

ENTHUSIASM IN A DECADE

and the first system in the world to be installed with independent automatic valve controls.

That the concept of automatic watering caught on is expressed by Herb Clark, director of research, Buckner Sprinkler Company: "After the first automatic system was installed on one of the three nine-hole courses at Sea Island in the mid-1950s—and the system worked—the idea of automation in sprinkler systems spread rapidly."

Harvey Linderman, landscape



architect with the Mountain Lakes Corp. in Lake Wales, Fla., recalls his first-night jitters. "When I think back to 1964, it somewhat frightens me that I stuck my neck out so far in making statements on the advantages of automatic watering and the estimated years for amortization."

Today's courses have benefited from irrigation's early pioneers. Automatic irrigation is now an accepted fact. One of the newest and largest projects is the Boca Raton West complex in Florida. Its three complete courses—soon to total six full 18-hole courses—are "under one roof" and "fence to fence," according to Bowers.

One advantage of the system is savings in materials. Mountain Lakes, for example, does not have a regular fungicide program. In fact, fungicides have been rarely used since 1965. Linderman credits the irrigation system, which "gives us absolute control of watering at all times." At the time of conversion Linderman admits that a weed problem did occur and herbicides were used for eradication. Subsequent control, however, has been done by spot spraying so that now "weeds are hard to find on the course."

Bowers echoes Linderman's feelings about complete control of watering, but warns "the results of this usage, either proper or improper, are immediately visible."

Ellis Geiger, the superintendent at Doral CC, Miami, Fla.,

also cites savings in labor and mechanical parts as another advantage of the automatic system. (Refer to automatic versus manual chart on page 53). Labor and parts, for example, run about \$500 a year. With a manual system, parts alone cost about \$500 a year. Added to that figure is labor, which generally runs about \$10,000, for a total of \$15,000. The savings per year can be \$10,000.

However, although the system employs no hoses or portable sprinklers, Bowers maintains that this system should be viewed as a piece of equipment, requiring maintenance, repairs and adjustments, just as mowers, tractors and pumps do. Many courses employ one or two full-time mechanics, but somehow they think that an automatic system requires no attention.

Watering programs under automatic systems vary. In general, according to Bowers, automatic systems use less water than manual systems because watering is controlled and can be regulated to what is required.

Mountain Lakes' tees and greens are overseeded with Penn-lawn fescue, bluegrass and Seaside bent during the winter months, so watering of those areas ranges three to five minutes to 30 and 45 minutes during April and May. Elevation plays a big part in the length of time of application, and the frequency is nightly

continued

Sea Island GC, Ga. (far left, bottom), was one of the first to recognize the potential of automatic irrigation. Doral CC in Miami (left) is another club which benefited from its automatic system (see chart on page 53).



This is no way to groom an acre of turf grass!

Turf maintenance for parks, playgrounds, athletic fields, golf courses, etc., used to require lots of men and equipment. Now one man, with a tractor and a Ryan Grounds Groomer, can do all of these: *power rake, sweep and flail mow.*

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SKEPTICISM TO ENTHUSIASM

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as required. Syringing during the hours of play has been unnecessary with this program.

Fairways are also watered nightly. Again the time varies from six minutes during the cool months to 30 minutes during

the dry months.

Says Linderman, "We were cautioned that this frequency would damage the root system of our grass, but this has not been the case. It has been our aim since conversion to replace the amount of water we felt was being lost and used by the turf." The purpose was to maintain a uniform moisture through the soil

instead of the "feast or famine supply that existed under the manual watering system," explains Linderman. He adds, "One might think that this type of watering would soon dissipate any fertilizer applications. It has been my experience that these applications seem to last longer. Maybe this is because there is more plant to absorb and store the food.

"I cannot say that our system does not fail or give us trouble, but the incidents are seldom and then always isolated to one section. But anyone considering a conversion or installation has only to observe courses with and without—better yet, fly over different courses. This helped to sell our system."

Automatic Irrigation Versus Manual Irrigation Compiled by Ellis Geiger, Doral CC, Miami, Fla.

