Editor Stuart Lodge ~ 25 Huntingdon Drive Castle Donington ~ Derby ~ DE74 2SR ~ <u>UK</u> *E-mail* <u>stuart.lodge1@ntlworld.com</u> Volume No. 2013/1 Issue No. 82 Winter 2013

Editorial.. Can't believe it, we're close to the start of another season on the rampa! I'll wish readers a *Happy & Prosperous 2013...* looking at the 'Space Travels' below, there's a good chance of that. 2013's biggest event should be in Bulgaria: 14th European Championships of Space Modelling – and underpins the renascence of Bulgarian Space Modelling.

Then a little anomaly, relating to our World Champs' array, which took lots of digging to resolve...hope you enjoy the outcome!?! Once more, Jason Wentworth has come good with a wonderful set of links to welcome in the New Year. A request is made by Mitja Žgajner and Blaž Grgič - Slovenia's *MistralTeam* - for dealers to market their excellent products across the Space Modelling world. Oliver Missbach needs assistance, to translate his *European Model Rocketry* website too.

One little chore your editor has undertaken recently, is binding up all (>80..) hardcopy issues of interspace.. in date order. One consequence of all this, is that many of the older editions have been revisited and...many are easier to read, less formal and even *funny!* Maybe the contemporary interspace.. is sometimes just a bit serious and a 'New Year's Resolution' is to lighten things up a bit...just wish me luck. Enough from me...2013's *issue 1* goes live!

Space Travels 2013... *Firming up nicely, looks great!*

FOLLOWING UP the draft calendar published last time. Srdjan Pelagic and Joze Cuden are to be thanked for helping assemble this section. Read carefully, as there *are* changes. Then go to..

www.fai.org/aeromodelling 14th European Championships of Space Modelling ~ for Seniors & Juniors 24–30 August 2013 Kaspichan – Bulgaria Seniors ~ S1B-S3A-S4A-S5C-S6A-S7-S8E/P-S9A Juniors ~ S1A-S3A-S4A-S5B-S6A-S7-S8D-S9A 12-14 April Belarus Cup ~ Grodno-BLR S4A-S6A-S7-S8E/P-S9A WCs + S1A-S1B 19-21 April Korolev Cup ~ Mescherino-RUS S4A-S6A-S7-S8E/P-S9A WCs + S1A-S1B 22-23 April Veteranov Cup ~ Mescherino-RUS S12/P 27-28 April Slavonica Cup ~ Čeminac-CRO S4A-S6A-S7-S8E/P-S9A WCs + S1A-S1B 3-5 May Slovak Cup ~ Roznava, Gemer-SVK S4A-S6A-S7-S8E/P-S9A WCs <u>10-12 May</u> Kaspichan Cup ~ Kaspichan-BUL S4A-S6A-S7-S8E/P-S9A WCs <u>17-19 May</u> Krupka Cup ~ Krupka-CZE S4A-S6A-S7-S8E/P-S9A WCs 24-26 May Buzau Cup ~ Buzau-ROM S4A-S6A-S7-S8E/P-S9A WCs 1-2 June Krakow Cup ~ Krakow-POL S4A-S6A-S7-S8E/P-S9A WCs + S1B-S8D 8-9 June 12th Stip Cup ~ Stip-MKD S4A-S6A-S7-S8E/P-S9A WCs 15-16 June 13th Sirmium Cup ~ Sr Mitrovica-SRB

