

# Participation &



## CONTEST CORNER

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Participation at U.S. National contests is on a steady decline. Many classes are on the edge of technical viability – a minimum of eight pilots must finish a Nationals for it to count. Small contests are unprofitable, so it's getting harder to get organizers. The sporting quality of a nine-glider contest is a lot different from one with 40 or 60.

At a minimum, we need to adapt na-

tional contest flying to form viable and enjoyable contests with shrinking numbers of pilots. Hopefully, we can also reverse the decline and bring back a more vibrant national contest scene.

### Participation

Table 1 shows participation at Nationals for the last 10 years. You can see the steady decline in the Total column.

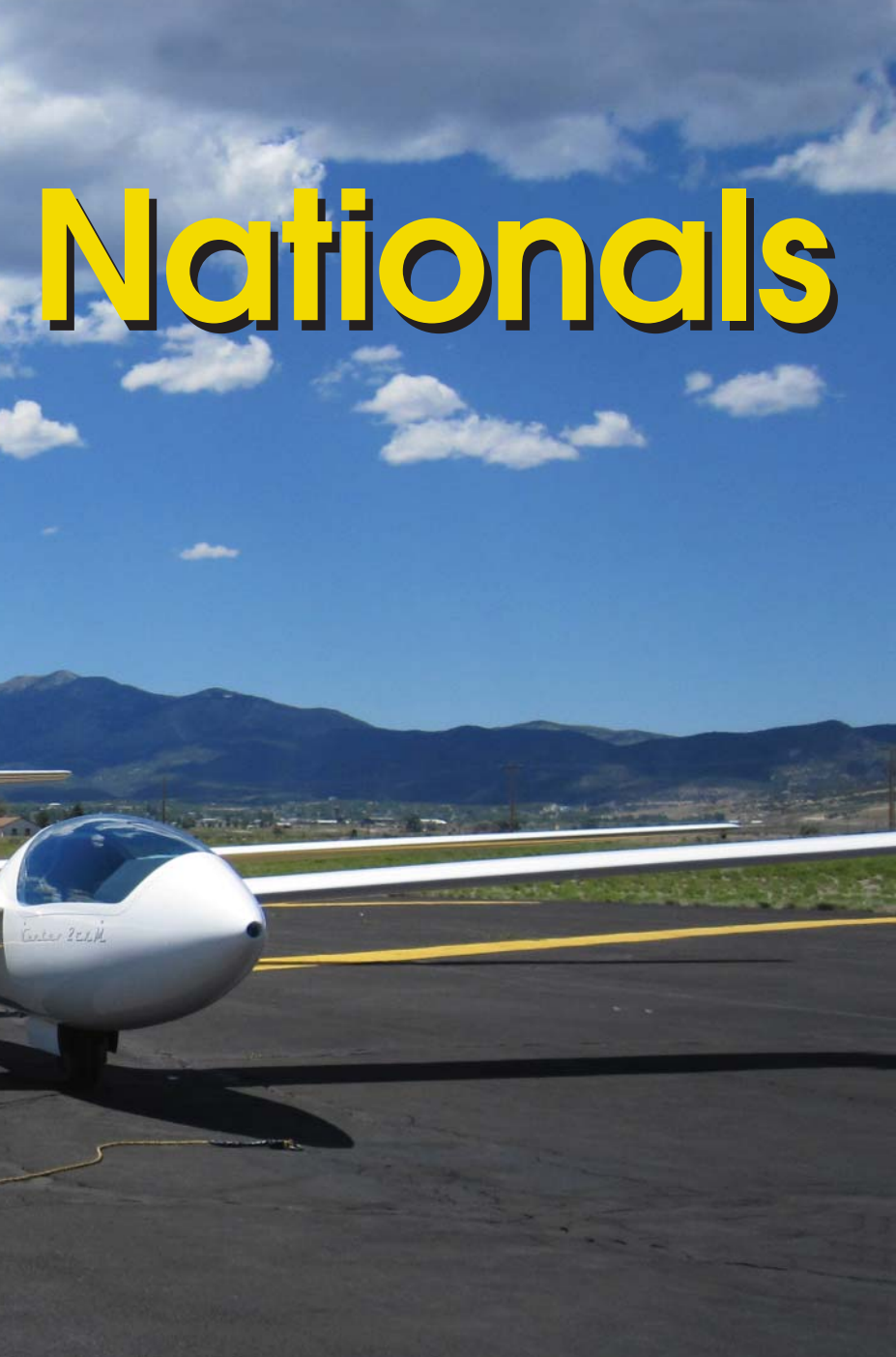
Open used to draw 15-20 gliders reliably. Except the pre-worlds at Uvalde, it's struggling to attract 10 entrants. In 2001, 69 pilots came to the 15-Meter Nationals. Now it's down to around 30. Standard class is down from a reliable 40 to 10-20 pilots. Sports class used to be very popular with 50 pilots in 2005 and 2006. It too is declining. It has been five years since the world class attracted eight pilots. Even the hardy 1-26ers are dwindling.

