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Florida; once the lots around the course are sold the owner generally turns the course over to the members. From that day on the maintenance budget comes under close scrutiny, and if there are any built in areas that require special maintenance attention they are generally eliminated in time. Why build them initially, why build 15 foot high features in this flat South Florida landscape; not only do they look out of place, they block views and breezes and are often built so sharp that the fairway units slide off, not to mention the erosion problems."

"How many cubic yards of fill do your designs generally require to sculpt the golf course?"

"I don't have a rule of thumb and never will have because each piece of property is different even in this typical South Florida flat land. The water table varies, the depths of muck varies; some are solidly vegetate, others sparcely and with almost no vegetation at all. All of this information and other criteria is necessary in evaluating the total cubic yards of material needed to generate the movement required for the golf course. I feel if one gets a preconceived figure of cubic yardage required for each course, the design will most likely fall short of what the final result could have been."

"Some architects don't particularly want the golf course superintendent on site until the course is planted. What is your feeling?"

"I would prefer the superintendent start at the time irrigation installation commences; not only can he gain the knowledge of where all the lines, gate valves, etc. are placed, but he can inspect the proper installation on a daily basis better than the architect. He can also handle liaison efforts that are becoming very important around this phase of construction. He can be of great help in the planning and the construction of the maintenance barn as well as seeing that all of the equipment is ordered and on hand when needed. There are countless other jobs he can do prior to starting his normal maintenance duties."

Editor's Note: Karl Litten has 12 years experience as Golf Course Designer, was formerly Vice President and Chief Designer for Von Hagge and Devlin, Inc.

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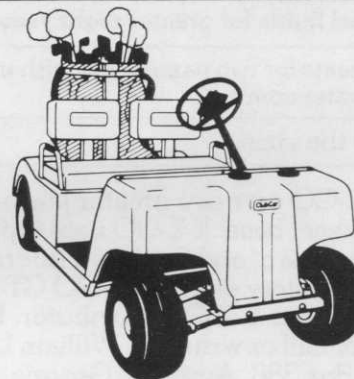
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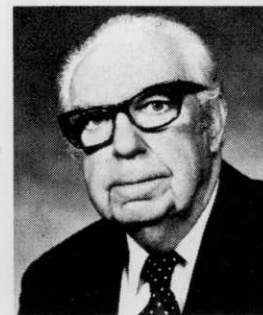
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GOLF: Where Is It Now? What's Ahead For The '80s?

By HARRY C. ECKHOFF
NGF Director Information Services



Golf, which has enjoyed almost a full century in the United States, is indeed in a very healthy state and will continue to grow in the 1980s.

This conclusion is based on numerous nationwide studies and surveys recently accomplished by the National Golf Foundation, a not-for-profit organization which for almost 50 years has been helping individuals or groups build golf courses, encouraging people to take up the game, and aiding golf courses throughout the country in improving their operations and increasing golf play.

An analysis of golf play in the nation during 1979 reveals that total play increased 2.8% during the year to an estimated 346,000,000 rounds, representing an increase of 9,000,000 rounds. For 1978, a comparable nationwide survey showed an increase of only 0.9%.

For 1979, 62% of the facilities responding to NGF's survey reported increases in play; 35% a decrease; and 3% no change.

Strong regional increases were experienced in the South Atlantic census region (6.2%); Pacific (5.4%); and Mountain (3.2%). Smaller gains occurred in the Northeast (2.2%); East North Central (1.1%); and the South Central (0.5%). A decrease of 0.9% was shown in the West North Central region.

As these figures show, golf outside the older, non-growth areas of the Northeast and Midwest increased at a much greater rate. When play is analyzed for the South and West regions only, the result is a gain of 4.3% for the year.

Population growth in the Sunbelt is creating golf participation growth as more and more golf oriented people locate in these regions.

Play at resort areas such as Myrtle Beach, Hilton Head Island, Pinehurst and Walt Disney World also aided the strong gains in the South. Increases in these areas average 12.1% for 1979.

Participation By Type of Course

Golf participation at private clubs showed the largest increase among the three major types of courses. Total play increased 3.9% during 1979, representing a gain of 4,300,000 rounds. This brings total play by private club members to 115,300,000 rounds or 33.3% of the U.S. total.

Daily fee play rose 2.9% or 4,200,000 rounds. Golfers utilizing daily fee facilities play the largest portion of total rounds with 151,400,000 or 43.8%.

As has been the trend in recent years, municipal golf play experienced the smallest gain at 1.1%. However, despite this limited growth of 900,000 rounds, municipal golf represents 22.9% of the U.S. total or 79,300,000 rounds, while accounting for only 14.9% of the facilities.

Public golfers, who make up about 80% of the nation's golfing population, play around two-thirds of all the rounds played annually throughout the country.

An in-depth study accomplished by NGF Director of Research Ed Wells in 1979 provides an excellent statistical

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Golf: What's Ahead For The 80's

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picture of the public golfer. He (85% are males) is 42 years of age, with 13½ years of education and a median family income of \$24,100.

