## Survey: Ballast & Fairness in Paragliding Competition

#### Introduction

Thank you for participating in this crucial survey.

We are gathering data from pilots and designers to find a widely supported solution to the issues of excessive ballast, safety, and fairness in paragliding competitions.

Your anonymous responses will help guide future rule-making and ensure the sport remains safe, fair, and inclusive.

This survey should take approximately 10–15 minutes.

### 1 About You (Demographics)

This information is essential for analyzing how different groups perceive the issues.

1. What is your primary role in paragliding?		
$\square$ Competition Pilot (Cat 1 / PWC)		
$\square$ Competition Pilot (Cat 2 / National League)		
□ Recreational / XC Pilot (non-competition)		
$\hfill\Box$ Paraglider Designer / Test Pilot		
☐ Manufacturer Representative		
☐ Competition Organizer		
□ Other:		
2. What is your naked body weight?		
$\square$ < 50 kg (110 lbs)		
$\Box$ 50–59 kg (110–130 lbs)		
$\Box$ 60–69 kg (131–152 lbs)		
$\Box$ 70-79 kg (153-174 lbs)		
$\square$ 80–89 kg (175–196 lbs)		
$\square$ 90–99 kg (197–218 lbs)		
$\square$ 100+ kg (219+ lbs)		
3. What is your typical competition all-up weight (AUW) in flight?		
$\square < 75 \text{ kg}$		

	75-84  kg
	$85-94~\mathrm{kg}$
	$95-104~\mathrm{kg}$
	105-114  kg
	115-124  kg
	$125+~\mathrm{kg}$
4. H	How much ballast (lead, water, etc.) do you typically carry in a competition?
	0 kg (ballast-free)
	$1-5~\mathrm{kg}$
	$6-10~\mathrm{kg}$
	$11-15~\mathrm{kg}$
	$16-20~\mathrm{kg}$
	$21+ \mathrm{kg}$
5. V wing	What is the size $(e.g., M)$ and category $(e.g., CCC)$ of your primary competition $g$ ?
	Size:
	Category:
<b>2</b>	Problem Perception
How	do you see the current situation?
	On a scale of 1 to 5, how significant is the safety risk associated with pilots ying large amounts of ballast?
	(1) Not significant
	(2) Slightly significant
	(3) Moderately significant
	(4) Very significant
	(5) Extremely significant (a critical issue)
	On a scale of 1 to 5, how significant is the competitive fairness issue related to tweight and ballasting?
	(1) Not an issue
	(2) Slight issue
	(3) Moderate issue
	(4) Significant issue
	(5) Extremely unfair (a critical issue)

8. Which statement best reflects your personal philosophy?

□ Paragliding competition should be about pilot skill and decision-making; rules should actively equalize advantages/disadvantages from body weight.		
□ Physical attributes (like weight) are a natural part of any sport; rules should not try to compensate for these differences.		
$\square$ Rules should only intervene to address extreme safety risks (like >20kg ballast), but should not try to engineer competitive fairness.		
3 Evaluating the Solutions		
We will now ask your opinion on the main solutions proposed.		
3.1 Solution 1: "Equalizers" (Noodles)		
$(As\ proposed\ by\ Luc\ Armant-adding\ drag\ elements\ to\ larger\ wings\ to\ equalize\ glide\ performance\ across\ sizes)$		
9. How familiar are you with the "Equalizers" proposal?		
□ Not familiar		
□ Vaguely familiar (heard the name)		
$\Box$ Familiar (understand the concept)		
□ Very familiar (read the Gaggler report document)		
10. Please rate your overall support for testing/implementing "Equalizers":		
☐ Strongly Oppose		
$\square$ Oppose		
$\square$ Neutral / Need more info		
$\square$ Support		
☐ Strongly Support		
11. What are your biggest concerns about "Equalizers"? (Check all that apply)		
$\hfill \square$ Safety/Certification: Unsure how they affect handling, collapses, or SIV maneuvers.		
$\hfill \square$ Installation: Pilots might install them incorrectly, creating a safety risk.		
$\square$ Unfairness: Unfairly "punishes" heavier pilots who have no choice but to fly large wings.		
☐ Ineffective: Won't truly equalize performance (e.g., handling, climb).		
$\Box$ Ineffective: Won't stop light pilots from ballasting up to M-sizes for better "comfort" or "handling."		
☐ Market: Won't actually incentivize manufacturers to build better small wings.		
$\square$ Philosophy: It feels "absurd" to intentionally add drag in a performance sport.		
□ Other:		
12. What do you see as the biggest benefits of "Equalizers"? (Check all that apply)		
☐ Levels the field: Makes performance more equal across wing sizes.		
□ Reduces ballast: Removes the incentive for S/M pilots to ballast up to M/L sizes		