S4A-S6A-S7-S8E/P-S9A WCs 28-30 June Ant's Gustaitis Cup ~ Marjampole-LTU S4A-S6A-S7-S8E/P-S9A WCs + \$1B & \$3A 29-30 June 2nd Balkan Cup ~ Dupnica-BUL S4A-S6A-S7-S8E/P-S9A WCs 6-7 June Nebo Cup ~ Prilep- MKD S4A-S6A-S7-S8E/P-S9A WCs <u>12-14 July</u> Liepaja Cup ~ Liepaja-LAT S4A-S6A-S7-S8E/P-S9A WCs 20-21 July Czestochowa Cup ~ Czestochowa-POL S4A-S6A-S7-S8E/P-S9A WCs 23-26 July Impulse Cup ~ Shostka-UKR S4A-S6A-S7-S8E/P-S9A WCs 28-31 July Yangel Cup ~ Dniepropetrovsk-UKR S4A-S6A-S7-S8E/P-S9A WCs 17-20 August Baikonur Cup~Kosmodrom-RUS/KAZ S4A-S6A-S7-S8E/P-S9A WCs plus.. 17-27 Aug Juniors' S3A-S4A-S6A-S7-S9A-S12A/P 24–30 Aug 14th European Space Modelling Champs [see details at the heading] <u>13-15 Sept</u> 1st LCM Cup ~ Maribor-SLO S4A-S6A-S7-S8E/P-S9A WCs <u>14-15 Sept</u> Capitol Cup ~ Manassas-USA S4A-S6A-S8E/P-S9A WCs 21-22 Sept Chelomei Cup ~ Baikonur-RUS/KAZ S4A-S6A-S7-S8E/P-S9A WCs <u>20-30 Sept</u> **Baikonur Cup** ~ Kosmodrom-RUS/KAZ S4A-S6A-S7-S9A WCs 21-22 Sept 3rd Fenix Cup ~ Vincovci-CRO S4A-S6A-S7-S8E/P-S9A WCs 21-22 Sept Tessin Olza Cup ~ Vrchpole Milikov-CZE S4A-S6A-S7-S8E/P-S9A WCs <u>24-27 Sept</u> Cup of Korkyt Ata ~ Kosmodrom-KAZ S4A-S6A-S7-S8E/P-S9A WCs 5-6 October 12th Belgrade Cup ~ Lisciji Jarak-SRB S4A-S6A-S7-S8E/P-S9A WCs 11-13 October 35th Ljubljana Cup ~ Kamnik-SLO S4A-S6A-S7-S8E/P-S9A, all World Cups + S3A, Show Models, High Powers, boozing, sex, drugs and Rock &

Roll (Open Internationals..)

The *Missing* World

Champs... Odds here; Evens there...and we've lost one, do you know where it's hiding?!?

by the Editor, Alexander Mituriev et al

THIS started out as a very simple project...to identify the reason a change from *Odd* to *Even* World Championships' years occurred. In addition, to identify any years where a Championships didn't occur. Suddenly it became very demanding and complex because what seemed to be a very easy task, quickly began to ask lots of hard questions..

...Probably my mistake was to cite 1987's Belgrade World Space Modelling Champs (WSMC) as my initial *Reference Point*. This was nominally the 7th since Space Modelling came of age in 1972...after all, it says 7th on the poster and was my *first* international excursion! From there, 1989 saw the 8th WSMC carded for Romania, but as *Revolution* fermented, this event never happened and was given to Kiev, [former] USSR, during the June of 1990. This explains the *Odd* to *Even* shift of this biennial event...simplz!

Only it isn't quite as *simplz* as all that. Counting back, in two year jumps from Belgrade, the 1st WSCH would have taken place in 1973...an '*Odd*' number year...so had we lost one?!? Had I used... **1972** 1st World Space Modelling Championships Vrsac, [former] Yugoslavia..

...as my initial reference point probably things would have flowed a lot smoother. Thanks are

offered to that leading player of the former-CCCP, *Alexander Mituriev* – now living in the United States - with the help of Stanislav Zhidkov..

Alexander Mituriev..

"I would like to make some comments on your last letter concerning World Champs and their numbers. There seem to be a few mistakes contained within. Actually, to my knowledge, 1980's Lakehurst NJ-USA

WSMC was the **4th** WSMC since we started in 1972." "Checking my information - also shown in the 'Mazzaraccio-Mitiuriev' array of WSMC honours and confirmed in Prof. Ioan N Radu's

book... .. **'Rachetomodelismul International'**. The 'gap' in numbers of WSMCs arose from the fact that 1976's event did not take place and so the **3**rd WSMC took place in 1978, in Yambol, Bulgaria. The evidence is clear in the 1978 WSMC logo...

'III световно пъервенство' ... "3rd World Championships'.

"Naturally, the **2**nd WSMC, in Dubnica, [former] Czechoslovakia ~ September 4-9, 1974, preceded this.

"..Regarding the cancelled Romanian 1989 WSMC, at that time, Ukraine was still - up to the end of 1991 a part of the USSR. In addition, this 8th WSMC was a 'child' of the combined efforts of Ukrainian Aeroclub – specifically, aeroclub/field 'Chaika' - the place where the competition too place, just beyond the fringe of Kiev and the Central Sport Aero Modelling Club of USSR – in Moscow. But also, at least 8...and may be more (out of total 15 Republics of the Soviet Union) – as I recall - were presented by judges, timekeepers and other personnel and supporters of the competition on 'Chaika' field during the 8th WSMC. So it is not only 'officially', but also <u>correct</u>, to give credit to USSR for hosting the 8th WSMC.

