

# Lengths of Golf Courses on the Professional Tours

## Contents

1. Introduction .....	1
2. Average Course Length .....	1
3. Scorecard Length vs. Playing Length.....	3
4. Changes in Scorecard Length at Individual Venues .....	4
4.1 European Tour – The West Course, Wentworth.....	5
4.2 PGA European Tour – Other ‘regular’ venues.....	7
4.3 PGA Tour – TPC Sawgrass, Stadium Course .....	8
4.4 Ladies European Tour – Sunningdale, Old Course .....	10
Appendix A – List of Figures .....	11
Appendix B - List of Tables .....	11

## 1. Introduction

This report investigates changes in the average lengths of golf courses on the PGA European Tour and PGA TOUR over recent seasons, along with presenting the difference between the scorecard lengths and playing lengths of courses on the PGA TOUR. The report subsequently reports changes in playing lengths at three venues which have been used many times by the European PGA Tour, PGA TOUR and Ladies European Tour.

## 2. Average Course Length

Course length data have been acquired from the PGA European Tour and PGA TOUR which has enabled the calculation of the (arithmetic mean) average length of the courses played each season on the two Tours since 1999 and 2002 respectively. The average length of courses played on each Tour each season is presented graphically in Figure 1 and numerically in Table 1.

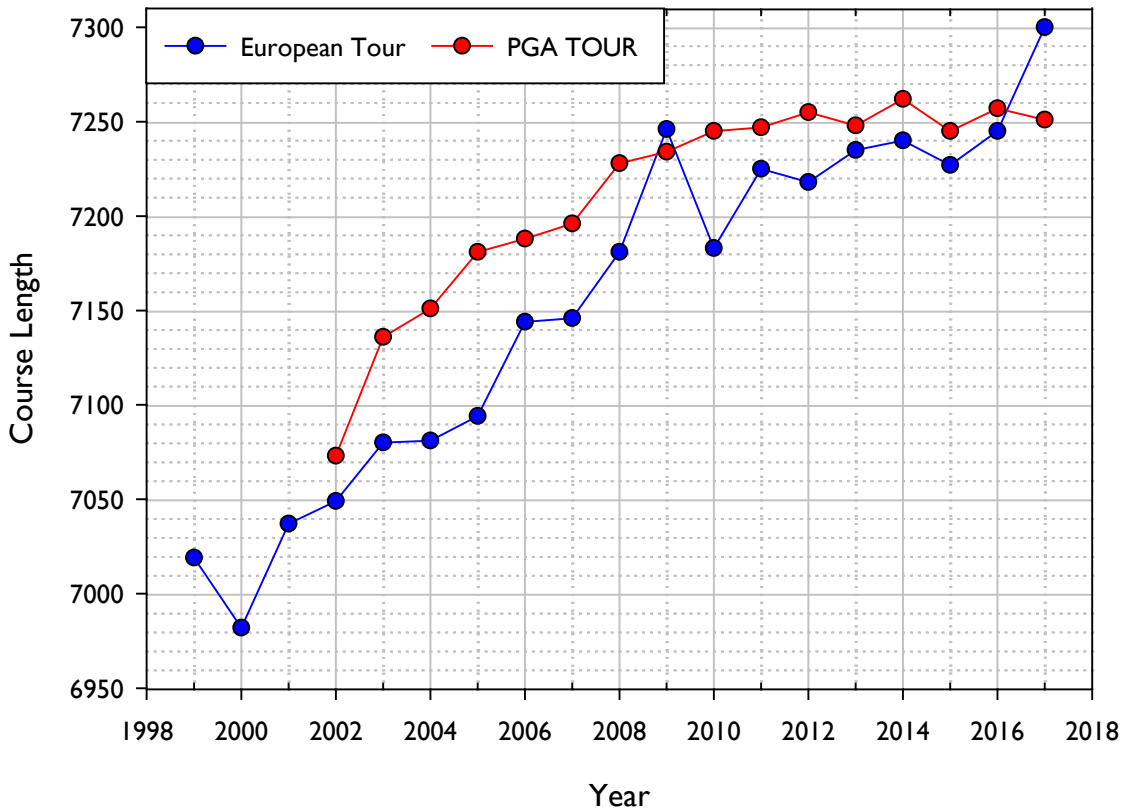


Figure 1 The average course length on the PGA European Tour and PGA TOUR

Generally, the average length of the courses played on the PGA European Tour is slightly shorter than those played on the PGA TOUR with the exception of 2009 and 2017 where the PGA European Tour was longer. The only year where the difference in course length between the Tours is statistically significant ( $p < 0.05$  when using a 2-tailed T-test) was 2005. There has been an increase in course length over the years for which these data are available with the average length of courses on the PGA European Tour and PGA TOUR in 2017 being 7300 and 7258 yards respectively. There are a considerable range of yardages played within the season with a 900-1000 yard range being typical on the PGA TOUR and over 1000 yard range on the PGA European Tour in recent seasons.