Automatic	Manual
Initial cost: 30% higher*	
Maintenance and labor: \$2,500 per year for 18 holes \$500 labor and parts \$2,000 replacement fund	\$500 parts \$10,000 labor
After 10 years: Savings of \$20,000 Can replace all equipment	Nothing
Savings: Fertilizer 5% Insecticides 5% Fungicides 10% Appearance Up 30%	Nothing Nothing Nothing Same
Weed problem: After one year 12.5% After two years 6.25%	25% of course continuously in weeds
Minutes of watering 13 to 22 minutes on fairways depending on the season and elevation of land Two 7 minute cycles on greens No labor costs	Labor for 54 holes was 3 men at 8 hours a night; 18 men at 2 hours a day for greens and tees, or 20 men hours per day for 18 holes
Everything irrigated every night.	Who knows?
Root level and system: Better than before	Same
Amount of water: Less than one inch per week in southern Florida if applied daily	Zero to two inches, depending on the man

**Editor's note: All figures pertain only to Doral and are not meant to represent an industry-wide average, since situations and conditions vary from course to course.*

Fairway head locations

There are four basic plans:

1. **Center line:** Large heads with the heads on 80 to 90 foot centers. The head covers a 160 to 200-foot diameter, depending on the gallonage and pressure;

2. **Double row or triple row:** Small heads with the heads on 60 to 80-foot triangular spacings. Each head covers a diameter of 100 to 140 feet depending on the gallonage and pressure;

3. A **combination** of the two above, using the double rows in the target areas and approaches and the single row in the remainder of the fairways. This is a very versatile method and allows the average course very good coverage without the extra expense of the complete double, or, in some cases, the triple row systems;

4. **Fence to fence:** The entire area is treated like a park, and roughs are only distinguished by their height of mowing.

Programming

There are three basic methods used in the programming of automatic irrigation systems:

1. **Central control panel:** The controllers are all in the same lo-

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Grassing up at Alvamar

This new Kansas public course faced unusual turf problems. Here's how it solved them

Alvamar Hills GC, an 18-hole daily fee facility, opened May 15, 1968. Until then Lawrence had never had an 18-hole, or grass greens, public course. Now it has one of the best.

Lawrence, with a population of 30,000 residents and 16,500 university students, lies about midway between Kansas City and Topeka. Both cities were short of public golf facilities. The Kansas Turnpike could deliver anyone in that population area of 400,000 to the course within 30 minutes.

Here was an untapped potential until Alvamar Hills GC was conceived, built and opened.

About three years ago a group of local businessmen bought a hilly, 460-acre farm located a mile west of Lawrence and Kansas University. The leader was Bob Billings, now controller for the 16-

member corporation.

The land within the golf course cost \$160,000 or about \$840 an acre. The site had two ridges with a valley between, split by a creek. One ridge and most of the valley—about 188 acres—was set aside for a golf course. The remainder was saved for homesites, which are still being sold and developed.

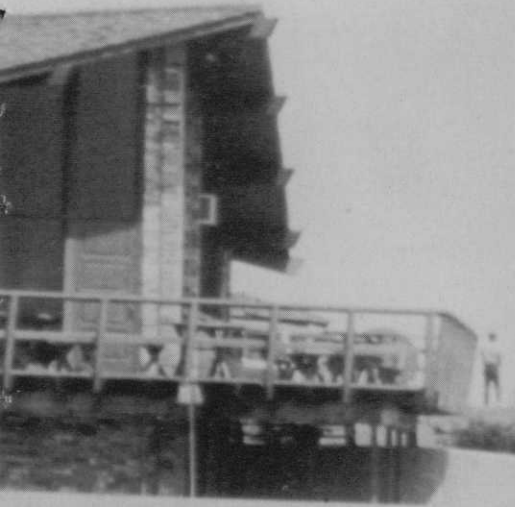
Bob Dunning of Mission, Kan., was retained to design the course. The concept projected by the owners and Dunning was for a tough but flexible course, making liberal use of water and hills, big greens and tees. They wanted a course that would be fun for ladies, students and average public links players, yet would also be good enough to be a major tournament site.

And the result was just that. Twelve holes, some steep, lay up

or down hills. Using five tee settings, the course plays 5,749 yards for ladies to 7,322 yards tournament length, where it is rated 74.7. Tees are as long as 120 yards, average 87 and about 9,500 square feet. Greens average almost 8,000 square feet.

Lawrence is located in a region notoriously difficult for growing stable golf turf. Summers are hot, windy and frequently humid. Winters are chilly, but with little snow. Yet already Alvamar Hills GC is in mature playing condition.

Much of the credit goes to course superintendent Mel Anderson. He is also a stockholder and joined in the new venture after four years as superintendent at Lawrence CC. He in turn gives credit to the zoysiagrass used on the fairways and tees, Cohansey bentgrass on greens and a fully-



Lawrence, Kan., once evoked thoughts of Quantrill's Raiders. Now, it is the peaceful site of Alvarado Hills GC.

By JERRY CLAUSSEN

National Golf Foundation Club Planning
Consultant, Lakewood, Colorado

automatic irrigation system with individual head control.