Editor's note... logic takes us right back to: 1972 1st World Space Modelling Championships Vrsac, [former] Yugoslavia

Bulgaria, Czechoslovakia, Poland, Romania, United States, plus hosts, Yugoslavia, fielded full teams.

However, FAI was less than happy that just six nations could make up a World Champs. Possibly all the more so, since the Yugoslavs had planned their National Champs ahead of the international event and called the combined contest the *World Championships!*

...counting through the WSMC years, that means.. 1980 World Space Modelling Championships ...at Lakehurst, New Jersey, United States, was the

 4^{th} in the series – which fortunately now corresponds with Alexander's contribution.

The 1982 World Space Modelling Championships was a no-show – no one tendered for it. Aeroklub Polski generously came to the rescue the year after. All the more so, since we should remember the traumas in Poland back then...Lech Wałęsa, Solidarność et al. So that leaves us with... 1983 5th World Space Modelling Championships

Novy Sacz, Poland. Let's hear the view of ..

Alexander Mituriev..

"Pope John Paul II had his 2nd Papal visit to his homeland Poland just less than 3 months before 5th WSMC in 1983. It was my - as for all of our USSR team members - first visit to Poland. The Pope was everywhere, radio, TV, posters and portraits on streets. And it seemed that he was actually still there, in his homeland...Poland." "What was funny, during my second visit to Poland, with Team USSR for the International Competition of Socialistic Countries in 1987, coincidentally concurred with Pope John Paul's third visit! I had a clear feeling that dates for John Paul II's visits to Poland and for FAI international competitions were jointly correlated in the Vatican and Aeroklub Polski!"

Editor's note... that solves one key mystery,

the earlier even to odd shift in years.

Prof. Gerald M. Gregorek's journal, 'A Technical View of Model Rocketry', prepared for 1994's **10**th WSMC, at Leszno, Poland. Page 16 shows a picture of the US Space Modelling Team, at the..

1985 World Space Modelling Championships

Yambol, Bulgaria (who'd hosted 1978's 3rd WSMC), which confirms the above...the *number* **6** features big in the photo. Which leads us on to..

1987 7th **World Space Modelling Championships** Aeroklub Lisici Jarak, [former] Yugoslavia...*I was there!*

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WORLD SPACE MODELLING CHAMPIONSHIPS

- THE ARRAY, FROM THE VERY FIRST DAY...
- 1972 1st World Space Modelling Champs Vrsac, [former] Yugoslavia
- 1974 2nd World Space Modelling Champs Dupnica, [former] Czechoslovakia
- 1978 3rd World Space Modelling Champs Yambol, Bulgaria
- **1980** 4th World Space Modelling Champs Lakehurst NJ, United States of America
- 1983 5th World Space Modelling Champs Nowy Sacz, Poland
- 1985 6th World Space Modelling Champs Yambol, Bulgaria
- 1987 7th World Space Modelling Champs Belgrade, [former] Yugoslavia
- 1990 8th World Space Modelling Champs *Kiev,* [former] USSR
- **1992** 9th World Space Modelling Champs Melbourne, FLA, United States of America
- 1994 10th World Space Modelling Champs Leszno, Poland
- **1996 11th World Space Modelling Champs** Kamniska Polygon, Ljubljana, Slovenia
- 1998 12th World Space Modelling Champs Suceava, Romania
- 2000 13th World Space Modelling Champs Liptovsky Mikulas, Slovakia
- 2002 14th World Space Modelling Champs

- Sazena, Czech Republic
- 2004 15th World Space Modelling Champs Deblin, Poland
- 2006 16th World Space Modelling Champs Kosmodrome Baikonur, Russia/Kazakhstan
- 2008 17th World Space Modelling Champs Lleida, Catalunya, Spain
- 2010 18th World Space Modelling Champs Irig, Srbija
- 2012 19th World Space Modelling Champs Liptovsky Mikulas, Slovakia

Editor's note... Naturally, we now need to do the same for the *European Space Modelling Championships*. As well as that, the point where *Seniors* and *Juniors* became discrete entities, needs to be agreed upon. Can YOU help?!?