Table 1 The arithmetic mean average, median, minimum and maximum course lengths on the PGA European Tour and PGA TOUR by season

Year	PGA European Tour				PGA TOUR			
	Arithmetic Mean Average (Y)	Median (Y)	Min (Y)	Max (Y)	Arithmetic Mean Average (Y)	Median (Y)	Min (Y)	Max (Y)
1999	7019	7044	6606	7435				
2000	6982	6989	6601	7435				
2001	7037	7051.5	6646	7435				
2002	7049	7081	6466	7435	7073	7062	6478	7594
2003	7080	7108	6568	7443	7136	7130.5	6478	7594
2004	7081	7087.5	6568	7514	7151	7196	6478	7619
2005	7094	7135	6482	7435	7181	7216	6737	7619
2006	7144	7201	6703	7561	7188	7216	6759	7619
2007	7146	7207	6626	7590	7196	7240	6759	7568
2008	7181	7209	6626	7849	7228	7243	6759	7663
2009	7246	7274	6626	7849	7234	7231	6759	7849
2010	7183	7231	6625	7849	7245	7239	6816	7849
2011	7225	7279	6625	7791	7247	7241	6816	7791
2012	7218	7281	5594	7791	7255	7243	6816	7791
2013	7235	7281	6612	7831	7248	7239	6816	7791
2014	7240	7252	6538	7964	7262	7277.5	6816	7791
2015	7227	7261	6409	7831	7245	7258	6816	7710
2016	7245	7239	6698	7831	7257	7258	6816	7698
2017	7300	7261	6734	7831	7251	7258	6816	7741

### 3. Scorecard Length vs. Playing Length

Since the advent of the Shotlink system, the PGA TOUR have been recording the playing length (the length that the course is set up at during a given round) for between 70-75% of the rounds played during a season. Generally, these data are available for courses where full Shotlink data are collected (which usually will exclude the Majors, rounds played at non-primary courses at multiple course tournaments and events played out with the United States and Canada). The average playing length by season on the PGA TOUR are shown in Figure 2 along with the average scorecard length for those courses (which due to the exclusion of courses which do not have playing length data will be different to the averages presented in Figure 1 previously). It can be seen that whilst there has been an increase in both the scorecard lengths and playing lengths of the courses played between 2004 and 2017, the increase in the playing lengths has been much more modest (21 yards) than the increase in the scorecard lengths over the same timeframe (87 yards).

