



US006374080B2

(12) **United States Patent**
Uchida

(10) **Patent No.:** **US 6,374,080 B2**
(45) **Date of Patent:** **Apr. 16, 2002**

- (54) **MOBILE COMMUNICATION SYSTEM**
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- (73) Assignee: **Mitsubishi Denki Kabushiki Kaisha, Tokyo (JP)**
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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- (21) Appl. No.: **09/754,108**
- (22) Filed: **Jan. 5, 2001**

Related U.S. Application Data

- (63) Continuation of application No. PCT/JP99/03239, filed on Jun. 17, 1999.
- (51) **Int. Cl.**⁷ **H04B 7/185; H04B 7/01; H04Q 7/20**
- (52) **U.S. Cl.** **455/13.1; 455/502; 455/67.6; 455/426; 455/552; 455/448; 455/440; 455/12.1**
- (58) **Field of Search** 455/12.1, 13.1, 455/13.2, 13.4, 11.1, 427, 428, 430, 15, 60.502, 552, 553, 426, 432, 435, 436, 448, 440, 444, 517; 370/519; 375/267, 354

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(57) **ABSTRACT**

In cases where a radio communication is performed between a ground radio base station and a subscriber station, when a delay time J passes after the transmission of a radio wave from the ground radio base station to a stratospheric platform base station, another radio wave relating to the same information as that indicated by the radio wave is transmitted from the ground radio base station to the subscriber station. Therefore, in the subscriber station, a phase of the radio wave directly transmitted from the ground radio base station to the subscriber station is synchronized with a phase of the radio wave transmitted from the ground radio base station through the stratospheric platform base station. Accordingly, the subscriber station can change over from one radio wave, of which the strength is weakened, to another radio wave.

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15 Claims, 10 Drawing Sheets

