14.10 Section 4 Volume S – Space

Part Two – Space Model Specifications

a) 2.1 Weight and 2.2 Propellant **Slovakia**

Change text in paragraph 2.1 and 2.2. as shown below. Please check the Sporting Code as well and unify with this paragraph any references:

~~Gross or maximum weight, including space model motor or motors shall in no case exceed 1500 grams. It will be specified separately for each class in these rules.~~

See CIAM General Rules B.2.3 Class S Space Models

~~No more than 200 g of propellant materials shall be contained in its space model motor(s) nor shall their total impulse exceed 160 Newton-seconds (Ns).~~

See CIAM General Rules B.2.3 Class S Space Models

Reason: The wording is present twice (once on the Space SC and once in the CGR). This will keep the rule in one place to avoid any kind of duplicity.

b) 2.4 Construction Requirements **Slovakia**

Change text in paragraph 2.4.3. as shown below:

Construction shall be of any modelling material without substantial metal parts. A substantial metal part is a nose cone, body tube, fins, any hard, sharp and external pointed part or any internal ~~heavy~~ metal part that can cause injuries to persons or damages to property.

Reason: Safety rule update.

c) 2.4 Construction Requirements **Croatia**

Change text in paragraph 2.4.4. as shown below:

2.4.4 Minimum dimensions of subclasses of classes S1, S2, S3, S6 and S9 must not be less than:

Event Class	*Minimum external diameter (mm)* *~~(for at least 50% of the overall length)~~*		*Minimum Overall Length (mm)*
	Minimum Diameter (mm)	**Minimum Length (mm)**	
A/2	30	175	350
A **& B**	40	250	500
C	50	325	650
D	60	400	800
E	70	475	950
F	80	550	1100

Model length is the distance from the top of the model to lower part of the model's body.

Reason:

Tabular representation is a seemingly simple solution, but it is a trap because it requires calculating whether the model is in a class. First of all, the diameter can be measured with a calliper, but even that would require caution and knowledge. Model length, what is it? Distance of the furthest points on the model, measured along the longitudinal axis?
The definition of model length is – Model length is the distance from the top of the model to -
- A Lower part of the model's body,
- B The lower part of the motor holder that protrudes slightly from the body
- C The lower part of the motor that protrudes slightly from the body,
- D The lower part of the stabilizer that protrudes over the lower part of the body and motor,
measured along the longitudinal axis of the model.

Whichever you choose, it is a key part of continuing to enforce the model's diameter of at least 40mm at 50% of body length.
All four versions have their justification, so we need to decide and define the length of the model. It is the basis of the next control - whether the diameter is at least 40 mm at half the length of the model.
It sounds simple, but in practice, it requires a calculator.
It is much simpler to specify the length of a specific - the smallest diameter, which is now 50% of the total length of the model - in addition to the minimum length of the model. Then the table would look different -
-For models using A/2 power motors, then for the smallest model length of 350 mm, the smallest diameter of 30 mm/ would be at least 175 mm,
- For models with A and B motors, the minimum length of the model is at least 500 mm, a diameter of at least 40 mm must be at least 250 mm long,
-For models with C motors – minimum length is 650 mm, diameter 50 mm/at least 325 mm, etc.
This means, for motors A, that the length of the smallest diameter of 40 mm is 250 mm, and then the model must be long 500 mm or longer than 500 mm. Changing the length of the model, if necessary and at the will of the modeller, does not require a change in the length of the body part with a diameter of at least 40 mm.
The result of such a rule change means that when a model is made that has a required diameter of at least 50% of the model's minimum length, it can be longer without being disqualified. The longer model generally has somewhat weaker flight characteristics but is practical in some situations. The competitor can use a slightly longer head, longer fins, conical part or body without violating the required properties.

d) 2.4 Construction Requirements **USA**

Modify the dimensions for "A/2" models to be the same as for "A" models:

2.4.4 Minimum dimensions of subclasses of classes S1, S2, S3, S6 and S9 must not be less than:

Event Class	Minimum external diameter (mm) (for at least 50% of the overall length)	Minimum Overall Length (mm)
A/2	~~30~~ **40**	~~350~~ **500**
A	40	500
B	40	500
C	50	650
D	60	800
E	70	950
F	80	1100

(The remainder of Rule 2.4.4 stays the same.)

