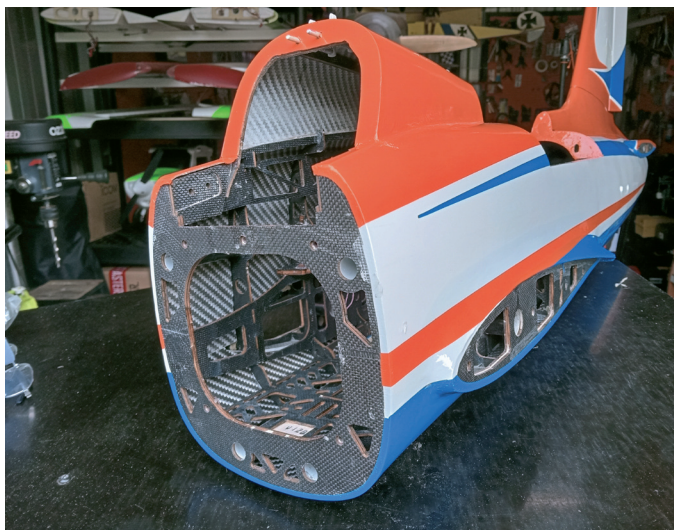
13 kg Australian manufactured TJT 3000



Household kerosene

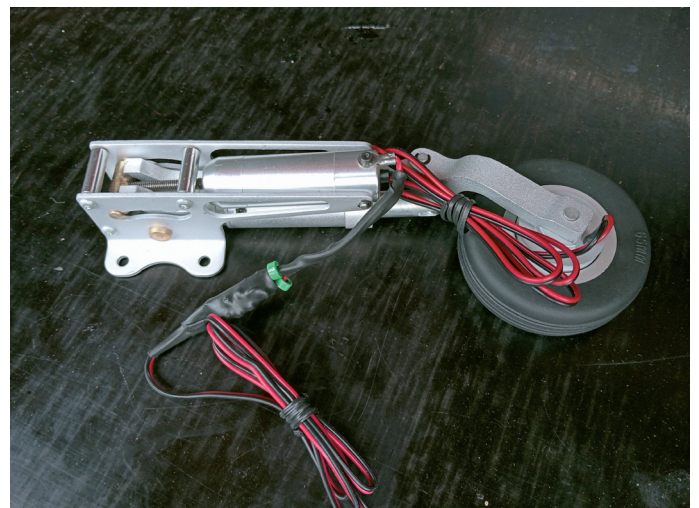


Thrust limited by 100mm inner diameter



Happy with the overall construction

Butane /LPG start. Starter is a high rpm 12 volt RC car motor direct on to the compressor wheel shaft. Good for around 24,000 RPM. A quick spin, light off the butane then hit the button. Switching to kerosine is the tricky bit. Sorting all that out on a test stand is the go. Fuel is home kerosine with 5% synthetic two stroke outboard engine oil. Home kerosine burns doesn't sound as fancy as Jet A1



Looks the goods

but it burns much cleaner. Two stroke oil doesn't sound as high tech as jet oil either but that stuff is not designed to be burnt in a total loss lubrication system. Flight crews have proven a link to it being carcinogenic.

Servos on primary controls will be the new Futaba A301s. Standard 3.5 kg/cm ball race servos coped fine in the 8.5 kg thrust Beotech engine in both the plastic Panther and BD-5. 8.5 kg/cm torque on 6.6 volts is way





Uh Oh he's got a jet

### Storage

more than adequate. Flap will be the U400s. I'm not in the habit of lowering flap at high speed so 7.1 kg/cm is more than enough. Reason for the difference? Coreless motors offer better feel than the standard 3 pole core motor.

The only change to the 339 I'm considering is to add a nose gear door. The retracts come with a door sequencer but the opportunity is there to demonstrate the built in sequencer in the Futaba 16iZ TX mixing menu.

Another consideration with big models is the amount of real estate required to hangar them. My storage space had to be reconfigured again for the big one pictured below. The little one is to ride from home to get on the big one. Kitting myself in full leathers to ride a 50cc wasn't quite the look I was after so they took up more wall space.

I've never dropped a big road bike but the same cannot be said for the 100cc category. Broken left collar bone and three ribs from a 110cc

postie bike. Did the right collar bone dropping a CB 125 at 5 kph. Yep. 5 kph. So I down graded to 50cc. It easily gets the jump on modern cars when the lights turn green. That would be the ones where the driver has to tap the accelerator to restart the engine. Fifty metres later it's time to look in the mirrors. Almost impossible to get a speeding fine another bonus.

