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Editorial Time to focus on Evolution. Space Modelling must keep pace with the Real World in order to survive and flourish. And yes, some of this implies change to a status quo that has existed for a generation. So we focus on Rule changes in this issue and also S7-Scale. Remember, our elite 'shop window' class has seen a decline in World Cup entries and we must tackle this challenge and discover an Opportunity.

Time for the Editor to declare a personal interest. A new book, Model Rocketry-Space Modelling, has just been released by Traplet Publications Ltd. Full details are to found below. Naturally, of interest to all readers, whether or not involved in FAI Space Modelling..

Time to say that another book focusing on the experiences of the Editor may well follow on the heels of Model Rocketry-Space Modelling  $2^{nd}$  Edition. This one charts a significant history of Space Modelling generally from the 1980s and also the World Cup 1990s through to the present day. It's hoped the readership will wish to acquire this one, if for no other reason, so many of you are featured! More details will follow in subsequent interspace.. editions. Enough for now, into the issue proper. Advertisement Feature ...

#### Model Rocketry-Space Modelling

ISBN 978-1-907712-00-5 2<sup>nd</sup> Edition 2011 by Stuart Lodge Price £12.95 UK \$19.95 USA *Traplet Publications Ltd* 

5-4-3-2-1...ROCKET SCIENCE! ...the Editor's latest book, *Model Rocketry-Space Modelling*, is the best way to learn about it, bust some myths and have a lot of fun. This book follows on the heels of its predecessor, describing the activity as a whole, how to get started and where to go after you've been hooked.

Design and construction form a major focus, to take the reader past the kit stage and into the addictive area of creative design. Rocket launch systems of all kinds get a thorough work out. The book provides full details of propulsion systems – model rocket motors – to shoot the rocket skywards, followed up by recovery systems - to lower the missile back to terra firma, get the enthusiast 'off the ground' ...and back again, ready for more. The complexities of stability and aerodynamics are dissected and reassembled in a user-friendly form to facilitate better flying birds.

Specifics, such as scale models, rocket boosted gliders and the international contest forum are de-mystified and presented as tempting routes for the reader to take on the route to the stars. This is the next level..

Heads Up...5-4-3-2-1...ENJOY!!

More details from.. www.traplet.com

### Rule changes...no, cultureshocks?!?by Srdjan Pelagic

**I** HOPE you have all entered this New Year - 2011 - cheerful and relaxed, ready for many new achievements. Here is the first challenge for you to consider:

FAI Sporting Code Part 4 Volume Space Models - Edition Jan 1, 2011 is available as a 441 KB pdf file at:

http://www.fai.org/aeromodelling/documents/sc4

It is up to you to read it carefully and to get prepared for the next competition season.

However, it is much bigger challenge in front of us - a general revision of our rules to be completed BEFORE NOVEMBER 15, 2011 if we wish to have a new, modern rule book that will make us all happy. If we succeed with that it will be approved by the CIAM Plenary in April 2012 and become effective from January 1, 2013!!!

So let us start with General revision of our rules (Step 2). I wish to remind you the first step was completed in 2008 based on our talks in Baikonur 2006 initiated by Vladimir Minakov (Russia). Let us follow the following schedule:

January 4 - Starting date

January 31 - Deadline to send proposals to the SM SC Chairman: WHAT SHOULD BE DELETED IN VOLUME SM - Edition 2011

February 10 - Voting on received proposals

**February 15** - Draft 1 - Volume Space Models with words, sentences, paragraphs or chapters that should be deleted (items to be deleted to be presented in strikethrough letters).

**March 15** - Deadline to send proposals to the SM SC Chairman: WHAT SHOULD BE CHANGED IN VOLUME SM - Edition 2011

March 25 - Voting on received proposals

**March 31** - Draft 2 - Volume Space Models with words, sentences or paragraphs to be changed. "Old" text shall be in strikethrough letters in brackets and the new proposal in bold letters.

