Claims

1. 1. An acoustic monitoring system comprising at least two isolated acoustic receivers for receiving acoustic signals from an acoustic source, such as hydrophones, capable of spatial displacement, a detector for detecting signals from the said receivers and a processing system for processing the detected signals for determining a spatial position of the said receivers.

2. The system according to claim 1, wherein the processing system is further arranged to determine a direction or a position of the acoustic source using the determined spatial position of the receivers.

3. The system according to claim 1 or 2, wherein the at least two isolated acoustic receivers form a flexible structure.

4. The system according to claim 1, 2 or 3, wherein the at least two isolated acoustic receivers are mounted on a cable.

5. The system according to claim 4, wherein the cable is provided with a limiter for minimizing the spatial displacement of the said sources.

6. The system according to any one of the preceding claims, wherein the said receivers are provided with respective associated position measuring devices.

7. The system according to claim 6, wherein for the position measuring device a motion sensor, an accelerometer or a beacon is used.

8. The system according to claim 7, wherein the processing system is adapted to address a motion model representative of the said spatial displacement.

9. The system according to any one of the preceding claims, comprising at least three isolated acoustic receivers.

10. The system according to any one of the preceding claims, further comprising a tracker for recording the determined actual spatial positions of the receivers.

11. The system according to any one of the preceding claims, wherein hydrophones are used for the said receivers.

12. A method of acoustic monitoring using a system comprising at least two isolated acoustic receivers capable of spatial displacement, the method comprising the steps of:

- generating signals by the said receivers pursuant to detected acoustic signals of an acoustic source;
- processing the generated signals for determining a spatial position of the said receivers.

13. The method according to claim 12, further comprising the step of determining a spatial position or a direction to the acoustic source using the generated signals.

14. The method according to claim 12 or 13, wherein the generated signals are cross-correlated.

Claims

1. An acoustic monitoring system comprising at least two isolated acoustic omnidirectional hydrophone receivers for, in use receiving acoustic signals from an acoustic source in the far field wherein the at least two isolated acoustic receivers form a flexible structure capable of spatial displacement, a detector for detecting signals from the said receivers and a processing system arranged to carry out the steps of:

- generating signals by the said hydrophone receivers pursuant to detected acoustic signals of an acoustic source;
- processing the generated hydrophone signals for determining a spatial position of the said receivers.

2. The system according to claim 1, wherein the processing system is further arranged to determine a direction or a position of the acoustic source using the determined spatial position of the receivers.

3. The system according to claim 1, wherein the at least two isolated acoustic receivers are mounted on a cable.

4. The system according to claim 3, wherein the cable is provided with a limiter for minimizing the spatial displacement of the said sources.

5. The system according to claim 1, wherein the said receivers are provided with respective associated position measuring devices.

6. The system according to claim 5, wherein for the position measuring device a motion sensor, an accelerometer or a beacon is used.

7. The system according to claim 6, wherein the processing system is adapted to address a motion model representative of the said spatial displacement.

8. The system according to claim 1, comprising at least three isolated acoustic receivers.

9. The system according to claim 1, further comprising a tracker for recording the determined actual spatial positions of the receivers.

10. The system according to claim 1, wherein hydrophones are used for the said receivers.

11. A method of acoustic monitoring using a system comprising at least two isolated acoustic omnidirectional hydrophone receivers capable of spatial displacement, the method comprising the steps of:

- generating signals by the said hydrophone receivers pursuant to detected acoustic signals of an acoustic source;
- processing the generated hydrophone signals for determining a spatial position of the said receivers.

12. The method according to claim 11, further comprising the step of determining a spatial position or a direction to the acoustic source using the generated signals.

13. The method according to claim 11, wherein the generated signals are cross-correlated.