

Email from Dana Mathes to Rob Booth, Secretary, IPMS/USA 8/28/2022:

Rob Booth, IPMS/USA Secretary and IPMS/USA Board,

My name is Dana Mathes (43781). I have been an IPMS/USA member for over 15 years and a member of four local chapters. I am currently the President of the IPMS chapter in San Antonio, Texas, Alamo Squadron.

Since first hearing of the IPMS/USA National Convention as a teenager many years ago, I have held that contest in the highest regard, as a pinnacle to aspire to. However, over the past year or so, I have become concerned about the credibility of the Nationals judging process and its reflection on the Society. This concern is based on discussions with several IPMS members as well as my own experiences. As you well know, the Nationals judging process is a complicated and emotional topic. Attached below, you will find a discussion paper for the E-Board, NCC, and Society as a basis for considering improvements. In it, I have attempted to segment the discussion and provide constructive suggestions.

My main argument is that the Nationals judging process needs to be improved regardless of what award format is utilized and what categories are included in the contest. For the sake of simplifying the problem, I have proposed the creation of two complementary teams to work on improvements. The first would address *how* we judge entries and provide feedback to the contestant. The second would decide *who* would judge by designing a process for recruiting and certifying judges. I defer to the E-Board's judgment on how best to organize these improvement efforts.

The Society's leadership and the NCC are to be commended for how they have managed this process over the years. Yet, because of the issues that remain in play, I contend that what has gotten us to this point is not sufficient as we look ahead. To move to higher ground, we must think differently. Like you, I care deeply about the future of our hobby and this Society. Therefore, I submit this paper for your consideration.

In parallel to this submission, I have sent copies of this document to other interested IPMS/USA members and requested that they affirm the concerns described in this paper.

Thank you very much for your leadership,

Dana

Rethinking the Assumptions of the IPMS/USA Nationals Judging Process: Concepts for Improvement

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Summary

IPMS/USA's identity, reputation, and influence are inherently connected to the perception of its National Convention (Nationals) judging process. The integrity, thoroughness, and professionalism of its judges and procedures are the foundation on which the Society's credibility is built. The judging process at the National Convention sets the standard for the Society's local contests. This methodology has successfully supported the Society's growth for over fifty years, but its inconsistencies require reforms in order for IPMS/USA to maintain its influence and to prosper in the 21st century.

The purpose of this document is to invite discussion within IPMS/USA's membership regarding ways to improve the National Convention's judging process and to propose an action plan for the Society's Executive Board (E-Board) and National Convention Committee (NCC) to consider. Few of the ideas within this paper are original and none of them are meant to be prescriptive solutions. Some will find the opinions expressed to be provocative. They are offered as concepts to help the Society's membership imagine a better judging process.

The Society faces three critical issues concerning its Nationals judging practices. First is the on-going concern for the fairness and consistency of the judging at the National Convention. Secondly, the Society espouses a mission to help modelers improve yet it provides no judging feedback at its premier event. Thirdly, the demographics and technology of the hobby are changing and need to be reflected in the categories and judging protocol of the National Convention. This paper confines its comments to the first two issues.

This paper does not take a position regarding the choice of award format. Instead, it holds that, regardless of the award format chosen, the judging process itself must be improved for the sake of fairness, consistency, and credibility. The changes discussed will support any award format.

Because of concerns regarding the judging at the Nationals, this paper respectfully suggests that the IPMS/USA Executive Board and the National Contest Committee take actions to improve the Society's judging process. Specifically, it recommends the creation of two teams. The first team would articulate a holistic judging protocol which includes the provision of feedback to the contestant. The second team would develop a procedure for recruiting, training, and certifying judges for the Nationals. It will likely take several years for the Society to embrace these changes and fully implement them. But improving the quality of the Nationals judging process will be well worth the journey for the Society and the hobby.

Boundary Conditions for This Discussion

Judging scale models is an important element of the hobby. Competition pushes the hobby forward to new levels of excellence and it provides a structure for community within the hobby. Even at its best, judging competing entries will always have a large subjective component. Therefore, the Society must implement every measure it can to ensure fairness and consistency. Evaluating models is not fundamentally different than the visual appraisal of livestock, aircraft, cars, etc. The bodies who administer the judging of those articles employ rigorous procedures to make their competitions fair and consistent. Our Society can learn from their regimens.¹

With that perspective in mind, let us begin this discussion of ways to improve IPMS/USA's judging process by articulating the following boundary conditions:

