.....but who is watching the watchman?

Guard Tour Systems

A guard tour patrol system is a system for logging the rounds of employees in a variety of situations such as security guards patrolling property, technicians monitoring climate-controlled environments, and correctional guards checking prisoner living areas. It **helps ensure that the employee makes his or her appointed rounds at the correct intervals** and can offer a record for legal or insurance reasons.

Organizations hire security guards to protect their facilities on a 'twenty-four hour, seven day per week' basis. These guards are expected to carry out periodic patrols of the facility to detect suspicious and abnormal activity, including doors left unlocked, burned out lights, water leaks, safety hazards, and other such conditions. To get the most value of such patrols it is essential that the guards patrol according to established procedures. Patrols should be made at least several times per shift, and should cover all important areas of the facility. The person managing the security program establishes a patrol route or "tour" that includes stops at all the important points that the security officer needs to check. Depending on the size of the facility, there may be several different tours, each which includes different areas of the facility. The officer usually alternates between tours, doing one tour during the first hour, and a different tour during the second hour, and so on throughout the shift. In this way, all important areas of the facility are checked at least every two hours.

Such systems have existed for many years using mechanical watch clock-based systems (watchman clocks/guard tour clocks/patrol clocks). Computerized systems were first introduced in Europe in the early1980s, and in North America in1986. Modern systems are based on handheld data loggers and RFID sensors.

The system provides a means to record the time when the employee reaches certain points on their tour. Checkpoints or watch stations are commonly placed at the extreme ends of the tour route and at critical points. **Some systems are set so that the interval between stations is timed so if the employee fails to reach each point within a set time, an alarm can be triggered and other staff dispatched to ensure the employee's well-being.**

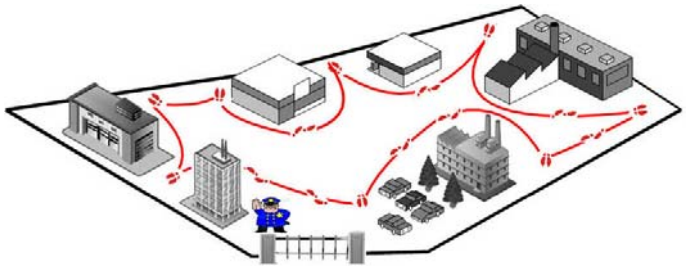
During many shifts, security guards may work alone and with very little or no supervision. **Often, security guards are tend to remain at their posts and do not want to go on patrol. This can be particularly tempting at times when the weather is bad and going on patrol means going out in the cold or rain.** Even when guards do go on patrol, there may be certain portions of the tour that are difficult to access or that require that a large number of stairs be climbed. There will

always be a tendency for guards to skip these portions of the tour.

Guard Tour systems have been developed to solve these problems. **In general, guard tour systems record the activities of the security guards to determine if guards are making their tours when they should, and to verify that they are covering all portions of their tour.**

Typical Deployment.

The employee carries a portable electronic sensor or electronic data collector which is activated at each checkpoint. Checkpoints can consist of iButtons (addressable, dedicated 'trackers'), magnetic strips, proximity microchips such as RFIDs, or optical barcodes. The data collector stores the serial number of the checkpoint with the date and time. Later, the information is downloaded from the collector onto a computer where the checkpoint's serial number will have an assigned location (eg. East Perimeter Fence, Block Number 1, etc.). Data collectors can also be programmed to ignore duplicate checkpoint activations that occur sequentially or within a certain time period. Computer software used to compile the data from the collector can print out summaries that pinpoint missed checkpoints or patrols without the operator having to review all the data collected. Because devices can be subject to misuse, some have built-in microwave, g-force, and voltage detection.



Types of Guard Tour Systems

There are three basic types of guard tour systems in use:

- **Watchman's Clock System**
- **Electronic Guard Tour System**
- **Guard Tour Integrated System**

Watchman's Clock System

This is the oldest type of guard tour system in use and has been around since the middle of the 19th Century. The watchman's clock is a circular device about eight-inches in diameter and has an analog clock face on the front of it. The watchman's clock is usually provided in a leather carrying case with shoulder strap which allows it to be carried by the security officer when on patrol. Inside of the watchman's clock is a circular paper dial. This dial is printed with markings that indicate each of the 24 hours in the day.

