



- [54] APPARATUS AND METHOD FOR CONTINUOUS ELECTRONIC MONITORING AND TRACKING OF INDIVIDUALS
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Related U.S. Application Data

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- [52] U.S. Cl. 340/573.4; 340/539; 340/693.5; 340/825.32; 340/825.49; 342/357; 364/449.6; 379/38
- [58] Field of Search 340/573.4, 539, 340/693.5, 825.3, 825.31, 825.32, 825.49, 825.54; 342/357; 364/449.6; 379/38

References Cited

U.S. PATENT DOCUMENTS

4,319,241	3/1982	Mount	340/870.38
4,673,936	6/1987	Kotoh	342/51
4,741,245	5/1988	Malone	89/41.03
4,819,053	4/1989	Halavais	342/353
4,885,571	12/1989	Pauley et al.	340/573.4
5,019,828	5/1991	Schoolman	342/457
5,043,736	8/1991	Darnell et al.	342/357
5,146,231	9/1992	Ghaem et al.	342/419
5,198,831	3/1993	Burrell et al.	343/895
5,317,309	5/1994	Vercellotti et al.	340/825.54

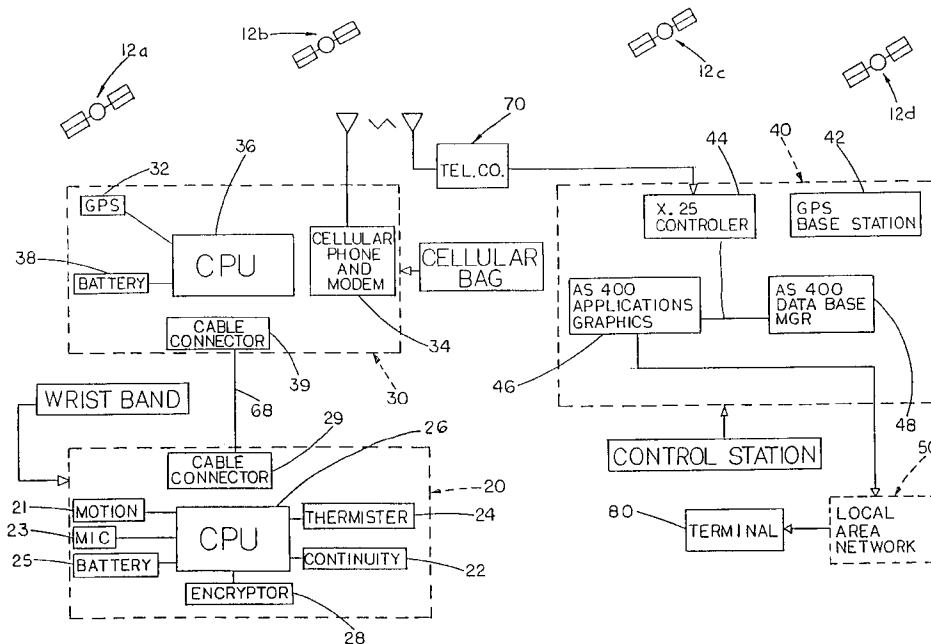
5,334,974	8/1994	Simms et al.	340/990
5,416,468	5/1995	Baumann	340/573.1
5,416,695	5/1995	Stutman et al.	600/300
5,437,278	8/1995	Wilk	600/425
5,461,365	10/1995	Schlager et al.	340/573.4
5,461,390	10/1995	Hoshen	342/419
5,493,694	2/1996	Vlcek et al.	455/52.1
5,497,149	3/1996	Fast	340/988
5,528,248	6/1996	Steiner et al.	342/357
5,541,845	7/1996	Klein	701/207
5,544,661	8/1996	Davis et al.	128/904
5,552,772	9/1996	Janky et al.	340/573.4
5,559,497	9/1996	Hong	340/573.1
5,568,119	10/1996	Schipper et al.	340/825.37
5,652,570	7/1997	Lepkofker	340/573.4
5,731,757	3/1998	Layson, Jr.	340/573

