GolfAustralia

Q&A

DSR, Slope, and the new GA Handicap System

List of Questions

1. Will DSR (Daily Scratch Rating) and Slope come into operation in Australia at the same time as the other remaining components of the new GA Handicap System that are also yet to be implemented?
2. When are DSR and Slope scheduled to come into operation?
3. Why do we need course ratings?
4. How does DSR work? Does DSR take different factors into consideration than did CCR?
5. My club will have large fields on the main competition days and small fields on other days. Does DSR work for small fields?
6. We are a small club. Will DSR work for us?
7. What process was followed in developing the DSR system?
8. Will the DSR system be accurate 100% of the time? If it won't be, isn't it better to not have a daily rating system and instead to simply use static Scratch Ratings?
9. I've heard it suggested that if we don't have DSR and continue to simply use Scratch Ratings, everything will even out in the long run. Is this correct? If it is, wouldn't it be simpler to stick with static Scratch Ratings?
10. I've heard it suggested that when I play on a very difficult day, a poor score will fall into the worst 12 of my most recent 20 scores. As a result, the need to adjust the course rating will be negated. If this is correct, why do we need DSR?
11. Under the current Australian static Scratch Rating system, are seasonal fluctuations in handicaps a common occurrence?
12. Why do seasonal fluctuations in handicaps occur? Is it because a player's underlying ability changes with the seasons?
13. How does the USGA's static rating system approach the issue of seasonal fluctuations in handicap?
14. We are a regional club and our course will sometimes be dramatically easier in summer than in winter due to a substantial change in fairway roll. Do the handicap and course rating systems make any allowance for our situation?
15. How many major handicap systems have a daily rating component?
16. Is Australian, European, and British & Irish golf more ideally suited to the operation of a daily rating system than golf in the USA?
17. I've heard that the new Scratch Rating system takes account of all weather conditions. If so, why do we need DSR?
18. I've heard that GA's decision to include Slope as a component of the new GA Handicap System will negate the need for a daily rating system. Is that correct?
19. Is there a common view as to whether the results on a day are indicative of the difficulty of the course on that day?
20. Is a change in weather from day to day the only factor than can cause a change in course difficulty?
21. I've heard that DSR is the same as CCR. Is that correct?
22. I'm interested to see what the suite of DSR algorithms look like. Where can I see them?
23. Why did CCR not cater well for women's fields? Will DSR be any different?
24. Will the DSR system mean more work for clubs?
25. I've heard that GA has decided to introduce the Slope Handicapping System into Australia. Is that correct?
26. Do any major handicap systems currently in operation have a daily rating component as well as a Slope component?
27. I've heard that the addition of Slope to the new GA Handicap System will significantly improve handicapping for all Australian golfers. Is this correct?
28. In September 2011, GA introduced a series of changes to the way handicaps are calculated. I've heard it suggested that the immediate introduction of Slope would have been a more effective way of fixing the problems that were occurring with competition results patterns. Is this correct?
29. Why is it likely to take approximately 12 months to make all the software upgrades necessary to introduce the complete new GA Handicap System?
30. Is Slope the most important handicapping reform GA will be introducing when the complete new GA Handicap System becomes fully operational?
31. It's been suggested that millions of dollars have been invested into the development of the USGA Handicap System. Why then wouldn't it have been a better system for Australia than the new GA Handicap System?
32. Would the USGA Handicap System have worked well for some components of Australian golfers?

1. Will DSR (Daily Scratch Rating) and Slope come into operation in Australia at the same time as the other remaining components of the new GA Handicap System that are also not yet in effect?

All components of the system not yet in effect, which includes the two headline items DSR and Slope, are confirmed for implementation at the one time.

As previously communicated, the full list of components remaining to be implemented is as follows:

- DSR
- Slope
- SHA (Stableford Handicapping Adjustment)
- Handicapping of Conforming Social Scores
- Changed 9-hole regulations (9-hole score to be automatically held in GOLF Link for combination with next 9-hole score)
- Changes to four-ball handicapping regulations (will be similar to current regulations)

2. When are DSR and Slope scheduled to come into operation?

GA is currently fully engaged with GOLF Link and the 12 independent Tier 3 software providers in re-building what is a major national computerised network of inter-connected software systems. This is in contrast to the relatively small scale projects required to bring the April 2010 and September 2011 handicap system changes into effect.