**April 30** - Deadline to send proposals to the SM SC Chairman: WHAT SHOULD BE ADDED TO VOLUME SM - Edition 2011 to make it modern and to follow new technologies. Remember proposals of the GBR team in the 18th WSMCh 2010 that the rules should be SHORT AND CLEAR and all necessary explanations should be in Annexes mainly in drawings because one picture is more informative and precise than 100 words.

May 30 - Voting on received proposals.

June 05 - Draft 3 - Volume Space Models with incorporated proposals what should be added and beginning of discussion on the Draft 3 - the revised rules. June 20 - End of discussion on revised Vol SM - Draft 3. June 25 - Presentation of the discussion by the SM SC Chairman.

**July 25** - Deadline to send proposals to the SM SC Chairman: HOW TO REARRANGE SM CLASSES WITH NEW NOMENCLATURE OF THE SM CLASSES.

August 05 - Voting on received proposals

**August 10** - Draft 4 - Finalized work on general revision of the Volume Space Models.

August 27 - SM SC meeting at the 13th EuSMC 2011 in Buzau (Romania) with final discussion on the rules. September 10 - Deadline to send completely finalized and generally revised Volume Space Models to Mrs Jo Halman, CIAM Technical Secretary for final preparation for submission to the FAI Office to be put on the CIAM Plenary Meeting Agenda 2012 (April 2012).

October 01 - Deadline to receive comments and suggestions from the CIAM Technical Secretary. October 15 - Corrections of the Draft 4 in relation to requests of the CIAM Technical Secretary that becomes Draft 5.

**October 25** - Deadline for final consideration and approval of the rules to be sent to the FAI Office by the SM SC. **November 01** - Deadline to send Draft 5 to the FAI Office to be included in the CIAM Plenary Meeting Agenda to be hold in April 2012.

It is a really big task for all of us, but we must not forget that 2012 is the 50th Anniversary of Space Modelling becoming an FAI Airsport. So, after 50 years we all deserve to have reworked, contemporary rules that will satisfy everybody. So, let's get started!

### S7-Scale...ing down?!? ..judge

not, lest ye be judged!

#### by the Editor

**2010** SAW yet another successful Space Modelling season. World Champs in Srbija, plus some 25 World Cup events in three continents. Once more, startlists were in the ascendant, especially S8E/P-RC Rocket Glider, ~20% higher than in the previous year. However, that most elite event, S7-Scale, saw a decline in numbers of nearly 10%. What's wrong then?!? What do we do?!?

#### Strengths – A fair list to start with...

Shop Window...S7-Scale is the 'shop window' of Space Modelling. The spectating public love to see these wonderful replicas and can identify with many of them, having seen the real thing on their television screens. Quality...no in-depth knowledge is needed to see that these are replicas researched and made by real experts. S7-Scale emphasises the superlatives of Space Modelling. **History**...class S7-Scale has unearthed a previously hidden history of full size Aerospace. So many of the prototypes fell into the 'Top Secret' category, during the years of the Cold War and researching rockets for S7-Scale has revealed so much more general knowledge. Moreover, the result of this, peer review and high level judging, is that S7-Scale models are much more faithful to their full-size brethren than most 'museum models'. **Spectacle**...Successful flights – often featuring Special Effects (SFX) – always bring loud applause from spectators and normally form the climax of any Space Modelling event, be it a World Cup, or Major Championship. It's nearly a good product! But...

**Weaknesses** – And there are so many! <u>Commitment</u>...so much more time, technical knowledge and patience are needed, even to put together a simple prototype, capable of scrutiny. S7-Scale is an event to take up after a number of years making/boosting fly-for-fun rockets, or performance space models, in FAI competitions.