- 1) IPMS/USA's identity and reputation are intrinsically joined to the credibility of the judging at its National Convention.
- 2) Many thanks go to the E-Board and NCC members who have volunteered their time over the years to build the highly successful Nationals judging process that we have today. The steps they have taken, within the incumbent design assumptions, have helped to improve the consistency of judging at the National Convention. However, serious issues persist, and more work is required.
- 3) The judging protocol (standard, weighting of flaws, feedback, etc.) used at the Nationals sets the standard for judging at the Society's local contests.
- 4) The National Convention's judging process does not have to be structured as simply a larger version of what is practiced at a local contest. Because most local contests are single day affairs, the design of their judging processes is far more constrained than what can be considered for the multi-day National Convention.
- 5) Feedback from the judging process is necessary as it is a potent stimulus for improving a member's modeling skills and enjoyment of the hobby.
- 6) Technological advances, such as artificial intelligence and visual pattern recognition, will not supplant human judging of scale models in the foreseeable future.
- 7) IPMS/USA judging at the local and national levels will continue to be done by unpaid volunteers.

The Need for Improvement

¹ Examples of sophisticated judging and judge certification procedures include those used by the American Kennel Club, the Experimental Aircraft Association, and the Classic Car Club of America.

IPMS/USA has conducted its National Convention for decades and now hosts one of the most competitive scale modeling contests in the world. This event (with its accompanying judging protocol) began as a small gathering with only a few models and has grown into an international competition with thousands of outstanding entries. While numerous actions have been taken to improve the incumbent process, many members continue to question the fairness and consistency of the Nationals judging process. Doubts about the judging methodology arise from accounts of categories being inadvertently judged by multiple judging teams with each team arriving at different outcomes. Likewise, members who have judged at Nationals have recounted instances where novice judges were thrown together to judge categories without experienced and knowledgeable team leaders. Others have found themselves on teams which had no knowledge of the subject matter or the kits they were judging. Some Nationals judges have been seen to deliberately disregard entry form notes and build book information. The judging documents posted on the Society's website contain inconsistent descriptions of standards and procedures. It is also widely known that judges place different levels of emphasis on the "basics" in various classes even though the judging documentation insists that there are to be no differences.² High levels of frustration are fueled by the lack of judging feedback. The expectation of Nationals judging is higher than that of a local contest. For all of these reasons, it is of critical importance that the Society address these concerns with a comprehensive review of its judging process: articulation of standards, provision for feedback, the certification of judges, and the judging procedures.

Examining the Assumptions on Which the Incumbent Judging Process is Based

The design of every process is based on key assumptions. To make substantial improvements, these presuppositions need to be examined and challenged. An improved judging process is possible only if new assumptions are embraced. This paper questions eight design assumptions on which the current IPMS/USA Nationals judging process is based. A summary chart is provided in Figure I after this discussion.

The first assumption is that a judging standard is not applied to an individual entry. The judging documents on the IPMS/USA website waver on this, sometimes claiming there is a standard and at other times saying there is no standard.³ Some have articulated this assumption by saying that models must be appraised side by side in order to see which one is best. However, the determination of a best model inherently requires a standard, otherwise one of the models must arbitrarily be designated as a standard. The actual practice has been to use an informal, defacto standard of "flawlessness" such that the best models are those with the smallest and/or least detectable flaws. Models are often eliminated from contention if a tiny flaw is found, before the overall excellence of the work has been evaluated.

² *IPMS/USA Modeler's Guide to IPMS Contests*, 6.

³ *Ibid.*, 2-3; *IPMS/USA Competition Handbook*, 1-2, 17.

The quest to find flaws in the current judging process is a zealous one. Judges at the Nationals are even allowed to pick up models for the purpose of finding hidden mistakes.⁴ This shocking practice is dangerous for the model and disrespectful to the contestant. It illustrates the degree to which the incumbent Nationals judging process is obsessed with the search for defects. It seems that we myopically look for the needle while neglecting the larger view of the haystack.

Another related issue is the relative weighting of flaws. IPMS/USA is noted for its greater emphasis on construction flaws versus finishing flaws. Class-specific biases also exist such that judges in some classes weight flaws differently than those in other classes (i.e., finish for automotive entries). These weighting biases prevent a holistic evaluation of the model. In addition, off-setting credit is often given by judges for degree of difficulty, artistry, etc. even though there are no specific IPMS/USA guidelines for how these should be weighed against minor flaws.

Further complicating the application of this defacto standard is the unrestricted use of flashlights, cell phones, mirrors, and magnification devices. These tools allow some judges to see flaws that other judges cannot see with normal (or corrected) eyesight. The indiscriminate use of these devices makes the process of flaw identification and evaluation implicitly inconsistent and unfair. If venue lighting is a problem, it should be addressed separately.⁵ The use of these devices should be prohibited unless every judge is provided with the same equipment and trained on its use. Similarly, lifting a model during judging should not be allowed.