The new GA Handicap System (including DSR and Slope) will become fully operational during the latter part of 2013. At this early stage of what is a significant software project, it is difficult to provide a more precise implementation date with absolute certainty. The nature of significant software projects is that dates can shift either forward or backward. That said, we are mindful that some interested parties would like an indication of the specific window of time we are aiming for.

At this stage of the implementation project, we are aiming to go live with the complete new GA Handicap System in late-September 2013. We will keep the industry updated on this as the implementation project progresses.

3. Why do we need course ratings?

In order to process a player's score for handicapping, we need to know how hard the golf course was. If we don't, the score itself is largely meaningless and is unusable. For example, 82 on a very hard golf course is a much better achievement than 82 on a very easy golf course.

The purpose of a course rating system is to enable accurate comparison of the standard of a player's round on one course with the standard of a round (returned either by that player or any other player) on any other course.

Adding Slope into the mix provides a further dimension. The key principle underpinning Slope is that a high-marker finds it more difficult to adjust to a hard course than does a low-marker. And what Slope actually does is it assesses the extent to which the difficulty of a course increases for each increased level of handicap.

If ratings for a course do not accurately reflect its difficulty, handicaps will be distorted.

4. How does DSR work? Does DSR take different factors into consideration than did CCR?

Under the new DSR system, we will assess a current course rating for your course on each day scores are returned. This rating will be appropriate to the conditions the players actually experienced. GOLF Link will do all of the work and publish the DSR immediately after the scores are processed.

The formulas used to assess the DSR are complex because our statisticians have advised that simple formula options are not efficient enough to produce reliable ratings – this was the problem with CCR.

Through GOLF Link, the DSR system will establish each of the following:

- The average net score for a field.
- The average handicap of a field.
- The field size.
- The type of competition (Stableford, Par, or Stroke).
- The gender of the competitors.

Once it has established each of these factors, GOLF Link will compare the ACTUAL average net score on the day with the average net score GOLF Link EXPECTS for this field composition. (The EXPECTED average is determined by GOLF Link from millions of prior rounds.)

GOLF Link will then determine the DSR by using the difference between what ACTUALLY happened on the day and what was EXPECTED to happen.

How was CCR different to DSR? CCR simply lined-up all the net scores from best to worst and picked out the 12.5% score as the rating for that day. It took no account of the handicaps of the players in the field. CCR also relied on the statistically inefficient method of using only the very best scores rather than all scores, as a result the scores of one or two players had the potential to impact the CCR in a notable way. It should be remembered though that CCR was designed in the pre-GOLF Link age and needed to be simple enough that all clubs could easily operate it. DSR is not hamstrung by the same considerations and GOLF Link will readily accommodate its complex formulae.

5. My club will have large fields on the main competition days and small fields on other days. Does DSR work for small fields?

Whilst small clubs don't often run large-field events, almost every club in Australia will need to have DSRs regularly assessed for small groups of players – for men's fields and also for women's fields. As a result, the DSR formulas have been designed to cater for fields of all sizes.

6. We are a small club. Will DSR work for us?

Almost every club in Australia will need to have DSRs regularly assessed for small groups of players – for men's fields and also for women's fields. As a result, the DSR formulas have been designed to cater for large fields and for small fields.

7. What process was followed in developing the DSR system?

In 2011, GA formed the DSR Statistical Review Group. The membership of this review group includes highly-experienced and accomplished statisticians as well as handicapping experts and was formed specifically to pursue the development of an effective daily rating system. It reports to GA's Handicapping Sub-Committee and GA's main Handicapping & Rules Policy Committee.

Whilst the suite of DSR formulae is primarily the work of the DSR Statistical Review Group, the DSR regulatory framework that supports the formulae has been developed by the Handicapping Sub-Committee, the Handicapping & Rules Policy Committee, the Board, and the Review Group all working in concert with each other.

Analysis by the DSR Statistical Review Group of millions of rounds was involved in the development of the suite of DSR formulae. This laboratory analysis and testing has been followed by live trialling of the new DSR system within a diverse sample of clubs across Australia.

