Equipment Specifications Research Executive Summary

June 2022

Summary

As described in the original R&A/USGA Research Topics – Area of Interest (February 2021), R&A Rules Limited (The R&A) and the USGA have assessed the effect of changes to both club and ball specifications over a wide range of skill levels and swing speeds that could:

- Lead to a reduction in driving distance,
- Lead to a reduction of the distance for other clubs in the bag, and
- Lead to an enhancement in the balance between hitting distance and other skills,

while at the same time conducting research in other areas beyond those directly associated with equipment specifications.

The document “Equipment Specifications Research” details findings from research that has been conducted for topics directly associated with equipment specifications included in the February 2021 area of interest, including pertinent previously conducted research.

The research considered and involved golfers at all levels of the game in both driving range tests and playing tests. Where simulations were performed, the effects were investigated at conditions that represent both female and male golfers at the elite professional and average amateur levels.

Research areas not being continued at this time

Based on this work, the following are not anticipated to be areas of further research at this time.

a. Equipment factors influencing the level of difficulty of shots from the rough.

Statistical analysis of PGA TOUR performance, driving range tests with elite amateur golfers on driving range, post-round interviews after playing with equipment modifications to reduce spin from rough, and strategy optimization did not show support for the hypothesis that increased penalty from the rough would lead to significant changes to drive distance.

b. The effects of teeing height.

There were some situations, especially in robot testing, where significantly reducing teeing height led to substantial distance reductions. However, ball and club design or selection has been shown to mitigate this, and effects were not consistent across all golfers in testing, and as such this area is not being pursued as a mechanism for change to driving distance.

c. Minimum spin specifications for golf balls.

It has been shown that golf balls with different aerodynamic designs can mitigate for construction characterized by increased spin, and that golfers who naturally have higher spin (due to their clubhead presentation) are disproportionately affected.

d. Alternative size and weight specifications for golf balls.

Though some golfers may benefit from using golf balls with lower weight or larger diameter, advantages were not identified for significant changes to size or weight specifications, and some effects (including trajectory height and wind response) may be undesirable.