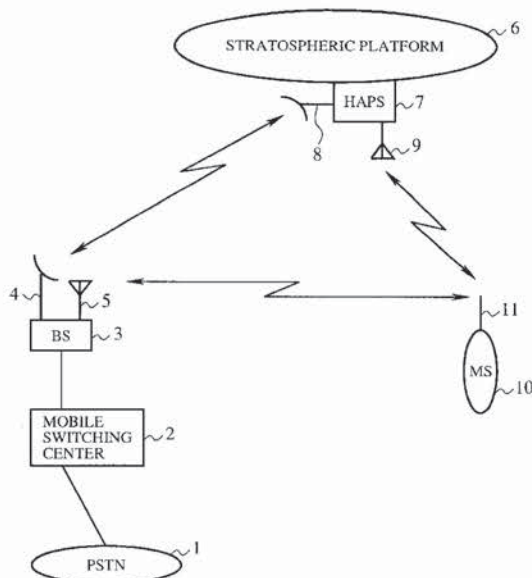


FIG. 1

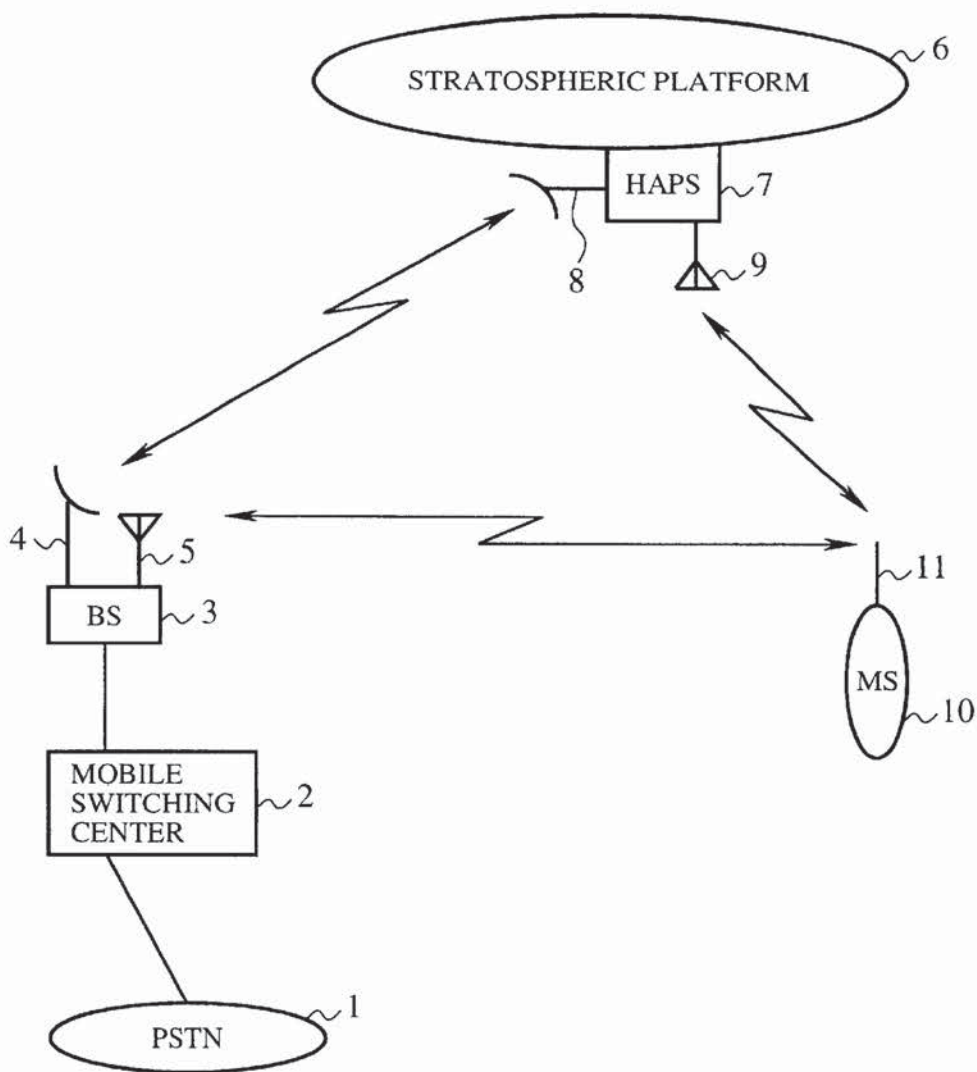
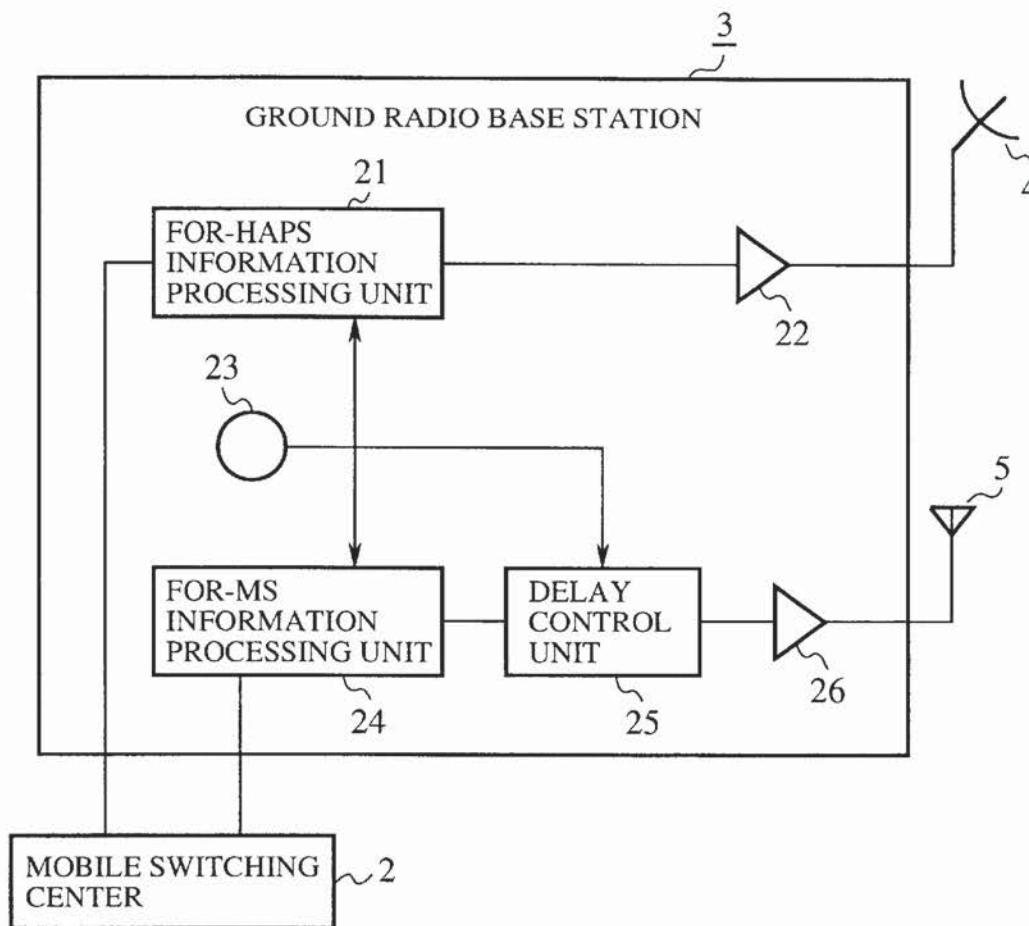


