US005784337A

# United States Patent [19]

Rainey et al.

[11] Patent Number: 5,784,337

[45] Date of Patent: Jul. 21, 1998

[54] **TOWED ARRAY WITH NON-ACOUSTIC SENSOR MODULE**

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[21] Appl. No.: **812,065**

[22] Filed: **Jan. 21, 1997**

[51] **Int. Cl.**[6] ..... **G01S 3/80**

[52] **U.S. Cl.** ..... **367/131**; 367/130; 367/154; 367/134

[58] **Field of Search** ..... 367/131, 134, 367/130, 106, 15, 154; 174/108; 138/125, 130, 174; 139/204

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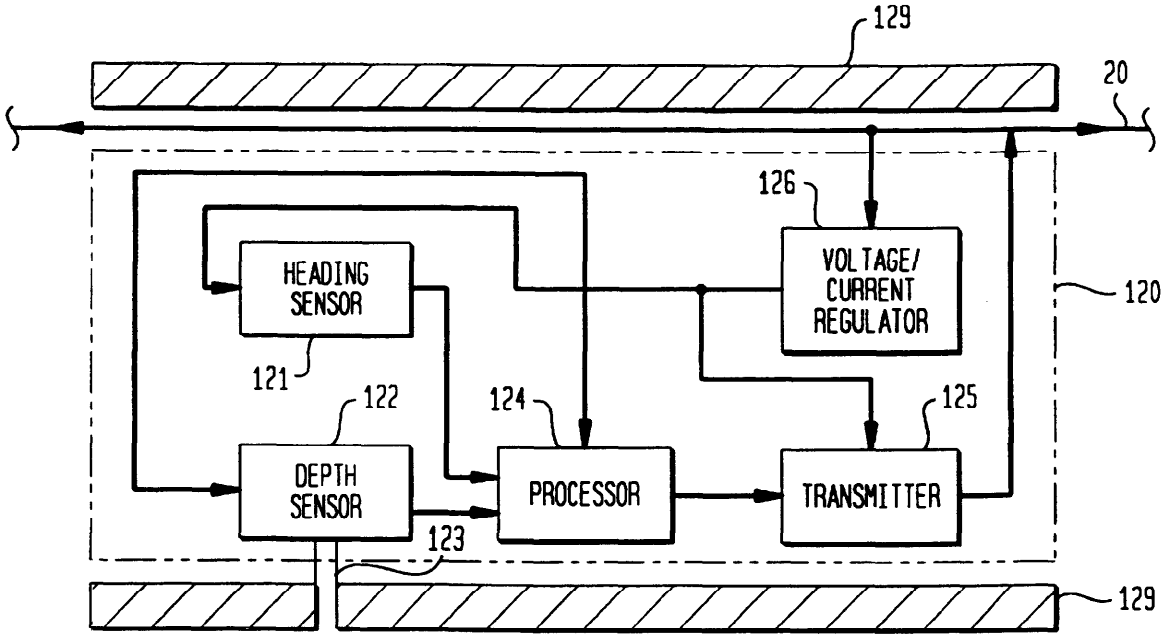
[57] **ABSTRACT**

A towed array includes an array of N hydrophone groups and one or more non-acoustic sensor modules structurally connected in-line with the array of hydrophone groups. The hydrophone groups and non-acoustic sensor module(s) are coupled to a common data transmission line. Each of the hydrophone groups defines a portion of an acoustic aperture occupying a specified length of the towed array. Each non-acoustic sensor module has a length that is n times the specified length where n is a whole number multiple of the total number of hydrophone groups.

**11 Claims, 1 Drawing Sheet**