The live trialling phase has enabled GA to continue to fine-tune the DSR formulae. GA is committed to using this feedback to continue to improve a system we believe is already world-standard.

8. Will the DSR system be accurate 100% of the time? If it won't be, isn't it better to not have a daily rating system and instead to simply use static Scratch Ratings?

From a policy perspective, there are four considerations that are integral to addressing these issues:

- Firstly, no daily rating system will be accurate 100% of the time.

- Secondly, fluctuations in daily conditions (eg changes in weather, hole placements, green speed, green firmness, rough heights and density) will cause the Scratch Rating to be accurate approximately only 33% of the time. It is worth noting that this figure is a national average and that a static Scratch Rating system will serve some parts of Australia better than others. Nonetheless, GA takes the view that we should be aiming for a higher accuracy rate than 33%.
- Thirdly, if the course rating for a course does not accurately reflect its difficulty, we will be prevented from being able to accurately assess the standard of rounds played by players on that course. A likely outcome of this is that handicaps will be distorted.
- Fourthly, one of the First Principles of the GA Handicap System is: "The calculation of a handicap should take into account the degree of difficulty presented at the time by the playing conditions." The inclusion of DSR in the GA Handicap System satisfies this principle.

GA has made it a priority to develop the best daily course rating system we can. Significant time and expert resources have been invested in this project. Despite this, DSR will always produce occasional anomalous results. Having occasional anomalous results does not in GA's view provide a compelling case for staying with a system that has a 33% success rate.

9. I've heard it suggested that if we don't have DSR and continue to simply use Scratch Ratings, everything will even out in the long run. Is this correct? If it is, wouldn't it be simpler to stick with static Scratch Ratings?

From a policy perspective, there are two general considerations that are integral to addressing these issues. Firstly there is the impact DSR will have on national trends and averages, and secondly there is the impact DSR will have at local level and on individual golfers.

- IMPACT ON NATIONAL TRENDS & AVERAGES. DSR will make handicaps in general less volatile. Why? What is currently happening is that good scores on easy days are resulting in larger downward movements than will happen under DSR (because the course rating stays artificially high under the static Scratch Rating system). This causes a player's handicap to dip temporarily, it becomes lower than it should be and the player struggles to play to the new value, before drifting out again. This is accentuated by scores on hard days being evaluated against ratings that are artificially low. A further impact of decreased volatility is that across Australia, the average handicap will increase slightly.
- INDIVIDUAL IMPACT. Whilst the impact on national averages is important, in this case it only paints a small part of the picture. Examples of the impact DSR will have on individual golfers are as follows:
    - Bill always plays in the morning when it's calm, and Tony always plays in the afternoon when it's windy. If there's no DSR, both players will be having their scores evaluated against incorrect course ratings (one will be too high and the other too low). The impact of the two cases net off against each other to give an average that looks perfect. However, this doesn't help Bill whose handicap will always be too low, and Tony won't be happy either because he's trying to improve his handicap and yet it's always kept artificially high!
    - Jenny's underlying ability doesn't change from summer to winter but because of the heavier winter conditions, she doesn't score as well. Without DSR, Jenny's handicap increases in winter and then decreases again in summer. Jenny doesn't play much at the start of summer, so when she does start to play regularly at the height of summer her handicap is artificially high compared to those players whose handicaps have already adjusted to the easier conditions.
    - John's handicap is only based on an average of 8 scores. As a result, it doesn't take too many inaccurate ratings to distort his handicap at any given point in time. Distortion can be caused either by 'top 8' scores that were actually returned against artificially high ratings, or by scores in the worst 12 that would've been in the top 8 if they'd been assessed against ratings more reflective of the true course difficulty than the Scratch Rating. Whilst the ups and downs may even out over the course of a substantial

number of rounds, it seems hopeful to expect they will even out at any given point in time.

- Fiona has been playing in the Melbourne winter. Without DSR, her handicap will increase because of the harder conditions. She visits her friend in Cairns and plays golf. Coming out of the Melbourne winter with her artificially high handicap, Fiona wins the Cairns competition.

So whilst it might be simpler to stick with static Scratch Ratings, GA believes that DSR will provide better outcomes for Australian golfers.