Reason: Changing the dimensions for A/2 models allows the same models to be used for A/2 and A events. This provides greater diversity of events. It also allows the competitors to use existing construction tooling and transportation boxes for A/2 and A events. Using larger models for A/2 events also increases the challenge of competition. Many prior competitions have shown that using 40 mm models with A/2 motors is feasible and very competitive. Using 40 mm models for A/2 events also allows competitions to be held in smaller fields. This is important in locations where huge fields may not be available.

e) 2.4 Construction Requirements **Slovakia, Croatia and Italy**

Amend the following text in paragraph 2.4.7 as follows:

~~Models in Classes S4 and S8 must fly and land without separation of any part in flight.~~

Models in Classes S3, S4, S6, S8 and S9 must fly and, in case of S8 land, without separation of any part in flight. A part of a model is defined as any component in or on the model at the time of the launch.

Reason: The intention of this rule change is to unify all classes which have the "non part separation rule" on one place and add a specific definition of a model part.

comment : if proposal is accepted, amend all considered paragraphs with the deletion of the then obsolete wording.

Part Three – Space Model Motor Standards

f) 3.8 Burning **Croatia**

Change text in paragraph 3.8. as shown below:

A space model motor in operation shall expel from its nozzle no pieces of burning propellant and shall be incapable of igniting a piece of dry paper **(80 g/m²)** or grass at a distance of one metre or more from the nozzle of the motor.

Reason: What dry paper? Pyrotechnic Norms use writing paper 80 g/m² in such a case.

g) 3.10. Certification for FAI Contests **Serbia**

Change text in paragraph 3.10.3. as shown below:

~~3.10.3 The organisers of World and Continental Championships are not obliged to perform a static test during the event if they provide all motors of the same type by the same manufacturer for all participants in a particular class or classes. In such a case, the organiser shall get the certification document in accordance with 3.10.1 from the manufacturer and/or do the static test for random samples of motors to be used, prior to the Championships to make sure that the delivered motors are in compliance with the space model motor standards. This shall be specified in Bulletin 1 for the Championships.~~

3.10.3 Organization of motor distribution

In the Bulletin 1, the organizer lists at least two motor manufacturers whose motors will be used in the competition, as well as a list of motors with characteristics.

Competitors, by registering, request a motor for themselves or a team at the competition and make payment to the organizer along with the payment of fees for participating in the competition.

Motors for all teams or competitors are delivered by the organizer and placed in waterproof boxes that would be delivered to the meters at the starting points of the competitors at the time of the starts, where the motors would be available to the competitors under the supervision of the timekeepers.

The motor manufacturer is obliged to provide the organizer with attestation lists with work diagrams for each type of motor submitted for the competition, two attestations for each type of motor with no greater deviations of +- 10% in relation to the given motor power and operating time tracker.

Reason:

1. The advantages of this type of organization of work with motors is the greater safety of delivering motors to the place of organization of the competition and the reduction of the risk of transporting motors across the border.
2. Reduction of the time required for the motor certification, as well as the anger and furniture required for the motor certification.

