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(54) ANALOG RADIO SYSTEM WITH ACOUSTIC TRANSMISSION PROPERTIES

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- (*) 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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- (51) Int. Cl.⁷ **H04J 3/00**
- (52) U.S. Cl. **370/345; 370/521**
- (58) Field of Search **370/329, 330, 370/336, 345, 349, 350, 498, 536, 537, 538, 540, 542, 543, 544, 521**

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(57) ABSTRACT

This invention modulates voice signals so that the radio waves behave the same in the radio medium as sound waves would in the acoustic medium. This is accomplished by segmenting the voice signal and compressing the segments in time before transmitting them through the radio channel. If the compression factor is correct, the distortion sounds natural to the ear because the characteristics of the radio channel match those normally encountered in the acoustic channel. The radio signal will then inherit many of the good properties of acoustic voice signals including resistance to flat fading and tolerance of frequency selective fading.

29 Claims, 5 Drawing Sheets