<u>**Prototype selection**</u>...very limited! In contrast with the scale modelling of Aircraft, which have embraced a

massive spectrum from ~1900 to the present day - with conflicts adding to the mix significantly - the choice of rockets to model for class S7-Scale is much more restricted. Even without taking into account 'degree of difficulty', 'complexity' and SFX, in contests, there is a much reduced choice of things to build. Ironic actually, the Chinese were flying rockets centuries before man-carrying aircraft came along...and in recent times, military aviation has come up with UAVs - Unmanned Arial Vehicles - to prowl combat situations. Back to front, or what?!? **Sporting Code**...first up, out to the flying field...'another one bites the dust ?? Far too many S7-Scale models have problems on their qualification flights, often resulting in a destructive crash - and Zero points. Others endure minor recovery system malfunctions - and Zero points. Still more do not boost correctly in the 60 degree cone - and Zero points. The failure rate in World and Continental Championships and World Cups is staggeringly high, often approaching 50%. Oh yes, in an earlier section we've described the S7-Scale modellers as 'real experts'. Watch qualification flights and this viewpoint gets reviewed.

Why?!? .. the Sporting Code encourages complexity. Nothing wrong with that, you may say...obviously prototypes with a high degree of difficulty are worth higher scores than simpler designs. SFX...the more functions and crucially, the more motors, the higher the flight score. That is, provided everything works...or it all ends in tears. Rocket Motors...S7-Scale models can weigh up to 1,500g; maximum Specific Impulse is 160Ns; maximum Specific Impulse for the biggest motor is 80Ns. Plenty of scope then !?! The rules encourage the use of many motors, with 5 points on offer for each motor in excess of one. Using 7 motors would net +35 points...and some S7-Scale models use even more than that. Naturally, these motors are employed for cluster power on launch, parallel staging/discarding boosters, series staging and capsule launching etc. Flying multi-staged is advantageous, with up to 30 points on offer for each successful stage. So Complexity is the way to go...after all, the participants are real experts. However, let's look at August 2010's 18th WSMC-Seniors and 9<sup>th</sup> WSMC-Juniors' numbers:

 18<sup>th</sup> WSMC-Seniors ~ Total qualification flight attempts 33 Failed – DQ or CE attempts 11 (33%)
9<sup>th</sup> WSMC-Juniors ~ Total qualification flight attempts 22 Failed – DQ or CE attempts 10 (46%)

and 12<sup>th</sup> EuSMC, August 2009.

12<sup>th</sup> EuSMC-Snrs ~ Total qualification flight attempts 28 Failed – DQ or CE attempts 9 (32%)

...rather a lot, considering the World's best S7-Scale flyers were on the rampa for these, flying in *perfect conditions*.

Motor quality has improved over the years. However, 1 in every  $\sim$ 150 – the Editor is open to discussion as to this number – motors has a problem, not necessarily a CATO, but something doesn't work properly...a delay grain not lighting, an ejection charge not firing etc. Naturally, some manufacturer's products are better than others. Doing a Risk Analysis on multiple motors, that 1 in 150 becomes for 2 motors = 1 in 75; 3 = 1 in 50; 4 = 1 in 38; 5 = 1 in 30 etc. *and...*this assumes all the motors ignite properly. If that's not bad enough, remember that we normally use motors' functions to initiate SFX...staging, booster discarding and the like. It is a recipe for disaster...a Zero score – statistics prove it - and *danger to spectators...*we've said they like S7-Scale flights and always crowd around.

**Participation**...not all nations at Major Champs, or World Cups fly S7-Scale (or S5-Scale Altitude either). There is need to examine why not, as the flying of scale model aircraft is common in these lands, whether it be FAI's, or domestic events.

Juniors ?!? ...many Juniors - numbers up for discussion have had little to do with the research, design and construction of the prototypes they are flying in an event. This infringes the 'Builder of the Model rule' and is strategic cheating. Strategic cheating in any activity is a deterrent to participation. Strategic cheating becomes Tactical, when the Juniors concerned do not even prepare 'their' S7-Scale models for the qualification flights, leaving it to their Seniors. Strategic cheating of any kind is unacceptable and a danger to the future existence of S7-Scale AND Space Modelling generally. Needs sorting out. Evolution ... contradiction in terms. Nothing has really changed in S7-Scale - save the introduction of discrete Juniors' classes at Major Championships – in twenty years. And remember, Space Modelling has made quantum changes in most of the other classes, to keep things up to date, more attractive to spectators and to increase participation. So where do we go from here?!?