The use of zoysia makes Alvarado Hills GC almost unique. It is definitely a first for golf courses in that region. Most courses in Kansas and Missouri are covered by bluegrass-bermuda mixtures for fairways and a variety of mixtures of bermuda-blue-bent-zoysia on the tees.

Zoysia as a turfgrass rates high in tolerating heat, drought, shade, disease and salinity. It resists wear and can be closely mowed. Drawbacks are: low cool temperature tolerance and slowness of establishment. It has average winter hardiness.

Anderson reports these reasons for choosing zoysia:

"Over the past few years I noticed that zoysia makes a very

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PHOTO COURTESY SAN DIEGO C.C.—OVERSIZE TIRES (AS SHOWN) OPTIONAL.

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ALVAMAR

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beautiful and splendid playing surface. It is a rich, dark green and produces an upright leaf blade, which tees the ball up at all times. Recovery from divots is excellent. It is reasonably resistant to disease and insects have not been a problem in this area. Another factor is that zoysia can be mowed to a half inch whereas bluegrass is mowed one to 1 1/2 inches. The water and fertilizer needed after establishment is about half the amount needed for bluegrass or bent. Even though zoysia goes dormant and tan in the winter, the blades stay upright to tee the ball up at all times."

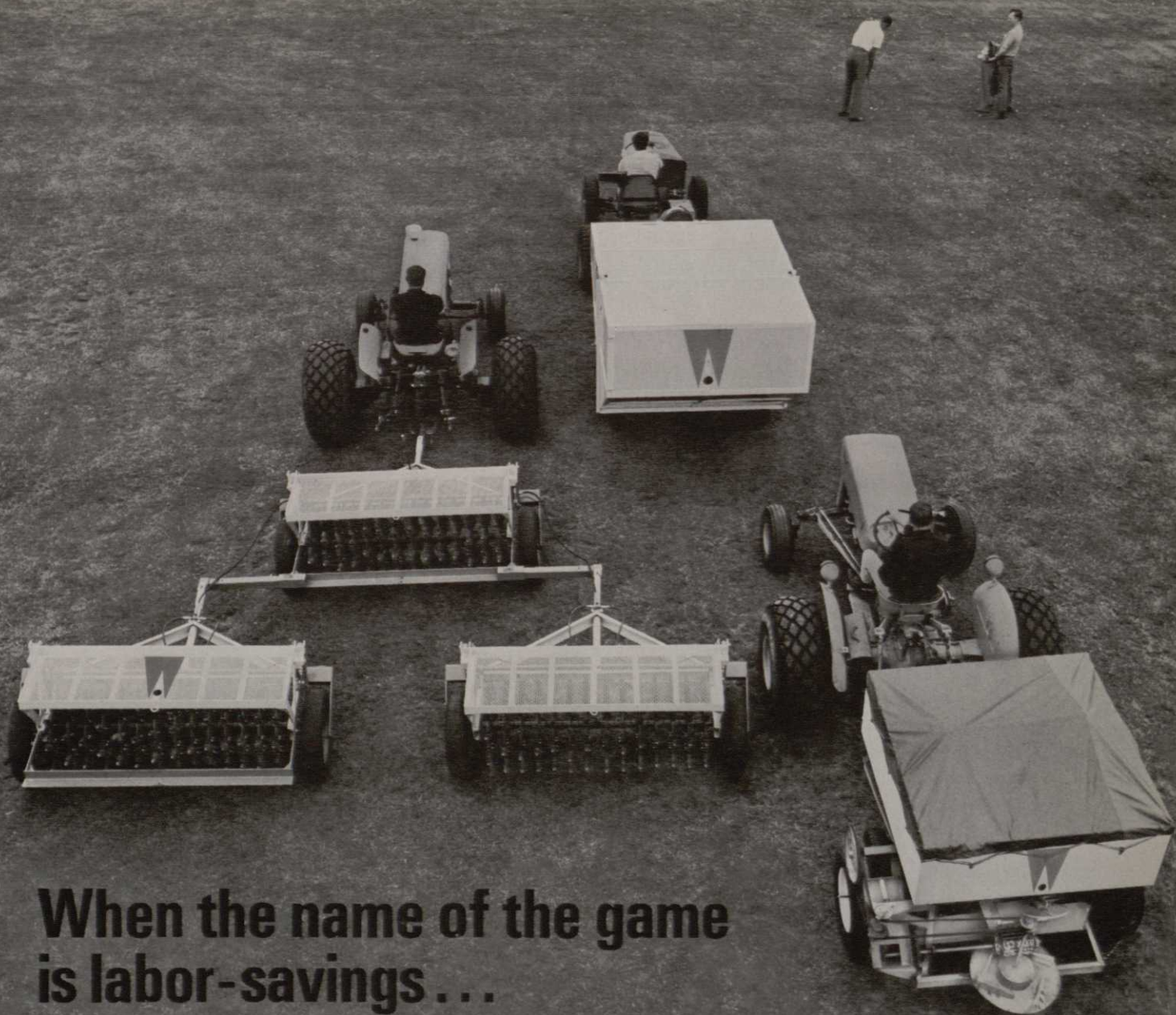
To get a head start on growth, a 2 1/3-acre nursery of Meyer Z-52 zoysia was sprigged July, 1966. Planting of fairways and tees from the nursery was started in late June, 1967. The zoysia was mixed with bluegrass to build a cover crop during establishment. The fairways were about 50 per cent zoysia by the time the course opened and over 75 per cent by the end of 1968.