### Pilots

The three right hand columns of Table 1 give a sense of the pilot population. In



# Nationals



the “All” column, there are about 380 contest entries each year, including Regionals. Since many pilots fly multiple contests, that represents a smaller number of pilots. Encouraging pilots to move from Regionals to Nationals does not seem like a promising strategy.

Nearly 1000 pilots submit flights to OLC each year. Less than one in three pilots who flies cross-country in OLC flies a contest at all, and only one in 10 pilots who fly cross-country flies in a National contest. Attracting more cross-country pilots to do any contest flying is a promising thought.

The “PRL” column gives the total number of pilots on the Pilot Ranking List, meaning they have flown a contest in the previous three years. This number is almost twice the number of entries in a given year.

This means either a large chunk of our pilot population does not fly a contest every year, or that we are seeing a flow of pilots through the sport.

Flow is a big part of the answer. I compared the 2011 pilot ranking list, which tells us if a pilot flew any contests in 2009, 2010, or 2011, with the 2008 ranking list, which tells us if a pilot flew any contests in 2006, 2007, or 2008. Table 2 (page 34) gives the results.

Of the 582 pilots on the 2008 list, 211 pilots do not appear on the 2011 list. They quit, or at least took a three-year break. On the other hand, 198 pilots started flying contests, or returned from a three-year plus break, appearing on the 2011 list but not the 2008 list.

This fact surprised me a lot. I long believed that once people tasted contest flying they would be

Year	Open	18M	15M	Std	Sport	PW5	Total	1-26	OLC	All	PRL
2011	15	15	25	15	22	3	95	14	1023		587
2010	8	29	30	10	44	6	127	12	942		563
2009	10	22	42	10	37	7	128	15	949	387	614
2008	15	30	35	28	32	6	146	19	843	382	594
2007	10	28	41	20	42	7	148	26	765	353	592
2006	9	40	28	21	55	9	162	18		398	590
2005	10	22	50	23	53	13	171	21		393	634
2004	10	44	42	35	31	12	174	21		376	549
2003	8	21	43	12	48	7	139	15		454	
2002	14	27	59	40	44	15	199	32			551
2001	18	10	69	49	23	11	180	17			501
2000	14	33	49	43	29	5	173	23			
1999	12	23	45	42	32	5	159	21			
1998	29		34	49	45	7	164	27			
1997	19		52	31	37		139	27			

Table 1. Contestants at U.S. Nationals (non-zero score, includes guests). “Total” excludes 1-26. “All” includes all entries at Regionals. (Data from John Leibacher.) “PRL” is the number on the pilot ranking list, i.e. pilots who flew a contest in the previous 3 years. “OLC” is the number of U.S. pilots submitting OLC flights.

hooked for life. The numbers tell a very different story: Our overall slow decline sits on top of a large churn.

2008	2011	Quit. '08, not '11	New. '11, not '08	Both. '08 & '11	Total. '08 or '11
582	569	211	198	371	780

Table 2. Pilot ranking list totals.

