



golf clubs

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January 10, 2008

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E-mail to Drugge@USGA.org

Mr. Dick Rugge
Senior Technical Director
United States Golf Association
P.O. Box 708
Far Hills, NJ 07931

RE: Continuing Response to the
February 27, 2007 Notice to Manufacturers

Dear Dick:

Thank you for carefully considering the information, data and analysis I have provided regarding the USGA/R&A proposed new groove rule. I trust you understand how those submissions establish that the proposal should not be adopted. This has been demonstrated several ways, including the fact that there continues to be a significant scoring penalty resulting from driving into the rough at PGA Tour events (see Section 1A of my October 18, 2007 letter). That direct correlation is undisputed, and is established using both U.S. Open and ShotLink scoring data. ShotLink data demonstrates the penalty of driving into the rough in other ways as well. For example, ShotLink establishes that accurate drives at PGA Tour events result in the ball ending up much closer to the hole after the second shot (see Section 1B of my October 18th letter).

Given this direct evidence of the continued significant penalty of the rough at PGA Tour events, I still cannot believe the rulemaking bodies resorted to a confusing and problematic "money list/driving accuracy" correlation analysis as part of the effort to justify rolling back the rulebook on square grooves for tens of millions of amateurs. My disbelief initially stemmed from the fact that there is no data suggesting that the changes to this correlation tie to the introduction or increased use of square grooved irons. My concern about the motives behind using this correlation grew as I learned of the significant changes that have occurred since the 1970s in the PGA Tour's own criteria for course conditioning and set up (which I detailed in my October 18th letter). As I continue to analyze other obvious factors that would impact this correlation, I have learned that a larger number of professionals compete during the year in PGA Tour events today than did so in the 1980s, and that the better players make up a smaller percentage of the total number of today's Tour event participants. As demonstrated below, this means the changes to historical money list/driving accuracy correlations the USGA relies on to prop up its proposed



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ban of conforming square grooved irons is likely the result of who is, and who is not, playing at various PGA Tour events -- rather than having anything to do with grooves.

The USGA's chart of the money list/driving accuracy correlations is attached to this letter as Figure 1a (and is repeated later for comparison purposes as Figure 2a and Figure 3a). During the time period covered in Figure 1a (1980 to the present) there has been a significant increase in the number of regular PGA Tour players, growing from approximately 165 in the early 1980's to close to 200 in the recent years (see attached Figure 1b). The increase coincides with an increase in the number of PGA Tour annual events from about 44 in the 1980's to nearly 50 currently. This increase in the number of players and events has clearly impacted the variety of players in the field at any given PGA Tour event.

To further analyze this, I followed the USGA's lead in focusing on the top 10 money earners (as was done in the USGA's statistical analysis dated June 1, 2007). Figure 2b shows the number of tournaments played annually by the top 10 money earners has decreased since the 1980s. The decreasing trend closely mirrors the decreasing trend in the money list/driving accuracy correlations as identified in the USGA's June 1st analysis (compare Figures 2a and 2b).

Equally interesting is the fact that the number of PGA Tour events with 3 or more of the top 10 money earners in the field has dramatically decreased since the 1980's (see Figure 3b). In 1980, **93%** of the Tour events had 3 or more of the top 10 money earners in the field. However, by 2007, that participation rate had decreased to **less than 60%** (conversely, in 1980, only 7% of the events had 2 or fewer of these top 10 players, while in 2007, nearly 44% suffered from this measure of a diminished field). The decreasing trend in the money list/driving accuracy correlations mirror the decreasing trend in participation by the top money earners at PGA Tour Events (compare Figures 3a and 3b). This suggests that the downward trend in the money list/driving accuracy correlations is closely tied to this downward trend in the participation rate of the top 10 money earners -- and it has nothing to do with grooves.

In summary, it is simply not reasonable to rely on past PGA Tour performance statistics to draw meaningful conclusions about any single aspect of existing golf equipment, particularly grooves. There are far too many "uncontrolled" and "unrecorded" variables at play. For example, we do not know which of the many types of grooves were used by each Tour pro for each iron and wedge shot hit at each PGA Tour event. We also do not know the condition of the grooves (whether worn or not) -- nor do we know the specific length of the grass from which each shot was taken. Other relevant data, and appropriate controls, also have not been identified. Where is the data from the LPGA, the European Tour and from other events played by "highly skilled golfers?" I recognize that appropriately gathering the necessary information would require a tremendous effort (assuming this should even be a concern of rulemaking bodies devoted to amateur golf), but such an effort should be required before rolling back an equipment rule relied upon by tens of millions of golfers for the past twenty-four years.