	Promotes small wings: Creates a real incentive for manufacturers to develop better $XS/S$ wings.
	Keeps "Overall" ranking: Allows everyone to race together and preserves a single "Overall" winner.
	Targeted solution: Directly addresses the performance gap without complex rule changes.
	Other:
3.2	Solution 2: Weight Classes
	ting 4-6 distinct weight classes, e.g., "70-80kg," "80-90kg." This would likely replace a "Overall" winner with winners for each class.)
13. I	Please rate your overall support for implementing "Weight Classes":
	Strongly Oppose
	Oppose
	Neutral / Need more info
	Support
	Strongly Support
14. V	What are your biggest concerns about "Weight Classes"? (Check all that apply)
	Loses "Overall" Winner: Destroys the prestige and simplicity of having one overall champion.
	Logistics: Too complicated to manage (e.g., separate starts, scoring, prizes).
	"Ballasting to the limit": Pilots will just carry ballast to be at the top of their $10 \mathrm{kg}$ -wide class.
	Small Categories: Some classes might not have enough pilots to be competitive.
	Enforcement: Requires strict weigh-ins, which are hard to manage and can be cheated (e.g., water loading).
	${\it Team/Nation:}$ Complicates FAI-1 team selection and scoring.
	Other:
15. `apply	What do you see as the biggest benefits of "Weight Classes"? (Check all that y)
	Ultimate Fairness: Pilots compete only against those of similar weight.
	Eliminates Ballast: Creates a strong incentive to fly at one's "natural" weight.
	Promotes Small Wings: Creates a protected, competitive market for $XS/S$ wings.
	Improves Safety: Massively reduces/eliminates the need for dangerous ballast loads.
	Proven Concept: Works well in many other sports (e.g., boxing, sailing).
	Other:

### 3.3 Solution 3: Strict Ballast Limitations

 $(A\ simple\ rule,\ e.g.,\ "Max\ 10kg\ of\ ballast\ allowed"\ or\ "Ballast\ cannot\ exceed\ 15\%\ of\ body\ weight.")$ 

16.	Please rate your overall support for implementing "Strict Ballast Limitations":
	Strongly Oppose
	Oppose
	Neutral / Need more info
	Support
	Strongly Support
17. appl	What are your biggest concerns about "Ballast Limitations"? (Check all that y)
	Enforcement: Extremely difficult to enforce; pilots will hide ballast (lead in shoes, drinking water, heavy gear).
	Unfair: Penalizes light pilots who need some ballast just to fly an S-size wing safely, while not affecting heavy pilots.
	Doesn't solve it: Doesn't fix the reason pilots ballast (wing performance disparity). L-size pilots will still have an advantage.
	Complicated: Creates "grey areas" (what counts as ballast vs. gear?).
	Other:
	What do you see as the biggest benefits of "Ballast Limitations"? (Check all apply)
	Simple Rule: Easy to understand (if not to enforce).
	Directly addresses safety: Puts a hard stop on the most dangerous ballast loads.
	Partial Incentive: May encourage some pilots to move to a smaller wing.
	Other:
3.4	Solution 4: MRT (Minimum Race Time) Scoring
	$coring \ adjust ment \ based \ on \ wing \ size/AUW, \ as \ described \ on \ Gaggler.org.)$
	How familiar are you with the "MRT" proposal?
	Not familiar
	Vaguely familiar (heard the name)
	Familiar (understand the concept)
	Very familiar (read the Gaggler report document)
20.	Please rate your overall support for testing/implementing "MRT":
	Strongly Oppose
	Oppose
	Neutral / Need more info
	Support

	Strongly Support
21.	What are your biggest concerns about "MRT"? (Check all that apply)
	Randomness: Interferes with gaggle flying; scoring becomes "random" depending on group composition.
	Safety: May create "unexpected turns in a large group."
	Too Complex: The formula is opaque, and pilots won't understand how they are being scored.
	Wrong Focus: Moves the sport away from racing "against each other" (which pilots enjoy).
	Ineffective: A scoring "fix" doesn't solve the physical problem of pilots carrying dangerous ballast.
	Other:
22.	What do you see as the biggest benefits of "MRT"? (Check all that apply)
	Removes Ballast Incentive: Directly compensates for wing size performance, making ballast unnecessary.
	Keeps "Overall" ranking: Allows everyone to race together and preserves a single "Overall" winner.
	No physical modification: Doesn't require adding "noodles" or new gear.
	Other:
4	Comparative Ranking & Final Priorities
23. Pref	Please rank your preferred solutions, from 1 (Most Preferred) to 6 (Least ferred):
	Equalizers ("Noodles")
	Weight Classes (replaces "Overall" winner)
	Strict Ballast Limitations (e.g., max 10kg)
	MRT (Minimum Race Time scoring)
	Separate "Lightweight" Class (e.g., <95kg, like the "Reynolds" class, but "Overall" winner still exists)
	No Change (Status Quo)
	A separate, but related, safety issue discussed is the design of modern harnesses, "submarine" types). How do you prioritize this?
	The harness safety issue is more urgent than the ballast issue and should be fixed first.
	The harness safety issue is equally urgent as the ballast issue.
	The harness safety issue is less urgent than the ballast issue.
	The two issues are separate and should be addressed independently.
<b>25</b> .	Do you have any final comments or suggestions regarding the ballast issue or
thes	e proposed solutions?

# End of Survey

Thank you for your valuable input.