NASA TECH BRIEF

Goddard Space Flight Center

Intensive Care Alarm System

The problem:

Patients in an intensive care ward require continuous monitoring of several physical parameters such as EKG, blood pressure, and others. It is usually impractical for attendants to directly watch each patient on a 24-hour basis. The alternative is an alarm system that will notify the nurse or attendant when a patient needs help. Such a system must not disturb other patients with buzzers or bells and must inform the nurse as to which particular patient needs aid or examination.

The solution:

A commercially available call system has been modified to make it technically and economically feasible as an intensive care alarm system.

How it's done:

An inductive loop was added to a commercially available call system that is fitted with an earphone receiver. The system transmits high frequency signals to the nurse's receiver to announce a patient's need for help.

The inductive loop system reduces the chances of outside disturbance, requires no operator, is low-cost, and requires no FCC permit. The hearing-aid type receiver is small, reliable, and does not bother the patients.

Notes:

1. A study of alternate notification systems including tactile and visual alarms was made in conjunction with the development of this system.
2. A prototype system has been designed for use in a multitest medical facility.
3. Requests for further information may be directed to:
   Technology Utilization Officer
   Goddard Space Flight Center
   Code 207.1
   Greenbelt, Maryland 20771
   Reference: B73-10126

Patent status:

NASA has decided not to apply for a patent.

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Category 02, 05