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[57] **ABSTRACT**

An apparatus and method of monitoring mobile objects or persons using the utilizes the Global Positioning System satellites and cellular telephone communications. The apparatus may include first and second remote units adapted to be worn on the monitored person or object. These remote units would comprise the position and data sensors as well as the transmitter device to transmit the information back to a central tracking station. The remote units may be operative to monitor many data items such as system integrity, motion temperature, audio, and the like in addition to position. This data would then be transmitted back to a central monitoring station operative to process and display the information. The system is also adapted to monitor persons in hazardous environments such as radioactivity or poisonous gases or even to monitor inanimate objects such as automobiles.

41 Claims, 15 Drawing Sheets



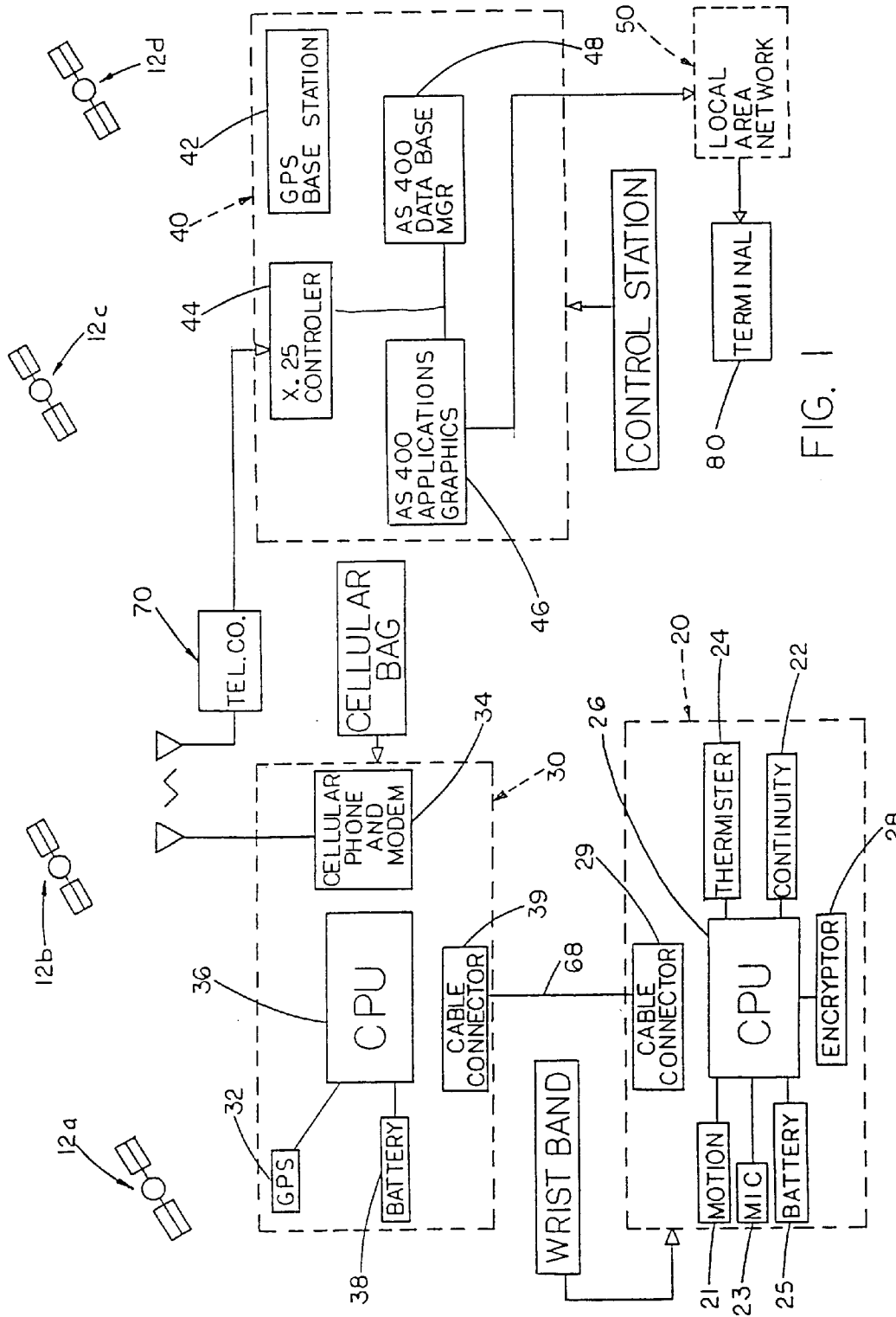


FIG. 1

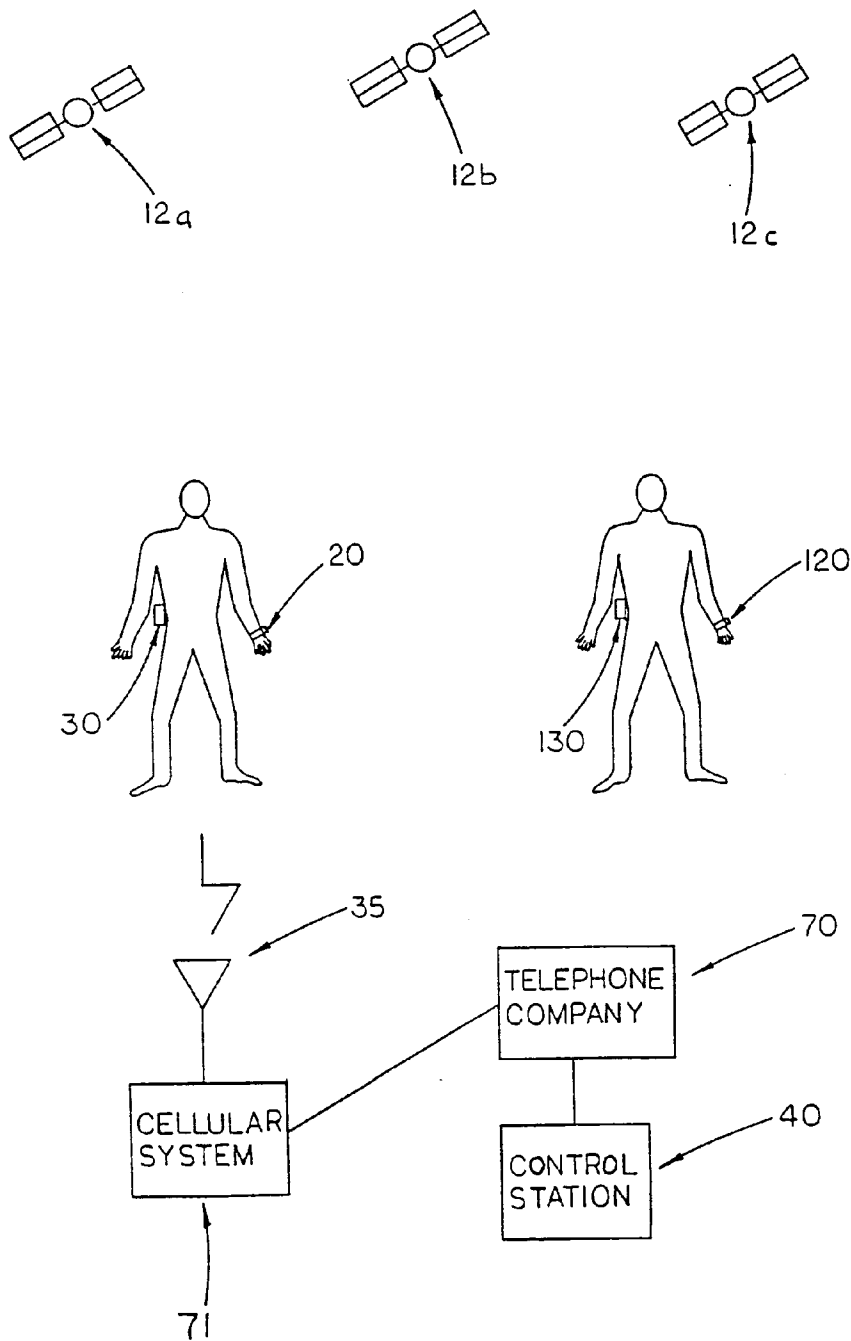


FIG. 2

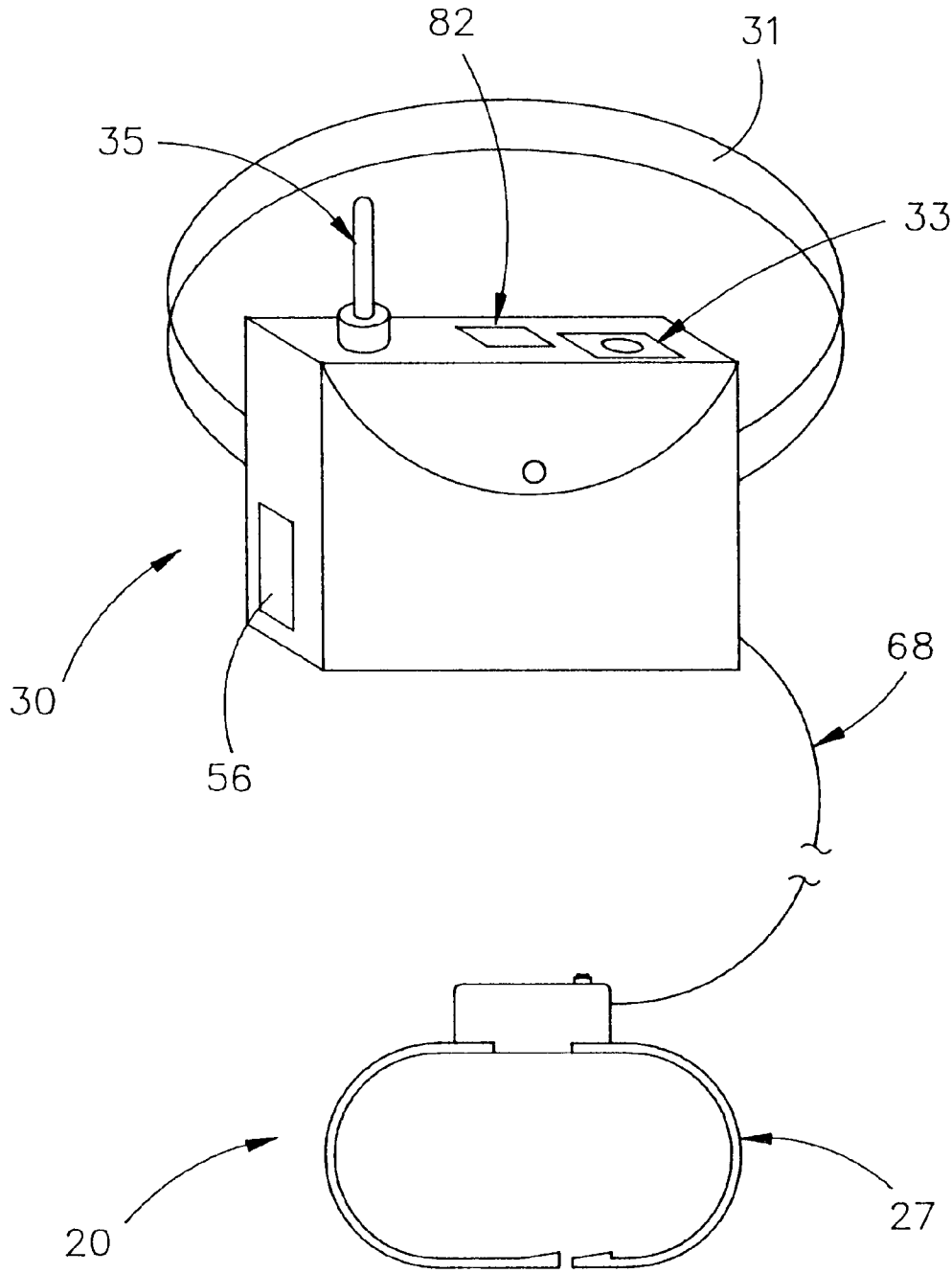


FIG. 3

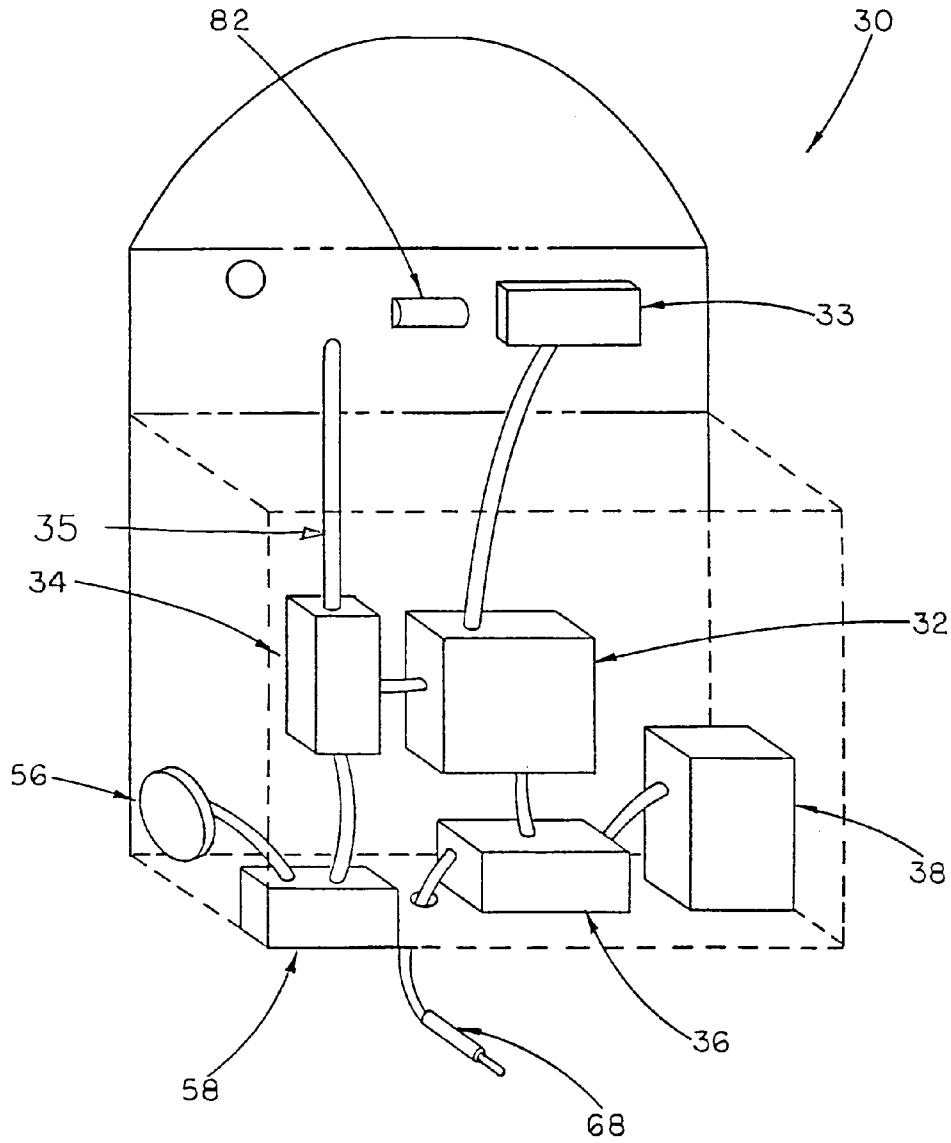


FIG. 4

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