10. I've heard it suggested that when I play on a very difficult day, a poor score will fall into the worst 12 of my most recent 20 scores. As a result, the need to adjust the course rating will be negated. If this is correct, why do we need DSR?

GA believes there are various considerations on this point:

- Firstly, handicap golfers are just as capable of playing well on difficult days as they are on easy days. And whilst the score may be worse on a hard day, it is not necessarily because the quality of the round is worse. In a proportionate number of cases it is instead because the difficulty of the course was increased. As a result, a round should not be dismissed just because the conditions were difficult and the score itself is commensurately worse.
- Secondly, a handicap system should be flexible enough to accurately assess the standard of rounds played by players under varying conditions.
- Thirdly, a score may be assessed as poor when compared against the static Scratch Rating, but it may be in a player's top 8 if it is compared against the true rating.
- Fourthly, if a static Scratch Rating is being used, a score from a difficult day that is in a player's top 8 will be assessed as being worse than it should be as it is being compared against an artificially low rating. This will make the handicap higher than it should be.
- Fifthly, if a static Scratch Rating is being used, a score from an easier day that is in a player's top 8 will be assessed as being better than it should be as it is being compared against an artificially high rating. This will make the handicap lower than it should be.
- Sixthly, it is possible that the swings and roundabouts of the above may cancel each other out. However, a sample of 8 is not large and whilst the ups and downs may even out over the course of a substantial number of rounds, it seems hopeful to expect they will even out at any given point in time.

GA consequently takes the view that the better service for golfers is provided by assessing accurate ratings for each day.

11. Under the current Australian static Scratch Rating system, are seasonal fluctuations in handicaps a common occurrence?

In most parts of Australia, players who play regularly throughout the year are more likely than not to experience seasonal fluctuations in handicap.

12. Why do seasonal fluctuations in handicaps occur? Is it because a player's underlying ability changes with the seasons?

The underlying ability of most players does not change with the seasons. Seasonal fluctuations in handicap generally occur due to the inability of a static Scratch Rating system to keep pace with seasonal changes in course difficulty.

13. How does the USGA's static rating system approach the issue of seasonal fluctuations in handicap?

The USGA's published advice on seasonal handicap fluctuation is as follows:

"Seasonal changes to course conditions by themselves do not influence a player's potential ability and should not result in a change to a handicap. If the Handicap Committee believes that the player's

potential ability is different than the handicap calculated from scores, it is authorised to adjust the player's handicap.

If this sort of change in scoring is widespread because of changes in course conditions and the Handicap Committee believes it is not practical to maintain course difficulty consistent with its ratings, it should consider suspending the handicapping of scores, but must obtain approval from its Member Association if this suspension is to be for an extended time."

14. We are a regional club and our course will sometimes be dramatically easier in summer than in winter due to a substantial change in fairway roll. Do the handicap and course rating systems make any allowance for our situation?

Most Australian golf courses exhibit slight shifts in difficulty due to seasonal changes. DSR will offset the impact of these seasonal changes.

There is however a very small number of courses where their Scratch Ratings will become clearly inaccurate during sustained periods of extreme seasonal change. The classic example of this is a flat regional course where in sustained periods of hot, dry weather the fairways will become baked and the ball will run 'forever' (and due to minimal rough or trees, the ball will be easily playable irrespective of where it rolls to).

In cases where the difficulty of a course becomes severely impacted by a sustained period of extreme seasonal change, the club should contact its State Association to establish whether or not a temporary Scratch Rating is warranted.

15. How many major handicap systems have a daily rating component?

There are three major international handicap systems that currently operate in world golf – the European Golf Association Handicap System (EGA Handicap System), Council of National Golf Unions Unified Handicapping System (CONGU Unified Handicapping System – this operates in England, Ireland, Scotland, and Wales), and the USGA Handicap System.

The EGA Handicap System and the CONGU Unified Handicapping System both feature a daily rating component, whilst the USGA Handicap System does not.

16. Is Australian, European, and British & Irish golf more ideally suited to the operation of a daily rating system than golf in the USA?

For a daily rating component to operate efficiently, it requires all scores from a given day to be returned to handicap administrators on that same day.