Planting costs came to about \$500 a fairway. With rented farm machinery, the clay fairway soil was plowed, disced, leveled, harrowed, then smoothed with a drag. It took about 30 days in all.

The zoysia nursery sod was cut 1 1/2 inches deep, leaving some soil for a stolon mix. The crop was ground into stolons through an ensilage grinder and planted with a farm manure spreader. The rate was about 15,000 square feet covered per load or 30 acres planted per acre of stolons harvested. Each planted area was immediately disced in and watered, all within 20 minutes after the sod was taken from the nursery.

The automatic irrigation system, with master controllers in Anderson's office, helped keep the newly-planted areas constantly moist. Also, to encourage rapid

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When the name of the game is labor-savings... the name of the product is West Point

The big West Point Aeri-Vac® (top), designed by a golf course superintendent for golf course superintendents, does the three tough jobs best—removing grass clippings, vacuuming leaves and grooming turf. Its powerful vacuum cleans a wide 6' swath and two simple adjustments make it applicable to all turfgrasses. Its big 6 cubic yard trash hopper empties from the driver's seat. Unique rear door permits manual disposal of branches, litter boxes, etc. Universal hitch permits one-man, PTO hook-up. Request Bulletin WP-200 for complete details.

The Hahn Big Boy S-4000 Spreader (right) covers acres of fairway in minutes. It distributes a swath up to 50 feet wide from a 60 cu. ft. storage hopper. Precision selector gauge permits use of a wide range of turfgrass fertilizers. High flotation tires eliminate turf damage and two-wheel design makes the Big Boy easy to trail—smooth, stable to corner. Stainless steel chains and anti-corrosive finishes guarantee long life. Request Bulletin WP-100 for complete details.

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Cure for the off-season doldrums:

If you're a pro and your course is under a blanket of snow, what do you do? Instead of heading teaching assignments, some pros organize and conduct golf tours for club members. It's work,

An annual occupational hazard confronting golf club professionals in those sections of the country where courses are weather-locked or snowbound from November until April is what to do with all that literally dead time.

The solution is an easy and even relieving one for the well-established and well-heeled. Just pack up the family and move to a warmer scene where a man can play all the golf he wants with not a worry in the world about tending the shop, keeping lesson appointments or setting up the member-guest tournament.

There are others who bridge the bleak gap to obvious advantage with interim teaching appointments in resort areas such as Florida, Arizona or the California desert country. There are alternative devices such as the indoor school at the Y.M.C.A. or the Town Hall, but there undoubtedly remains a cold, fretfully idle majority.

In recent years, a gradually increasing number of these pros have overcome the winter doldrums by assuming new roles as organizers and conductors of special golf tours. These include the familiar expeditions to Florida and the Caribbean, but the traveling golfer nowadays likes to roam even more widely, not only to Great Britain and Ireland, but to relatively "new" golfing grounds, such as those in Spain and Portugal—and even to the Orient, for those with a disposition to spend the large buck.

Experience has proven that the golf professional fits into this picture quite naturally because of his playing ability, the talent for organizing competitions and a practically automatic rapport with

his professional brethren in even the most distant foreign outposts. And those who have given it a try testify that the tour guide assignment provides more than stimulating fun and the broadening benefits of travel. It also can yield returns representing a tidy income supplement or even a major secondary enterprise.

Possibly typical of the pioneer pros in the field are Dave Rosen of New York City and Ed Whalley of Danvers, Mass.

Rosen has made quite a big business of golf tourism. He now has a firm known as Golf Tours, Inc., with an office at 21 West 35th St., where he operates a year-round indoor golf school.

Whalley, for some years the professional at Charles River CC in Newton Centre, Mass., retired from that position last year to set up his own business in golf bag covers and accessories. But he intends to continue with the golf tours he has handled for more than 10 years.