Once more, we are grateful to Alexander Mituriev, Stanislav Zhidkov, Ioan Radu, Gerry Gregorek and Antonio Mazzaracchio for their valued contributions. Space Modelling is lucky that it has so many active historians, who are not afraid to root out the truth.

Scale section... Jason

Wentworth reports from Alaska..

A BUMPER Bundle to get us started for 2013! Jason Wentworth has rummaged through the archive to find some truly interesting – and in one case, very topical – links. Enough from the Editor and over to Jason..

There is an alternative satellite launch vehicle configuration that could be used to enhance the *Haas 2C* satellite launch vehicle – employing "side-mounted" satellites & upper stages see:

http://space.skyrocket.de/doc_lau_det/atlas-d_ov1.htm

...This was done successfully in the 1960s by the US Air Force. In these launches, an OV1 satellite with an

attached *OV1-PM* propulsion module - the propulsion module was an upper stage, an *Altair 2* [*X-258*] solid propellant rocket motor - was carried in a streamlined pod that was affixed to the side of an *Atlas* ballistic missile, just above its booster engines section – find more *OV1* links are below. This side-mounting method has several advantages. They are:

 The first stage can have a lighter structure because it does not have to support the weight of the upper stage and the satellite mounted to its front end.
The side-mounted upper stage and satellite have a

more benign launch environment, particularly with regard to vibration and transverse (side-to-side) acceleration loads due to the first stage's flexing, which happens with front-mounted upper stages and satellites.

 Due to the lack of upper stage and satellite mass up front, the guidance system's control laws are simpler because they do not have to account for (and compensate for) the larger flexing moments of rockets with front-mounted upper stages and satellites.
The *Atlas/OV1* vehicles could (and did..) carry multiple *OV1* satellites, each with its own attached propulsion module (upper stage), which enabled the satellites to reach different orbits. A *Haas 2C* with sidemounted upper stages and satellites could also offer this capability. In addition, below are more links to information on the *Atlas/OV1* vehicles: http://space.skyrocket.de/doc_lau_det/atlas-d_ov1.htm

Atlas D vehicles with side-mounted and top-mounted *OV1* satellites:

http://www.designation-

systems.net/dusrm/app3/ov.html Designation Systems *OV1* satellites article: http://space.skyrocket.de/doc_sdat/ov1.htm Gunter's Space Page *OV1* satellites article: http://www.milsatmagazine.com/cgibin/display_article.cgi?number=875531263 "*MilsatMagazine*" OV satellites article: http://www.astronautix.com/craft/ov1.htm Astronautix.com OV satellite series article: http://en.wikipedia.org/wiki/Orbiting_Vehicle Wikipedia OV satellite series article: http://www.dtic.mil/dtic/tr/fulltext/u2/824972.pdf

Generation Orbit see: www.generationorbit.com

...has new illustrations of their two air-launched rockets. On their media page:

www.generationorbit.com/index.php/media/imagegallery/92-go1r-sm

..they have illustrations of their *GO1R-sm*, a short (singlestage) rocket for carrying 15 kg - 100 kg payloads on suborbital trajectories. Also illustrated is their *GO2R-sm*, a two- or three-stage microsat launch vehicle - employing the *GO1R-sm* as its first stage - which is intended to place 20 kg - 30 kg satellites into Low Earth Orbit. Sport Scale models of the *GO1R-sm* and the *GO2R-sm* could use BT-5 body tubes and the plastic BT-5 nose cones that are used in the Estes Mosquito kits.

Editor's note.. This next bit is very topical. North Korea have been breaching UN protocols recently and launching rockets/satellites. Check out...

www.spaceflightnow.com/news/n1212/12northkorea/

...about North Korea's first satellite, which they launched yesterday [12th December 2012 – Ed], a reader posted the following information about tracking it (it passes directly over Alaska). *"Tonya71"* wrote: You can track it now on the heavens above site. Set up your location if you want to know when it passes over. www.heavens-above.com/orbit.aspx? satid=39026&lat=0&loc=Unspecified&alt=0&tz= UCT

..And not to be outdone, a little something on South Korea's Space Program...this is turning into a proper Space Race! South Korea's *Naro-1* vehicle is scheduled to lift off on December 31. More details are here: <u>www.oldrocketforum.com/showthread.php?</u> t=11957

..Unlike our hurried *Vanguard TV-3* "flopnik" response to *Sputnik* on December 6, 1957, the South Koreans - whose *Naro-1* satellite launch vehicle has failed to inject their *STSAT* technology development satellites into orbit on the previous

two attempts--are moving at their own pace, so as to leave no system or component un-checked. That's all for now.

