

Colorado Video

“Unique Video Instrumentation”

Remote Area Monitoring with the Observer IV Camera

Visually monitoring remote locations can seem like an insurmountable task. Areas without telephone or electric service have been considered inaccessible to monitoring via traditional methods. With the widespread deployment of cellular phone networks with Internet connectivity, viewing these areas is now possible. The GSM cellular network has recently become established in the United States. Along with the familiar voice service, this network also incorporates a data path directly to the Internet. This pathway, called General Packet Radio Service (GPRS), provides access to the Internet from anywhere within the broad cellular coverage area.



Coupling a battery-operated design with GPRS connectivity in a weatherproof case, the Observer IV camera from Colorado Video is an ideal solution for many monitoring and security situations. Once configured and installed, the camera can place snapshot images of remote locations on a desktop computer. The camera can be easily interfaced to door and gate switches as well as motion detectors, and will transmit images on a scheduled and event-driven basis. These images are accessible both as an email attachment and via automatic downloading from an FTP server. Images can be permanently archived on the server or the user's computer. Real time notification of camera activation can occur either through a custom desktop application or via personal email.

No external power, no phone lines, no computer, and no wired Internet access, is required. With the appropriate cellular service and an Observer IV camera, you can receive snapshot images along with real-time notification from remote areas. This camera provides an ideal solution for remote site monitoring, event promotion, and unique security problems. The best way to understand the capabilities of the Observer IV is to consider a few of the many potential applications.



Geologists, Forest Service personnel or land managers often wish to monitor natural hazards at remote locations. Areas of interest at such sites may include stream levels and associated flooding, landslides, or snow pack at mountain passes. The Observer IV provides an ideal solution for this situation. The camera can be configured to turn on daily, take a picture and send it with an email anywhere on the Internet. Once installed, the Observer IV can deliver daily images unattended for up to a year on a single set of batteries.

The Observer IV camera can be used for the promotion of special events. The lack of required cabling and quick setup makes it an attractive solution for both indoor and outdoor activities. A corporate awards ceremony held at a mountain resort provides a perfect example. The Observer IV can be setup to periodically capture images of the event and place them on a corporate web server. Web pages that link to these pictures are easily constructed. Employees, relatives, or anyone not in attendance, will still be able to view images of the proceedings. If AC power is available, the camera can be configured to run continuously, and pictures will be updated every few minutes all day long; otherwise a single set of batteries can provide hundreds of images over the course of the day. Multiple cameras will provide complete coverage of the event. All that is required for the easy promotion of special events is appropriate cellular coverage and the Observer IV camera.





Oil and gas drilling in remote locations provides a unique set of security problems. In addition to the landowner, multiple persons have access to the area. Employees of the drilling company and its subcontractors may come and go on a daily basis without any accounting of their activities. Theft or vandalism may not be a primary concern, however a visual record of persons and vehicles entering and leaving the gated property is desirable. When properly configured, a switch on the gate will trigger the Observer IV to turn on, take a picture of the area, and turn off. The picture is immediately transmitted to an FTP server. The image can remain on the server or be automatically downloaded for viewing or archiving to a desktop computer. Additionally, configuring the camera for a

scheduled email with image attachment can provide assurance that the gate has been left closed at the end of the day. Using the internal battery pack, hundreds of accesses to the property can be recorded. Using an external solar panel and battery combination the unit will work indefinitely without service. The availability of interchangeable lenses from wide-angle to telephoto, insure that the camera can be located in an appropriate location yet still provide an acceptable view.

The lack of required cabling and ease of installation makes the Observer IV a convenient tool in the security consultant's repertoire even for non-remote applications. For the situation where the permanent installation of a wired CCTV system is not appropriate, the Observer IV provides a quick and easy solution. A retail store experiencing periodic after-hours theft provides such an example. An employee is suspected of returning at night, and either entering the store to steal, or retrieving merchandise hidden behind the store during the day. This situation can be difficult and expensive to deal with using conventional security monitoring. An Observer IV can be temporarily installed along with a door switch or motion detector to cover the area of interest. The camera will generate a signal to control external lighting if nighttime images are required. Once triggered, the image is sent to an FTP server and can be immediately downloaded via a custom desktop application. If the computer is being monitored, the user is notified of the event.

Configuring the Observer IV to generate a pager alert via an email message is another method that will provide instant notification that the event has occurred. Not only will there be a visual record of the incident, but due to real time notification, an appropriate response by security personnel can be undertaken. Once the situation is resolved the Observer IV is easily removed for service elsewhere.



Observer IV

GPRS Remote Site Camera

- GSM/GPRS snapshot camera.
- No external cables.
- Internal batteries supply hundreds of images.
- Weatherproof enclosure.
- Scheduled or externally triggered.
- Email and FTP delivery and notification options.
- External flash capabilities.
- External power connector available.
- Multiple focal length lenses available.
- FTP image retrieval and archiving desktop application included.