Club administrators in Australia, Europe, and Britain & Ireland all have same-day access to all scores made at a course. In these regions, the only cards that are handicapped are competition cards, or social cards that have been pre-nominated to count for handicapping. And these must be returned by the player to the club at the completion of the round.

In the USA, most handicap rounds are from social play. This factor in itself does not impede consideration of a daily rating component. What is problematic is the manner in which scores from these rounds are returned for processing:

- Firstly, whilst the USGA Handicap System enables the player's club to have oversight of their handicap, it does not require score entry to be managed by the club. In many cases, players will access their handicap records directly through the internet and enter their own scores.
- Secondly, the USGA Handicap System does not require a player to return their scores on the day of play. So whilst a player may be returning cards to their club for entry by their club into their handicap record, the US culture in this regard works against clubs having same-day access to all scores made at a course. And if a player has played away from their home club, they will not be returning the score to the visited club.

Therefore, the US golf culture is not consistent with clubs having same-day access to complete batches of scores (or even near-complete batches of scores). This consequently makes the efficient operation in the

USA of a daily rating component a challenging proposition. Nevertheless, the USGA is keenly following Australia's work on DSR.

17. I've heard that the new Scratch Rating system takes account of all weather conditions. If so, why do we need DSR?

The new Scratch Rating system provides an evaluation of the difficulty of a course under normal conditions (including normal wind strengths).

Assuming the weather and condition of a course never varies (eg wind, weather, green speed, hole placements, green firmness), the Scratch Rating will be accurate.

If the difficulty of a course ever varies from the normal, the Scratch Rating will be rendered inaccurate, and we will be prevented from being able to accurately assess the standard of rounds played by players on that course. A likely outcome of this is that handicaps will be distorted.

DSR enables course ratings to remain accurate as it varies them according to changes that can occur to the difficulty of a course from day to day. As a result, DSR will help to maintain the validity of the work of the course raters by ensuring their evaluations are kept constantly current.

18. I've heard that GA's decision to include Slope as a component of the new GA Handicap System will negate the need for a daily rating system. Is that correct?

Slope does not measure the variability of conditions from day to day. Nor is it strictly a measure of course difficulty. What the Slope Rating tells us is how many more shots a player will need at a course in order to play to the Scratch Rating. For Slope to perform to its peak capacity, it must operate in concert with a system that accurately measures the difficulty of a course (and we know that the difficulty of courses can vary from day to day).

As a result, DSR will enable Slope to perform to a greater level of efficiency. The European Golf Association employs a similar strategy. In its handicap system, it also has Slope working in concert with a daily rating system.

19. Is there a common view as to whether the results on a day are indicative of the difficulty of the course on that day?

The vast majority of golfers (administrators and players alike) take the view that the results returned on a day (whether from an elite field or a normal field of club golfers) will tell a story about how difficult the course was on that day.

Whilst it is not impossible for an entire field of players to simply play well or badly, this is statistically very unlikely – and it is far more unlikely for a large field than a small field.

20. Is a change in weather from day to day the only factor than can cause a change in course difficulty?

Wind or rain can cause the difficulty of a course to increase from one day to another. Harder hole placements are also likely to make a difference.

Perhaps the most important factor is the speed and firmness of greens. These factors will notably impact the difficulty for pros, and they have an even greater impact on club golfers. (Clubs should also be particularly mindful of the impact these factors will have on the pace of play.)

Other factors that will not change overnight, but can change over a period of weeks, are the height and thickness of rough, and the amount of roll on fairways. We all know how much of a difference these factors can make, and they will impact difficulty at regional and metropolitan clubs alike.

21. I've heard that DSR is the same as CCR. Is that correct?

There are various types of statistical daily rating systems that have been developed over time. CCR is one such system. CSS (Competition Scratch Score) is another. The European Golf Association and Council of National Golf Unions (CONGU – this is the governing handicapping authority for England, Ireland, Scotland, and Wales), currently operates CBA (Computed Buffer Adjustment). GA has now developed DSR.

Of all these methods, CCR is mathematically the most simplistic, and this simplicity resulted in inherent deficiencies in the production of ratings for smallish fields. It should be remembered however that CCR was designed in the pre-GOLF Link age and needed to be simple enough that all clubs could easily operate it. DSR is not hamstrung by the same considerations and GOLF Link will readily accommodate its complex formulae.

