

# Ex. PGS 1050



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Oyvind Hillesund *et al.*

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Group Art Unit: 3617

Serial Number: 11/455,042

Examiner: Jesus D. Sotelo

Confirmation Number: 9123

Atty Dkt No.: 14.0123-PCT-  
US-CONT4

Filed: June 16, 2006

Entitled: CONTROL SYSTEM FOR  
POSITIONING OF MARINE  
SEISMIC STREAMERS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

The applicants and the attorney who signs below on the basis of the information supplied by the inventor and the information in this file, submit herewith patents, publications, or other information of which they are aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

While the information submitted in this Information Disclosure Statement may be material pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication, or other information referred to therein is prior art for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97, this Information Disclosure Statement is not to be construed as a representation that a search has been made or that no other possibly material information as defined under 37 CFR § 1.56(a) exists.

The patents and/or publications submitted herewith are set forth on the attached Form PTO-1449.

Applicants have claimed in the present application, and continue to claim, domestic priority from the parent file under 35 U.S.C. §120, and believe the present Information Disclosure Statement otherwise complies with 37 C.F.R. §§ 1.97 and 1.98. Therefore,

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copies of the foreign references, B1 through B23, are not provided herein, as they were provided in the parent file, serial number 09/787,723, filed July 2, 2001, now patent number 6,932,017. In that file, Applicants noted that there were several foreign language references for which Applicants had no English-language counterpart, nor did they have a translation. Applicants therefore offered descriptions of those references, which are repeated here:

NO992701 and DE69702673: From the Abstract of corresponding WO9828636, these references are cited for disclosing a control device (or “bird”) for controlling the position of a marine seismic streamer. The disclosed device is provided with an elongate, partly flexible, body which is designed to be connected electrically and mechanically in series with the streamer. The bird may have two opposed wings, which may be independently controllable in order to control the streamer’s lateral position, as well as its depth.

EP0319716: From the Abstract, this reference is cited for disclosing 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 exciter points of the generator. The fully acquired subareas are subsequently combined by a grid transformation to produce a uniform 3D data volume.

EP0321705: From the Abstract, the reference is cited for disclosing 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.

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 one 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 from 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.

A fee in the amount of \$180.00 is due under 37 CFR § 1.17(p), since this Information Disclosure Statement is being submitted after the first office action, but before a final office action or notice of allowance. Therefore, the Commissioner is hereby authorized to charge this fee, and any other fee necessary to make this submission timely, to the Deposit Account 50-1720/14.0123-PCT-US-CONT4.

Respectfully submitted,

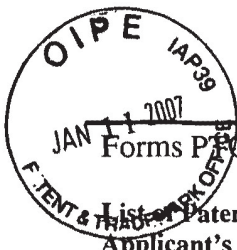


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**CERTIFICATION OF MAILING**

I hereby certify that this correspondence and its attachments are being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, USPTO, P.O. BOX 1450, Alexandria, VA 22313-1450 on: January 5, 2007.

By: Carolanne King \_\_\_\_\_ 01/05/2007  
Carolanne M. King Date Signed



Forms PTO/SB08A and 08B (modified)

Atty. Docket No.: 14.0123-PCT-US-CONT4

Application No.: 11/455,042

List of Patents and Publications for Applicant's INFORMATION DISCLOSURE STATEMENT

Applicant(s): Oyvind Hillesund, et al.

(Use several sheets if necessary)

Filing Date: June 16, 2006

Group: 3617

U.S. Patent Documents  
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Foreign Patent Documents  
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Other Art  
See Page 4

### U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1	3,560,912	02/02/1971	Spink, et al.	340	3	02/03/1969
	A2	3,605,674	09/20/1971	Weese	114	235b	09/08/1969
	A3	3,774,570	11/27/1973	Pearson	114	235b	01/25/1972
	A4	3,896,756	01/29/1975	Pearson, et al.	114	235b	02/02/1971
	A5	3,943,483	03/09/1976	Strange	340	7PC	05/08/1974
	A6	4,222,340	09/16/1980	Cole	114	245	11/01/1978
	A7	4,290,124	09/15/1981	Cole	367	18	11/01/1978
	A8	4,404,664	09/13/1983	Zachariadis	367	19	12/31/1980
	A9	4,463,701	08/07/1984	Pickett, et al.	114	245	02/28/1980
	A10	3,375,800	04/02/1968	Cole, et al.	114	235	04/07/1967
	A11	4,709,355	11/24/1987	Woods, et al.	367	16	06/18/1984
	A12	4,711,194	12/08/1987	Fowler	114	245	01/11/1985
	A13	4,729,333	03/08/1988	Kirby, et al.	114	244	07/09/1986
	A14	4,745,583	05/17/1988	Motal	367	18	12/18/1986
	A15	4,767,183	08/30/1988	Martin	350	96.23	05/12/1986
	A16	4,843,996	07/04/1989	Darche	114	245	05/06/1988
	A17	3,412,705	11/26/1968	Nesson	115	12	06/27/1967
	A18	4,890,569	01/02/1990	Givens	114	349	05/31/1988
	A19	4,912,684	03/27/1990	Fowler	367	76	02/29/1988
	A20	4,992,990	02/12/1991	Langeland	367	19	06/06/1989
	A21	5,042,413	08/27/1991	Benoit	114	244	03/29/1990
	A22	5,402,745	04/04/1995	Wood	114	244	05/02/1994
	A23	5,443,027	08/22/1995	Owsley, et al.	114	244	12/20/1993
	A24	5,507,243	04/16/1996	Williams, et al.	114	245	02/23/1994
	A25	5,529,011	06/25/1996	Williams, Jr.	114	245	02/23/1995

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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