Given the level of competition seen at the Nationals, multiple models in a category may be judged to be essentially flawless. The judges then begin to consider level of difficulty, the amount of scratch-building, realism, accuracy, and artistic presentation as tiebreakers. Even though this situation frequently arises, the judges have no written criteria on which to consistently base their appraisal and prioritization of these factors. Moreover, IPMS/USA does not give the modeler any credit for documented research.

An alternative approach would be to develop a judging protocol that requires a complete evaluation of the model. Demerits for craftsmanship flaws are unquestionably important elements. However, the consideration of the so-called "intangibles" (artistic impression, degree of difficulty, realism/believability, research, etc.) need to be formally included in the model's appraisal instead of treating them as informal, ethereal parts of the evaluation. A concept for what this new holistic judging standard might look like is provided in Figure II below. The relative weightings suggested are simply for illustration. This format could be customized by class. Some IPMS/USA chapters successfully employ a judging protocol like this in their local contests today.

Closely related to the first assumption is the belief that judging can only proceed when all of the competing models are on the table together in close proximity. This

⁴ *IPMS/USA Modeler's Guide to IPMS Contests*, 22-23.

⁵ Alternatives for improved lighting might include supplemental light stands or judging stations with light fixtures appropriate for the evaluation of models.

assumption leads to judging being performed as a batch process; a single judging session held on Friday night of the National Convention once registration is closed. This practice severely constrains how judging manpower can be deployed. The use of a well-defined judging standard opens the door to other judging process designs, especially continuous processes or multiple batch sessions. Some European contests employ continuous judging throughout the registration and viewing periods. An alternative design could combine a continuous process conducted during the multi-day registration (using the defined judging protocol to triage award contenders) with a shorter batch process on Friday night in which the finalists in each category are compared side by side.

Currently, most contestants at the Nationals leave without any feedback regarding the defects the judges found in their entries. This lack of feedback is demotivating and is a fundamental failure of the Society to help its members improve their modeling skills. The absence of feedback inspires members to question the judging process. The current assumption is that feedback can only be given with time-consuming, hand-written comments on paper. The legibility of the judges' comments has also been a point of concern. Moreover, scoring schemes that require mathematical calculations can be very time consuming. However, there are simpler approaches to feedback that do not place a heavy burden on the judges. More time-efficient alternatives to written feedback comments exist. Simple scoring checklists that allow for the marking of the type of flaw by location on the model and do not require written remarks can be devised (See Figure III below). Information technology tools can be developed to create a quick, paperless means to capture the judging observations and convey them to the contestant after the contest. Something like Figure III might one day be a touch screen on a cell phone that the judges would use in their evaluation of a model. Care will need to be taken in defining the feedback's scope and level of detail (and consequently the amount of judging time required). Providing feedback to Nationals contestants will be a monumental step forward for the Society and the credibility of its judging process.

A fourth assumption of the IPMS/USA Nationals judging process is that the head judges and judging teams leaders are adequately trained and qualified to perform their duties. Having a comprehensive protocol to judge against will not in and of itself reduce variability in the judging process. The quality of the judges applying the standard is of critical importance. The chief and head judges that have served on the National Contest Committee over the decades have worked diligently to create a consistent, fair judging process within the incumbent assumptions. However, the current methodology for selecting the chief and head class judges has not been made public. Likewise, published criteria for the qualifications, accountability, and terms of service of the class team leader judges are not available. Members currently have no means of giving input regarding who is selected to these important positions.

IPMS/USA Nationals judges are given awards for the number of years they serve as judges at the National Convention. This service is taken to be a proxy for an

accumulation of judging, modeling, and subject matter expertise. Service as an IPMS/USA National judge is important. However, the assumption that this service alone qualifies one to be Nationals judge must be challenged. Head class judges and class judging team leaders should also have extensive personal experience as builders and competitors within the class they are judging in order to possess the necessary subject matter and kit knowledge. Figure IV below outlines a such a conceptual judge qualification system. The numbers selected are for illustration. These criteria could be tracked in a national database. An alternative would be for judge candidates to maintain a resume of their qualifications in a specified format. Testing for subject matter knowledge would be difficult to manage, but in-person judging tests with actual models might be another actionable element to include in a judge's certification. A transparent and comprehensive process for qualifying and certifying National Contest judges is needed to assure potential contestants that the judges at the event are truly qualified and credible.