### Transporting

Getting models to the field is another consideration when you go big. If you



Honda Today and Kawasaki ZX-7  
futabaproshop.com.au





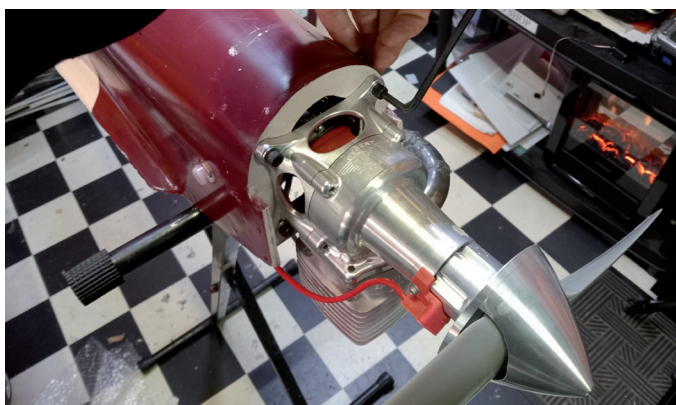
### Didn't make it to Heli Heatwave

have a model trailer one thing I strongly suggest to do is have the wheels balanced. Before that road trip to Luskintyre Park NSW in 2012 I had new tyres fitted but forgot to ask for the wheels to be balanced. Upon arrival a couple of screws had unwound and were on the floor. Which alerted me to check the models. A number of servo and cowl screws had worked loose.

I've never been a fan of station wagons and vans. The thought of a car accident with all that gear floating around the back puts me off. A ute or a sedan with a trailer is my preferred option. 1970s Ferrari dealers often lamented "Getting to a destination is part of the adventure". Spending the night sleeping in the back of the Ford Ute on the side of the freeway at Glenrowan last month was an adventure. Man those eighteen wheelers whizzing close by at 100 kph is something I don't want to experience again. The drive to Heli Heatwave at Cootamundra to collect the pair of petrol powered JR Voyagers snapped up for commercial work then on to Newcastle for the Foka didn't go to plan and both models cost me more than I bargained for. The auto transmission saw to that.

### More Unfinished Projects

Most of the models in the main hangar are geared up ready to go and I can easily get them down off the rack or ceiling with busting them. More space was needed to store the others which includes all the unfinished ones. First cab off the rank is this DA 85 quarter scale Miles Hawk Speed Six. Followed by the orange Mr Smoothie hanging from the ceiling. Did a great contra deal with Futaba servos for a spare engine. The Moki 60 has been tweaked by retired engine man Robin Hearn. Retired from engine tuning that is. The two racing machines were going to help promote



DA 85



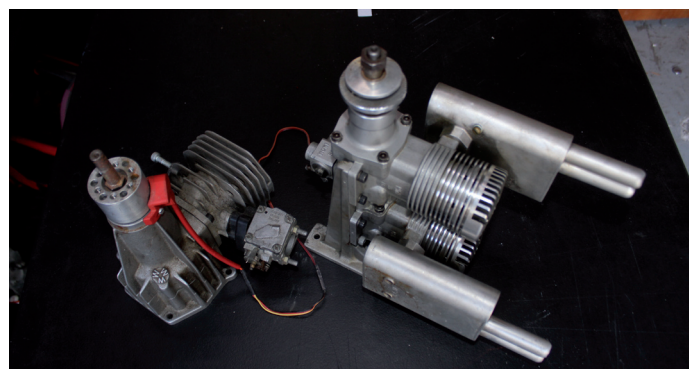
Big Helis don't take up much room



Small helis too

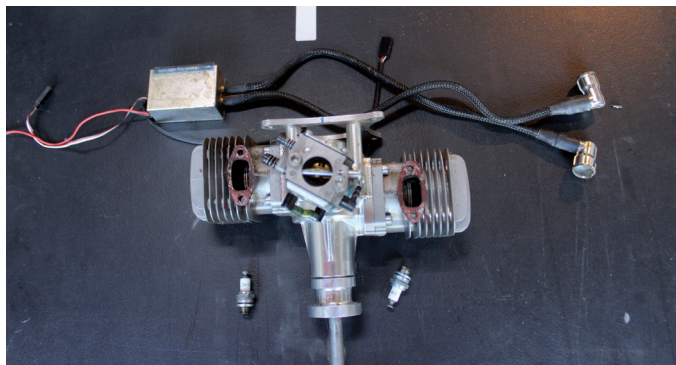


Mr Smoothie



3W 58 cc factory methanol and Moki 60





## Zenoah G26

Two choices here. The 1/4 scale SE-5 I've always hankered for is one. Grahame Goodson is building a Balsa USA kit for me. Wings framed up construction has reached the point the engine box is needed. Another consideration to replicate scale performance is can the full size be looped from straight and level?