#### Future Opportunities..

First up...there <u>IS</u> a future. Space Modelling without an elite scale models class is unthinkable; Space Modelling without a 'shop window' class is unthinkable; Space Modelling without these is *Over*...unthinkable! SWOT...Strengths ~ Weaknesses ~ Opportunities ~ Threats, they are all in play. Scale modelling of any kind will always be a major commitment, but S7-Scale is a class to which embryonic Space Modellers should aspire. Let's look at the flying of S7-Scale models first of all. Another one bites ... from the statistics above, ~1 in every 3 S7-Scale qualification flights end in a Zero score – often wreckage & tears - for one reason or another. Considering the experts who research, design and build these exemplary replicas, it is an astonishing result. The words of the song, "...and another one bites the dust..", are apposite. 'Shop window'?!? ...bull in a china shop, nearer the mark.. Remember too, these statistics worsen under challenging flying conditions of wind and rain. Why should the Editor grumble, how often has he sneaked a podium, when models scoring higher in the hall have fouled out on the rampal ?! But seriously, our 'shop window' gets a house brick smashed through it, far too often. Why?!? Sporting Code ... encourages complexity ... every other scenario in Space Modelling shrieks simplicity! Fine, SFX are, and always will be, a vital feature of S7-Scale model flying, just as they are part of the flight profile of FAI F4 and other model aircraft scale modelling. It's how we achieve these SFX that needs examination. Using propulsion motors to trigger SFX is a bad idea; using lots of propulsion motors routinely, is a bad idea! Put both together and...go back and read the qualification flight statistics again. Then look hard at Wojciech Krzywinski's Ariane 3 V17, which features a reliable electronic flight control system, triggering SFX...and choosing which SFX to use, on any given day. Radio control another option. This how S7-Scale modellers should be doing things.

Motors – lots of motors, clusters, divorced seriesstaging, all rolled in together, is an accident waiting to happen. Why not allow *Three* motors maximum – three stages is enough – but encourage, or *make compulsory*, smoke generators for strap-on boosters and launch effects?!?

**Prototype selection**...this is much tougher. Nobody denies that complex prototypes, with a high degree of difficulty will be the top players' weapons of choice in any scale modelling activity. We see judging halls filled with a melange of *Arianes* and *Saturn 1Bs*; *Soyuz* in various guises are even more sought after. Even the *Saturn V* Moon rocket hasn't been seen for years. At the 18<sup>th</sup> WSMC in Srbija, it was a joy to see Chris Flanagan's former-Soviet *N1* Moon rocket – just completely different – albeit unfinished; qualification flight really nice. Alja Makuc' + Jenko's *Nike Hercules* super too.

Plenty of other stuff one *can* choose; *Jupiter-C, Saturn* 1, *Nike Hercules, Little Joe, Interkosmos, Vertikal...* a seemingly long list. But stepping outside the box means stepping down in static scores, at the very least. How to judge 'complex' –v- 'simple' is something that needs looking at.

Juniors' S7-Scale...can't duck it any longer, it's become an issue a real Threat! How much input did the podium placers in recent Juniors' S7-Scale have on the research, design and construction of 'their' winning models?!? Have the Judges been 'turning a blind eye'?!? But could we have proved that the 'builder of the model' was a Senior?!? We're all in this together. First step - Juniors must prepare their S7-Scale models for flight unaided (except by other junior team members..), under the watch of a Judge. If they are unable to do this, then the entry is DQ'd. Harsh?!? ..maybe, but the road to happiness is paved with strife. Maybe there should be no Juniors' S7-Scale, but instead encourage them to fly S5B/S5C-Scale Altitude. That will mean that this performance class will need to be carded on World Cup events and flown regularly. eAltimeters are in full use now, so maybe this is the way forward. And yes, Seniors will still surely be involved, but the prototypes are simpler and the Juniors will have a greater input, both in the building and out on the rampa.

