



US005504938A

# United States Patent [19]

[11] Patent Number: **5,504,938**

**Redden**

[45] Date of Patent: **Apr. 2, 1996**

[54] **METHOD AND APPARATUS FOR VARYING APPARENT CELL SIZE IN A CELLULAR COMMUNICATION SYSTEM**

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### [57] ABSTRACT

[21] Appl. No.: **240,937**

In a satellite cellular communication system, subscriber unit traffic within any cell is managed by changing the signal level of the broadcast channel of the cells. Subscriber units located within the cells monitor the signal levels of the broadcast channels and initiate handoff requests when the signal level of the cell in which the subscriber unit is located falls below the signal level. As demand for communication services within a cell approaches the maximum capacity of the cell, the communication system reduces the signal level of the broadcast channel within the cell encouraging subscriber units within that cell to seek service from other cells. Thus the apparent cell size is reduced as to the subscriber units within the cell.

[22] Filed: **May 2, 1994**

[51] Int. Cl.<sup>6</sup> ..... **H04Q 7/00; H04Q 7/22**

[52] U.S. Cl. .... **455/33.4; 455/12.1; 455/33.1**

[58] Field of Search ..... 455/12.1, 13.1, 455/13.4, 33.1, 33.2, 33.4, 56.1, 67.1, 67.3, 69; 379/58, 59, 60

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**20 Claims, 7 Drawing Sheets**