As noted, the current judging process assumes that a Nationals judge is experienced and has a high level of subject matter knowledge. Under this assumption, the modeler bears the burden of proving to the judge that he is correct in matters of accuracy. Presumed guilty unless he can prove his innocence, it is the modeler who must provide the documentation for the judge to review. Ironically, while requiring no comprehensive qualification process for judges, the Society allows the judges' opinions (sometimes unsupported by fact) to supersede the work of a modeler who, in most cases, has done considerable research as part of the project. It is then frequently stated that the judge cannot possibly know everything about the subject matter and kits in the class or category. This is an illogical and hypocritical position. Two things could be done to address this. First, as discussed above, the criteria to be a head class judge and a class team leader judge must include adequate subject matter knowledge gained from extensive building, competition, and judging experience within the class judged. Secondly, the judging protocol should articulate what information the builder must provide (including format) to support the accuracy of the build. Until judges are adequately trained and certified, the better assumption is that the modeler has the deeper subject matter knowledge of the entry and should get the benefit of the doubt in matters of accuracy.

It is often said that at the National Convention "you have to take who you can get on Friday night" as judges. Given this assumption, the Society, the E-Board, and the NCC entrust their integrity to a random, unmanaged scramble. This is hardly a desirable situation. Some head class judges informally recruit team leaders in an effort to mitigate this risk. A different approach would be to proactively identify, train, and qualify a number of judges well in excess of the number needed (as determined by the design of the judging process and the projected number of entries). Judges could then be formally invited to participate at the Nationals. By redesigning the judging process to be a multi-day, continuous process capped with a short judging session on Friday night, it may be possible to conduct the Nationals judging with fewer judge man-hours

in total than is presently required. This approach would require judges to work during the Convention rather than only serving on Friday night. For individuals and the Society, the role of the novice judge is very important. Novice judges would still participate throughout the judging process. However, the core of the judging contingent (team leaders and head class judges), with its extensive subject matter, building, and judging expertise, must lead the judging process. All-novice judging teams should never be allowed.

Directly related to the demand for qualified judges is the number of competition entries. The National Convention places no limit on the number of entries a competitor may have in a particular category or in total. In addition, the entry fee is not proportional to the number of entries. These factors encourage modelers to enter many models, even if they are unlikely to be competitive at the Nationals. Regardless of its quality, each entry consumes judging capacity. These rules assume that the number of competitive entries is a measure of success for a National Convention, even though it exacerbates the difficulty in adequately staffing the judging process. An alternative approach would be to measure a Convention's success by the sum of the competition and display models. The entry rules could be changed such that a contestant would be limited to one entry per category and the total number of entries would be capped (at ten perhaps). Other models built by that member could be displayed. These constraints would help to manage contest table capacity as well as judging labor requirements. Requiring that a Nationals entry place in a local contest prior to the Convention might also be a useful criteria. Such a rule would encourage participation in local contests and could be documented on the National Convention's model entry form. By adopting these concepts, the National Convention would encourage modelers to display less-competitive models in order to better manage its judging workload.

Finally, IPMS/USA has a long tradition of egalitarianism ("By Modelers...For Modelers") that includes an insistence that judges not be paid. This ethic has served the Society well, but it should not preclude the use of non-financial incentives to encourage participation in judging at the National Convention. Rather than viewing judging at the Nationals as an odious, unheralded task, an invitation to judge at IPMS/USA's foremost event should be celebrated as a milestone achievement in a member's modeling career. Individuals who are certified as Nationals judges could receive public recognition in the *Journal* and on the IPMS/USA website. Nationals judges might be given distinctive shirts and badges that would be worn at local contests as well as the National Convention. Other incentives could include discounts on IPMS merchandise, supplemental raffle tickets, or free samples from sponsoring vendors. The point is that the opportunity to judge models at the Nationals ought to carry an esteem that modelers would seek out.

