GOLF COURSE MONITORING SYSTEM AND METHOD

Inventors: Charlie W. Dobbins, Lyman, SC (US); Christopher J. Phillips, Lyman, SC (US); Craig D. Phillips, Wellford, SC (US)

Correspondence Address:
FOLEY & LARDNER LLP
777 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202-5306

Assignee: Sun Surveillance, Inc.

Appl. No.: 11/501,578
Filed: Aug. 9, 2006

Publication Classification

Int. Cl. A63B 69/36 (2006.01)
U.S. Cl. 473/131

ABSTRACT

A golf course monitoring system and method of monitoring a golf course is disclosed. The system comprises a display unit comprising a display, a wireless signal receiver coupled to the display and a photovoltaic power source configured to provide power to the display and the receiver; and a camera unit comprising a camera, a wireless signal transmitter coupled to the camera and a photovoltaic cell for providing power to the camera and the transmitter. The transmitter is configured to transmit a wireless signal from the camera representative of a visual status of a portion of a golf course to the receiver to be displayed on the display.
FIG. 4
Providing a display unit at a location on a golf course at a potential hitting location

Powering a display and a receiver with a photovoltaic power source and/or battery

Transmitting wireless signals received from the camera

Receiving wireless signals

Displaying information content on the display

Activating a display on the display unit by operating a switch

Interrupting the information content to display the image on the display of the area not visible to the golfer

Displaying an image of the area not visible from the hitting location on display

Turning off the display after a predetermined amount of time

Providing a camera unit directed at an area of the golf course not visible from the hitting location

Powering a camera and transmitter with a photovoltaic power source and/or battery

Recording an audio message and playing the audio message upon activation of the switch

FIG. 10
GOLF COURSE MONITORING SYSTEM AND METHOD

BACKGROUND

[0001] The present invention relates to a golf course monitoring system. The present invention more specifically relates to a golf course monitoring system including a display unit and a camera unit to assist golfers to see non-viewable areas of the golf course.

[0002] On typical golf courses, there are many instances where a golfer cannot see areas where his or her golf ball is likely to land. Such “blind spots” may be caused by the layout or contour of the course, trees, shrubs, hills, buildings, or other obstacles. As such, golfers will sometimes hit when they believe the area should be clear without verifying that it is. However, such a result is not safe and poor etiquette—very undesired activities to other golf course operators and other golfers. The prudent golfer advances (walks, rides cart) up the golf hole to inspect the blind spot to see whether it is safe to hit, returns to the location of his or her ball when it is safe to hit, and then hits. Such activity slows down play—an undesired result to most golf course operators—and is not infallible since a person could have moved into the blind spot area during the time that the golfer was returning to his or her ball.

[0003] Typical golf courses also have several holes where important variables are not visible from a possible or likely hitting location such as a tee-box or other location. For example, pin placement is typically moved daily or every few days. If the pin placement is not visible from a typical hitting location, many golfers will advance up the hole, inspect the green, and then return to his or her ball and then hit. However, such conduct also slows down play.

[0004] Accordingly, it would be advantageous to provide a system for monitoring or viewing portions of a golf course such as fairways, greens, or pin placements that are not viewable from where a golfer will hit from. It would also be advantageous to provide a system that provides picture or video images on a stationary display unit, on a display mounted in a golf cart, on a hand-held device, or like. It would be desirable to provide for a golf course visual monitoring system having one or more of these or other advantageous features.

[0005] To provide an inexpensive, reliable, and widely adaptable golf course monitoring system that avoids the above-referenced and other problems would represent a significant advance in the art.

SUMMARY

[0006] The present invention relates to a method of monitoring an area of a golf course. The method comprises providing a display unit at a location on the golf course where a first golfer is likely to hit from. The display unit comprising a display, a wireless signal receiver, a switch, and a first photovoltaic power source. The method further comprises powering the display and receiver with the first photovoltaic power source and providing a camera unit directed at an area of the golf course not visible to the golfer located in the likely hitting location. The camera unit comprising a camera, a wireless signal transmitter, and a second photovoltaic power source. The method further comprises powering the camera and transmitter with the second photovoltaic power source; transmitting wireless signals received from the camera to the receiver; the golfer activating the display by operating a switch; displaying an image on the display of the area not visible to the golfer.