Dad's electric powered quarter scale Fokker E111. easily loops from straight and level. Replacing that combo with a magneto engine might be the go.

## Not again

large scale air racing. That's been put aside for a year. Experiences promoting the hobby have been covered at rcmnews.com

As far as keeping old engines goes it seems I'm not on my own. They don't take up much room and some become a reminder of special models or events. Not sure what to do with the 3W. Not so with this next engine.

## 12s versus 60cc

The overall experience with this RCGF twin cylinder engine has disappointing. Initially okay but the mufflers were so loud it was embarrassing to fly it. The new Stinger version are baffled. RCGF canister mufflers were not available at the times so a pair of DL 30 cans fixed that. The engine started running on one cylinder and it was sent back to the importer, who returned it with a new ignition and reported no fault found. All good then after a few hours run time it happened again.

It fires up on one then juggling a slow idle after it warms up a bit rectifies the problem. Most times. The model will climb away on one cylinder. At the end of the short flight on two it reverts back to one and won't idle. Replaced the plugs, swapped them over, twiddled the leads for clean contact etc etc. I won't spend any more time with it. What to do with the Nemesis.



Zenoah 26 cc magneto engine

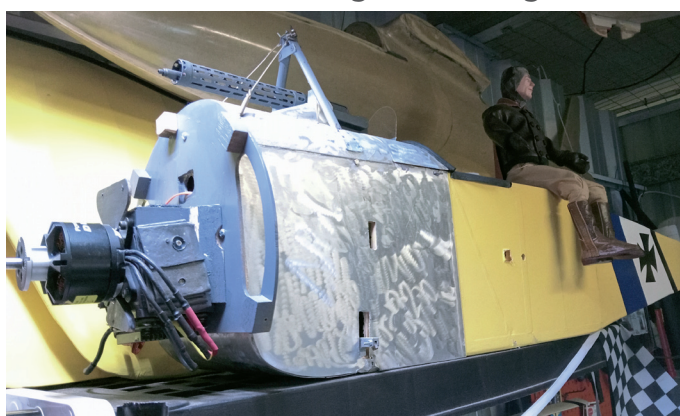


Is one WW1 Fighter enough?



## What to do now?

Running an APC 21x15 prop the 60cc RCGF twin cylinder powered Nemesis does 225kph straight and level. Can an electric powered version match that speed for ten laps? An expert in very high performance electric models has done the maths and is waiting on a prop to do the testing.



## Here's another Foamies

For quite the few years now the model industry has been producing 3S and 4S electric powered ready to fly product where you don't need a workshop in a garage or modelling room. RTF foamies can be assembled with a couple of screw drivers. No glue is required in some cases.





My first insight into the 6S market segment was reviewing the Multiplex Fun Cub XL. It's a great model. Not for beginners though. It does exhibit a strong tip stall when pushed hence why I wondered at the time how this \$600 price point would be accepted. Recently I found out for myself with two Flex Innovations foamies. Excellent performance, the RV-8 and C170 are for my rekindled interest in commercial RC flying.

### Servo Selection

Futaba has been in the process of updating its wide range of servos, which is why these were the last items I put into stock.

It's great to see the company finally competing with the multitude of aftermarket brands. Are servo power

recommendations on the Futaba USA website yet another sign of dumbing things down? Which continues to make inroads into model flying. Sure, when in doubt buy the best servos and leads you can afford but the A501 13 kg/cm torque rating suggested as the minimum for a 30cc powered model is simply not needed. This is complete overkill. High torque is required when high speed is coupled with extreme control throws connected to large control surfaces. Not everyone wants to hover an IMAC model then throw it about at full throttle.

Mine's bigger than yours or purchasing with the intention of going on to bigger models down the track are two valid reasons but to suggest this is the minimum required for a 5 to 10 kg model is ridiculous. That smacks of arse protection courtesy of good old USA's litigious culture.