3. Reducing the costs of the direct organizers of the competition for the time and anger required for the motor certificate.
4. Elimination of the use of stronger motors.

h) 3.13 Space Models Motor Testing Standards **Croatia**

Change text in paragraph 3.13.4 as shown below:

3.13.4 Static test shall be conducted with the test motor at a temperature of 20 degrees Centigrade, +/-5 degrees of Centigrade. **If it is not possible to provide a thermal chamber for testing the motor at 20 °C, for measurements at a temperature of 30 °C and above, a tolerance of +1% of the Total impulse can be introduced.**

Reason:
OK, when testing the motor, depending on the severity, the test temperature is defined, whereby the tested motors must be tempered 24 hours before the test at the desired temperature. For smaller and lighter objects, the tempering time can be shortened, so for such, mostly small motors with impulses of 2.5-80 Ns, a few hours of residence in the chamber, without insulating packaging, is probably enough. The problem is that if we stick to the rules that we have written ourselves, we must have a temperature chamber that maintains the set temperature. We don't have chambers, so it is clear that at a temperature of 30°-35° C, the motor impulse will be slightly (slightly!) higher. This means that masters who test motors should not be too strict, but must tolerate that heated, untampered motors give a few percent higher impulse.
It is a difficult decision - whether to remove this requirement from the Ordinance until further notice or to make it a condition that a thermal chamber capable of maintaining a temperature of 20° +/-5° C is provided for motor testing.

i) 3.14 Type Identification **Croatia**

Change text in paragraph 3.14.2 as shown below:

3.14.2 Standard marking on the exterior of the casing of a space model motor shall consist of ~~four~~ **the** marks: a) manufacturer's name or logo, b) motor class (and total impulse) marked by a capital letter in accordance with paragraph 3.1.4 of these rules, c) **maximum thrust in Newtons (N) marked by a numeral/** average thrust in Newtons (N) marked by a numeral, d) delay time an seconds (s) marked by a numeral, **e) date of manufacture, (day, month and year of production), f) model rocket motor (?).** ~~When the colour coding of the nozzle end is used, a manufacturer is obliged to provide an affidavit that explains this coding with every delivered quantity of the motors that shall be submitted to the Contest Organiser.~~

Reason: A sheet with the necessary markings and instructions for safe use (according to FAI safety measures) and destruction should be attached to the motor packaging. Part of these markings should be printed with permanent ink on the motor itself. I think it's the markings – Manufacturer's logo, model rocket motor, motor power (Ns) as a letter designation A-F, maximum/average thrust in Newtons (N), the delay time in seconds (s), and date of manufacture. All permanent information must be written on the accompanying sheet - the method of transport and storage and the time of use with the correct handling of motors, instructions on safe use and destruction, a thrust/time diagram, a tabular representation of characteristic properties and the like. Labelling requires motor manufacturers to be involved. In addition to technical data, they must provide instructions on the

transportation and storage of the motor. For a better insight into this issue, below is the first page of the "Regulations on the method of labelling explosive substances", valid in the Republic of Croatia.

Part Four – General Rules for International Contest

j) 4.4. Official Entries **Croatia**

Change text in paragraph 4.4.3. as shown below:

4.4.3 Builder of the model

The judges shall make every reasonable effort to ensure that each competitor has completely constructed the model entered in the competition with “construction” to be interpreted as the action required to complete a model starting with no more prefabrication than the amount used in the average kit. Models that are completely prefabricated or require only a few minutes of unskilled effort for their completion shall be excluded from the competition. Materials and designs may be obtained from any source, including kits. The space model must be prepared for flight by the competitor and optionally assisted for flight by one helper. The helper may ~~not~~ be a competitor within the same event. For Junior Competitors, ~~the age of the helper shall also comply with the age category for Junior Competitors~~ **senior – instructor can be the helper.**

Reason:
The model must be prepared for the start by the competitor and may be helped by an assistant, who must not be a participant in the competition (in that category?) Given that the competitor is usually helped by colleagues from the team, that attitude should be eliminated or the RSO will have a lot of work to see who helps the competitor.
According to the Rulebook, for juniors, assistants must only be juniors. The current practice is that the instructor goes with the junior to the start, so you need to think about how to write it. Juniors as helpers are a good idea that is difficult to implement in practice. What to do next? I think that seniors should be allowed to be helped by a colleague from the team and juniors by an adult instructor (coach). When something happens, what are the legal implications for the trouble caused by two minors?