**Concept...make it 21<sup>st</sup> Century spectacle?!?** ...Look at what we want...*SUPER FLIGHTS!!* ...first and foremost. That is what the spectators *want* – and <u>need</u> – to see. The vagaries of judging are lost on them. We need to have..

- 1. Spectacular & reliable flights to thrill spectators
- 2. Qualification flights given more scoring emphasis
- 3. Rocket prototypes...a much wider range
- 4. Prototype complexity...less emphasis
- 5. Three propulsion motors only
- 6. Smoke generators encouraged for SFX
- 7. Electronic flight control systems +
- 8. Radio Controlled flight control systems
- 9. Juniors' S7-Scale discontinued
- 10. Juniors encouraged to fly S5B/C in World Cups

The key is a change of mindset. At present, the scoring in S7-Scale is very academic, with a focus on research, complexity, difficulty, accuracy, detailing, workmanship...giving a maximum static score of **850 points**. A perfect qualification flight, featuring lots of motors, 3 stages, SFX...all bells & whistles, can muster

only **250 points**. If we managed to reduce the static scoring to (say..) **500 points** and nudge the flight scores to **300 points**, we might see a range of different prototypes. By reducing the number of motors we might approach the nirvana of every flight scoring, rather than Space Modelling's DQ obsession that puzzles spectators and frustrates competitors.

We need a *WILL* to change an activity that hasn't progressed in 20 years. FAI Sporting Code changes are needed; read that, *QUANTUM CHANGES...a Paradigm Shift* from a status quo we have grown to know and never really love. It will also result in more history being unearthed on a much wider range of rockets. Are we up for it?!?

#### 'Stateside viewpoint S7-Scale.. more diversity?!?

#### by Chris Flanigan

**C**HRIS FLANIGAN, who impressed us all at the 18<sup>th</sup> World Space Modelling Championships, in Srbija, entering a super former-CCCP *NI* Moon rocket, comes on line with an alternative approach. This is thinking 'outside the box' and maybe, just maybe, this is the paradigm shift to kickstart S7-Scale. Over to Chris..

..Regarding decreased participation in S7, I wonder if part of the problem is lack of variety for S7 models. For many years, the top scale WSMC entries have been dominated by the same prototypes - *Ariane, Soyuz, Saturn IB.* One thought would be to encourage (or enforce) more variety by introducing "classes" of S7 models. In U.S. NAR competitions, this is managed by having three size classes for the Sport Scale event: Peanut scale (length <30cm, or diameter <2 cm), Giant scale (length >100cm, or diameter >10 cm) and Open (any size).

Another option would be have "types" of prototypes. I recently shared the following concepts with John Langford, so perhaps some additional discussion could be done at a future FAI-CIAM meeting.

"Manned Launch Vehicles" Prototype must have been used to launch humans into earth orbit or beyond. "Satellite Launch Vehicles" Prototype must have been used to launch satellites into earth orbit or beyond.

Manned Launch Vehicles are excluded from this category. [Note: this could be divided into "Small" and "Large" satellite launch vehicles based on design payload size. Flying "Small Satellite Launch Vehicles" could eliminate Arianes]

"Suborbital Launch Vehicles" Prototype must have been used to launch research payloads to suborbital altitudes. The design range of the prototype must have exceed 10 kilometers but not into orbit. Suborbital test flights of satellite launch vehicles and manned launch vehicles are excluded.

"Military Rockets" Prototypes must have been developed for military purposes including air-to-air, ground-to-air, air-to-ground, and ground-to-ground missions. The maximum design range of the prototype must have been 1,000km or less.