It is correct that CCR, CBA, CSS, and DSR are all statistical daily rating systems. However, to say that DSR is the same as CCR is a bit like saying that a Model T Ford is the same as a Ferrari because they are both cars.

22. I'm interested to see what the suite of DSR algorithms look like. Where can I see them?

The complete suite of DSR formulas are available from the handicapping section of the GA website.

23. Why did CCR not cater well for women's fields? Will DSR be any different?

The CCR system was designed in the early 1990s for the governing body of men's golf at the time (the Australian Golf Union). It came into effect for men's golf in 1992.

CCR was introduced by the governing body for women's golf (Women's Golf Australia) in 1998 after 1,080 clubs voted at a ratio of 3:1 in its support. The same calculation methodology for men's golf was also adopted for women's golf.

Common outcomes with women's competitions were as follows:

- In many cases weekday fields would be more than 20, and the CCR regulations dictated that for fields of more than 20, the 12.5% card would be the CCR. Because the average women's handicap is more than 10 strokes higher than the average men's handicap, the 12.5% card for women often provided a high CCR that was more a reflection of the handicaps of the players in the field than it was of the difficulty of the day.
- In many cases weekend fields would be less than 20, and the CCR regulations dictated that for fields of less than 20, the CCR value would be the Scratch Rating. This resulted in many clubs featuring lower weekend CCRs than weekday CCRs purely because of the different field sizes.
- As a result of the above, it was common in many clubs for women playing on weekdays to have lower handicaps than women playing on weekends.

Why is DSR different? The differences between DSR and CCR that are specifically relevant to this issue are as follows:

- CCR took no account of the average handicap of the field. One of the key inputs to the DSR formulas is the average handicap of the field.
- The CCR formula that operated for women was designed from analysis only of men's score distributions and standards. The women's DSR formulas have been designed following substantial analysis of women's score distributions and standards. This will result in DSR producing notably different handicapping outcomes than occurred under CCR.

24. Will the DSR system mean more work for clubs?

No. GOLF Link will do all of the work. GOLF Link will provide a club with its DSR immediately after the club has processed the scores in the same way it currently does.

25. I've heard that GA has decided to introduce the Slope Handicapping System into Australia. Is that correct?

Slope is not a handicapping system, rather it operates as one component of a handicap system. Slope is able to operate as a component of any type of handicap system.

The complete new GA Handicap System will have many components, one of which will be Slope.

26. Do any major handicap systems currently in operation have a daily rating component as well as a Slope component?

The European Golf Association Handicap System (EGA Handicap System) includes a daily rating component and Slope. The EGA daily rating system is called Computed Buffer Adjustment (CBA).

27. I've heard that the addition of Slope to the new GA Handicap System will significantly improve handicapping for all Australian golfers. Is this correct?

Slope will be an important addition to the GA Handicap System. However it is not a reform that will have a significant impact on the regular experience of most Australian handicap golfers.

What Slope will do is provide a fairer handicap for those players who play different courses and tee options, and where the level of difficulty of these various courses and tee options also differs. This benefit is most pronounced when there's a significant difference in the difficulty between the courses or tee options. Whilst there is not a large proportion of people across the golfing population for whom this is a regular experience, it is a very important issue for those affected. In many cases currently, players end up with a handicap they find to be largely irrelevant to their standard of play on difficult courses, and that's not a great outcome. So Slope will be a very useful addition to handicap golf in Australia.

It is also important to be realistic with expectations regarding Slope's capacity to solve the portability problem. One matter that no handicap system has been able to address thus far is that of familiarity. With analysis suggesting that familiarity has a significant impact on a player's capacity to score well on a course, it remains a general international issue. For example, if a player goes from one course to another course with the exact same Slope Rating, the challenge for the player is most unlikely to be the same if the visited course is one the player has not previously played. And it is common for a player to be unfamiliar with a visited course.

28. In September 2011, GA introduced a series of changes to the way handicaps are calculated. I've heard it suggested that the immediate introduction of Slope would have been a more effective way of fixing the problems that were occurring with competition results patterns. Is this correct?