k) 4.5 Official Flights **Italy and Slovakia**

Change text in paragraph 4.5.1 as shown below:

A flight is considered official if the model or any part of the model leaves the launching device, loses contact with the launching device after ignition, or becomes airborne, except in the case of a catastrophic failure according to the provisions of Rule 4.6.3., in which case the flight is not considered official. **Any effort to make an official flight within a round is defined as an attempt. A misfire (failed motor ignition) is not considered as an attempt.**

Reason: The current definition is missing a dedicated definition of what is an attempt. As well the definition of a misfire and its connection to the attempt is not specified, what is the intention of this rule change.

l) 4.5 Official Flights **Croatia**

Change text in paragraph 4.5.1 as shown below:

4.5.1 Definition of an Official flight
~~A flight is considered official if the model or any part of the model leaves the launching device, loses contact with the launching device after ignition, or becomes airborne, except in the case of a catastrophic failure according to the provisions of Rule 4.6.3., in which case the flight is not considered official.~~

The flight starts when the model after ignition (at least one motor) leaves the launcher.

Reason: Moving a model with the activated motor in the launcher is not flight. The flight starts only when the model leaves the launcher.

m) 4.5 Official Flights **Croatia**

Change text in paragraph 4.5.3 as shown below:

4.5.3 Definition of an Unsuccessful Attempt
An attempt is classed as unsuccessful if the model leaves the launching device and at least one of the following cases occurs:

a) model collides with another model during the flight,
b) proven frequency interference for radio-controlled models,
c) catastrophic failure according to the provisions of rule 4.6.3,
d) “no close” or “track lost” for altitude models.

If this happens on the first attempt in a round, the competitor is entitled to a second attempt in the same round **or in the first half of the next round**.

Reason: After listing everything that can cause a failed attempt, the last sentence kind of refutes it. The rulebook further states that the start should be repeated in similar weather conditions, so this means that as soon as the RSO or the jury allows a restart, it can be done in that round (if it can be reached) or immediately at the beginning of the next round. Then the weather conditions were the most similar to the conditions from the missed start.

n) 4.8 Timing And Classification **Slovakia and Serbia**

Change text in paragraph 4.8.2. as shown below:

The total time of the **two** or three flights of each competitor is taken for the final classification unless otherwise defined by the rules of a particular class. **The organizer, in agreement with the jury, specifies the total number of flights prior to the competition in the last Bulletin. In case the total number of flights is less than three, only one (1) model is eligible for entry.**

Reason: The presented rule change allows versatility for the competition in the number of flights as well gives more dynamics in the competitions in general.

Part Five - Altitude Competition (Class S1)

o) 5.4 Classification **Italy**

Change text in paragraph 5.4. as shown below:

5.4. CLASSIFICATION
Every competitor shall be given three opportunities to make official flights. The best out of three flights shall be taken for classification. In case of a tie, the second or even the third flight shall be decisive. If the tie remains, competitors shall be allowed to make an additional flight ~~and they may use a new model~~**.**

Reason: The case of using a new model for fly-offs is already covered in CIAM General Rules, 2022 Edition -PART FOUR – GENERAL RULES FOR INTERNATIONAL CONTESTS.

p) 5.3 Sub-Classes **Slovakia**

Change text(delete total impulse column) in paragraphs 5.3. , 6.1.7, 7.4, 8.4, 10.5., 11.6., 12.5., and 12.6.5. as shown on the example below:

Class	~~Total Impulse (Newton-seconds)~~	Maximum weight (g)
S1A	~~0.00-2.50~~	60
S1B	~~2.51-5.00~~	90
S1C	~~5.01-10.00~~	120
S1D	~~10.01-20.00~~	240
S1E	~~20.01-40.00~~	300
S1F	~~40.01-80.00~~	500

Reason: The current total impulse presented in the table for each class is obsolete, as all specifications for class and impulse are presented in part 3 of the SM Sporting Code.

q) 5.4 Classification **Slovakia and Serbia**

Change text in paragraph 5.4. as shown below:

Every competitor shall be given **two** ~~three~~ opportunities to make official flights. The best out of **two** ~~three~~ flights shall be taken for classification. In case of a tie, the second ~~or even the third~~ flight shall be decisive. If the tie remains, competitors shall be allowed to make an additional flight and they may use a new model.

