

F3A World Championships – 2015

Australian Team Report

The World Championships for 2015 were held at the Dübendorf Military Airfield in Zurich, Switzerland from August 7th to 15th 2015. It was a special anniversary event as the first F3A World Championships were held here in 1960.

Overall the Australian team finished as follows in a field of 101 competitors from 35 countries:

- Bill Bloodworth: 41st
- Glenn Orchard: 70th
- Dennis Travassaros: 74th
- Team overall: 16th

Our summary thoughts fall into two areas.

On one hand we have done a lot of things right and can see the potential for Australia to be a top 10 contender as a country, and to have pilots in the top 30. Two of Bill's flights were up there, and a third of that calibre would have delivered a semi-final berth. While not packaged quite as well on the day, both Dennis and Glenn also put in strong performances with large sections competitive with the talented field - but the minor deviations were heavily penalised given the quality the judges were used to seeing, and anything less than stellar opening manoeuvres seemed to frame an expectation for the whole flight that was hard to shake. Overall our decisions on size, speed, models and powertrains, and what we practiced over the past 7 months were on target - and we are encouraged by that.

On the other hand we are disappointed. We simply didn't turn our potential into demonstrated performance on the flight line on the day, and didn't meet our aspirations. No excuses here - we fell short and didn't get the reward we wanted from our efforts.

Moving on from that, the team that have been working together to shape our program since January feel we are on the right track. Our shared Victorian base has made this easier, and individual initiatives have broadened our experience base - including Glenn's US Nationals trip last year, and Russell Edward's European sortie. We wouldn't change our early forensic work on the schedule, or our foray into some of the mental preparation thinking, or simulated competition pressure. But they weren't enough to deliver a consistent performance this time around.

While we cannot pin-point any single factor, the common theme in our discussions so far has been that we simply didn't adapt to the conditions fast enough, and it kept catching us out. Some of this can be addressed through modifications to our preparation and use of acclimatisation time, other parts we are still debating. We also look forward to closing the loop with Tom Bloodworth now his official judging duties are over.

The balance of this report sets out more detail around:

- The Team
- Pilot Preparation
- Administrative Preparation
- Practice in Europe
- The Venue
- The Championships
- Harnessing the Learnings

The Team

When the journey started back in January, the core team was Bill Bloodworth, Glenn Orchard and Dennis Travassaros as Pilots, along with me (David Gibbs) as Team Manager.

- Bill's international experience includes 3 World Championships and 6 Asian Championships as a pilot
- Glenn's international experience includes 3 World Championships and 3 Asian Championships, as well as the US Nationals in 2014 as a pilot. Glenn has also been Team Manager for an Asian Championships
- Dennis's international experience includes 1 World Championship and 1 Asian Championship as a pilot

This was my first exposure to the Team Manager role.

The core team was quickly complemented with our two helpers / supporters, Russell Edwards and Norm Morrish, both of whom played significant parts in the outcome.

Russell planned to be in Europe from May through to the end of July on the European F3A World Cup circuit, and then join up with us in Zurich at the beginning of August. This proved a great conduit of information on European pilots and flying styles, as well as helping with local logistics ahead of time. Russell is President of the Australian Pattern Association – the F3A Special Interest Group in Australia.

Norm played a valuable role on two fronts. First, in helping the team secure privileged access to the P&DARCs flying field for team practice, including allowing Norm's caravan on site when Glenn Orchard came to Melbourne for weekends. Second, as Glenn's dedicated caller and training partner, providing an important link between Glenn in Mildura and the rest of the team in Melbourne.

While not a team member, it is also important to mention Tom Bloodworth who represented Australia as an international judge at the World Championships. He participated in much of our preparation, and we anticipate will be an important part of extracting lessons from our experience for future teams now his official duties are completed.

With all of the team Victorian based, communication and joint training sessions were relatively easy to coordinate.

Pilot Preparation

When I was approached to be Team Manager the discussion was as much about the technical and skill preparation of the team as the administration.

The preparation fell into three broad phases:

- Phase 1 – Forensic Analysis
- Phase 2 – Mental Preparation
- Phase 3 – Rounding

Phase 1 - Forensic Analysis

Early on in our team meetings we made firm decisions around our target flying style and approach to coaching and feedback. The pilots felt this important based on prior experience where many and multiple inputs from enthusiastic supporters around flying styles and fashions can buffet the team. These were:

- Base our preparation on a low risk flying style – so mid-sized manoeuvres at mid-distance and mid-speed flying, and to attempt to stick to this throughout. At that stage we anticipated many Europeans flying small, close and slow with contra-drive motors, and Japanese / USA flying bigger and faster.
- Channel our feedback to pilots through a single ‘coach’ and practice program that would help separate the systematic errors over time from the once-off errors that pop up in any flight.