Given the gravity of the USGA's pending decision, and the duty owed by it as a result of prior commitments, I strongly urge the USGA to carefully consider the above information before making a final decision regarding the proposed new groove rule. While the information I previously provided overwhelmingly demonstrates that the proposed new groove rule should not

be adopted, the above data and analysis adds to the conclusion that the money list/driving accuracy correlations cited by the USGA cannot be relied upon in any meaningful way to justify a harmful and dramatic reversal of nearly 24-year-old groove rules. I remain confident that you and the appropriate committees of the USGA and the R&A will, after a careful review of the facts, determine that the proposal should be dropped, if you have not done so already.

Dick, thank you for your attention to my previous letters and your consideration of all of the information I have provided. Please let me know if you would like to meet, or in any other way further discuss any of the comments or material I have submitted.

Sincerely,

KARSTEN MANUFACTURING CORPORATION

John A. Solheim by *Dave Engle*

John A. Solheim
Chairman, President and CEO

Attachments

cc:	David B. Fay	Peter Dawson	Pat McKinney
	Christie Austin	Mark Dobell	Michael Tate
	James T. Bunch	Tim Finchem	Fredric C. Nelson
	Emily R. (Missy) Crisp	Angus Farquhar	Duncan Weir
	Walter W. Driver, Jr.	David Hill	Cameron Jay Rains
	Irving Fish	Peter Lewis	Loren Singletary
	James Hyler, Jr.	Steve Otto	Steve Smyers
	John Kim	Colin Phillips	James F. Vernon
	William M. Lewis, Jr.	David Rickman	Geoffrey Yang

Figure 1a

Annual Rank Correlation Coefficient
Between PGA Tour Money Winning and Driving Accuracy
1980-2007 (As Published by USGA)

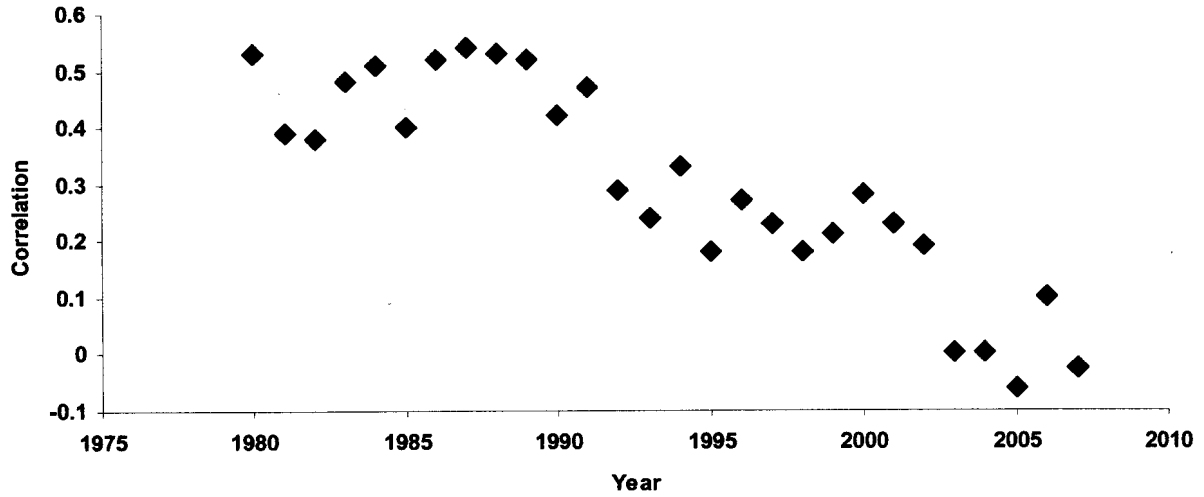


Figure 1b

Number of Regular PGA Tour Members with Both Accuracy and Money Ranking
1980-2007