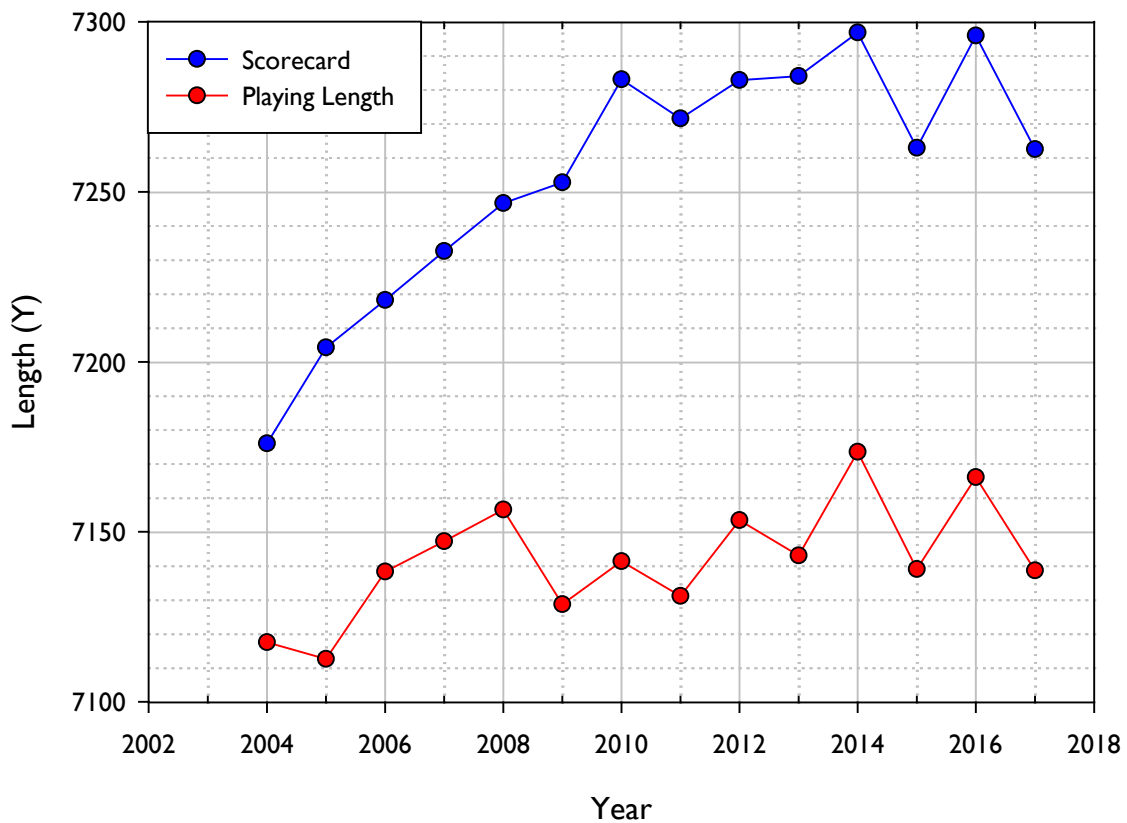


Figure 2 The average scorecard length and playing length of courses on the PGA TOUR by season (only courses for which playing length data are included in the scorecard length average)

#### 4. Changes in Scorecard Length at Individual Venues

Further data has been acquired from the Ladies European Tour and has been used in conjunction with the data from the PGA European Tour and PGA TOUR to consider the changes in scorecard length at courses which have been used multiple times over the years. The courses selected for this comparison are the West Course at Wentworth (PGA European Tour), the stadium course at TPC Sawgrass (PGA TOUR) and the Old Course at Sunningdale (Ladies European Tour)

#### 4.1 European Tour – The West Course, Wentworth

Scorecard length data has been acquired for the tournaments played at Wentworth since 1964. It has been used for three different tournaments, The BMW PGA Championship, the World Match Play and the Martini International.

Generally, the length that the course plays is the same for all competitions within a year; with the exception of 3 years (1997, 2000 and 2007) where the course played for the Match Play was slightly shorter. Given that the Match Play was in October and the PGA Championship is May, without further information, it is unknown whether this was tactical or due to conditions.

There were modest changes in scorecard length between 1964 and 1997 which appear to be distributed amongst most holes suggesting that these were due at least in part to the remeasuring of the course. The scorecard length increased moderately (49, 41 and 25 yards) ahead of the 1998, 2000 and 2002 tournaments. There was a significant increase (235 yards) for the 2006 Championship. The scorecard length dropped in 2010 but crept back up in 2012 before being reduced slightly ahead of the 2016 season.