In retrospect, this should not have been surprising. The SSA overall loses and gains about 20 percent of its members each year. Most people take up new sports for 5 years or so and then move on. Alas, contest soaring is no different.

Learning of the large churn should change our thinking: *The single greatest thing we could do to increase participation is to stop losing 75 pilots per year. We are attracting many new pilots. We just need to stop losing them.*

Pilots who come to one contest and do not come back are a particular lost opportunity. Organizers and contestants need to make a special effort to find the new pilots, make sure they have a good time, and make sure they return! There are a lot more of them than you think, and they are much more likely to give up than you think.

### Travel and consistency.

Pilots do not follow contests across country, and as a result choose not to participate in many years.

The U.S. Team rankings give one measure of this phenomenon. As an example, Table 3 gives the top 10 pilots in the 2011 18-Meter rankings. Blanks in the right three columns are years in which that pilot did not fly the 18-Meter Nationals.

Rank	Score	Name	2011	2010	2009
1	99.6	Gary Ittner	1.000	0.866	0.992
2	97.6	Doug Jacobs	0.979	0.973	
3	97.6	Ray Gimmey	0.982		0.969
4	94.7	Tom Kelley	0.899	0.962	
5	92.8	Ken Sorenson	0.894	0.966	
6	89.9	Mark Keene	0.920		
7	88.5	Dave Nadler	0.850	0.850	0.922
8	82.5	Pete Alexander	0.841	0.807	
9	74.1	Al Tyler	0.924		
10	50.3	David Mockler	0.967		

Table 3. 2011 18-Meter U.S. team rankings (top 10). Source: soaringweb.org

Even among the top 10, presumably hard-bitten racers vying for the U.S. World team, only three pilots participated in the 18-Meter Nationals three years in a row. Three others participated in two out of three years, and the rest only once! The rest of the table (not shown) is almost entirely pilots who competed only once in the three-year period.

Table 4 summarizes a similar analysis of the 2011 U.S. Team rankings for all classes. For example, see the first column: 19 pilots competed in the Open Class Nationals at some point in the last three years. Of those 19, four pilots competed in all

three Nationals; three pilots competed in two Nationals, and 13 pilots competed in only one.

	Open	18	15	Std	Sports	Pw5	Total
Total	19	49	64	39	39	12	222
3	4	3	5	1	0	3	16
2	3	7	16	13	6	2	47
1	13	39	43	17	33	7	152

Table 4. Number of pilots participating in the last 1, 2, or 3 years of Nationals in each class. (Source: soaringweb.org) The first row gives the column total (summing 1,2,3 vertically.) The last column gives the row total, summing horizontally.

The last row of Table 4 is striking. The vast majority of pilots – 152 out of 222 – compete in only one Nationals in a given class every three years. They are either flying a different class, flying a regional, or sitting out on years when the “Nationals” is not close to home. It may be they are flowing through the sport, as documented for all pilots in Table 2. Only 16 out of 222 pilots flew the same Nationals three years in a row!

You may picture that Nationals are the same guys flying year after year, as I did. This picture is utterly wrong. Only a *tiny* fraction of the pilot population – the ratio of the “3” row to the “total” row – goes to “their” National every year.

The implication is immediate: If we could get more pilots to come back, or to fly every year, our participation numbers would increase quickly.

### Driving

Distaste for long drives is likely a large part of the story. A (say) Standard Class pilot who lives in the Northeast is much more likely to fly a sequence of good Regionals or the 15-Meter Nationals at Mifflin than he is to take an extra week and a half to drive to Montague to fly “his” Nationals.

Looking at any set of contest results, you can verify that Nationals are barely “national.” Typical contests held in Western (Montague, Ephrata) locations attract no more than 2-3 pilots from east of the Mississippi, and likewise for eastern (Mifflin, Cordele, Ceasar Creek) sites.

Aversion to long drives was resoundingly clear in the 2011 pilot opinion poll. We asked an open-ended question on barriers to participation. As I coded the answers, 29 mentioned time, (which includes traveling time), 30 mentioned distance and travel as the major barriers.

Pilots are telling us loud and clear, with their words and their decisions: they won’t travel thousands of miles to participate in a glider contest.