He shoots an average score of 90 and plays 47 times a year. Typically, he took up golf at age 22 when invited by friends or relatives to give the game a try. He rides a golf car about once in every four rounds and 40% participate in club or league competitions.

The spending habits of the public golfer show annual median outlays of \$271 for green fees, golf cars, tournament fees, etc.; \$121 for equipment (clubs and balls) and \$70 for clothing and shoes.

In short, the typical public golfer of the 80s is a mature adult with a sound education, better than average income and a genuine desire to play the Game of a Lifetime.

Golf Play Demographics

Senior golf participation continued to grow at the fastest rate showing a 7.3% increase representing 4,000,000 additional rounds for a total of 59,100,000 or 17.1% of the U.S. total. However, junior golfers made some surprising gains in 1979 and ended the year playing 24,700,000 rounds, an increase over 1978 of 1,200,000 or 5.1%. This is most encouraging considering junior golf declined 3.7% in 1978.

The largest gains in both senior and junior play occurred at private clubs. Of the 4,300,000 rounds increase at private courses, 2,700,000 were attributable to the oldest and youngest segments of membership. Municipal facilities also saw strong increases in senior and junior play while daily fee facilities experienced a decline in junior play and only limited increase in senior play.

Geographically, senior play made the greatest gains in the South Atlantic, Middle Atlantic and Mountain regions, while junior play grew the fastest in the South Atlantic and Pacific regions.

Participation by women and men, ages 18-64, showed lesser gains in 1979 with 2.0% and 1.5% respectively. One encouraging fact, however, was that women made their greatest gains on public courses, historically the weakest areas for women's golf. Largest regional increases in women's play occurred in the Mountain and East North Central regions.

The trends for increased play by mature Americans and the strong growth of golf in the South and West will continue into the 1980s as more and more people advance into middle and upper age categories and Americans look to the Sunbelt areas for their new homes.

Golf Course Development Up

The overall golf development picture for the 1980s looks promising. Both new course construction starts and new course prospects were up in 1979.

Construction began on 147 new courses in 1979; was 103 in 1978. Prospects increased from 118 to 130.

The leading states with new golf course starts in 1979 were Florida 24, Texas 11, Michigan and North Carolina each 10, Alabama and Minnesota each 7 and Indiana 6.

Leading states in the new prospects group were California and Florida each 14, Michigan, Mississippi and Texas each had 8, Minnesota, Montana, New York, Ohio and Oregon each 6.

The leading states among the 125 courses reported opening during 1979 were Florida 15, California 14, Michigan 10, Ohio 8, Illinois and Texas each 6 and North Carolina and Pennsylvania each had 4. It is interesting to note that 53.6% of the total course openings occurred in eight states.

About 14% of the new openings were short courses (executive and and par-3's); around 10% of the new construction starts in 1979 were short courses. For some years there has been no significant change percentagewise in the number of short course openings.

Of the regulation length courses opening in 1979, about 33% were private, 42% daily fee and 25% municipal. For new construction starts in 1979 the figures were 37% private, 45% daily fee and 18% municipal.

Thirty-nine percent of the 125 newly opened courses were additions to existing facilities — a favorable sign for the overall golf business.

About 35% of the current golf course developments are associated with golf real estate developments.

Of the 11,966 golf facilities in NGF's computerized inventory of January 1, 1980, 40% were private, 45% were daily fee and 15% were municipal.

Of the 5,991 golf facilities in NGF's inventory 20 years ago, 52% were private, 33% daily fee and 15% municipal. The great growth during these two decades has been in the privately-owned daily fee courses while municipal growth percentagewise remained constant. Golf facilities in the nation almost doubled between 1960 and 1980.

What's Ahead In The 1980s

A report released in December 1979 by the U.S. Department of Interior's Heritage Conservation and Recreation Service Agency contains some interesting assessments, among them:

- A majority of Americans regularly participate in some form of recreation — passive activities are still the most popular, but the trend is toward more active recreation;
- The amount of personal income spent on recreation is rising faster than consumer spending as a whole — it now totals nearly \$200 billion annually;
- Participation in outdoor recreation is higher among males than females but the gap is narrowing . . . the family exerts the strongest influence on recreation participation;

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- Recreation provides relief from daily stress, increased employee productivity, greater family solidarity, physical and mental fitness, and economic gains.

Intergovernmental and public/private cooperation are among the salient messages of this third Nationwide Outdoor Recreation Plan just released. A national plan is required by Public Law No. 88-29 every five years.

Since 1965, Interior's Bureau of Outdoor Recreation, which was renamed the HCRS during the Carter Administration, has administered the popular 50% matching grant program to states and through states to their political subdivisions for the acquisition and development of public outdoor recreation areas and facilities.

For fiscal year 1980, \$300 million was approved for this program. Hundreds of golf courses have been developed or purchased by municipalities throughout the nation with the aid of the HCRS matching grant program.