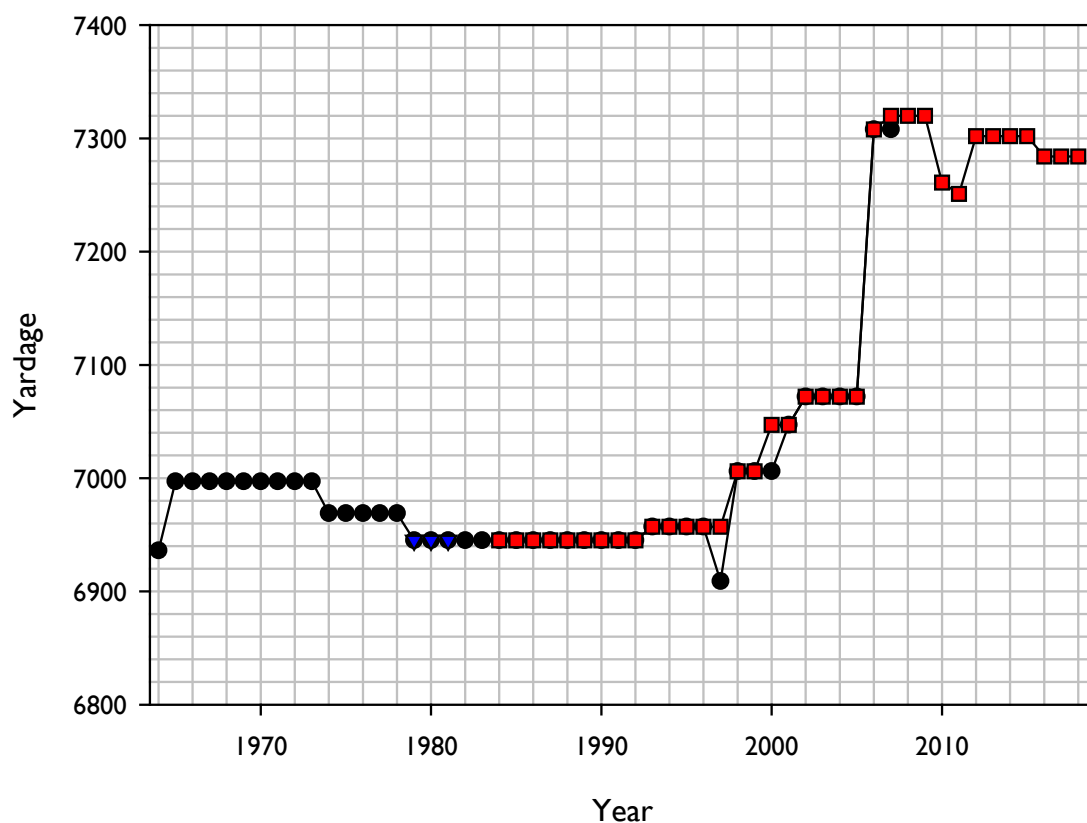


Figure 3 Scorecard length at Wentworth since 1964

The course was played as a par 75 in 1964 before reducing to 74 in 1965, 73 in 1972 and then to 72 in 1975 where it has remained since (apart from a 2-year dip in 2010-2011).