[0007] The present invention also relates to a golf course monitoring system comprising a display unit comprising a display, a wireless signal receiver coupled to the display and a photovoltaic power source configured to provide power to the display and the receiver; and a camera unit comprising a camera, a wireless signal transmitter coupled to the camera and a photovoltaic cell for providing power to the camera and the transmitter. The transmitter is configured to transmit a wireless signal from the camera representative of a visual status of a portion of a golf course to the receiver to be displayed on the display.

[0008] The present invention further relates to a golf course monitoring system comprising a display unit and a camera unit. The display unit comprises a display, a wireless signal receiver coupled to the display, a switch configured to turn the display on, a timer configured to turn the display off after a predetermined amount of time after actuation of the switch, and a photovoltaic power source configured to provide power to the display and the receiver. The camera unit comprises a camera, a wireless signal transmitter coupled to the camera and a photovoltaic cell for providing power to the camera and the transmitter. The transmitter transmits a wireless signal from the camera representative of a visual status of a portion of a golf course to the receiver to be displayed on the display.

[0009] The present invention further relates to various features and combinations of features shown and described in the disclosed embodiments. Other ways in which the objects and features of the disclosed embodiments are accomplished will be described in the following specification or will become apparent to those skilled in the art after they have read this specification. Such other ways are deemed to fall within the scope of the disclosed embodiments if they fall within the scope of the claims which follow.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1 is a display unit for a golf course monitoring system according to an exemplary embodiment.

[0011] FIG. 2 is a schematic diagram of the display unit of FIG. 1.

[0012] FIG. 3 is a camera unit for the golf course monitoring system.

[0013] FIG. 4 is a schematic diagram of the camera unit of FIG. 1.

[0014] FIGS. 5-7 are schematic views of exemplary applications of the golf course monitoring system.

[0015] FIGS. 8 and 9 are schematic illustrations of potential applications for the monitoring system.

[0016] FIG. 10 is a block diagram of a method of monitoring a golf course according to an exemplary embodiment.

DETAILED DESCRIPTION OF THE PREFERRED AND EXEMPLARY EMBODIMENTS

[0017] FIGS. 1 and 3 show a golf course monitoring system 10 according to a preferred embodiment. Golf course monitoring system 10 includes a display unit 12 configured to display a visual status of an area (e.g., region, etc.) of a golf course “visual status” based on wireless signals
received from a camera unit 14. According to exemplary embodiments, “visual status” and “area” on a golf course may be any of a variety of locations, conditions, or the like on the golf course. For example, the visual status may be a real-time or prior still image of the portion of the golf course. The visual status may also be a real-time or prior video image of the portion of the golf course. The visual status may also be an image of a green, blind area, predetermined distance, or combination thereof. Visual status may also be an indicator or alarm that associated with certain conditions such as clear, no movement, etc.

[0018] Referring to FIG. 1, display unit 12 includes a display 16, a wireless signal receiver 18 coupled to display 16, a switch 26, and a photovoltaic power source (shown as photovoltaic system 22).

[0019] Display 16 is configured to display an image or other information indicative or representative of a particular area of the golf course. Display 16 may be any of a variety of commercially available monitors or closed-circuit televisions that display color or black and white (monochrome) images (e.g., NTSC analog monitor digital, etc.). According to a particularly preferred embodiment, the display is model number SR06401PS3-FDR commercially available from Peter Parts of Ontario, N.Y.

[0020] According to an exemplary embodiment, display 16 may be used to provide information content to golfers. Information content may be images, sound, and/or video containing advertisement, golf course information (e.g., suggested strategy, menu, etc.), weather advisories, messages, announcements, or other information or combinations thereof. Such information content may be displayed periodically or cycle through continuously, and be interrupted to display the image on the display of the area not visible to the golfer when the golfer activates the switch 26.

[0021] Receiver 18 is configured to receive and convert wireless video signals received from camera unit 14. The wireless signals are processed and displayed on display 16. According to a preferred embodiment, receiver 18 is a radio frequency (RF) modulated video receiver MHZ/GHZ. According to a particularly preferred embodiment, the receiver is model number CV-97 commercially available from Nutek of Taiwan.

[0022] Switch 26 is operated by the user and configured to turn on display 16. According to a preferred embodiment, switch 26 is a normally open, push-button. Alternatively, the switch may be a dial, toggle, or any of a variety of user interfaces. A timer 28 is coupled to switch 26 and is configured to turn display 16 off after a predetermined amount of time after actuation of switch 26. According to a preferred embodiment, one or more fuses are used to protect video/audio receiver 18 and display 16 from damage due incorrect amount of current flow.