Reason: During the past years it was shown that two flights in this class are sufficient, as only the best counts. The majority of competitors end their flying after the first of second successful flight. A third additional flight leads only to the prolongation of the competition and is in almost none of cases helping to improve the score. Two flights/opportunities with two models will make the competition more dynamic as each round can be extended.

Part Six - Payload Competitions (Classes S2 & S2/P)

r) 6.2 Class S2/P Precision Fragile Payload Competition **USA**

Change text in paragraph 6.2.5. as shown below:

The score for each flight shall be the absolute difference between the recorded altitude and 300 metres (always a positive number) plus 3 times the absolute difference between the recorded duration and 60 seconds (always a positive number). Any flight which is disqualified for a reason other than a broken fragile payload, or which receives no altitude score, shall receive a score of ~~100~~ **500** for that flight. The score for the event shall be the sum of the scores from each of the three flights. The lowest score is the winner. In the case of tie the best (the lowest score) in a round is decisive.

(The remainder of Rule 6.2.5 stays the same.)

Reason: Depending on flying conditions (wind, size of field, etc.), there can be situations in S2/P where the score for a successful qualified flight could easily exceed 100 points. The current score (penalty) for a disqualified flight is only 100 points. With the current penalty score of 100 points, there could be situations where a competitor could be rewarded for disqualifying a flight compared to a competitor who made a successful qualified flight under difficult conditions. Increasing the score (penalty) for a disqualified flight to 500 points will eliminate any potential competitive advantage of making a disqualified flight.

s) 6.2 Class S2/P Precision Fragile Payload Competition **USA**

Add new paragraph 6.2.7 to allow replacement of the model:

6.2.7. Replacement of Model

If a model is damaged by a catastrophic failure (cato) of the motor, a competitor may replace the model and may use a new fragile payload.

Reason: Motor failures are rare but sometimes occur. A competitor should not be penalized by a motor failure which is beyond the competitor's control. If a model is damaged or destroyed by a motor failure, the competitor should be allowed to replace the damaged model and fragile payload with new ones.

Part Seven - Parachute/Streamer Duration Competition (Classes S3 And S6)

t) 7.4 Sub-Classes **Slovakia and Serbia**

Change text in paragraphs 7.4, 12.5.and 12.6.5. as shown on the example:

Class	Total Impulse (Newton-second)	**Minimum Flight Weight (g)**	Maximum Weight (g)	Maximum Flight Time	
				Parachute (sec)	Streamer (sec)
S3A/S6A	0,00-2,50	**20**	100	300	180
S3B/S6B	2,51-5,00	**20**	100	420	240
S3C/S6C	5,01-10,00	**40**	200	540	300
S3D/S6D	10,01-20,00	**100**	500	600	360

Reason: Current models are, due the very low weight, gaining high performance, but are hardly affordable due high costs and can be used for no more than two-three launches. For a long time there has been a discussion on how to lower the

performance of duration models. The most harmless way without doing any changes to the dimensions or lowering the total impulse is to introduce the minimal flight weight. This will on one side lower the performance, on the other side make models affordable to wider public as a competition model can be built by using standard materials. The biggest advantage of this rule change will be that the models can be build stronger which results in less models needed to compete in a season. As well the competition becomes generally more challenging as the main focus will be moved to create the better recovery device, not a light model.

Part Ten– Scale Altitude Competition (Class S5)

s5) 10.2 Rules and 10.3 Scoring **Slovakia**

Change text in paragraphs 10.2 and 10.3. as below:

10.2. Rules
All entries must comply with the rules of Scale competition (Part 9) and will be judged under the same rules and receive the same number of maximum scale quality points except that **two** ~~three~~ flights will be allowed and no flight characteristics points will be given.