We also modified our tracking from simply looking at scores for a given manoeuvre, independent of K-Factor, to looking at the biggest gaps to the perfect score once K-Factors are applied. This had a big impact on our focus.

During this phase many observed (or participated in) sessions where we would have 5 or 6 observers watching different aspects of each pilot’s flights and marking any thoughts on Arresti diagrams, followed by a comprehensive debrief and discussion with the pilot. From this the pilot and their coach would adapt and refine their practice program.

Over the first three months we held 4 full day sessions with all pilots involved, and many with 1 or 2 two involved. It developed invaluable foundations, and a much deeper understanding of the required geometry for the P-15 and F-15 schedules, and systematic sources of errors.

Phase 2 – Mental Preparation

Around the time of the Australian Master’s in late March we began to explore a second area of our preparation. This partly came from a setback with Bill having a catastrophic failure of his new biplane a couple weeks shy of the Master’s, partly from the Master’s itself where it was clear that the team member’s performance under pressure was short of that in practice or less pressured competitions, and partly from discussions around previous experience at international competitions.

We quickly found an abundance of resources around the topic – with one of the more interesting parallels being figure skating where the competitor’s face a similar set of performance challenges – weeks and months of preparation for 2 or 3 critical solo performances in front of a panel of judges.

It also became clear that each of the pilots found useful help in different areas – ranging from relaxation the night before, through immediate pre-flight routines, to mental disciplines during flights to ignore external influences and quickly refocus after errors. An equally important lesson was separating the times for critical, forensic feedback, from the times where it is more important to create a relaxed and supportive environment in which the pilots can perform what they have practiced.

On balance this had a positive impact, and certainly has more potential moving forward. We have an embryonic set of materials and experience to build upon in future.

Through this phase we did less detail forensic work, and more practicing flying under pressure with callers, judges and observers.

Phase 3 – Rounding

Our final phase leading up to departure was more rounding what we had been working on into a confident package we could take to the World Championships.

Russell was now in Europe and feeding back information on their flying and judging styles, and in Australia we continued refining model set-ups and participating in all the local competitions.

We did have another setback late in preparation when Glenn damaged a model three weeks out and had to rapidly commission a new plane to take with us.

Administrative Preparation

As a newbie to the Team Manager role I interviewed many of the prior managers and read the available reports. That provided useful context, but the devil is in the detail on the administration side and I didn't find a guidebook. There is a lot of behind the scenes work to coordinate logistics and manage the process. In this instance our groundwork paid off and things worked out as well could be planned, subject to the inevitable bumps that cannot be anticipated.

Practice in Zurich

Preparation complete, the team set off on July 31st, all leaving from Melbourne on the same flight. We had no issue with model boxes and excess baggage, but quickly learnt that customs have their own view on Li-Po batteries and do not place a lot of weight on letters from the airline. We worked through this with customs and got through intact.

There was no damage in transit, our rental vehicles met us at Zurich airport, as did Russell, and all went well on arrival at our hotel. There was plenty of space to unpack models, and our rooms were big enough to house us, model boxes and all our gear. We also discovered we had arrived on the Swiss Nations Day celebration – so most things were shut and we were greeted by lots of fireworks. One minor setback was Swisscom at the airport running out of SIM cards! So we had to wait a few days to solve the mobile communications and data issues – which did make navigation and travelling in convoy a little entertaining. Google maps 'go map' feature, which allows you to store a map in your phone and navigate to it, was a saviour.

The next morning started our team routine. The full hot buffet breakfast with real coffee machine included as part of our hotel booking became a daily team fixture for reviewing and planning our activities. An added bonus was the hotel not minding Russell camping in his camper van in the car park – keeping him close to us.

For the first Sunday we headed to our primary practice field to be greeted by our host – Heinz Polster – at Modellfluggruppe Zurich. Heinz quickly endeared himself to us with a full briefing on the local hazards – Ticks (we hope we survived unscathed), European Wasps (multiple bites each – to the extent we agreed if bitten while flying just keep going), and Tiger Mosquitos. He also introduced us to the 10Kva generator, coffee machine and BBQ.

Our formal practice flights at the official location were not until the next Saturday so we spent the best part of 6 days practicing here – in the forest as we called it. Over that time we shared it with the teams from Colombia, Taipei, Canada, South Africa and Israel, but at its busiest there were only ever 8-10 pilots there at one time. We did make three half day excursion to other fields with a

‘cleaner’ horizon – similar to what we expected at the official site, and we also took off a half day for sight-seeing when cyclonic winds moved in.

Through this acclimatisation and practice time each pilot got in around 40 flights and had some exposure to the use of sun shields, but not enough as it transpired. We used them as a shade near the end of the box, but not with the sun right in the box as we experienced in the actual competition.

