NAVIGA News: Summary of suggestions

Ok my friends, here we go with the summary of proposals as being sent in by various countries. Some points are clear cut and straight forward, so they do not need to be voted on in my opinion. But in several cases there are opposing opinions on my questions. As agreed at the Technical Committee Meeting in Hungary, those points will be voted upon by all of you, in order to have a majorty based descission. I will go trough all the points as they were put in my questionaire:

Point 1: set the Limit value. First of all i propose we use Wh here, it is easily coverted to Wmin by multiplying by 60, but to avoid confusion i think it s best to use only one unit of Energy for the Rules.

Several coutries opted to go for 53Wh, since that was the value we started our tests with, but in the answers form several countries, i notice a higher ammount of Energy to be used. Based on different reasons like higher Capacity batteries being commercially available now, there is indeed logic in that idea.

The whole idea of the Limiter principle to start with was to give an EQUAL!! alternative for the weight limited batteries. So i do think we need to adjust the starting value accordingly.

Since the actual value of commercialy available batteries these days is 5000 to 5050 mAH in 3S, that should be equaled to at least 56Wh. The reasoning of Poland where the nomimal Voltage during discharge is not 3.7V but more like 3.8V per cell is also a good point, hence the limit value should then be 58Wh even.

I think in all of this there are pro's and contra's on bith side , so i think we can only establish these values by voting.

For each "energyband" there are 3 possibilities ,A,B and C, simple answer for each point A B or C.

So here goes:

1.1 (mini class	ses) A= 19\	Nh	
	B= 2	B= 20Wh	
	C= 21Wh		
1.2	(eco,M1,H1)	A=53Wh	
	B= 56Wh		
	C= 58Wh		
1.3 (M2,H2)	A= 106Wh		
	B= 112Wh		
	C=	116Wh	
1.4 (FSR-E)	A= f	159 Wh	
	B= 170Wh		
	C= 174Wh		

Point 2: Update the Limit value according to commercialy available batteries on the market. Most countries seem to agree that is needed, but again 3 options.

2.1 once per year at beginning of the year: Yes/No

2.2 twice per year: Yes/No

2.3 once every 2 years: Yes/No

All of the above according to valid Section Rulechanges, as decided at the AGM 2017 which state that Rulechanges can now be decided every year, not nescesary at the TC Meeting at a WC. Voting is possible every year, vote by every section member country single point of contact (list is kept and updated by the section leader), email voting prepared by section leader, sent to all Naviga section member countries, in copy section leader and secretary general, deadlines, vote by "reply to all" email – YES/NO/obstain – if the response is not delivered in time, vote is not valid. In theory this excludes option 2.2

Point 3: Calibration in the field. I thnk we should define the difference between accuracy and calibration here. Accuracy test without the use of high end equipment cannot just be done in the field in my opinion. In this view Mr Marriot provided a good solution how a relative simpler test could provide this result. On the other hand as all manufactors claim an accuracy of less then 1%, do we realy need for this test, all the time?

Not all the 3 different versions of Limiters we have available can be re calibrated in the field , so that leaves us with a problem when we decide to require this.

Related to all this, Germany suggests to "seal" limiter entry port after registration so it becomes impossible to change any values without removing that seal. I have always been a great fan of that idea, but with the use of "non-removable", different color-coded stickers, it is also possible to use 1 limiter in different classes to prevent possible "cheating".

I think it boils down to do we need those accuracy/calibration tests yes or no

3.1 Yes + how to !!/No

In the case the majority decides on yes, i MUST have a workable and feasable method to do so too, requiring for this also means offering a solution too!

Point 4: minimum/maximum weight for limiter batteries. All appart from 1 country noone wants a min/max weight, so no restriction on that seems the best. But since it was proposed by Germany i will put it in: Minimum weight for limiter use as proposed (160gr, 400 gr, 800gr, 1200gr) 4.1 Yes/No

Point 5: ramp down time: again opinions vary between 3 and 10 seconds. In the Limiter comparison chart which is included in the limiter suggestion page, you could have read that the E-lim has a max ramp down time of 9 seconds, so 10 is not an option there. So that leaves 3 options:

5.1 3seconds

5.2 5 seconds

5.3 9 seconds

Point 6: dead time after limit is reached: 2 options:

6.1 60 seconds

6.2 90 seconds

1 remark here though. In FSR-E will 60 or 90 seconds be enough? If not a re-programming is needed for the dead time is the same for all 4 energybands, not set per individual band.

Point 7: check in and check out procedure: On this point i received very few answers in regard to procedure. In most proposals i find the common idea that the limiter must be placed in between the battery and the kill switch, for this is the only way to Ensure that by removing the kill switch the limiter does not get reset., Verification of the limiter being in the correct programm must be done. If we are to accept the idea of having "sealed" limiters, this obviously needs to be visually checked before and after too. But what do we do with Voltage in and out? Only 1 country suggested we still do those checks, and also stated their arguement as to why. And it is indeed a valid and important issue,so:

7.1 Voltage check before every heat Yes/No

7.2 Voltage check after every heat Yes/No

The "hat" system has been rejected by most countries due to the complexity of that, so that is also clear For team events where 2 people make up a team, i think it is the wisest to have a limiter directly connected to each pack used (i e 2 boats, 3 batteries means 3 limiters to prevent possible cheating, but this is a matter of specifying when we make up the class Rules after this.

Issues like returning to the pontoon once the limit is passed and the limiter re activates should indeed be mandatory in order not to make things too complicated for the lapcounting and Judges, but are more issue for general rules i think. The same goes for penalties and/or procedures for checking and so on. Those issues will off course be decided on by all of us, but are not at first hand now. First we handle the questions that were made in the questionaire, and then where needed create workable solutions for those situations.

A final point 8 brings me to the limiter device itself:

All used limiter have to meet the following requirements:

- it must be waterproof

- limit set for the class cannot be changed or can be prevented from being changed during competition by the racer

- accuracy of limiter is +/- 1%

- when the limit is reached the boat will slow down at first than stop - the limit must be renewed after some time (to give the possibility to go back to the platform)

- cannot be reset after disconnecting kill switch (to prevent racer to restore limit during the race for example when cleaning the leaves from the propeler)

- limiter device is non-dismountable device (covered with some mass to prevent people to dismantle it). This brings me to what do we do with any new devices that may be introduced in the future. In order to prevent "homemade" devices to be used there must be some criterea to determin wich devices are approved by all of us. Also we do not want too many different types to be used. The 3 models that are currently on the market have been developped with personal funds from the different manufactors. They have put in a lot of time and money in this project, so now when these devices can be used, it is only fair these should be approved by us.

Do we approve of the types that are currently in use ?(in no particular order MDLE-4; E-Lim; KLW202/001) 8.1 Yes/No

Do we accept any new models (not in previous list)to be used in the future? 8.2 Yes/No

In the case the answer is yes here, what shall then be the criterea or procedure for acceptance of such devices

So my friends this summarizes your ideas, if you feel that i left out something please by all means do tell me, but keep it relevant to the original questionaire. First this part, then the rest!

Think this carefully trough and i expect your answers by latest 30 th of November. Answers received after that date will NOT be accepted, and not answering means agreeing with the answers received correctly. In every situation or vote where there is a tie i shall make the deciding vote, we need to get this settled forthwith. One last thing, when you reply, please reply to ALL!!!! Not just to me, so everyone can see there is no manipulation in votes. All the National M section representatives are included in the adress bar.

Kind regards, Walter