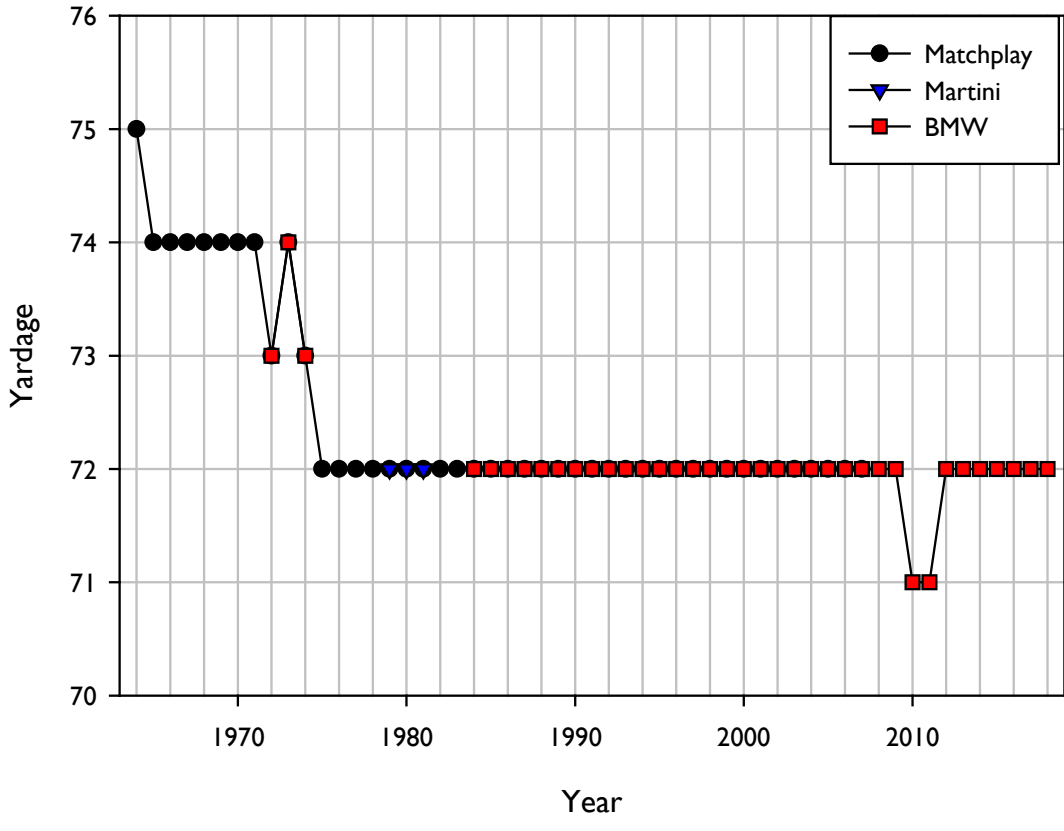


Figure 4 Par at Wentworth since 1964

## 4.2 PGA European Tour – Other ‘regular’ venues

Further analysis has been conducted to consider courses used by the PGA European Tour which have been visited 10 or more times between 1998 and 2016. In total there are 15 courses which fulfil those criteria. The scorecard lengths of these courses are presented in Figure 5. It can be seen that in most cases, there has been a trend for scorecard length to increase gradually over this timeframe. There are however a couple of courses (Doha, Gleneagles) have demonstrated short-term reductions in scorecard length before reverting to previously higher length.