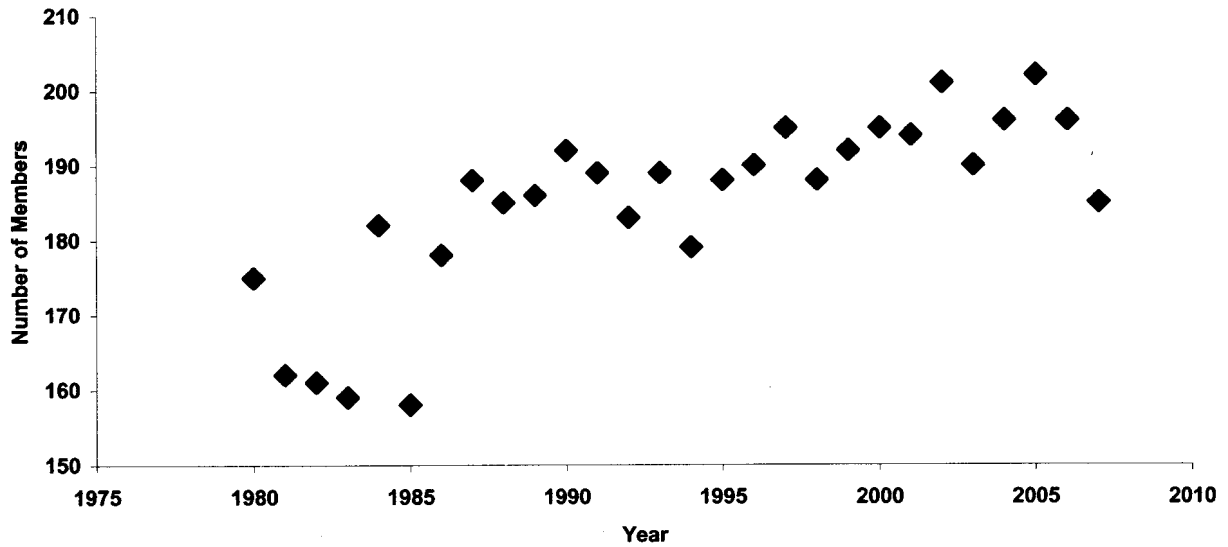


Figure 2a

Annual Rank Correlation Coefficient
Between PGA Tour Money Winning and Driving Accuracy
1980-2007 (As Published by USGA)