[0023] Display unit 12 may be located at any of a variety of locations on a golf course, such as a location where golfers typically hit from (e.g., near one of a tee-box, a blind spot, at a “dug-leg”, etc.). Housing 40 includes a box or case, a door hingedly coupled to box, and a lock to secure door in the closed position. According to an exemplary embodiment, display unit 12 is mounted on a stationary support structure shown as a post 32 to provide structural support to display unit 12. Alternatively, display unit 12 may be mounted on any of a variety of structures, members, posts, etc. According to other embodiment, display unit 12 is mounted on a golf cart 34 (as shown in FIG. 8), carried as a handheld device 36 such as by a golfer or mounted to a pull-cart (as shown in FIG. 9), or the like.

[0024] A housing 40 is provided to enclose display 16 and other components of photovoltaic system, switch, etc. to protect the components from the environment or other damage. Display unit 12 may also include an audio player/recorder 41, a speaker 42 located in housing 40 and configured to allow communication across the wireless connection, to produce a prerecorded sound at certain visual status points, and/or play audio (e.g., messages, announcements, tutorial, etc.). The prerecorded audio maybe an alarm or other message or announcement (e.g., “wait”, “storms approaching”, etc.) transmitted from another display unit 12, one or more camera units 14, or from the club house (e.g., for a weather advisory). According to alternative embodiments, display unit 12 may also include a wireless transmitter configured to transmit a wireless signal received from the camera unit to a relay unit or other receiver. Inside housing 40, a terminal strip may be provided to connect all working electronic components.

[0025] FIG. 2 is a schematic block diagram of the components of the display unit 12 of FIG. 1. As shown in FIG. 2, a display unit circuit 102 comprises the photovoltaic system 22, battery 58, charge controller 104, timer 28, switch 26, fuses 106, receiver 18, and display 16. Charge controller 104 is configured to receive energy from photovoltaic system 22 and battery 58, and provide power to the other components through the timer 28 and switch 26. Fuses 106 are in-line between the power source and the receiver 18 and display 16 and are configured to provide power surge protection to the receiver and display. The receiver 18 is configured to provide signals, such as composite video signals, to display 66. When the switch 26 is activated, power is provided to the receiver 18 and display 16 and then shut off by the timer 28 after a preset or predetermined amount of time.

[0026] Referring to FIG. 3, camera unit 14 includes a camera 50, a wireless signal transmitter 52 coupled to camera 50, and a photovoltaic system 54. Camera unit 14 also includes a structural support member shown as a post 56. Post 56 provides structural support to the components of camera unit 14.

[0027] According to a preferred embodiment, camera 50 is a charged coupled device (CCD) camera. Camera 50 may provide a monochrome (black and white) or color image as an analog or digital signal. According to an exemplary embodiment, camera 50 is a fixed or stationary mounting. Alternatively, the camera may be configured to be movable or adjustable to provide pan, tilt, zoom, or the like by the user, the clubhouse, or during set up. Remote control of such movement would further include a receiver (similar to receiver 18) configured to receive wireless signals from display unit 12 or other locations. According to yet other embodiments, the entire camera unit may be configured for mobility—i.e., be periodically moved on the golf course. A microphone may be provided where camera unit is also configured for transmission of audio signals. According to a particularly preferred embodiment, the camera is model number ISC-8124SF1 commercially available from Intelligen of West Chester, Ohio.

[0028] Transmitter 52 is configured to receive a signal from camera 50 and send wireless video and/or audio signals to receiver 18. According to a preferred embodiment, transmitter 52 is an RF modulated transmitter. According to a
particularly preferred embodiment, the transmitter is model number CV-97 commercially available from Nutex of Taiwan. According to an exemplary embodiment, transmission of the wireless signal is Internet Protocol (IP) based so that it could be viewed by a web browser. The transmission may also be encrypted or be transmitted at particular frequencies to prevent unintended viewing or when multiple systems are used in close proximity. In exemplary embodiments, the range of the wireless signal is approximately 1000 feet line of sight.

[0029] FIG. 4 is a schematic block diagram of the components of the camera unit 14 of FIG. 3. As shown in FIG. 4, a camera unit circuit 110 comprises a photovoltaic system 54, battery 61, charge controller 112, a switch (shown as a solid state relay 114), a switch 116, fuses 118, transmitter 52, and camera 50. The charge controller 112 is configured to receive energy from the photovoltaic system 54 and battery 61, and provide the conditioned power to the other components. The relay 114 is configured to sense a minimal level of power being provided by the photovoltaic system 54 (e.g., during daylight hours) and close the circuit 110. The switch 116 is internal to the camera unit 110 and provides to turn camera unit 110 off during inspection, service, or maintenance. Fuses 118 are configured to provide power surge protection to the transmitter 52 and camera 50. The transmitter 52 is configured to receive a signal (composite video signal) from the camera 50. The signal is transmitted, preferably at 2.4 GHz.