"Vintage Rocket" Prototype must have had a first flight prior to 1950. [or TBD]

"Modern Rocket" Prototype must have flown no earlier than January 1, 2010. [or TBD]

"Solid Fuel Launch Vehicle" Primary propulsion system of the prototype must have used solid propellant. Strap-on motors, ullage motors, or auxiliary propulsion systems are not considered primary propulsion.

"Liquid Fuel Launch Vehicle" Primary propulsion system of the prototype must have used liquid propellant. Strap-on motors, ullage motors, or auxiliary propulsion systems are not considered primary propulsion.

"Open" Any prototype may be entered.

#### [TBD = to be decided - Ed]

For example, choosing "Satellite Launch Vehicles" excludes *Saturn* and modern *Soyuz* (old *Soyuz* & *Vostok* still permitted). The downside is that the result would be a room full of *Arianes*. "Manned Launch Vehicles" would eliminate the *Arianes*, but you'd get a room full of *Saturn 1Bs* and *Soyuz*. "Suborbital Launch Vehicles", or "Military Rockets", might encourage some diversity. "Modern Rocket" eliminates *Ariane III* and *Saturns* - and possibly *Soyuz* if you wrote the rule qualifiers properly.

In summary, this is just some food for thought at this point, to help stir the pot and potentially inject some new ideas for S7 prototypes. I don't know whether or not this would be of interest to the S7 community. What do you think? Please understand, a lot of the numbers above dates, altitude, range, etc - were quick estimates. If we want to go forward with these suggestions to the FAI, we need to give detailed thought regarding the right values. S5-Scale Altitude has a similar - if not more severe – lack of variety problem as S7-Scale. Currently, the dominant prototypes are *Taurus Tomahawk*, *Nike*-something (- *Deacon, - Apache* etc), and *Bumper WAC*. Given the new Adrel altimeters, I think the next S5 contests will be totally dominated by *Bumper WACs*. Due to the optimum size of the tiny *WAC* upper stage, no other prototype will be competitive in this event. That's probably not a healthy situation for the S5 event. Time to start thinking!?!

#### **S7-Scale & S8E/P-RC Rocket Glider..** at the intersection?!? <u>by Ryan Woebkenberg</u>

**ANOTHER** contribution from the United States' Team. Ryan Woebkenberg is a talented all-rounder, who socked it to us all at the 18<sup>th</sup> World Space Modelling Championships, last August. Didn't do himself too much harm by starting off... "First off, I really like interspace.. Please don't go the way of Uncle Sydney! It was great meeting you in Serbia"... over to Ryan..

...I think the lower participation in S8E/P and S7 is due to those events being intersection events. S8E/P is an event for people who like rockets and who like RC gliders. That intersection probably won't be as large as either group. Same goes for S7. It is for people who like scale modeling and who like rockets. The places those hobbies intersect is the pool of people to fly S8E/P and S7.

You ask, "sell them better to existing Radio Control & Scale flyers; make them more attractive?" I can't speak for S7 much, but for S8E/P there are a few things going on. To a large degree you have the intersection thing going on. Also to a large degree you have chicken and egg going on. RC glider guys will gravitate towards the areas of the most participation. Since S8E/P doesn't have that level of participation compared to F3J and F3K there needs to be something changed to start that gravitation. That recently happened with F3K (RC hand launch) where a fairly popular class (RC Hand Launch) at

a regional and national level was finally named a World Championship class and participation has been growing quick. I have flown F3J and F3K at the US national championships and have competed regionally in the USA for a decade and a half now, so I feel I have the pulse of the average RC glider pilot. There are 2 things about S8E/P that are a turn off to average RC glider guys. <u>First</u>...is the start height to duration task ratio. S8E/P models boost to 200+ meters yet the task is only 6 minutes. In an F2 RC glider class (say F3B duration task) RC glider folk would expect 10 minute flights from those start altitudes.