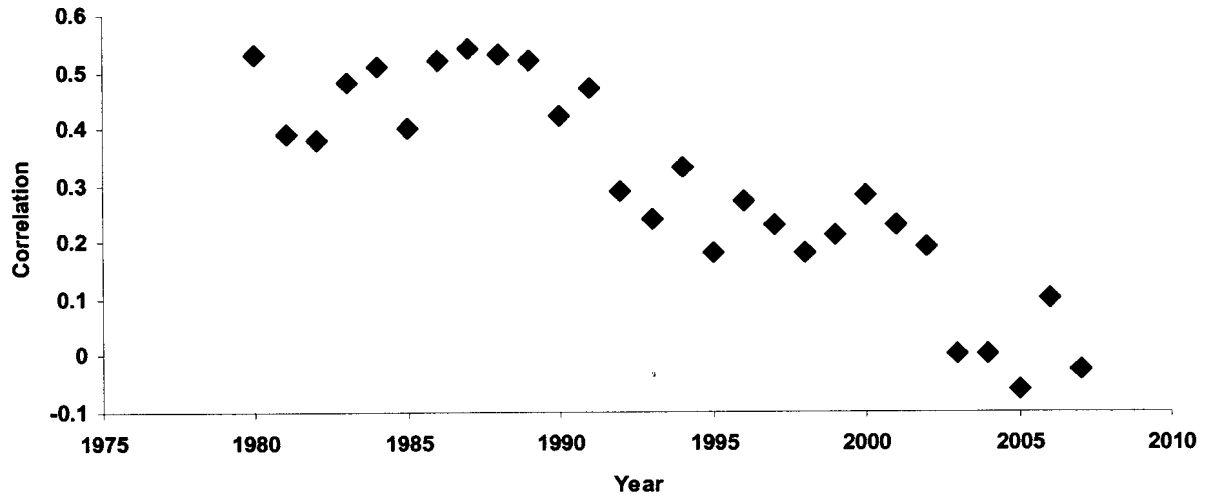


Figure 2b

Total Number of Events Played by Top 10 PGA Tour Money Earners 1980-2007

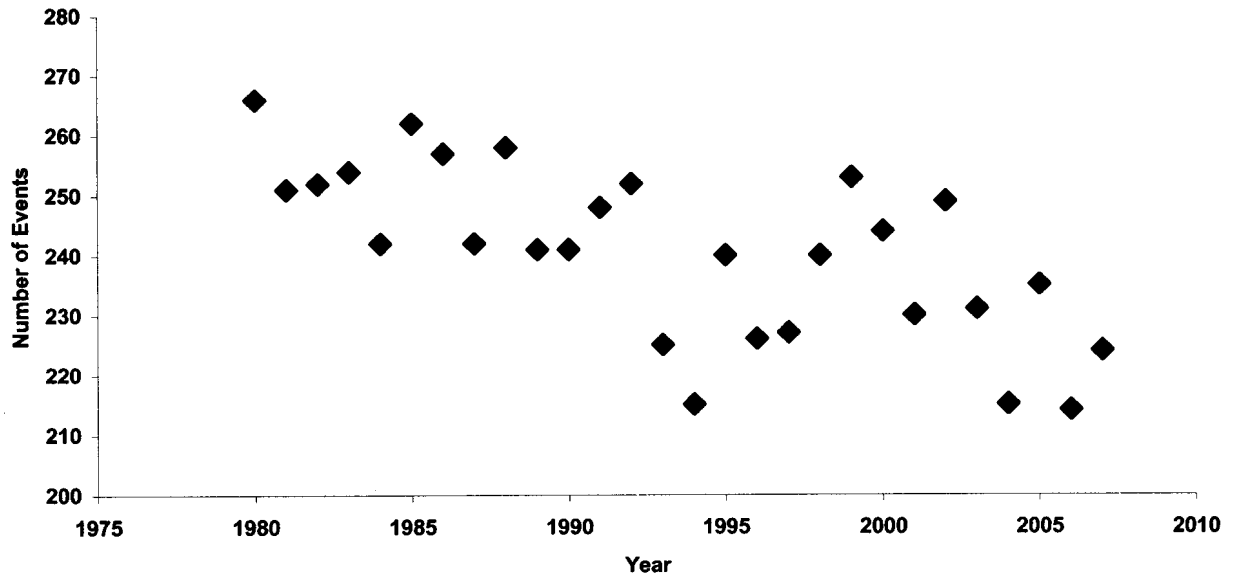


Figure 3a

Annual Rank Correlation Coefficient
Between PGA Tour Money Winning and Driving Accuracy
1980-2007 (As Published by USGA)

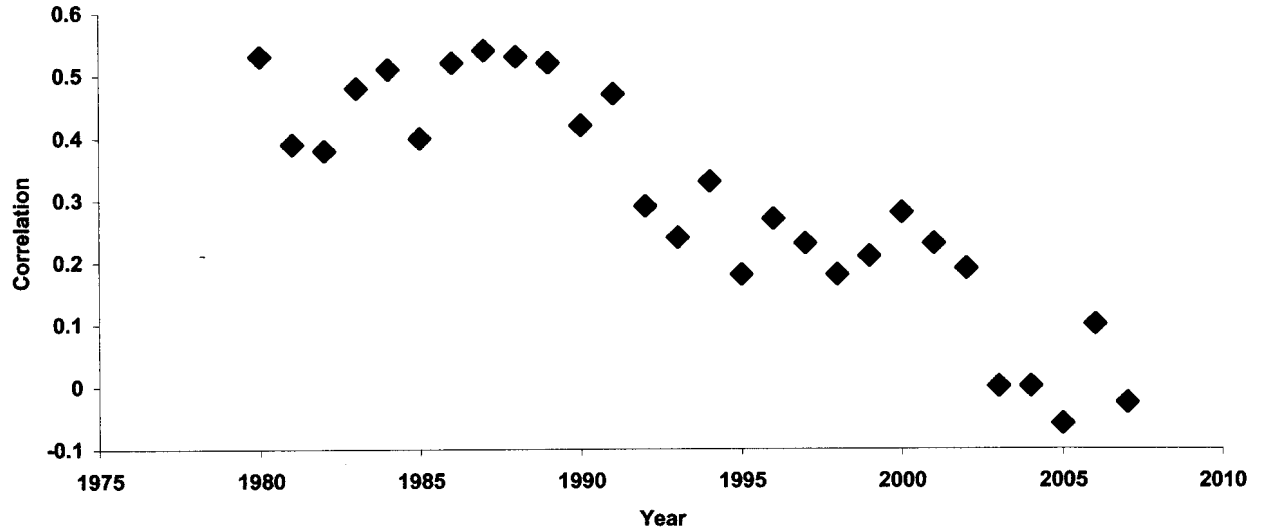


Figure 3b

Percent of PGA Tour Events with
3 or More of the Top 10 Money Earners in the Field
1980, 1985, 1990, 1995, 2000-2007