[0030] Referring to FIG. 6, camera unit 14 may also include a sensor unit 82 configured to monitor a defined sensing region (an area adequately proximate to where a golfer is likely to be positioned) for the presence of a person (e.g., golf course employee, a passer-by, etc.). Sensor 82 may be any of a variety of sensors such as infrared, capacitive, motion detector, or the like.

[0031] Photovoltaic systems 22 and 54 are capable of converting light energy to electrical energy (e.g., “solar”). Photovoltaic system 22 is configured to provide power to display 16 and receiver 18 of display unit 12. Photovoltaic system 54 is configured to provide power to camera 50 and transmitter 52 of camera unit 14. Referring to FIGS. 1 and 3, photovoltaic systems 22, 54 are shown as including one or more photovoltaic cells 60 (such as an array of cells) mounted at the top of support structures 32, 56 in an effort to maximize the exposure of photovoltaic cells 60 to the ambient light. Photovoltaic cells 60 are electrically coupled to the electrical components of display unit 12 and camera unit 14.

[0032] As shown in the figures, the preferred power source is provided by photovoltaic cells 60. According to another exemplary embodiment, display unit 12 and/or camera unit 14 may comprises a battery 58 to provide power to display 16 and/or receiver 18 and/or battery 61 to provide power to a transmitter 52 and/or camera 50. Battery 58 may be powered or charged (or recharged) from photovoltaic cells 60. Battery 58, 61 may supplement the power being provided to display unit 12 and/or camera unit 14. In such embodiments, battery 58, 61 may be used concurrently with or merely when there is not sufficient power being provided by photovoltaic cells 60 to operate display 16 or receiver 18 (e.g., low light conditions, worn cells, etc.), camera 50, and/or transmitter 52. According to an exemplary embodiment, battery 58, 61 provides five days of power for typical use to display unit 12 or camera unit 14. Alternatively, battery 58, 61 replaces photovoltaic cells 60 and may be periodically recharged by being connected to a line power, or replaced with another battery. A charge regulator 63 may be used to keep photovoltaic system from damaging battery 58, 61. In yet another alternative embodiment, the display unit and/or the camera unit are powered by line power.

[0033] During operation, transmitter 52 transmits a wireless signal from camera 50 that is representative of the visual status (video, snap-shot, stream of video or snapshots, etc.) of a portion of a golf course. Receiver 18 of display unit 12 receives the wireless signal and converts the signal into an image to be displayed on display 16. The image may be displayed as “live” or “real time” which means virtually instantaneous to the time the image occurred, or delayed. According to an alternative embodiment, transmitter 52 transmits a series of images taken over a predetermined period of time by camera 50. If so equipped, the golfer may adjust the image being seen (e.g., pan, tilt, zoom, etc.).

[0034] According to an exemplary embodiment, golf course surveillance system 10 may also include one or more remote monitoring units so that images from the golf course may be viewed at other holes, at the club house, on-line, or the like. Remote monitoring units are similar to display unit 12 and include a display 16 and a receiver 18 that receives the wireless signal from one or more or all of the camera unit 14 and displays the video status or records the video status for records or later viewing.

[0035] FIGS. 5-7 are schematic views of exemplary applications of the golf course monitoring system that provide improved safety, etiquette, and overall awareness to golfers on a golf course. Use of golf course system 10 are intended to prevent golfers having to walk or ride a cart ahead on a hole to check to see if it is safe to hit in the illustrated applications. The illustrated applications are exemplary only and are not intended to be interpreted to be the only applications of use of the system on a golf course.

[0036] Referring to FIG. 5, a golf course hole is shown with a dog-leg 62 and an obstruction 64 (e.g., trees, shrubs, hill, or other environment) that creates a blind-spot 66 (shown in broken lines) that is not viewable from a possible or likely hitting location 68 (e.g., place on course that it is typical to hit from such as a “lay up” location, a tee-box, etc.). The distance from hitting location 68 past the dog leg or to the blind spot 66 may be within range of a golfer 70 waiting to hit from hitting location 68. Golfer 70 waiting to hit activates display unit 12 to see images from camera unit 14 to know whether it is safe to hit. Upon use, golfer 70 would see golfer 72 and golfer 74 near the dog-leg 62 and/or in blind spot 66 and wait to hit.