At various points along the patrol route, "key stations" are installed. Each key station contains a large metal key that looks something like a skeleton key. Each key has a unique key number. The key is usually fastened to the key station using a metal chain to keep the key from being removed. The key station usually has a door that allows the key to be stored when not in use.

When on patrol, the security officer stops at each key station along the route, removes the key, and inserts it into the watchman's clock. Doing this causes the key number to be printed on the paper dial located within the clock. The key number is printed next to the markings on the dial which indicate the present time. This provides a record of which keys were used and at what times.

At the end of each day, the paper dial is removed from the watchman's clock and replaced with a new one. The paper dials can be examined by the security manager or supervisor to determine if

patrols were completed on time and that all stops along the patrol route were properly made. The paper dials can be filed away to provide a long-term record of all patrol activity.

Electronic Guard Tour System

Electronic guard tour systems are similar in function to the watchman's clock system except use electronic rather than mechanical components. An electronic data gathering device, called a "wand", is used in place of the watchman's clock. The physical shape of the wand varies depending on the manufacturer, but is usually a small hand-held device in the shape of a pen or small PDA. The wand is carried by the security officer when on patrol.

"Checkpoint stations" are used in place of key stations. These stations contain some type of device that can be read electronically and are used in place of the mechanical key. Depending on the manufacturer and type of system used, a barcode, magnetic strip, or memory button may be used in the checkpoint station. Like key stations, checkpoint stations are installed at various points along the desired patrol route.

When on patrol, the security officer stops at each checkpoint station and scans it using the wand. This causes the location of the station as well as the current time to be recorded in the wand. Most electronic systems also allow the security officer to make a record of any abnormal conditions found at or near the checkpoint station. For example, if a checkpoint station was located at a door, and this door was found unlocked when checked by the security officer, he or she could enter a code indicating that the door was found unsecured. Depending on the system, this code can be entered either on a keypad located on the wand itself, or by scanning the appropriate code in an "incident booklet" that is carried by the officer.

At the end of the tour or at the end of each shift, the security officer places the wand into a "docking station". This docking station is connected either to a printer or personal computer and is used to download information from the wand. If connected to a printer, all information concerning patrol activities can be immediately printed to create a written report. If connected to a computer, the information from the wand is downloaded into a computer database. This database can then be sorted and various types of activity reports can be displayed on the computer screen and/or printed.

Guard Tour Integrated System

Many facilities already have an electronic security management system that is used to provide card access control, alarm monitoring, and closed-circuit television monitoring. At these facilities, it is possible to integrate the guard tour system with the security management system. This type of arrangement is known as an "integrated guard tour system".

Integrated guard tour systems use card readers instead of key stations or checkpoint stations. Most often, existing card readers that are already used to control doors are also used as "guard tour" readers, allowing them to perform double duty. If needed, additional card readers can be installed at certain points where guard tour stations are needed and a reader doesn't already exist.

Security guards do not need to carry any special type of equipment such as a watchman's clock or wand. Instead, they can use a regular access card at the card readers set up as guard tour readers.

Special “guard tour” software is provided on the computer that controls the security management system. This software is programmed so that system knows which card readers are to be used as guard tour readers and which access cards will be used by the security guards.

When on patrol, the security officer stops at each location along the patrol route and swipes his or her access card at the card reader. This causes the time and location to be recorded into the guard tour software. At any time, a report can be created that shows all guard tour activity for any time period. This report can be displayed on a computer screen or printed to create a written report.

Technology enhancements

- Built-in email and cell phone capability in guard tour device.
- GPS integration to enable active and real-time tracking of security guards.
- Built-in security incident reporting capability in guard tour device. Real-time status updates for all incidents.
- Built-in equipment inspection reporting capability to automate things such as the inspection of fire extinguishers.

Benefits of a Guard tour system.

The use of a guard tour system offers the following benefits:

- When guards know that their activities are being recorded, there is a strong motivation for them to follow the rules and make patrols the way they are supposed to.
- Alarms generated when a security staff fails to reach a designated point within the desired time slot could trigger the need for back up thus ensuring the well being of the security staff.
- The guard tour system provides a written record of all patrol activities, allowing discrepancies in patrol procedures to be quickly identified.
- Appropriate disciplinary actions can be taken against guards who fail to comply with established procedures.
- The written record provided by the guard tour system can also be used for incident investigation and as proof of patrol activities for insurance companies or regulatory agencies.

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