"We organize and sell golf tours on a real business basis," Rosen explains his role. "Generally, I line up about 20 a year and go along on probably eight myself." Most of Rosen's other tour assignments are distributed among such members of his school's staff as George Voss, Larry Leong, Joe Liss and Larry McKee.

Rosen does a fair percentage of domestic and North American business. "We have a certain number of tours to Puerto Rico, for example," he says. "I also develop charter trips for large industrial firms. Last year, I handled groups of 90 and 120 people on 'sales incentive' trips for Monsanto. We went to Point Clear, Ala., which is about 30 miles from

Mobile and has an excellent course and a fine resort hotel."

As Rosen points out, large companies provide the ideal opportunity for charter groups on



which the rates are lower than those for other groups which generally must be comprised of a minimum of 15 persons.

Any pro who might perk up

Pros turned tour guides

for warm-weather vacations or interim

but it can pay off

By **TOM FITZGERALD** Golf Editor, Boston Globe

over the charter advantage should proceed cautiously, however, because the Civil Aeronautics Board has some pretty definite regulations and definitions. In order to qualify, the travelers on a charter expedition must be members of an "affinity group...with some purpose other than travel," and each must have a minimum of six months' membership in the sponsoring organization.

A professional could, however, develop a credible premise for his own club's membership if he could stir up interest among a sufficiently large number, say 90 to 120. He also might work out something with his state or regional golf association.

Although no professionals were involved in the operation, except as cash customers, the Chicago District Golf Assn. last winter ran a series of 20 charter flights, totaling 3,200 members, to Spain.

The golfers from Chicagoland were based at the high-style Atalaya Park Hotel in Marbella, with five golf courses in the area. The trip, comprising seven nights and eight days, cost \$350 a person, including two meals, golf and air fare. The CDGA is planning a similar series of tours this winter to Greece at \$385 a person.

Rosen also has taken groups to Spain and to Portugal and is enthusiastic about the golfing opportunities. "There are some lovely and very interesting courses in Estoril (near Lisbon) and Algarve in Portugal, and along the Costa del Sol in Spain, starting up from Gibraltar," he says.

Late last winter in Portugal, Rosen met the internationally famous English professional, Henry Cotton, who makes his home there now. Dave cites a

real display of British aplomb by Henry.

Shortly after the area had been given a shake by an earthquake, the two were chatting at a cocktail party.

"I say, old boy," Cotton remarked to Rosen, "we've all had an actual Mulligan, haven't we?"

In contrast to Rosen and his Golf Tours, Inc., Ed Whalley operates on a strictly individualistic basis. "I really started on this to get a winter vacation," says the comparatively young and personable professional who is a graduate of Merrimack College. "Eventually, though, as I got a better feeling for it, it turned into something fairly profitable."

Whalley is willing to provide guidelines for other professionals. "A fellow can work things out with a travel agency," he says, "although I always have worked directly with the airlines, who have people specialized in their field. I have done business with domestic lines, but on trips abroad I have found it has worked best for me to make arrangements with the national airlines."

(Transoceanic airlines, generally, will handle the golf groups, but those most active in the field are TWA, Pan American, Canadian Pacific, Irish International, TAP Portuguese Airways, Iberia, Air France and Lufthansa.) Whalley specializes mostly in European travel to Ireland, Scotland, Spain and Portugal.

He provides the conditions under which he has operated. "You start with that unit of 15," he says, "and for every 15 I require a free trip with all expenses paid plus a commission of \$50 a person."

Because of rather frequent var-

iations, the golf pro-tour guide is not quick to quote trip rates until he is lining up a specific project. Whalley offers one for an example, though. Several years ago, he took a Boston group of about 40 on a 14-day trip to Ireland for a charge of \$385. A more current group quotation for a 15-day tour was \$634.

Whalley offers some general observations on his avocation. "When you are organizing your group," he says, "you naturally want it to be a mutually agreeable one. It is good for a pro to have men and women from his own club, but it isn't really necessary. Golf provides quite a bond in itself. You must be sure that everybody understands the requirements for foreign travel, like passports, and that these charges are not included in the price of the tour.

"The pro must make things interesting for his party on the golf course," he continues, "and try to get as many different people as he can. Among other important things to consider are the side trips, particularly shopping opportunities for the non-golfing wives in your group."

Whalley has an added asset on his tours in the presence of his attractive wife, Mary Rae, who accompanies him on as many as possible when she can make proper arrangements for their children. Mrs. Whalley has considerable know-how in the travel business. Before her marriage, she was an airline stewardess, and once was assigned to special duty of President Eisenhower's campaign plane.

The golf professional interested

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