We lost a little time with a few model set-up issues on Glenn’s new model – and thank you to Bill and Dennis for their support in addressing these. Other than that most effort went into adapting our flying to the very ‘thin’ and bouncy air that seemed to require more power than we were used to get good model penetration and minimise buffeting from the conditions. This proved an on-going challenge that, in retrospect, we never quite mastered.

While the pilots flew, Norm played a critical role in getting to know the local area, our host and his wife, and providing an ongoing stream of food and drink to keep us all going. He even cracked the code on sourcing free ice from the kitchen at the hotel as it is not readily available in Zurich, and when found is around AUD15 a bag! Russell also joined us at all these sessions, and stayed close to one of his colleagues from his World Cup tour who regularly flies at our practice field and had first-hand knowledge of the official site as he was setting up all the communications facilities there.

During practice we also debated and reviewed the role of the caller and helper on the flight-line as there were a few changes to the rules, and none of us had done it before. Russell led development of a structured process that flushed out many minor but important steps – a lot coming directly from lessons we learnt through practice.

The Venue

We first explored the facilities at Dübendorf Military Base on the Friday evening when we attended the Team Manager’s meeting followed by the flight draw for the preliminary rounds. It is an easy 10 minute drive from the centre of Zurich. This was our first exposure to what was a fantastic set-up.

The main congregation area was based around a large concrete apron with huge covered area looking out over Flight Line 1 – providing plenty of space for all the administrative and display areas, along with model setup and spectators. Behind this area they had the ‘big tent’ – the main meeting and eating area capable of seating around 400 people and the venue for much of the evening entertainment. As the 55th Anniversary of the first World Championships the organisers made a big deal of this as a public event, attracting around 10,000 visitors to the opening ceremony and air show.

Flight Line 2 was about 1km east down the main runway, with easy driving access for pilots.

One of the biggest innovations at this year’s Championship was the advent of real time, electronic scoring. The judges’ scribes entered scores into a tablet, and they immediately appeared on a giant TV display in front of the main arena, and multiple small screens. As soon as the flight was finished the raw scores were available on the Championship web site for the pilot – by manoeuvre and judge. This is a major step forward in transparency that was embraced by all, including our supporters in Australia who had almost instant access to scores.

During the Competition the airbase was live with occasional activity by the search and rescue helicopter, military helicopters, and the 3 Junkers JU 52s that operate joy flights from the base. The models had priority over other air traffic, and we only saw one flight during the whole competition terminated early because of an urgent movement by the search and rescue helicopter.

A short walk from the main venue was the Swiss Military Air Museum, with a magnificent range of its long standing exhibits, plus a special display of radio control aerobatic models and equipment dating back over the past 55 years.

The Championships

Our first day at the Official Site worked very well for us. We arrived for model processing ahead of our 10:35 schedule, and were invited through early. The process was the most efficient the team had seen with visual scrutineering, weighing, measuring, voltage and noise checks on all models successfully completed in 20 minutes or so. We also registered Russell’s model as a team back-up in case of emergency.

From there we moved straight to our official practice flights over on Line 2. These went without hitch – just a little scare around Bill’s motor that didn’t feel quite right just before flight, but it didn’t impact the practice flight and was fully checked over that evening.

Then it was back to the main venue and Line 1 for the opening formalities and procession of teams behind their flags. This was followed by almost 3 hours of magnificent air show covering all forms of radio control models, and multiple full sized displays, including the Swiss Aerobatic Team in their PC7’s.

Over the next 4 days we had the 4 preliminary flights. The table below sets out the times of our flights, and the ranking of our flights within the field of 101 competitors for each of the four judging panels.

	Panel 1		Panel 2		Panel 3		Panel 4		Overall
	Flight Time	Rank							
Bill	Sun - 11:59	28	Tue - 9:35	38	Mon - 16:24	65	Wed - 14:00	49	41
Glenn	Mon - 9:44	74	Wed - 12:14	62	Sun - 16:24	54	Tue - 14:09	81	70
Dennis	Mon - 9:15	80	Wed - 11:40	77	Sun - 15:55	58	Tue - 18:16	60	74

 Sun affected

 Obvious errors

Rather than a blow-by-blow description of each day and flight, here are some key observations that may help put the results in a little context.