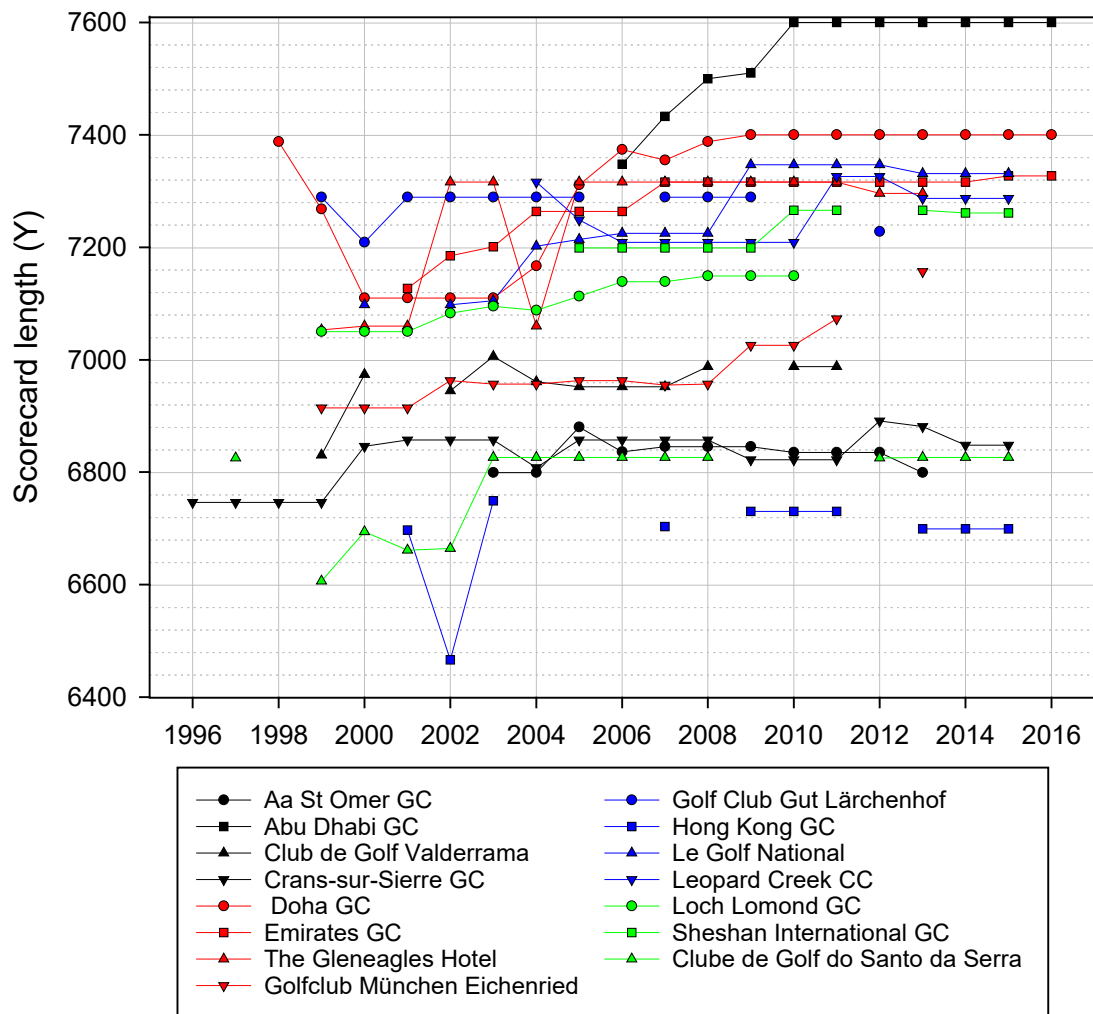


Figure 5 Scorecard length for PGA European Tour venues visited 10 or more times between 1998 and 2016

### 4.3 PGA Tour – TPC Sawgrass, Stadium Course

Scorecard length data has been acquired for the Stadium Course at Sawgrass dating back to 1983 (the course was opened and first played in 1982 so it can be assumed that the 1983 data is representative of when it was built). Figure 6 shows the scorecard length and it can be seen that since opening, the course has been lengthened 5 times – 1990 (39 yards), 1998 (54 yards), 2000 (143 yards), 2006 (5 yards), 2007 (117 yards) and reduced once in 2017 (26 yards).

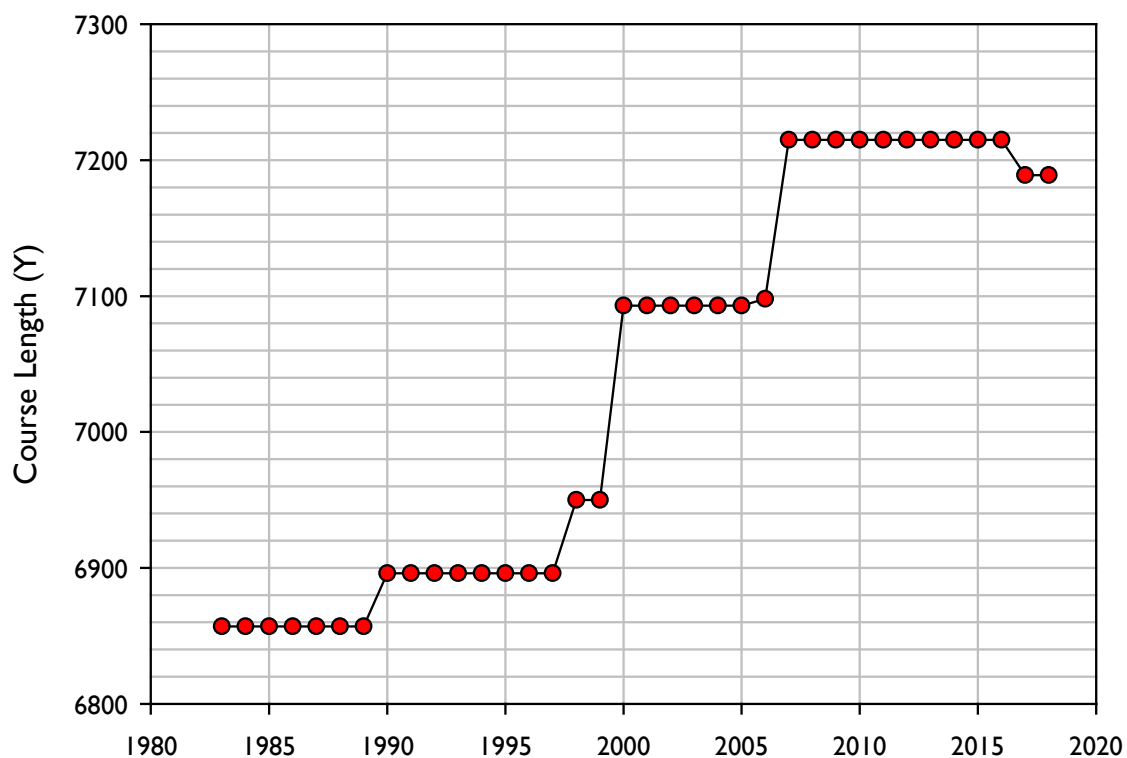


Figure 6 Scorecard length at TPC Sawgrass since 1983

The course currently measures 322 yards longer than 35 years ago and nearly every hole measures longer than when it opened (although for the case of Hole 9, the 1-yard increase is probably due to re-measuring the course). The exception is Hole 12 which was reduced in length by 58 yards in 2017 (having previously been lengthened by 22 yards in 2000). Table 1 shows the initial and current yardages for each hole along with which holes were changed in length when and by how much.