[0037] Referring to FIG. 6, a golf course hole 76 is shown as having a long distance (e.g., a “par 5”) where distance from a hitting location (shown as a tee-box 78 in this embodiment) to various parts of hole 76 are not readily known. Camera unit 14 on this hole 76 is positioned at a certain distance from tee-box 78, such as at a distance where most golfers do not hit beyond and shown as line 79. A sign or other indicia on display unit 12 may explain the range. A golfer 77 waiting to tee-off in tee-box 78 may activate display unit 12 to see if all golfers 80 are beyond the camera, and if golfer knows he or she does not hit beyond the stated range, he or she know that it is safe to hit. According to an alternative embodiment, sensor unit 82 may be provided in addition to or instead of camera unit 14. Such sensor unit 82
includes a sensor (e.g., motion detector, infrared, sound, etc.) that senses a region and transmits the data to the display unit.

[0038] Referring to FIG. 7, a golf hole 84 where the green 86 is not viewable from a potential or likely hitting location, shown as tee-box 88, due to an obstacle 90 (e.g., trees, shrubs, hill, or other environment) that creates a blind-spot 92 that is not viewable from tee box 88. The distance from tee box 88 onto green 94 may be within range of a golfer 96 waiting to hit from tee-box 88 (e.g., on a “par 3”). Golfer 96 waiting to hit may activate display unit 12 to see images from camera unit 14 to know whether it is safe to hit. Upon use, golfer 96 would see golfer 98 on or near the green 94 and wait to hit. The pin placement 100 is also not readily visible from tee-box 88. Golfer 96 could inspect the location of the pin placement 100 with display unit 12.

[0039] FIG. 10 shows a block diagram of a method 120 of monitoring an area of a golf course. Method 120 includes providing a display unit at a location on a golf course at a location on the golf course at a potential hitting location (step 122) and powering a display and a receiver with a photovoltaic power source and/or battery (step 124). The method also includes providing a camera unit directed at an area of the golf course not visible from the hitting location (step 126) and powering the camera and transmitter with a photovoltaic power source and/or battery (step 128). Wireless signals received from a camera are transmitted by the transmitter (step 130) and received by the receiver (step 131). Information content (e.g., alarm, advertisement, golf course information, weather advisory, messages, announcements, or combinations thereof) is displayed on the display (step 132). If a switch (e.g., push button) is activated/closed (step 134), the information content is interrupted to display the image on the display of the area not visible to the golfer (step 136). An image of the area not visible from the hitting location is then displayed on the display (step 138). If the unit is equipped, an audio message may be recorded and played upon activation of the switch (step 140). The display/speaker is turned off after a predetermined amount of time (step 142).

[0040] It is important to note that the construction and arrangement of the elements of the golf course visual monitoring system as shown in the preferred and other exemplary embodiments are illustrative only. Although only a few embodiments of the present invention have been described in detail in this disclosure, those skilled in the art who review this disclosure will readily appreciate that many modifications are possible (e.g., variations in sizes, dimensions, structures, shapes and proportions of the various elements, values of parameters, mounting arrangements, materials, colors, orientations, etc.) without materially departing from the novel teachings and advantages of the subject matter recited in the claims. Accordingly, all such modifications are intended to be included within the scope of the present invention as defined in the appended claims. The order or sequence of any process or method steps may be varied or re-sequenced according to alternative embodiments. In the claims, any means-plus-function clause is intended to cover the structures described herein as performing the recited function and not only structural equivalents but also equivalent structures. Other substitutions, modifications, changes and/or omissions may be made in the design, operating conditions and arrangement of the preferred and other exemplary embodiments without departing from the spirit of the present invention as expressed in the appended claims.