10.3 Scoring
The total number of scale quality points awarded to an entry will be added to the highest official altitude achieved by the entry. Only in the case of “no close” or “track lost”, no altitude points are added but the flight is considered qualified and the competitor’s static points will be taken to decide the final classification. Otherwise, if the model does not make a qualified flight after **two** ~~three~~ attempts, the final classification will be zero.

Reason: Results in the last years have shown that two attempts to make a qualified flight in this class are sufficient as there is only one model. The lowering of the number of attempts will lower the needed time for the class and as well make the competition more dynamic.

Part Eleven - Rocket Glider Duration Competition (Class S8)

u) 11.4 Timing and Classification **Slovakia**

Change text in paragraph 11.4.4. as shown below:
60 additional points will be awarded if any part of the model lands within the ~~20 by 20 metres~~ Target Landing Zone **specified in par.11.2**. During landing, if the model hits the pilot or their helper, or the pilot lands the model outside the Target Landing Zone, no additional points will be awarded for landing.

Reason: Unification with paragraph 11.2, as the landing zone dimensions are presented twice with a mistake.

v) 11.7 Class S8P Radio Controlled Rocket Glider Time Duration and Precision Landing Competition **Slovakia**

Change text in paragraph 11.7.2. as shown below:

The competition has only one subclass determined for models which comply with subclass S8~~E~~**D**. Total impulse of motor(s) ~~20,01 to 40,00~~ **10,01 to 20,00Ns** is allowed.

Reason: The current models fly too high and there is no problem to achieve the 360s maximum flight time for this class. By changing it to comply with a lower impulse motor class, thus lowering the altitude, the class will become more challenging and interesting.

Part Twelve – Gyrocopter Duration Competition (Class S9)

w) 12.1 General **Slovakia and Italy**

Change text in paragraph 12.1 as shown below:

Gyrocopter Duration Competition comprises a series of events open to any single-staged space model which uses the principle of auto-rotation as the sole means of recovery. During the flight, no part of the model ~~other than ejection protectors or wadding~~ may be detached or jettisoned.

Reason: Unification with Classes S3 and S6.

Class S12/P Time Duration Triathlon Tournament

x) 12.6.4 Timing and Classification **USA**

Add paragraph 12.6.4.2 to use normalized scoring so that the three events in the triathlon have the same importance:

12.6.4. Timing And Classification

12.6.4.1. Timing and classification rules 4.8. 7.4. and 12.5 will be used for this competition.

12.6.4.2. The winner of a particular round receives a score of 1000 points for that round. Other competitors receive points for the round as follows:

$$P_c = 1000 \times R_c / R_w$$

where:
P_c = points of the competitor
R_c = result of the competitor
R_w = result of the winner

The calculated score shall be recorded (rounded) to one place after the decimal point.

Reason: S12 consists of three rounds with three recovery devices (S3, S6, and S9). The max score for S3A is 300 seconds, while S6A and S9A have a max score of 180 seconds. Using the actual duration makes S3 significantly more important than S6 or S9. The use of normalized scores provides equal weighting for the three events.

y) 12.6. Class S12/P **USA**

Add a new paragraph to define situations where a competitor may replace a model:

12.6.6. Replacement of Model

A competitor may replace a model if:

1) A competitor cannot return his/her model from an inaccessible place where recovery would pose a hazard to the competitor but can point it out to an official. The Contest Director must state prior to the start of competition what distance limits officials may travel.
2) A model is damaged by a catastrophic failure of the motor.

Reason: There can be situations where a model lands in a visible location (tree, power line, off-limits field, etc.) but recovery and return of the model would present a safety hazard. To avoid unsafe situations, the competitor should be allowed to replace the inaccessible model with a new model. Also, if a model is damaged or destroyed by a motor failure, the competitor is allowed to replace the model with a new one.