Figure I
Summary of Key IPMS/USA National Judging Assumptions

Current Assumption	Actual Practice	Suggested Alternative Approach
There is no articulated standard.	Flawlessness is the defacto standard practiced. Bias is applied to flaws (especially construction) such that a holistic view of the model is not possible. Viewing devices are used indiscriminately. Models may be picked up for inspection.	Articulate a holistic judging protocol that balances craftsmanship with overall excellence and research. The format could be customized by class. Ban the use of flashlights, cell phones, magnifiers, etc. Prohibit the lifting of models during appraisal.
Because there is no defined standard, the judging can begin only after the last entries are on the table so that they may be directly compared.	The de facto standard is "flawlessness." Judging does not formally begin until all of the models are together on the table.	With a well-defined, holistic appraisal standard, judging can begin as entries arrive. The final determination of awards within a category, class, etc. could be determined by direct comparison with the previous evaluation used as a triage.
There is not adequate time to provide the contestant with written information regarding the defects found on the entry.	Because of manpower and time constraints, no feedback is provided to help modelers improve.	Highly efficient tools and checklists can be designed that provide important feedback without the need for time consuming written comments or calculations.
Judges are adequately trained and knowledgeable as subject matter experts and judges.	Judges are not selected with criteria that ensures subject matter knowledge, judging experience, and modeling expertise. The current process is not transparent and there is no defined accountability.	Build a process that ensures that a potential judge to has a proven subject matter expertise for the class judged, experience as a judge in that class, and has demonstrated proficiency as a builder in that class.
The judge's opinion of subject matter accuracy is assumed to be correct unless the modeler provides specific documentation to support the entry.	Judges often have limited detailed knowledge of a specific subject and may presume to know more than they really do. No specific format exists for documentation of research.	The modeler should be assumed to be correct in matters of accuracy unless the judge can support his challenge. A format should be specified for documentation and research.
The contest has to use whatever personnel show up and volunteer to be judges.	Team leaders and other judges are not recruited and there is no process to develop or certify them. The judges can only be those available on the Friday night of the Convention. Current efforts to recruit them to each annual contest are inconsistent and variable.	A transparent criteria and qualification process should be developed to certify a number of judges in excess of the number required at the National Convention. Qualified judges would be formally invited to Nationals.
The greater the number of competition entries, the more successful the contest. No limits are placed on the number of entries.	Contests are measured by the number of their competition entries. Rules are geared to encourage entries regardless of quality.	Measure the success of contests by the sum of the competition entries and the displayed models. Allow each competitor one entry per category and cap the total number of entries.
The judging of models should be a peer process. Judges should not be paid or compensated in any way for their service.	Nationals judges are not paid but do receive modest recognition for years of service as a judge at the National Convention.	Judges should receive non-monetary incentives and more public recognition for their qualification and service. The privilege to judge at the Nationals should be a career milestone.

Figure II
Conceptual Holistic Judging Protocol

Weighting (%)	Judging Section	Elements (Examples)
30-20	Overall Presentation	<ul style="list-style-type: none"> • Realism/believability • Artistic composition • Level of difficulty (scratch building, starting kit, detail added) • Consistency and quality of weathering (if present) • Research (photographic references and bibliography)
35-40	Quality of Finish	<ul style="list-style-type: none"> • Orange peel • Brush marks • Fingerprints • Sheen • Decal defects • Consistency
35-40	Quality of Construction	<ul style="list-style-type: none"> • Seams • Fits/Gaps/See Through • Glue • Alignment • Ejector marks • Sink holes

Figure IV
Conceptual Qualification Criteria for National Contest Judges

Criteria	Head Contest Judge	Head Class Judge	Class Team Leader Judge	Novice Judge
Years as Head Class Judge	5 (in multiple classes)			
Years as Class Team Leader Judge		10		
Years as Class Novice Judge			5	
Total Years as Nationals Judge	20	15	5	
Nationals Category Awards in Class	10 (in multiple classes)	5	1	
Local Contest Category Awards in Class	40 (in multiple classes)	20	10	1
Head Class Judge at Local contests		10	3	
Judge at local contests		20	10	1

Recommended Actions for the IPMS/USA E-Board

Based on the observations and discussion above, this paper respectfully urges the IPMS/USA Executive Board and the National Contest Committee to review the key assumptions that the incumbent Nationals judging process is based upon. The quality and fairness of the Nationals judging process is constrained by the assumptions used to design it. The proposals made encourage a comprehensive analysis of the Nationals judging process.

This paper recommends that the IPMS/USA Executive Board charter two teams to address these judging process concerns: 1) *how* models will be judged and 2) *who* will do the judging. It is suggested that an Executive Board member act as a focal point or sponsor for each of the teams. The first team would articulate a holistic judging protocol and how to apply it in the judging procedures used at the Nationals. This must include a provision for feedback to the contestant. A second team would develop a transparent process for the recruitment, training, and certification of judges for the National Convention. The charters would be complementary and the teams would work in tandem.

My thanks go to the IPMS/USA E-Board, the National Contest Committee, and the Society's membership for considering the ideas expressed in this paper. It will clearly take several years for the Society to adopt significant changes and fully implement them. But improving the quality of the Nationals judging process is necessary. For the sake of the Society and the hobby, let's set out on this journey.