FIG.2



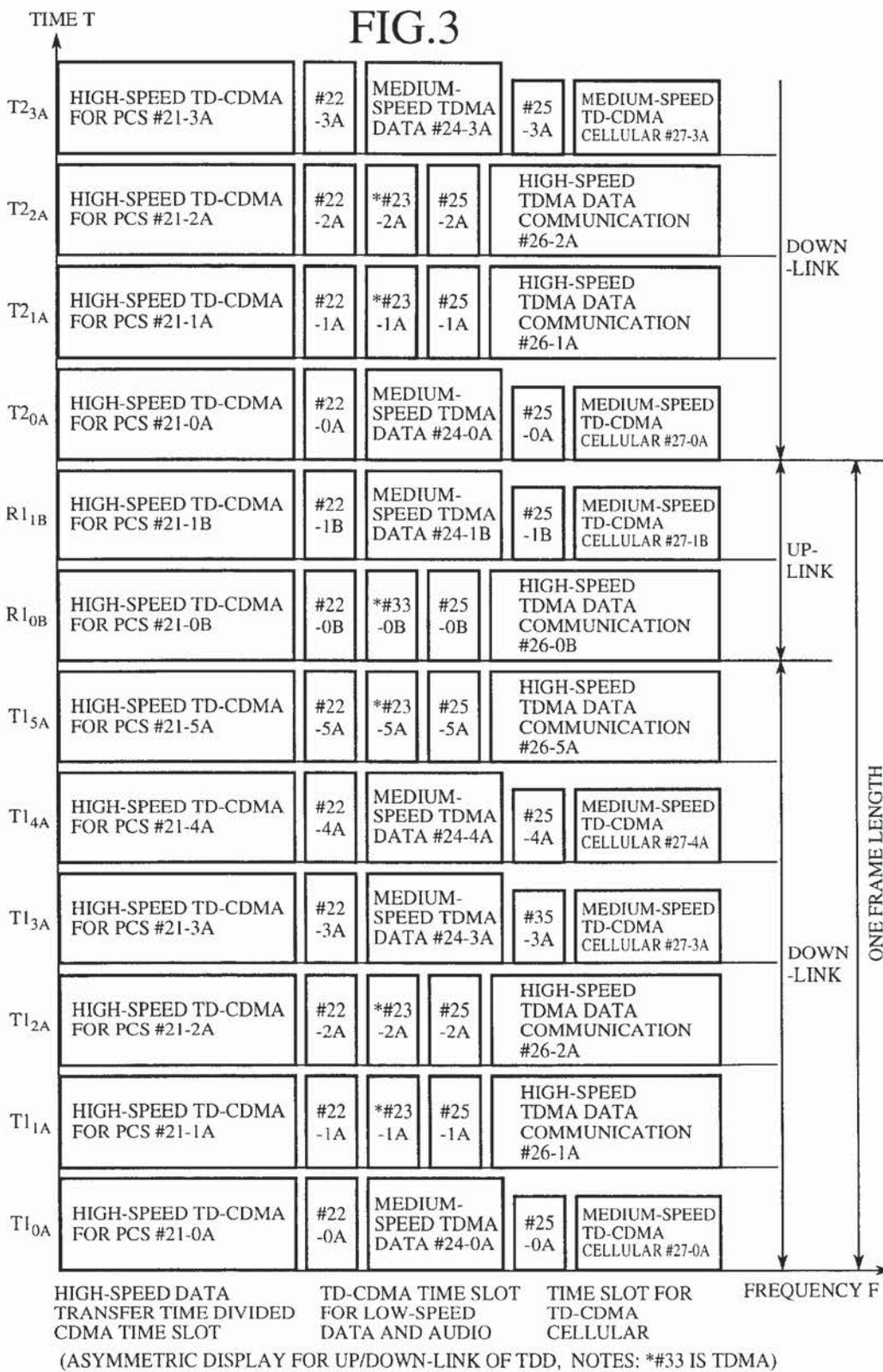
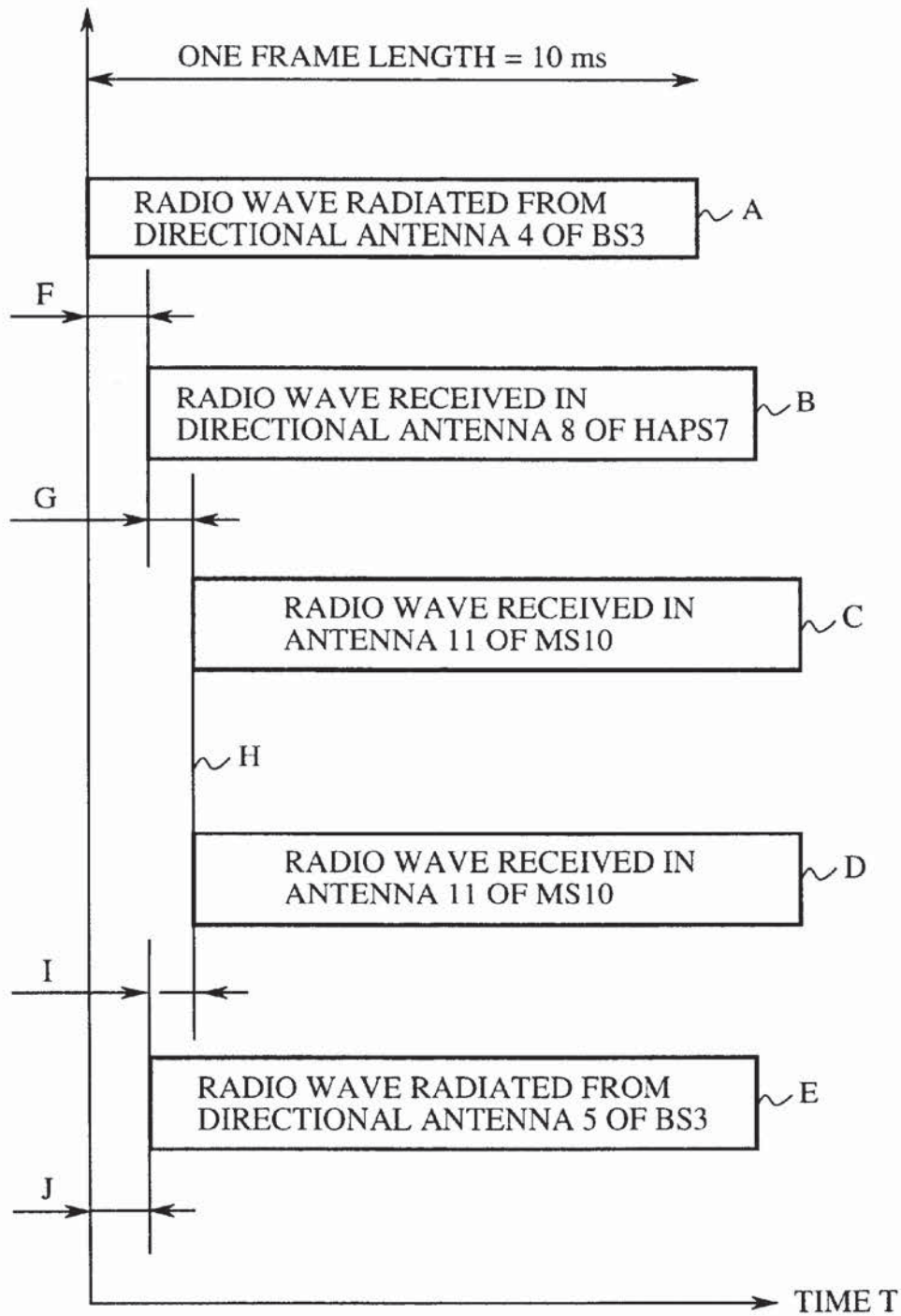


FIG.4



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