Closed-circuit TV could, if used imaginatively, be the answer to many problems plaguing today’s country clubs.

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Closed-circuit TV: golf’s new workhorse

On the grounds of a Northern country club, a birdhouse is turning in a 360-degree arc. It is in reality housing a closed-circuit TV camera, mounted atop a rotating antenna. From one of the openings, the camera peers out and views an entire section of the golf course and watches the groundsmen as they mow greens, rake traps and move tee markers. An approaching foursome nears a hole on which the automatic sprinklers are operating, and the superintendent, who is viewing the activity in his office, manually turns off the system so the golfers might play the hole.

Out on the practice tee, the golf professional is giving a lesson. In the background a TV camera is recording the scene on a video tape unit for later replay by both the student and the professional. Stop-action, slow motion and close-ups are used as the pro...
analyzes the student's swing, down stroke and wrist action.

The club manager is at a local motel, viewing with other club managers and personnel a video tape presentation produced in New York and which is being shown simultaneously in 25 cities across the United States. As the film speaker finishes, an amplified telephone system permits questions and answers, handled by the speaker on the taped presenta-

What you need...

Cameras: Generally, those used at golf courses are vidicon tube pick-up types, varying from the low-cost closed-circuit camera to the more expensive and sophisticated viewfinder camera.

Lenses: The lenses available are of two basic types. One includes single focal length lenses, such as wide angle, normal and telephoto, which permit the viewing of a general area from one location. This type could be utilized to view a section of the golf course or one hole. It also could be used to view a golfer's entire swing. The other type is the variable focal length, or "zoom" lens, which can be used to focus in on such things as wrist action, diseased turf or even a salad table.

Recorder: Like the tape recorder used for audio pickup, the video counterpart records electrical impulses emanating from the camera and places all that the camera has seen onto magnetic tape. The video tape is either one-half inch or one inch, as opposed to the one-fourth inch used in audio units. Initial cost of video tapes average about $1 a minute of recording; tapes are re-usable.

Tripod: This is one of the most important elements in the video setup. It holds the camera so that the picture is taken with a smooth appearance and permits scanning or lens adjustment without jerking or shaking. Remember, any vibration while shooting is greatly emphasized when played back. Depending on camera weight, prices of good tripods range from about $50 (for a 10-pound camera) to $150 (for cameras 20 to 30 pounds).

Monitor: This is quite similar to a small TV set. By wiring it directly to the camera or to the recorder, the image immediately being seen by the camera or that which has been recorded on tape can be viewed. When occasions demand larger screens, RF converters are available that permit utilization of a standard TV set without modification of the video tape recorder or the TV.
A guide to VTR systems

Here is a sampling of video equipment available from various manufacturers:

**Ampex Corp.** Portable video tape recorders, with stop-action capability, range from $1,500 to $3,500. Also, portable color VTR, $5,000. Camera with 25mm F/1.9 lens, $475. Camera kit, including optical viewfinder, remote record/stop control, microphone input, 25mm F/1.4 lens, tripod, cable, lens tissue, and microphone, $675. Camera with 3-position “C” mount lens turret, 25mm (close-focus) F/1.4 lens, video and RF outputs, $995. Monitors: 12-inch, $225; 20-inch, $285; 20-inch color, $695.

**Apeco.** An extensive line of cameras and monitors. A suggested video system for golf course applications, including portable recorder, high-resolution camera with built-in automatic light control circuit and 12-inch monitor, costs about $1,600.

**Concord.** Manufacturer’s suggested VTR system for golf course applications, including camera, recorder and monitor, costs under $1,500. Recorder can play back through monitor or TV set and has still-frame monitoring capability. Viewfinder accessory for camera available for $10.

**Craig.** Suggested video setup: video tape recorder with stop-action, camera with optical viewfinder and automatic light compensation, monitor with 16 by 12 1/4-inch screen, tripod, microphone and mobile cart. Total cost, $1,815.

**General Electric.** Mobile video recording system, including console, camera, lens, cable, tripod, microphone, 30-minute tape, empty reel, tape deck and monitor, $1,995. Tri-Pack portable system, including three luggage-type cases for 1) tape deck with 30-minute tape and empty reel, 2) monitor and cables, 3) camera, lens, cable, tripod, mike, $1,695.

**Norelco.** Available this summer, the Model TTS-2 TV training system. It includes a recorder with slow and stop-motion capabilities, large screen monitor and compact camera with tripod dolly, all contained in a console on casters. Total cost about $3,950.

**Panasonic.** Video tape recorders for golf course applications range from $800 to $1,050. Vidicon cameras: with 25mm F/1.8 lens and RF matching transformer, $300; with microphone, viewfinder, and RF matching transformer in portable case, $335; with high resolution, internal and external sync switch, front pilot lamp, intercom input, $400; with 5-inch built-in monitor, $900. Monitors: 8, 11, 18 and 22 inches, $150 to $350.