There are several points that help to answer this question:

- The USGA's expert advice at the time was that Slope would not have helped to solve the problems that were occurring with Australian competition results patterns.
- Slope acts by providing to a player a different handicap when they play at a course with a different Slope rating to their own course. On average, more than 90% of Australian competition rounds are played on a player's home course, and of the remaining very small proportion, many are played on courses with similar Slope ratings to the home course. Slope will be a valuable addition to the GA Handicap System, but the function it performs is not relevant to the problems that were presenting in Australia with the '10 of 20' x 0.96 handicap calculation settings.
- So what was causing our problems? It can be explained as follows:
    - In general, players with higher handicaps are more inconsistent than players with lower handicaps.
    - With the '10 of 20' x 0.96 settings, a low-marker would be favoured in a field of two against a high-marker because the low-marker is more consistent.
    - However if the low marker were to compete against 100 high markers, at least one (and often more) high markers were having their 'day out' and returning scores of approximately 45 Stableford points which were unachievable for the low marker.
    - As a result, handicap calculation settings work differently for different sized fields.

- Most golf in the USA is amongst small groups, so these settings work well for this type of golf culture.
- In Australia however, we commonly have much larger fields so we need different handicap calculation settings to those that operate in the USA.

29. Why will it take approximately 12 months to make all the software upgrades necessary to introduce the complete new GA Handicap System?

To make the changes necessary to bring the complete new GA Handicap System into effect, we will need to co-ordinate a widespread re-build of what is a major national computerised network of inter-connected software systems. This is in contrast to the relatively small scale projects required to bring the April 2010 and September 2011 handicap system changes into effect.

The April 2010 and September 2011 projects were carefully structured to ensure there was no amendment required to any of the Tier 3 systems. Just as importantly, they avoided amendment of the data communication protocols required for Tier 3 systems to transmit data fields to GOLF Link and for data fields to be communicated by GOLF Link to the Tier 3 systems. To bring the complete new GA Handicap System into effect, amendment of all of the interconnected software systems and data communication protocols will be required.

GA does hear suggestions from time to time that the scale of software amendments required to bring these handicapping changes into effect is similar to what might be required in working with Excel spreadsheets. The network of GOLF Link systems is on a completely different scale to Excel spreadsheets.

30. Is Slope the most important handicapping reform GA will be introducing when the complete new GA Handicap System becomes fully operational?

Slope will be an important reform. In terms of overall significance though, the DSR, SHA, and Conforming Social Score components are likely to be more impactful (as are the following components already in effect – Handicap Calculation Settings of Best 8 of 20 multiplied by 0.93, plus the Anchor, plus the immediate updating of handicaps).

The changed regulations for scores returned over 8-17 holes will also be very significant.

31. It's been suggested that millions of dollars have been invested into the development of the USGA Handicap System. Why then wouldn't it have been a better system for Australia than the new GA Handicap System?

A handicap system is a solution to a given set of problems. If the problems are different from one country to another, it is likely that the best solution will also be different. GA takes the view that the USGA Handicap System is an excellent handicap system for a golf culture that features far more social play than competition play, and that has far more small field net events than large field net events.

For example, USGA Handicap System features such as the Most Likely Score regulation are good solutions for a culture that features a predominant incidence of four-ball match play. The problem Most Likely Score is endeavouring to solve is to find a way to enable players to submit scores when four-ball match play is essentially the only golf they play. The research and development invested into the USGA Handicap System has been designed to cater for the cultural factors predominant in American golf.

The cultural factors predominant in Australian golf are different to those in the USA. The only organisation to have invested significant resources and high-level expertise into providing a handicap system solution for Australian golf is GA.

32. Would the USGA Handicap System have worked well for some components of Australian golfers?

Whilst there are common themes to the Australian golf culture, there is also a great diversity of Australian clubs, club environments, and competition and administrative challenges. One of GA's ongoing objectives across all of its operational areas is to design policy that is sufficiently broad to cater for this diversity.

We believe we have developed a handicap system that is the best compromise of the many conflicting considerations that impact handicapping and club competition management in Australia. As a result, we are very grateful to the many club and state officials to have contributed to its design.

Given the wide diversity of Australian experiences, there will be some groups of golfers for whom the USGA Handicap System will have worked well. Across the board though, the new purpose-built GA Handicap System will provide far better outcomes for Australian clubs and golfers.