- At times all pilots struggled to adapt to the ‘thin’ air mentioned earlier, and the bumpy crosswind. Unfortunately they all found that if they did not nail the first one or two manoeuvres, it set a tone for the whole flight that the judges didn’t shift from. This isn’t a complaint, it is simply a reality in a highly competitive field where the judges are regularly presented with almost flawless flights.
- **Panel 1:**
 - Bill put in his best flight, 90-95% of the best we have seen in practice and clearly on the world stage.
 - Glenn and Dennis both struggled on these flights with the sun firmly in the box – right where the roll is on the half square loop on corner. We don’t have experience of this and struggled working around the sun and the sun screen.
- **Panel 2:**

- This was the most ‘conservative’ panel and, in retrospect, rewarded closer styles. Given our struggles with the ‘thin’ air we were flying bigger by this stage (3rd flight for Bill, 4th for Dennis and Glenn) and it probably lowered our scores.
- Bill’s was a very good flight, and protected from the sun by being delayed an hour and clouds providing some protection. Dennis unfortunately zeroed the end stall turn.
- **Panel 3:**
 - Solid flights for Glenn and Dennis
 - Bill got caught by a sudden increase and shift in direction of the wind, making the initial turn and golf ball a bit messy – and that appears to have set the tone for the flight in the eyes of the judges as most of the rest looked solid to us.
- **Panel 4:**
 - Sound flights from Dennis and Bill – but not quite up with their best.
 - Glenn’s turn to get caught out by the conditions – and needing visible corrections through a few manoeuvres that got heavily down graded.

So we showed our potential, but were let down on the consistency needed to reach our aspiration. No one reached the semi-finals and our flying was over.

We drowned our sorrows that night before some sight-seeing and a visit to Wolfgang Matt’s flying club in Lichtenstein on the Thursday rest day.

We then spent the Friday and Saturday watching the semi-finals and finals intently as a group – absorbing all we could about model design, flying style, how others were coping with the conditions and the compromises they were making to impress the judges, and how the judges responded.

Our high level observations were:

- The top four all flew traditional non-contra planes. They flew relatively big used a lot of power to keep things smooth in the prevailing air.
 - Positions 1 and 2 (Christoph P. LeRoux and Onda Tetsuo) both flew YS gas powered planes – Christoph a mono-plane and Onda a biplane. The power helped.
 - Positions 3 and 4 (Stefan Kaiser and Andrew Jesky) both flew electric non-contra – Stefan a biplane and Andrew a mono-plane. While both flew impressively, they didn’t quite have the smoothness of the top 2, and Andrew was downgraded slightly for flying too close and too big.
- Positions 5 and 6 (Jason Shulman and Gernot Bruckmann) both flew contra powered biplanes. Jason was the best presentation of a contra-powered plane we saw, flying close and slow yet keeping the plane smooth and not letting it drop its tail on the bottom end of radii. Gernot, as a leading F3P pilot, flew bigger than we expected and looked just a little messy relative to the top 5.
- Overall the 2 unknown schedules were not very hard and had no spins or stall turns, and few snaps – but quite a lot of knife-edge work. We saw none of the pilots make any technical errors across all the finals flights – so it all came down to smoothness and impressing the judges.

The presentations to the winners and the closing ceremony were at the field, and the closing banquet was held at a nearby hotel conference centre.

Throughout the Championship we renewed old acquaintances and made many new ones. We also worked hard to keep both our Facebook and blog entries up-to-date, as well as seeking out real time feedback on questions raised by our Australian supporters. The combination of day time updates on Facebook by the team, the real time publishing of scores available to all, and then an evening

summary on our blog seemed to work well. And we have quite a substantial photo collection we need to consolidate and make available.

[Harnessing the Learnings](#)

At the time of writing this the team are all in the process of settling back in at home and reflecting on the experience. In our closing team discussions one thing became clear – the team that worked together over 7 months of preparation and competition has an appetite to harness the learning, and see this as the beginning of a new journey for those that follow. We have already have an extensive idea slate from discussion so far, and want to refine these with feedback from Tom Bloodworth's time in the judging chair. A lot of our early preparation worked well and we would do exactly the same again, we can certainly push deeper into some of the mental preparation, and can be smarter about how we use the 6 – 8 weeks leading up to the competition, including the acclimatisation time immediately before the Championship.

With a number of the team from both the APA and VPA Committee's, we are also in a position to drive some of these initiatives forward. A few things are already documented – including the caller and helper checklist we developed, some of the summary mental preparation material, and the notes on the administration side. Russell already has activities brewing around judging training and certification based on US and European inputs, and the VPA is about to run a pilot of the US Electronic Scribe scoring system – which seems to have some advantages over the European systems for how we run our competitions. Many of the ideas are already covered in training initiatives already in place, particularly in Victoria, that should be rolled out – including a forensic review weekend of the P-17 based schedules for all pilots in early November.

The Word Championships in Zurich were a great experience – we now need to harness the lessons and build on the momentum to improve future performances.

We would like to thank all our sponsors and supporters for their commitment to our efforts. The pilot's rough out-of-pocket costs (travel, accommodation, food, entry fees) for this trip were around \$7,500, of which just under 50% were covered by support and fund raising efforts.

I would also like to acknowledge and thank all the team members for both their individual efforts, and their highly collaborative and supportive behaviour throughout this mini-marathon.

David Gibbs
Australian F3A Team Manager 2015