Ex. PGS 1060



PATENT



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Oyvind Hillesund

Group Art Unit: 3617

Examiner:

Serial No.:

09/787,723

J. Sotelo

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Atty. Dkt. No.: 2088.004100

For: CONTROL SYSTEM FOR POSITIONING

MARINE SEISMIC STREAMERS

INFORMATION DISCLOSURE STATEMENT

Customer No.: 28116

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450 CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this paper or fee is being deposited with the United States Postal Service with sufficient postage as "FIRST CLASS MAIL" addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 15, 2005 by:

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed foreign patent documents and journal articles required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed within three months of the filing date of this patent application or prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R



§ 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Director is hereby authorized to deduct said fees from Williams, Morgan & Amerson, P.C., Deposit Account No. 50-0786/2088.004100/JAP.

Applicants note that there are several foreign language references. Applicants have no English-language counterpart to those references, nor do they have a translation. Applicants therefore offer the following descriptions of those references:

NO992701: From the Abstract of corresponding WO9828636, this reference is cited for teaching a control device (or "bird") for controlling the position of a marine seismic streamer is provided with an elongate, partly flexible, body which is designed to be connected electrically and mechanically in series with the streamer. In its preferred form, the bird has two opposed wings, which are independently controllable in order to control the streamers lateral position, as well as its depth.

DE69702673: From the Abstract of corresponding WO9828636, this reference is cited for teaching a control device (or "bird") for controlling the position of a marine seismic streamer is provided with an elongate, partly flexible, body which is designed to be connected electrically and mechanically in series with the streamer. In its preferred form, the bird has two opposed wings, which are independently controllable in order to control the streamers lateral position, as well as its depth.

EP0319716: From the Abstract, this reference is cited for teaching a method for obtaining seismic data of an area, especially a sea area, in which objects such as drilling platforms prevent acquisition with the aid of conventional seismology, e.g. using towed



streamers. The entire area is firstly subdivided into subareas, in which receiver chains are arranged between two objects in each case. A sound generator is then moved relative to the receiver chain along a grid, whose grid points correspond to the exiter points of the generator. The fully acquired subareas are subsequently combined by a grid transformation to produce a uniform 3D data volume. Aside from this, it was produced to the undersigned and was represented as the result of a search related to the subject matter of the present application.

EP0321705: From the Abstract, the reference is cited for teaching a method for obtaining seismic data of an area having a central structure, e.g. an island, with the aid of a streamer towed by a ship, in which the ship describes a spiral course (2) about the central structure (1) in order to obtain the data. The spiral is preferably an Archimedes spiral with equidistant spacing of the individual spiral line sections. Aside from this, it was produced to the undersigned and was represented as the result of a search related to the subject matter of the present application.

EP0525391: From the Abstract, this reference is cited for teaching, in the acquisition of marine seismic data using towed streamers, only a relatively narrow underground strip is covered. Detecting the underground without gaps therefore requires sailing over many closely neighboring profile lines. In the measuring arrangement according to the invention and in the method, as wide as possible an underground strip is detected by means of a single sail along a profile by providing that at least on e streamer is held at an acute offset angle (alpha) between its longitudinal axis and the bearing of the ship and is moved through the water essentially parallel to the bearing, the offset angle (alpha) being controlled form the ship in a wide angular range in order to evade obstacles. The technique is suitable for the rapid and cost-effective 3-dimensional coverage of the marine seismology of relatively large measurement areas, in



particular in coastal areas and around drilling platforms. Aside from this, it was produced to the undersigned and was represented as the result of a search related to the subject matter of the present application.

Applicant respectfully requests that the listed documents be made of record in the present case.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON, P.C.

Date: December 15, 2005

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