What is claimed is:
1. A method of monitoring an area of a golf course comprising:
   providing a display unit at a location on the golf course where a first golfer is likely to hit from, the display unit comprising a display, a wireless signal receiver, a switch, and a first photovoltaic power source;
   powering the display and receiver with the first photovoltaic power source;
   providing a camera unit directed at an area of the golf course not visible to the golfer located in the likely hitting location, the camera unit comprising a camera, a wireless signal transmitter, and a second photovoltaic power source;
   powering the camera and transmitter with the second photovoltaic power source;
   transmitting wireless signals received from the camera to the receiver;
   the golfer activating the display by operating a switch;
   displaying an image on the display of the area not visible to the golfer.
2. The method of claim 1 wherein the display unit further comprises a timer, and wherein the step of displaying the image on the display further comprises turning off the display after a predetermined amount of time set by the timer.
3. The method of claim 1 wherein the display unit further comprises an audio recorder and a speaker, and further comprising the step of recording an audio message and playing the audio message upon activation of the switch.
4. The method of claim 1 wherein the display unit further comprises a battery, and the step of powering the display unit comprises powering the display and receiver with the first photovoltaic power source and/or the battery.
5. The method of claim 1 wherein the area of the golf course is not visible to the golfer due to an obstacle located between the area and the golfer.
6. The method of claim 1 wherein the area of the golf course is the pin placement.
7. The method of claim 1 further comprising displaying information content on the display.
8. The method of claim 7 further comprising interrupting the information content to display the image on the display of the area not visible to the golfer.
9. The method of claim 8 wherein the information content comprises one or more of an advertisement, golf course information, weather advisories, messages, announcements, or combinations thereof.
10. A golf course monitoring system comprising:
    a display unit comprising a display, a wireless signal receiver coupled to the display and a photovoltaic power source configured to provide power to the display and the receiver;
    a camera unit comprising a camera, a wireless signal transmitter coupled to the camera and a photovoltaic cell for providing power to the camera and the transmitter;
    wherein the transmitter transmits a wireless signal from the camera representative of a visual status of a portion of a golf course to the receiver to be displayed on the display.
11. The golf course monitoring system of claim 10 wherein the visual status is a real time still image of the portion of the golf course.

12. The golf course monitoring system of claim 10 wherein the visual status is a real time video image of the portion of the golf course.

13. The golf course monitoring system of claim 10 wherein the visual status is an image of one of a green, blind area, predetermined distance, or combination thereof.

14. The golf course monitoring system of claim 10 wherein the display unit further comprises a battery configured to provide power to the display or the receiver when power from the photovoltaic cells is not sufficient to operate the display or the receiver.

15. The golf course monitoring system of claim 10 wherein the camera unit further comprises a housing configured to enclose the display and the receiver.

16. The golf course monitoring system of claim 10 wherein the display unit further comprises a housing configured to enclose the display and the receiver.

17. The golf course monitoring system of claim 10 wherein the camera is a video camera.

18. The golf course monitoring system of claim 10 wherein the transmitter transmits a series of images taken over a predetermined period of time.

19. The golf course monitoring system of claim 10 further comprising a relay unit comprising a receiver, transmitter, and a photovoltaic cell configured to provide power to the transmitter and the receiver and configured to receive the wireless signal from the camera unit and transmit the signal wirelessly to the display unit.

20. The golf course monitoring system of claim 10 wherein the display unit is located near one of a tee-box or a blind spot.

21. The golf course monitoring system of claim 10 further comprising a remote monitoring unit comprising a display and a receiver wherein the receiver of the remote monitoring unit receives the wireless signal from the camera unit and displays the video status or records the video status.

22. A golf course monitoring system comprising:
   a display unit comprising:
   a display;
   a wireless signal receiver coupled to the display;
   a switch configured to turn the display on;
   a timer configured to turn the display off after a predetermined amount of time after actuation of the switch;
   and a photovoltaic power source configured to provide power to the display and the receiver;
   a camera unit comprising a camera, a wireless signal transmitter coupled to the camera and a photovoltaic cell for providing power to the camera and the transmitter;
   wherein the transmitter transmits a wireless signal from the camera representative of a visual status of a portion of a golf course to the receiver to be displayed on the display.

23. The golf course monitoring system of claim 22 wherein the switch is a push button switch.

24. The golf course monitoring system of claim 22 further comprising a first support member to provide structural support to the display unit, and a second support member to provide structural support to the camera unit.

25. The golf course monitoring system of claim 22 wherein the display unit and/or the camera unit further comprise a speaker configured to produce a prerecorded sound.

26. The golf course monitoring system of claim 25 wherein the prerecorded sound is one or more of an alarm, advertisement, golf course information, weather advisory, messages, announcements, or combinations thereof.

27. The golf course monitoring system of claim 25 wherein prerecorded sound is transmitted from the clubhouse.

28. The golf course monitoring system of claim 22 wherein the display unit further comprises a wireless transmitter configured to transmit the wireless signal received from the camera unit.

* * * * *