



Spaced out in Scale

SPACE MODELLING became a reality in the early 1960s, when the iconic G. Harry Stine presented FAI-CIAM with conceptual ideas for international contests. Scale models featured significantly, with the first event taking place in 1966, at Dubnica nad Vahom, in the former-Czechoslovakia.

Stuart Lodge

FAI Scale Space Models

We fly two Scale classes – **S7-Scale**; a 'Super-Scale' event and **S5-Scale Altitude**; a performance class, where the judges' score in the judging hall is added to the achieved altitude in the qualification flight. So how does it all work?

S7-Scale

S7-Scale ~ equating to FAI class F4-Scale model aircraft. Choose a prototype, research it, model it to the last rivet and compose a documentation pack to impress the judges. Then execute a qualification flight packed with Special Effects (SFX). Static judging includes, Degree of Difficulty, Scale Adherence, Workmanship & Finish and the docs pack scrutinised for completeness...but not scored these days. Simplistically, the more complex the prototype; more details; more accuracy; more motors; better finish; best flight with the most SFX; more parachutes/streamers, the higher the score...but only if it all works! Prototypes include Arianes 1-4 (France & Europe); Soyuz, N1, Energia-Buran (former Soviet Union & Russia); Mercury Redstone, Saturn 1B, Saturn 5, Space Shuttle (United States); Shenzou (China). These typify the rockets found in S7-Scale.

Challenges...there are too few prototypes to model, with too many *Arianes* and *Saturn 1Bs* in most entries. It gets worse, only prototypes that have actually boosted may participate in FAI

events. This means you can't copy the one in the museum, Cape Canaveral, or the Kosmodrome!

Recent FAI Sporting Code changes, including not scoring the docs packs and layering in an 'Originality bonus' for prototypes unique in the hall, for both S7-Scale and S5-Scale Altitude, have helped to increase both diversity and numbers in World Cups. S7-Scale had become too academic and too restricted in content; innovative changes were needed to ensure the future. Juniors fly to the same rules as their forebears.



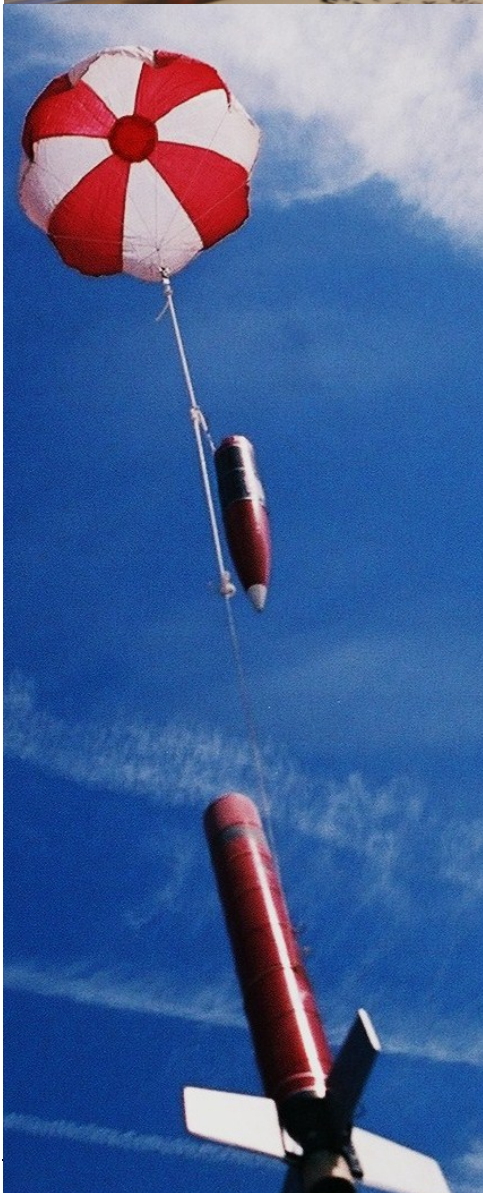
S5-Scale Altitude

S5-Scale Altitude ~ how high do they go? Re-read the S7-Scale section, add minimum model dimensional specifications and propellant Specific Impulse – motor power - limits, plus an *electronic Altimeter* (eAltimeter) and we have an attractive performance event. The class is best flown two-staged, with prototypes traditionally including, *Bumper WAC*, *Taurus Tomahawk*, *Nike Apache/Cajun/ASP*. On 2-staged rockets, the first part of the name - *Taurus* & *Nike* - is the first stage booster; the second - *Apache*, *Bumper* - is the top stage.

Challenges...one prototype had begun to dominate major events, *Bumper WAC* filling the top-14 places in Seniors at the 2014 World Championships! Novel rule changes outlaw 'pencil' top stages facilitating novel selections of *Meteor-1*, *ARCAS*, *Black Brants*, *INTA 300*, *S31-41*, *Citefa PBX10-1000* et al. At 2015's European Championships, in Ukraine, the judges hadn't heard of, let alone seen, half the prototypes in S5-Scale Altitude! Juniors fly smaller models, using half the Specific Impulse. Like S7-Scale, diversity could be better, but flights are very spectacular and spectators enjoy

watching. Scoring...take the Static Points score and add the eAltimeter reading in Metres...Simplz!





have taken us to the next level. 2015's S7-Scale World Cup events showed a 25% increase in participation over previous years. Yet more changes are on the table, with positive input from all over the world, ensuring not just survival, but positive growth of Space Modelling's Scale classes. To ensure a *Tomorrow*, it's vital to get it right *Today!*

Conclusion

Changes were needed and the latest Sporting Code revisions

CIAM Flyer 3-2016
<http://www.fai.org/ciam-our-sport/ciam-flyer>

Story by Stuart Lodge
 Editor:
 Emil Ch. Giezendanner
 editor@modellflugsport.ch