**Shibaden.** One of the video setups suggested by the manufacturer for golf course applications: SV-700U video tape recorder, $995, or SV-800U with built-in monitor, $1,295; FP-100 viewfinder camera, $795 ($1,295 with a zoom lens). Monitors, depending on screen size, range from $195 to $295.

**Sony.** Video tape recorders range from $795 to $1,250. Camera ensemble, including camera, tripod, microphone and cables, $395. Camera only, $350. Battery operated viewfinder camera with microphone, $695. Monitors: 8 inches, $195; 18 inches, $250; 22 inches, $295.

**Videonetics.** Total VTR system with mounted vidicon camera (shutter speeds from 1/1,000 of a second down to 1/60 of a second), stop-action recorder and monitor, $2,885.

CC. Both these clubs are in the Chicago area.

Holiday Inns of America now has the 25 city TV networks available to its patrons for sales meetings, seminars and educational presentations by manufacturers, associations and schools. Supermarkets, department stores, airports, police stations and hospitals have already begun using them for surveillance, security, information and to save labor.

Much is being done also by the manufacturers. New cameras, lenses, tripods and recorders are rapidly reaching the market with price tags that are not only attractive but make such setups practical to use in the various departments of the club. (A video setup can be had for as little as $1,300.) Low-cost color is close to being perfected and it too will allow the superintendent to view grass disease, changing weather conditions and watering effects. But the pro will benefit also. He can present some of his remote merchandise to locations such as the ladies’ locker room and cocktail lounge. The manager will be able to sit in his office and view the arriving meat delivery as the storeroom man opens one box of steaks for him to take a look.

Among the manufacturers of such video equipment are: Ampex, Panasonic, Concord, Craig, Sony, General Electric, Shibaden, Norelco, Apeco and Videonetics Div. of Newell Industries. Data concerning these products and demonstrations can be obtained by contacting your local National Audio Visual Assn. dealers. With their help and assistance, you can outline your usage intentions, and they can arrange a demonstration of the feasibility of the various products for your particular job. Suggestions and price quotations for both present needs and future budgets can be secured through continued on page 56
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their help. Product warranties and service can be handled in your local area, as well as rentals, if you want to pretest the practicality of the product. Quite often, he and his staff can make a detailed study, blue print present and future installations and aid you in presenting the total concept to your officers or board.

If courses, clubs and golf executives are to handle successfully the current problems of labor shortages, rising labor costs, unskilled personnel and the shorter workday and concurrently provide members with the security, service and attention they are entitled to, then all available technological resources must be used. However, the club industry, the managers, the superintendents and the pros have failed to recognize this. If a pro can teach a golfer to swing properly, could not the same device be used by the superintendent to show on tape how to properly mow a green or to place a pin or rake a trap? Could not the manager train waitresses and busboys with a pre-recorded tape?

A closed-circuit TV can provide complete security for a club, pro shop and grounds department from a central monitoring location with telephonic communications to the police or fire departments. One employee in the rack room or club shop could still watch for customers on the sales floor.

Is this not a way in which more activities, more service and more attention could be directed to the individual member by the all too busy manager, pro or superintendent? Is this not a method in which one person can accomplish more in less time?

One of the deterrents of a closed-circuit TV system could be its cost. However, if one man can provide surveillance, security and
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service to an entire club between midnight and 8:00 a.m. at $350 plus an investment of $5,000, then at this rate, with the elimination of a second man, this equipment would pay for itself in a year and a half.

If the golf course superintendent invested $10,000 in video equipment, eliminating the need for one man at $2.50 an hour, he would have paid for his equipment in less than two years. An average superintendent could have one man less if he could locate all the golfers on his course and not have men waiting for golfers to play by to rake traps, mow greens or cut fairways. Here are a few ways in which an average club might use TV.

Clubhouse: Using four strategically mounted cameras, one man could watch the entire exterior of a clubhouse, noting everyone who entered or departed, what they were carrying into or out of the club. He could monitor every car in the parking lot and every employee who entered or left the back door. All of this activity could be taped and later replayed if theft, pilferage or illegal entry occurred. This single man could be in communication with the law enforcement and fire fighting agencies.

Golf professional: A golf professional could handle three lessons at one time. Student 1 could be reviewing his lesson while student 2 is reviewing his current lesson and viewing its results. Student 3 could be receiving personal instruction by the professional. If you don’t think this will work, visit a busy doctor or dentist.

Grounds department: Again with four cameras mounted in towers scanning in a 180-degree arc continuously, a superintendent in his office could view the entire operations of a 160-acre golf course. He could see where his equipment was operating, which personnel was operating it, how they were performing, when his supplies were being used and why they were in a specific location. By shifting his employees ahead of and behind players, he could place his resources where golfers would receive their greatest benefit.

Before you reject the whole concept of closed-circuit TV, can you remember how many managers said pre-prepared shrimp would be too expensive. Remember the pros who said they could not envision aluminum shafted clubs. Think of the initial reaction to the idea of spraying fungicides from helicopters. Think of when knickers were considered the only appropriate trousers for golf, and when we used to push lawn mowers.

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