<u>Second</u>...and a bigger issue, is that RC glider pilots expect lots of flying. 3 rounds of S8E/P, plus a 5 man flyoff is a big turn off to the RC glider population at large. They would expect 10 or 12 rounds of flying, plus a 3 or 4 round flyoff for a World Champs. Obviously this would be a paradigm shift to implement something like that. Same for World Cups. An average RC guy, if he is not also interested in rockets at large, would not travel to a World Cup to fly S8E/P if he is going to only get in 3 rounds of flying plus 1 fly off round (if he is in the top 5). He'd expect World Cups to have 6 or 7 rounds of flying per day. [time was, when S8E-RC Rocket Glider Duration was the World Cup event + S8E/P Spot Landing flown as an extra = lots more flying – Ed]

But implementing these two things would probably have negative effects on the rest of Spacemodeling. S8 would take up entire days of the WSMC and at World Cups. And making those changes still wouldn't guarantee that we would see a large influx of RC sailplane pilots into Spacemodeling. A better strategy, something some of us in the US are working towards, is to grow S8 pilots from the existing rocketry ranks. With RC gear that has never been cheaper relative to average income and inexpensive RTF starter planes like the *Radian* and *Vapor* it is much easier to get a rocket flyer up to speed on a Radio Controlled Rocket Glider than it was 20, 10, or even 5 years ago.

Editor's note.. Just a little to going on with then?!? In fact, S8E/P RC Rocket Glider numbers are Up, across the spectrum of events. However, Ryan Woebkenberg makes some very sound observations in his piece above. Is it time to 'beef up' both the tasking and duration phases?

Chris Flanigan looks at S7-Scale in a completely different way. Not sure we could go completely down this road...it would certainly produce lots of winners! However, now is the time for ACTION, not sitting on our hands.

#### **STOP PRESS**

**SERBIAN** World Cups reinstated!! The  $11^{th}$  Sirmium Cup and  $10^{th}$ Belgrade Cup are now back in the calendar. Details are:

11<sup>th</sup> Sirmium Cup ~ 18-19 June '11, Veliki Radinci, nr Sremska Mitrovica S4A, S6A, S7, S8E/P, S9A Dragan Jevtic <u>aerosm@ptt.rs</u>

10<sup>th</sup> Belgrade Cup ~ 16-17 July '11 Aeroklub Lisiciji Jarak, nr Belgrade S4A, S6A, S7, S8E/P, S9A Rudi Hodzic vazduhoplovnisavezbeograda@yahoo.com

Great news for the whole of Space Modelling...Srbija's back in the mixer!

#### **STOP PRESS 2**

From our 'special correspondent', Srdjan Pelagic... "I just came from Belgrade - today at Vazduhoplovni savez Srbije there were great festivities. We enjoyed the proclamation of the best Airsportsmen/women in our fair land. ZIVAN JOSIPOVIC was awarded the statue of the Golden Eagle of Srbija, as the best Aero/Space Modeller of 2010. This is the 5<sup>th</sup> time Zika has received this iconic award".

Editor's note – Well done Zika, you are one of the reasons why Space Modelling in Srbija is in such a fantastic state.

#### Tailpiece...or tailslide.. that's

enough for this issue!

**A** GOOD ISSUE?!? I quite like it actually, there's a lot going on out there. Crucially, Space Modelling finds itself in a position of Strength and able to take decisions in a totally objective manner. The rest of the 2011 season is likely to be spectacular.

Next time we've got some more stuff on full-size rockets from Jason Wentworth. Lots of stuff I bet you never knew existed! Argentina has long possessed a dynamic ballistic missile programme. Lots of links and great scale data.

Apologies are due for not including the results of the  $7^{th}$ *Catalunya Cup* ~ 26-27 February '11. At the time of publication these were not available, but it is understood that the event was stricken by high winds throughout. It was always going to be a gamble hosting the event so early in the year.

Another day, another issue! 2011 is up and running and it's up to all of us to make it special (spacial!?!). Let's have your comments, contributions and critique...as usual. Best wishes 'til next time.