### Glider

To think about the right structure for Nationals, the fleet of eligible gliders is as important as the number of eligible pilots. I added up the glider fleet from the FAA registration database. I put them a bit arbitrarily into categories as shown in the “Total Gliders” column of Table 5. “Total Race” in Table 5 is the number of gliders in each category that competed in



Nationals, summing across the years 2010 and 2011, and the remaining columns show how many of each glider type flew in which contest.

(A few notes on the table. The categories are “New open:” ASW22, ASH31, ASH25, Nimbus 4. “Old Open:” ASW17, Nimbus 2-3. “New 18:” ASG29 ASH26, Ventus2C. “New 15:” ASW27, Ventus 2AB. “Old 15:” ASW20, Ventus, LS6. “New Std:” ASW28, Discus2, LS8. “Old Std:” ASW24, Discus, LS4, LS7, SZD55. “Club:” ASW19, ASW15, MiniNimbus, Std. Cirrus, LS1, LS3, Libelle, 1-35, Pegase, Mosquito, 304, Jantar. “Duo:” Duo, Arcus, Janus. Apologies to some of the smaller manufacturers that I left out.

Be careful if you take mental percentages. Since it’s a two-year total, the “Total Race” number could potentially be twice the “Total Gliders” number – or more – if a glider flies more than one National in a year. I also made some rough and ready assignments. For example, when an ASG29-15 competes in 15-Meter class, I coded it as a “New 15” but as “New 18” when competing in 18-Meter class.)

The size of the glider fleet is impressive. There are nearly 2000 contest-capable gliders, and another 500 1-26s.

A very small percentage of eligible gliders participates in national competitions. Even among new FAI gliders, only about one out of five eligible gliders participates in a Nationals each year. Standard class is particularly puzzling. They can fly in 15, 18, and sports as well as their own class. Yet only one in 10 ASW28/D2/LS8 show up to any Nationals.

Participation drops off drastically for older gliders, with only 7 of 324 older 15-Meter, 14 of 289 older Standard and 17 of 711!) Club-Class gliders participating in this two-year span.

Last year, the PW5 Nationals attracted only 3 gliders and could not have a contest. Yet there are 65 of them in the country. There are an additional 17 Silents, 44 Russias and a few Sparrowhawks, for a total of about 130 13.5-Meter gliders, plus 43 L-33 which have similar performance but a slightly longer wing. None of these gliders has participated in so much as a Sports Class Regionals.



*A gathering of ASW 20s during a recent gathering at Tehachapi helps illustrate how many potential contest ships may be available. Photo by Dan Rihn*

The 2000 gliders (plus another 500 1-26’s) compares interestingly with the 1000 OLC participants. As many as half of these gliders are likely not even going cross-country.

The implications are clear. Numbers of gliders are not an important limit to contest participation.

Many pilots and glider owners are simply not interested in racing, especially at the national level. That’s a fact that us racing lovers need to digest.

An open question is how important it is to create and encourage racing beyond traditional classes, particularly for

	Total Gliders	Total Race	Contest						
			Open	18	15	Std	Sports	PW5	1-26
New Open	31	9	9						
Old Open	47	5	5						
New 18	180	43	5	32	1		5		
New 15	130	74		8	52		14		
Old 15	324	7		1	1		5		
New Std	116	29				23	6		
Old Std	289	14		2		4	8		
Club	711	17					17		
Duo+Antares	88	14	5				9		
PW5/silent	65	11					2	9	
Total ex. 1-26	1981	223	24	43	54	27	66	9	26
1-26	519	26							26

*Table 5. Glider participation at U.S. Nationals, sum of 2010 and 2011 seasons. “Total Gliders” gives the number of gliders in each class, by the FAA registry. “Total Race” is the number in each class that participated in national contests during 2010 and 2011, from SSA contest results. The remaining columns show how many gliders of each class participated in each contest. Totals in the glider and race columns do not include 1-26.*



lower performance gliders. On the one hand, more is always better. On the other, any pilot who wants to race can easily buy one of the over 1000 Club or older Standard/15-Meter gliders. Maybe the pilots who buy gliders that don't fit well in current classes are simply uninterested in racing.