Flex Innovations C-170 and RV-8 for 6S power





HV standard digital - metal output gear  
with two stage metal gears, ball race  
output shaft and coreless motor  
8.5kg/cm torque on 6.6 volts \$77  
9.0 kg/cm torque on 7.4 volts



HV standard digital - metal output gear  
with two stage metal gears, ball race  
output shaft, aluminium middle case  
and coreless motor  
13.8 kg/cm torque on 6.6 volts \$162  
16.8 kg/cm on 7.4 volts



HV standard digital - metal output gear  
with two stage metal gears, ball race  
output shaft, aluminium middle case  
and coreless motor  
38.6 kg/cm torque on 6.6 volts \$200\*  
41.0 kg/cm on 7.4 volts  
\*(approximate price to be confirmed)



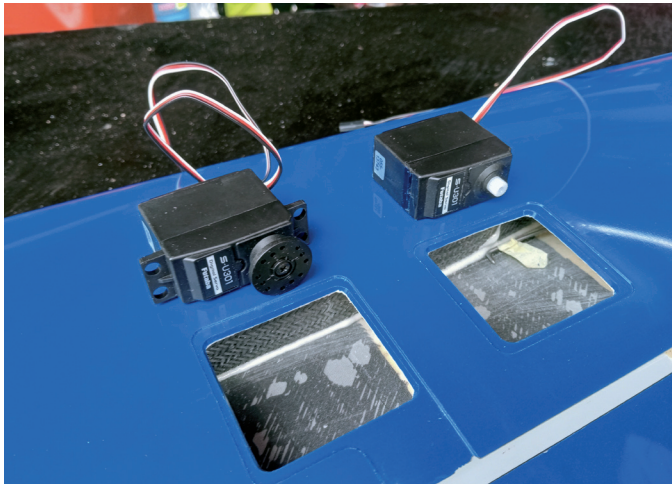
HPS A Series are Futaba's flagship  
competition servos with brushless  
motors



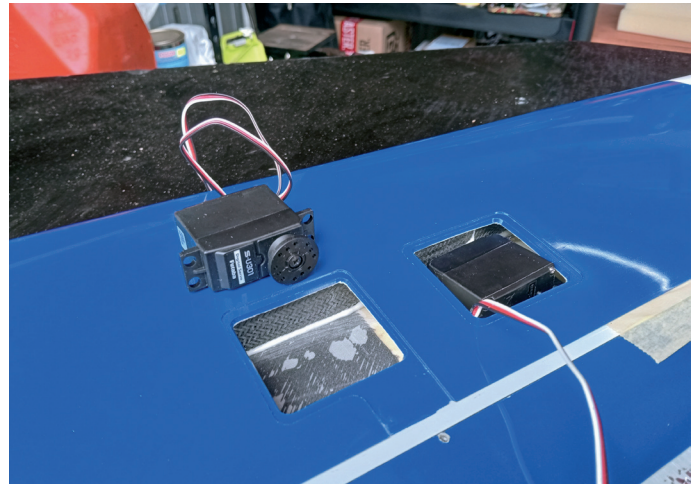
The 6.5kg/cm torque rating in my 250 kph (120mph) 60cc racing models has stood the test of time therefore the new A301 servos will be fitted to a few of my bigger models. I have no need for anything more. The wing on that twenty year old Extra 300 has quite a large aileron which is why it is built with two servos in mind. Torque from the A601 was not available then. One servo would be more than enough.

Six metal gear AG300 wing servos at 2.5kg/cm will suffice in the Salto wing. They have to. Trimming the mounting lugs to see if squeezing in mounting standard servos with double sided tape was a no go. Way to fiddly





Standard U301 HV digital servos



Too fiddly and didn't fit anyway



Metal gear coreless digital wing servos for a start and they didn't fit. By the way Futaba's double sided gyro tape is marvellous.