How does all this affect golf? We must continue to spread the word to potential golfers that golf is fun, healthful, relaxing, a game of character and can be played during one's entire lifetime. Competition among recreational activities is keen! It should be. \$200 billion a year for recreation is big business. Some 25 or more types of outdoor recreational activities are vying for these recreation-spent dollars. NGF has numerous programs designed to attract people of all ages to the Game of a Lifetime. We seek the support of every golf-oriented organization or business.

How does a recession affect golf? We have learned by past experience that rounds of golf played are likely to increase during a recession.

I recall public golf course operators saying, during past recessions, that they had planned to raise their green fees but, due to heavy play by unemployed people, the fee structure was not changed. Even in depression times, golf is a good buy. It is 3½ to 4½ hours of entertainment for a few dollars.

And, as NGF Executive Director Don A. Rossi recently remarked, "The good thing about golf is that it is for everybody. Mama can play; papa can play; and grandpa can play with grandson. Hard times tend to bring people together. More people stay home instead of travelling."

The same holds true during energy crises. Golfers will not travel as far, but play on nearby courses usually flourishes.

Golf facility development in the 80s will continue to be an important element in the growth of golf. Even more important — courses now being built usually are quality creations prepared to compete for the attention of both public and private golfers.

NGF influence here has been considerable in providing basic planning guidelines to developers.

Due to spiraling land and course development costs, the NGF suggests that prior to embarking on a new golf venture, developers assure themselves through intensive feasibility studies that the planned golf course has possibilities for success.

Cost of developing a new 18-hole facility, including land and clubhouse could easily exceed \$3 million. Annual course maintenance costs may range from \$85,000 to \$200,000 or more. They have tripled in many areas during the past two decades.

It is no secret that there are many golf courses in a for-sale status in various sections of the nation. While this may have happened because of decreasing and shifting populations in certain regions, some may have been doomed for failure prior to opening. Much time and money can be saved by determining the project's feasibility for the area concerned.

How many golf courses will be built in the 80s? That's a tough question!

- New courses will always somehow be built where they are needed;
- Golf-oriented resorts and real estate developments will continue to play a major role in new construction;
- The trend of private and public sectors working together in the development of needed facilities for their respective communities seems on the increase;
- Successful existing golf courses will continue expansion programs as they have through the years.

My guess is that the 80s will average from 125 to 200 course openings per year.

A record high of 16 million people are now actually playing golf in the nation. They are also playing more rounds of golf than ever before.

There are more player development programs in action throughout the country than ever before. New junior golf promotion ideas are constantly being initiated. The PGA of America is sponsoring excellent junior golf programs. The NGF has long been involved in developing junior golf play.

The PGA TOUR recently committed \$200,000 for the construction of a short course and training center for youngsters between the ages of 6 and 12 at Walt Disney World at Lake Buena Vista, Florida. Says TOUR Commissioner Deane Beman, "Our real need is to expose youngsters to the game who have never swung a club or seen a tournament."

We of the Foundation feel golf is prepared for whatever the 1980s may bring. NGF has the finest staff ever. NGF is ready to provide assistance in facility development, course management and operation, player development — in fact, in almost anything that will help this great Game of a Lifetime to grow!

THREE NEW HERBICIDES FOR WEED CONTROL

Three new herbicides for the control of weeds in southern turfgrasses are Sencor, Basagran, and Asulox.

Sencor 50% Wettable Powder is recommended for use only on established areas of bermudagrass turf on golf course fairways and commercial sod farms. This product when applied to dormant bermuda prior to initiation of weed growth, will control the following broadleaf weeds: common chickweed, corn speedwell, henbit, parsley-piert, and spurweed.

Basagran is used for the control of yellow nutsedge in established ornamental turf. In Florida, this includes bermudas, bahia and centipede. Basagran is to be applied as a post-emergence to yellow nutsedge when growing actively. It may be repeated at 10-14 day intervals.

Asulox is labeled for use on Tifway 419, Bermudagrass and St. Augustinegrass only. It may be applied only to fairways and roughs on golf courses. Applied as a postemergence once per season, it will control Bullgrass (*Paspalum supinum*), Crabgrass (*Digitaria* sp.), Goosegrass (*Eleusine indica*), and Sandbur (*Cenchrus* sp.).

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Editorial

The golf course mechanic situation in South Florida has now reached emergency status. How can we continue to ignore this situation hoping it will go away?

It will not go away! General Motors estimates the mechanic shortage (just to do preventative maintenance, not repairs) for automobiles at 275,000. Japan has one mechanic for every 54 cars. Germany has one mechanic for every 82 cars. The U.S. has one mechanic for every 275 cars. Now where does that leave golf courses?

Our only logical choice is to train qualified young people to become golf course mechanics. This is where I believe Toro and Jacobsen have completely let the golf industry down. Great strides have been made to sell the red and orange machines but very little effort is made to insure their serviceability.

I would like to see Toro and Jacobsen have roving teams that tour the U.S. training mechanics. Even if this required adding a \$5.00 surcharge to each piece of equipment sold, it would be well worth it.

Alone we are lost in this issue. Segmented we can be average. Together we can come up with the answer.