European Model Rocketry...

Oliver Missbach has a plea?!?

THANK YOU for the copy of 'The interspace.. Book of Space Travels'. This will take it's place in the European Model Rocketry website and no doubt will attract a significant amount of reader interest.

http://www.europerocketry.com/index.php? id=rocketbooks

"Sure, I received your book and was quite amazed - a wonderful journey back to the good old days! Specifically, I loved reading the chapter about the *Modellraketen Festivals!* I even rediscovered many details I just forgot - thanks for the great work you did with it, saving all the memories! Naturally, I would like to do a review on the *European Model Rocketry* (EMR) site!"

"Sorry for the late reply, I have been busy over the past few months. Thanks for your card and I hope you've had a good jump into 2013? I need some help to update the EMR 'page.."

"..<u>Specifically translators who can work in</u> English, German, French, Italian and other tongues.."

Control State.. Can anyone out there help Oliver Missbach in his quest to update the EMR 'page and translate it into a spectrum of languages? Oliver may be reached on: <u>http://www.europerocketry.com</u> and.. http://www.europerocketry.com/index.php?

id=contact

EMR plays a vital role in uniting a varied European Model Rocketry-Space Modelling scene. It is vital it is kept up to date, in order to reach the widest possible audience.

Request for global agents..

Some super products available from Mitja Žgajner & Blaž Grgič

SLOVENIA has some of the World's best Space Modellers. Two of these are Mitja Žgajner and Blaž Grgič – the former, 2011 interspace.. *Space Modeller of the Year*. Recently, the Editor received the following..

"We are the *Mistralteam* and design and build radio controlled (RC), rocket boosted Space Models for World Class events all over Europe. To develop our business interests, we are looking for agents in a range of countries who could sell these RC rocket models – specifically *S8E/P-RC Rocket Gliders*, named *Mistral* around the globe. Check out the links below to illustrate our products. Much more can be found on our Facebook page and it will be great to hear from **interspace..** readers.."

http://www.facebook.com/#!/pages/MISTRAL-S8Epspacerocket/114493038666973? sk=messages_inbox&action=read&tid=id.207265446 039822

.."Interested? ..then please contact us on.." mitjazgajner@gmail.com

"We will be contesting a spectrum of events throughout the 2013 season and look forward to meeting you all".

HAPPY 2013 AND BEST WISHES FROM *MISTRALTEAM*

Ringpiece.. *Any more for any more?!?*

2013 is up and running. The FAI Space Modelling calendar looks as good as ever. Thanks are offered to all contributors, just space for a quick ad..

The interspace..

Book of Space Travels

...is now beginning to attract attention. Thanks are offered to readers who have already purchased copies, I just hope it's 'a good read'.. For the rest, the details are.. Price

UK	$\pounds 12 + \pounds 2$ postage
Europe	€16 + € 4 postage
USA	\$19 + \$9 postage
Contact:	
Stuart Lodge	
15 II	

25 Huntingdon Drive Castle Donington Derby ~ DE74 2SR **United Kingdom**

01332 391690 (UK) +44 1332 391690 (global) <u>stuart.lodge1@ntlworld.com</u>

Let's let Alexander Mituriev

....have the last word in this issue:

<u>He</u>: "Listen, math-head You are all about calculation. Don't you see the inherent worth of the way itself, all those discoveries on the way to your destination? Okay, put the Goal on the podium. And what? ..You will reach this one and then what comes after? ..Just a new goal: What else? ..But you will miss and will not notice the richness of what is around you. I have met them, those with the cold faces."

Voice: "And who is talking about «score» and «result»? You, who was chasing «meters», «seconds» and eventually «gold-silver-bronze», on the fields around the world for many years."

<u>He:</u> "You know full well that these «medals» upon being awarded, were thrown away out of sight and not because of a false modesty but ..."

<u>Voice</u>: "..Oh yes, in order that those of the past will not distract you from winning more, in the future."

<u>He</u>: "You are right, Voice. Not to distract or disturb. However, not for more «medals», but from the process itself, the journey, from the richness of its colours. And not to isolate yourself upon,

«I'm so good..», looking into a mirror of the victories of the past. Success is brighter when you are giving in to a journey, not to a result."

... I'm getting too old (but I don't feel that) -I'm quoting myself.