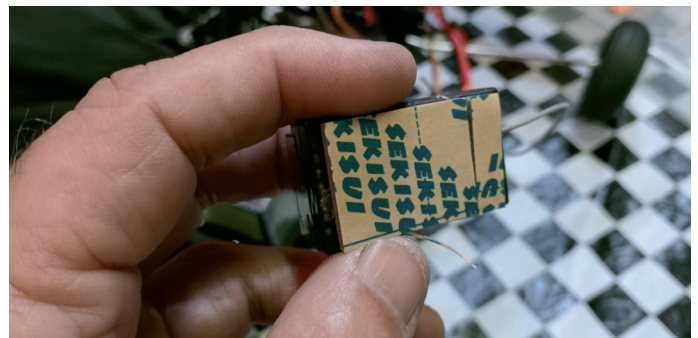
### F3a Standard

To compete in F3a aerobatics, in 1971, the model was placed on the strip in the take off position. When the Time Keeper started the stopwatch you had to start and tune the engine then leave the engine idling as you walked back to stand in front of the judges. The flight had to be completed within ten minutes. An engine that coughed and spluttered when you opened the throttle was not cause for an official downgrade, nevertheless it left the impression that you were not an expert. Not moving your body about as the model flew past was also part of that image. I have found making that discipline part of basic flight training pays dividends for sport fliers too.

In a nut shell flying that manouvre schedule was all about keeping the wings level and countering crosswind drift with rudder. Which leads me to another project.

### Print Magazine

To go ON SALE for Christmas, publishing a book/magazine about flying RC is half finished. Print and digital format it's about flying of course hence the title. These projects were needed to generate content based on the radio gear



Futaba gyro and servo mounting tape

To spend \$500 or \$5,000 this is THE BOOK

## How to become Proficient at RC Flying

PRINT \$25  
DIGITAL \$12



Flight Training



Basic Aerobatics



When its Windy



What Transmitter



Whats' a good trainer

### Come and Fly Better Day

How much should you spend?  
How many models is too many?  
Transporting to the field  
When the Engine Stops  
Do you need it or just want it?  
Chaos at Camperdown  
Radio Master 16 Crash Test  
Budget Price Big Model Servos  
Servo Selection

Mode 1 or Mode 2  
Beating your Mates  
Antenna Installation  
Stalling  
Electric Petrol or Glo  
Flying a Warbird  
Telemetry in Practice  
The IMAC Hangover  
F3a Standard



Fingers or Thumbs



Flying Safely

Flying Futaba is published by Futaba Pro Shop Melbourne





Bristol Freighter



The Brian Green Trophy

I'm selling. It will not be an in your face Futaba promo. That's not my style. Radio market share is won and lost where it counts. At the flying field. Warbird weekends and glider towing interest me. They also represent much better commercial value than air racing which looks destined to remain a fun competition event with so much potential. Winter is looming and this lot has given me more than enough to keep me out of the cold.

### But wait, there's more

I had to get a third storage unit. In there is a scratch built Bristol Freighter modelled of one of the multitude of aircraft Dad used to work on at ANA, Ansett Airlines and Trans Australian Airlines, aka TAA. Another keeper is his scratchbuilt Loadstar VH-DMG. Dorothy May Green

### Brian Green Trophy

Building an event to honour my father's contribution to competition flying has been put on the backburner for the time being. It was to be scale air racing in June but I've







January 2025, everything in its place, or so I thought



changed my mind to consider something else. At World Championship level Dad competed in F3A, F5B, F and F4C. Aerobatics, racing, gliding and scale, there are a couple of suitable more fitting alternatives from the early days, when I started flying RC, that could be revisited for next year.

In meantime, finishing my RAA Pilot License is number one priority. Spending as much time as I could with Dad was the reason it stopped in December 2023, ten hours logged. I'm so glad I did that. Three hours a week into my license solo is looming. It won't be my first. That was in a Cessna 172 out Moorabbin. The Vixen I'm learning in now is a ripping



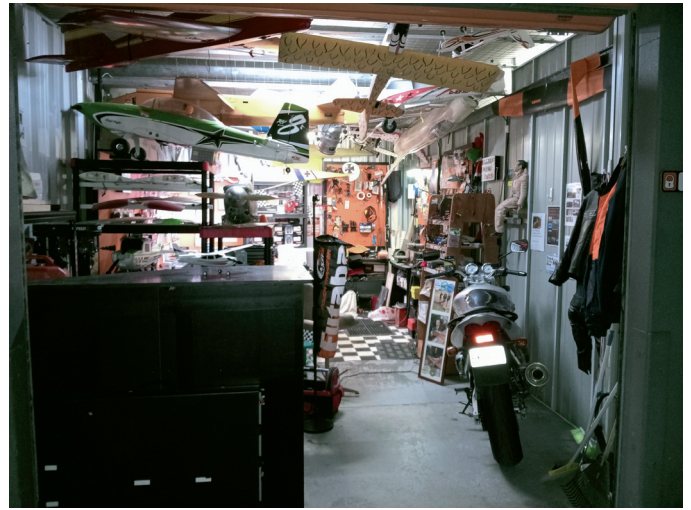


**Aeroprakt A32 Vixen**

little aeroplane. Open the throttle it's off into the air so quickly I don't get time to check airspeed alive and RPM in the take off roll.