This table punctured another belief of mine. I noticed that many pilots go to the "wrong" class if more convenient. While this happens, the numbers are not that significant in terms of overall participation. In this period, few standard gliders flew 15-Meter Nationals, more but still not many 15s flew 18-Meter Nationals (a trend that is declining). Open class is an exception, as it has limped along by persuading enough 18-Meter, DuoDiscus, etc., pilots to compete.

I conclude that the performance difference between FAI classes is enough to dissuade many pilots from flying out of class. That observation suggests that mixed handicapped classes may be successful.

#### What to do?

With these facts in mind, what can we do? We need to increase participation. We also need a structure that can continue to function if participation does not increase.

The main thing we can realistically do, it seems to me, is to ensure that every interested pilot can participate in a Nationals every year without driving more than 1,000 miles.

Since we do not have the numbers to run three contests in each class every year, the only way to do this is to extend the "mixed handicapped" concept to

Nationals. We unite gliders into groups of similar performance, and use handicaps to adjust the remaining performance differences.

Handicapped classes need not and should not substitute for the traditional single class contests. Pilots who are willing to drive and who do not like handicaps should have access to single class racing for as long as possible.

Handicapped classes instead let us fill out the options available in each region. For example, this year the east coast could have a "bigwing" 18-Open Class and a Standard + Club class, to complement 15-Meter at Mifflin. West coast pilots would have a different combination of pure and mixed classes.

Pretty much the definition of a "National" is that such contests are used to select pilots for the U.S. team. To incorporate multiple contests, or handicapped contests, the U.S. team will use the results of numerous Nationals to pick the U.S. team. For example, the team could develop a ranking list that rewards participation in all contests, similar to the IGC rankings but adapted to the U.S. contest scene. Facing the reality made stark in Table 3, the Team is already moving in this direction.

Exactly how to structure mixed classes remains to be seen. My inclination is not to write lots of rules and over-think it. The class definitions must be flexible and adapt to the gliders at a given contest, plus whatever single classes the contest is running. The class definitions must also adapt to experience of what really works. Do owners of older gliders respond to handicaps by coming more often? Do pilots really choose a handicapped con-

test near home rather than a pure contest further away?

I dislike handicaps as much as the next guy. They are a necessary evil forced on us by the IGC's unfortunate decision to splinter gliding into many classes, and too few pilots to fill those classes. We don't have much choice. We are actually one of the last countries in the world to still attempt having separate contests in all FAI classes, and to select team members by class. Most countries run a "Nationals" with a few mixed handicapped classes, and select pilots for worlds based on rankings that summarize performance at many events.

The Standard Class Nationals at Montague will include handicapping of older Standard Class gliders, with an upper limit. This will be an interesting experiment to see if some of the vast numbers of older gliders can be enticed into participating, without having to unite classes.

Perhaps the next step should be to split the Sports Class Nationals into a Club Class and a Modern Class. This format has been tried in Regionals and seems successful. An important principle though: nobody gets sent home. The price of "Club" class is that it must include lower-performance gliders, at least until enough of them show up to form their own class.

Whether, how fast, and in what direction to proceed is the big question. These are only general and tentative ideas. Doing nothing is not an option. We are caught in a downward spiral of few contest pilots, unprofitable contests, higher costs, fewer organizers, longer drives, and thus fewer competition pilots. We can't run contests at all if less than eight show up. Those classes will simply vanish.

Most of all, we need to figure out how to keep the many pilots who try contest flying, and then give it up, and how to get the many pilots who fly one Nationals to come back for another one.

Changing the structure of competitions involves many tradeoffs, and after all, the bottom line is what pilots enjoy. This article is meant to provide some background facts, and then start the conversation, not to advocate specific answers. Think, talk, and share your ideas with the SSA Contest Rules Committee in the fall. ✈



*The Standard Cirrus falls into the author's Club category.  
Photo by Erin Strayhorn*