Annex 3 – Space Models World Cup

z) 4. Points Allocation **Slovenia**

Add the following text as shown in point 4:

4.Points Allocation

Points are to be allocated to competitors at each contest according to their placing and results as given in the following formula below:

$$B = K \times \left(\frac{X}{Y} + \frac{\log(A) - \log(N)}{10} \right) \times 100$$

where:

B = points awarded to the competitor

X = competitors score

Y = winners score

A = number of competitors

N = placing of competitor.

K = ~~1~~ **depending on the number of countries attending a class, K will be the following:**

Number of different countries at a World Cup contest	**K**
2	**1,00**
3	**1,05**
4	**1,10**
5	**1,15**
6	**1,20**
7	**1,25**
8 and more	**1,30**

Reason: The K factor in competitions should depend on the number of countries entered as it ensures the higher complexity, thus harder achievable points to get. With this correction, the final result will depend as well on how many countries have competed in the World Cup.

aa) 4. Points Allocation **Slovakia**

Amend the following paragraph as stated below:

Points are awarded only to competitors completing at least one flight in the contest**. The score shall be recorded (rounded) to one place after the decimal point.** In the case of a tie for any placing, all competitors with that placing receive the number of points appropriate to that placing. ~~The corrected score shall be recorded (rounded) to one place after the decimal point.~~

Reason: Clarification of the rule and getting general output of points for all classes in the World Cup.

Annex 4 - Space Models International Ranking

ab) 6. Classification **Slovenia and Slovakia**

Amend the following paragraph as stated below:

c) To determine the total score up to **twelve** ~~seven~~ events of at least ~~two~~ **three** different classes will be counted, selecting each competitor's best results during the year.

Reason: More competitions give a better overview of the competitors performance and thus make the scoring more objective as the competitor needs to be fully active during the year.

Annex 5 – FAI Space Model Safety Code

ac) 4. Missfires **Slovakia**

Delete the text in Annex 5 point 4, as it is the same text as states in par. 4.3.5 (page 17):

~~If a space model does not launch when the button of the electrical launch system is pressed, the launcher's safety interlock shall be removed or it shall be disconnected from its battery, and 20 seconds must pass after the last launch attempt before anyone approaches the space model.~~

Reason: *Simplification as this rule is presented twice in the SC.*

ad) 5. Range Safety Officer **Slovakia**

Delete text in paragraph Annex 5 point 5 as shown below:

~~During all operations concerned with the launching and flight of space models, all authority for the safety and conduct of operations on the flying field shall be vested in a Range Safety Officer (RSO) who must be a member of a National Airsports Control and who must be 18 years of age or more.~~ All space models presented for operation on the flying field shall be permitted or denied flight by the Range Safety Officer on the basis of his considered judgement with respect to the possible safety of the model in flight.

Reason: The same text is presented in paragraph 4.3.1. so it is obsolete to keep it on two places.

ae) 8. Size **Slovakia**

Delete text in paragraph Annex 5 point 8 as shown below:

~~Space models shall not weigh more than 1,500 grams at lift-off and shall not contain more than 200 grams of propellant or 160 N-sec of total impulse.~~

Reason: Data for model size are presented several times on several places, one place in enough.

CGR : Section reserved for S – Space

f) C.10. 2 Number of Models eligible for entry Italy and Slovakia

Add the following text in par.C.10.2 as follows:

For classes S1, S2, S3, S4, S6, S8 and S9 one (1) additional model may be processed and flown by the competitor on there being a tie for first place at the end of the third round. **A single (1) model may be processed only in the case that after the first fly-off the winner is not decided and none of the competitors has retrieved his model or if there is no official flight in the second fly-off.**

Reason: The intention is to clarify when another model may be issued to the competitor in case of a F-O, and in case of a unsuccessful second F-O, to avoid any issues which happened in the past. Concrete cases happened during the World Championships both in 2014 in S3A and in 2018 in S9A. In 2014 it was the subject of long discussions and agreements between jury and Team managers. Since then, it has become a custom that needs to be regulated.