Table 2 Hole length changes at Sawgrass

		1983	1990	1998	2000	2006	2007	2017	2018
Hole	Par	Yardage	Change	Change	Change	Change	Change	Change	Yardage
1	4	388			+4		+31		423
2	5	511	+15		+6				532
3	3	162		+8	+7				177
4	4	360	+24						384
5	4	454			+12	+5			471
6	4	381			+12				393
7	4	439			+3			+9	451
8	3	215			+4		+18		237
9	5	582			+1				583
10	4	395		+20	+9				424
11	5	529			+6		+23		558
12	4	336			+22			-56	302
13	3	172			+9				181
14	4	438		+12	+17		+14		481
15	4	426		+14	+9			+21	470
16	5	497			+10		+16		523
17	3	132			+5				137
18	4	440			+7		+15		462
Total	72	6857	+39	+54	+143	+5	+117	-26	7189

#### 4.4 Ladies European Tour – Sunningdale, Old Course

Scorecard length data has been acquired from the Ladies European Tour relating to tournaments played on the Old Course at Sunningdale since 1978. Whilst this does not represent the continuous data of Wentworth (PGA European Tour) or Sawgrass (PGA TOUR), it does offer insight into changes to scorecard length over a 30-year period during which the course was visited 5 times.

- Par 3s – 4 holes
  - Some considerable fluctuations on individual holes – for example Hole 4 goes from 161 to 138 to 144 before settling on 152 yards
  - Range of hole length change (1978-2008) is -9 to +10 yards with an average of +1 yard
- Par 4s (1978 and 2008) – 8 holes
  - Range of hole length change from +8 to +38 yards with an average of +20.6 yards
- Par 5s (1978 and 2008) – 4 holes
  - Range of hole length change from -4 to +26 yards, average of +13 yards
  - Hole 10 was shortened in 1997 and played as a par 4 before being lengthened again in 2001 and reverting to a Par 5
- Holes which change par between 1978 and 2008 – 2 holes
  - Holes 12 and 16 were Par 5 in 1978 but Par 4 in 2008 (Hole 12 was lengthened in 1997 before being shortened and par reduced in 2001)
  - Both are similar length in 2008 compared to 1978 (-4 and +1 yards)

Table 3 Scorecard length for ladies professional events at Sunningdale

	1978	1997	2001	2004	2008	range	2008-1978
1	480	476	476	485	485	9	5
2	450	478	475	475	475	28	25
3	296	296	314	318	318	22	22
4	161	138	144	152	152	23	-9
5	367	390	390	400	400	33	33
6	378	380	380	386	386	8	8
7	383	378	385	393	393	15	10
8	165	164	164	168	168	4	3
9	265	264	267	273	273	9	8
10	463	437	455	459	459	26	-4
11	295	299	299	322	322	27	27
12	420	446	410	416	416	36	-4
13	172	179	179	182	182	10	10
14	477	503	503	503	503	26	26
15	210	222	215	210	210	12	0
16	409	410	410	410	410	1	1
17	390	400	400	428	428	38	38
18	393	395	411	412	412	19	19
Total	6174	6255	6277	6392	6392		

## Appendix A – List of Figures

Figure 1 The average course length on the PGA European Tour and PGA TOUR.....	2
Figure 2 The average scorecard length and playing length of courses on the PGA TOUR by season (only courses for which playing length data are included in the scorecard length average) .....	4
Figure 3 Scorecard length at Wentworth since 1964. ....	5
Figure 4 Par at Wentworth since 1964. ....	6
Figure 5 Scorecard length for PGA European Tour venues visited 10 or more times between 1998 and 2016. ....	7
Figure 6 Scorecard length at TPC Sawgrass since 1983. ....	8

## Appendix B - List of Tables

Table 1 The arithmetic mean average, median, minimum and maximum course lengths on the PGA European Tour and PGA TOUR by season. ....	3
Table 2 Hole length changes at Sawgrass. ....	9
Table 3 Scorecard length for ladies professional events at Sunningdale .....	10