Winter is looming. The heater has been test run and the hangar re-arranged again. I've made a mental note not to take on any more projects until some of these take to the sky. Oh there is one more. When the previous President Tim Nolan got the gig I asked what I could do to help make a difference. His answer was one person at a time.

You can read about it in the current edition of MAAA's Wingspan magazine.



**April 16th 2025**

A flying lesson booked for Good Friday and Easter Saturday then I'm off to Prop Head Teds over Easter. Prop Head products manufactures a range of excellent stands to hold large and giant models. Teddy doesn't fly Futaba but that may be about to change.

Happy Landings SJG.



**Prop Head Products**

# Futaba Pro Shop Price Guide April 2025

## Transmitters

32MZ WC	\$3990
26SZ	\$1625
16iZ Super	\$ 985
12K	\$ 585
10J	\$ 585
6K	\$ 383
6L	\$ 145

## Air Receivers

### FAASTest

R7114 \$279	R7308 \$229
R7306 \$159	R7301 \$140
R7103 \$159	

### T-FHSS

R3008 \$99	R3006 \$89
R3104 \$	R3106 \$
R2008 \$91	R2001 \$69

### 990MHZ

R9001 \$192
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## HV Servos

U301 \$31	U400 \$45
A301 \$78	A500 \$171
A601 TBA	AG300 \$

## Standard Servos

U300 (4.8-6 volt) \$20
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## Gyros

GYA 440 rudder elevator	\$ 89
GYA441 aileron elevator	\$ 89
GYA 451	\$118
GYA 553 three axis	\$233
GYA 750 3 axis with RX	\$

## Telemetry Sensors

Altitude 01A	\$ 55
Airspeed 01TAS	\$130
RPM Opto	\$ 45
RPM Magnetic	\$ 85
Voltage 01V	\$ 52
Current 01C	\$ 99
Servo 01VS	\$ 49
Temperature TE	\$58
Temperature	\$125
GPS 02GPS	\$225
CARVIN	\$ 22

## RX Battery Packs

F2FRF 1800 mAh 2S LiFE	\$76
FTF1800 mAh NiMh 5 cell	\$

## Switch Harness

ESW-J FET 10 Amp continuous	\$57
ESW-D FET 30 Amp continuous	\$81
SSW-J standard low voltage	\$17

Deciding how much it will cost to set up a new model using a website can be a bit tedious. Here is a more convenient guide. Prices don't included cents and are rounded up to the next dollar. Please note the website is the actual reference for current pricing

## HD Extension Leads

100mm \$16	150mm \$16
200mm \$16	300mm \$16
400mm \$17	500mm \$17
1000mm \$26	1500mm \$27
Y Lead	\$24

## SBus Leads

100mm \$35	200mm \$16
300mm \$37	500mm \$39
1000mm \$26	1500mm \$43

## SBus Junction Box

4 Point \$23	6 Point \$26
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# Transmitter Switch Allocation

LD Mixing adjustment

SF Retracts

SE Three Axis Gyro

SA Dual Rate

SB Auxilliary

Slider Telemetry  
SF Retracts



LD Mix adjustment

SH Trainer

SG Engine cut

SD Dual Rate

SE Flap

Slider Telemetry

This page started with self preservation in mind and I have printed and laminated a couple of copies. One for the hangar and one in the TX case. This transmitter was a production sample on Mode 1 which I converted to Mode 2. My diverse range of model types include Fixed wing and helicopter with glo plug, spark ignition and electric

motor, glider with flap and or spoilers, retractable undercarriage, telemetry downlink, gyro systems and flight training it has taken me ages to decide on a standard setup.

Sport flying with mates, competing are other factors. Telemetry switching requirements used for glider towing or air racing differ.

Racers use airspeed and RPM on the right slider. Ditto for glider tug with altitude and variometer on the left. Voice gets drowned out as other piston and turbine engines take off so ceiling height limits and low battery alarms are set with the buzzer. Low battery is the most urgent vibration alert.