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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* HÉLENÈ TONCHIA

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Appeal 2017-007782  
Application 13/680,320<sup>1</sup>  
Technology Center 3600

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Before KEN B. BARRETT, ERIC C. JESCHKE, and  
ANTHONY KNIGHT, *Administrative Patent Judges*.

KNIGHT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from a Final Office action dated January 12, 2016 (“Final Act.”), rejecting claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> According to Appellant, the applicant, CGGVERITAS SERVICES SA, is the real party in interest. Br. 2.

### CLAIMED SUBJECT MATTER

The claims are directed to methods, systems, and mechanisms for using a source steering device to steer a seismic source array towed by a vessel. Spec. ¶¶ 1, 28. Claims 1, 11, and 20 are independent. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for steering a seismic source array in a body of water during a seismic survey, the method comprising:

measuring an actual position of the seismic source array;

calculating a virtual position of the seismic source array, wherein the virtual position corresponds to a position of the seismic source array when towed with no adjustment from a source steering device;

retrieving a pre-plot path that includes desired positions of the seismic source array for the seismic survey;

actuating the source steering device to bring the actual position of the source array on the pre-plot path; and

steering the vessel based on the virtual position so that the virtual position lies on the pre-plot path.

### REJECTION

The Examiner made the following rejection:

Claims 1–20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Holo (US 2007/0064526 A1, published Mar. 22, 2007) and Storteig et al. (US 2008/0175097 A1, published July 24, 2008) (“Storteig”).

## OPINION

### Claim 1

The Examiner finds that Holo discloses a method of steering a seismic source array including, *inter alia*, measuring an actual position of the seismic source array, calculating a virtual position or tracking point (TP) of the seismic source array, retrieving a pre-plot path, actuating a source steering device to bring the actual position of the seismic source array on the pre-plot path, and steering the vessel based on the virtual position. Final Act. 2 (citing Holo ¶¶ 7, 12, 17, 18, 36, 43, 77). The Examiner states that “Holo does not explicitly disclose the virtual position corresponds to a position of the seismic source array when towed with no adjustment from a source steering device.” *Id.* at 2–3. According to the Examiner, Storteig teaches “towing a source according to a non-steered tow position (i.e. virtual position).” *Id.* at 3. The Examiner finds that Storteig teaches that “generally towed objects fall in towards their non-steered tow position.” *Id.* (citing Storteig ¶ 36.). With these findings, we understand the Examiner to rely on the non-steered tow position in Storteig as the recited “virtual position.”

In concluding that the combination of Holo and Storteig would have been obvious, the Examiner reasons that modifying Holo with the identified “virtual position” from Storteig would have been “obvious to try.” *Id.* In particular, the Examiner states “the virtual position is one of a predictable and ascertainable group of similar possibilities which addresses the need for a tracking point toward which to steer the vessel to provide course adjustment to source position with a reasonable level of success.” *Id.*

Appellant argues that the Examiner’s reasoning for the combination of Holo and Storteig is unclear because the Examiner does not state what the

“group of similar possibilities” is or define what possibilities are contemplated by the Examiner. Br. 14. Appellant further argues that Holo does not steer the vessel toward the tracking point and thus the Examiner’s reference to a “need for a tracking point toward which to steer” in the reasoning statement (Final Act. 3) is in error. *Id.* Appellant contends that in the Final Action it is unclear why one skilled in the art would need to bring the virtual position, as defined by the Examiner, in Storteig into Holo because Holo already discloses calculating a residual equal to the difference between a tracking point and a pre-plot track to create a set point used to steer the vessel. *Id.*

In response, the Examiner states that the combination is entirely proper because Holo and Storteig are analogous art and configured to accomplish the same purpose. Ans. 11. The Examiner states that the only difference between the references is the choice of reference point used to guide the vessel. *Id.* at 12. The Examiner’s position, in response to Appellant’s argument, is that the “group of similar possibilities” are the ways in which to define the virtual position. *Id.* The Examiner also acknowledges that Holo is not steered to the tracking point. *Id.*

The burden of establishing the prima facie case is on the Examiner. *See In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993) (“In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant.”). *See also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there

must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”).

Here, the Examiner’s analysis is not sufficiently detailed and complete to support a conclusion that the claimed subject matter would have been obvious. The Examiner’s reasoning for the combination of Holo and Storteig is that it would have been “obvious to try” and that the recited “virtual position is one of a predictable and ascertainable group of similar possibilities.” Final Act. 3; *see KSR*, 550 U.S. at 421 (finding that the “obvious to try” rationale is based on choosing from a finite number of identified, predictable solutions, when there is a design need or market pressure to solve a problem). The Examiner does not offer sufficient evidence that there are a finite number of identified, predictable solutions to solve a problem evidenced by design need or market pressure to support the stated “obvious to try” rationale. More specifically, the Examiner has not provided adequate support for the statement that “virtual position is one of a predictable and ascertainable group of similar possibilities” (Final Act. 3) to support the position that it would have been obvious to modify the “tracking point”-based system in Holo with the “non-steered tow position”-based system of Storteig to allegedly arrive at the claimed invention. The Examiner’s statement, in the Answer, that “[t]he ‘group of similar possibilities’ to which Examiner was referring are the ways in which to define the virtual position of the source array which is to be kept on the pre-plot path” does not identify any record support and does not remedy the deficiency discussed above. Ans. 12; *see also In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1073 (Fed. Cir. 2012) (“[W]here the prior art, at best, ‘[gives] only general

guidance as to the particular form of the claimed invention or how to achieve it,' relying on an 'obvious-to-try' theory to support an obviousness finding is 'impermissible.'" (quoting *In re Kubin*, 561 F3d 1351, 1359 (Fed. Cir. 2009)).

Regarding the Examiner's proposed combination of the teachings of Holo and Storteig, the Examiner opines that the reasoning is supported because the references are analogous art, and, as such, it would be obvious to combine them. *See* Ans. 11. However, although it is required that references be analogous in order to be combined in an obviousness rejection (*see In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004)), this alone is not sufficient to establish a reason to combine reference teachings.

We agree with Appellant that the Examiner has not provided adequate factual evidence or persuasive reasoning to explain how or why a person of ordinary skill in the art would modify Holo's tracking point with the virtual position of Storteig. Accordingly, as the Examiner has not established by a preponderance of the evidence that Holo and Storteig teach or disclose all of the limitations of claim 1, the rejection is not sustained.

#### Claims 2–10

Claims 2–10 depend from claim 1. Br. 22–24 (Claims App'x.). The Examiner relies on the same deficient findings and reasoning based on Holo and Storteig discussed above, regarding claim 1 (*see supra* the rejection of claim 1). Thus, for the same reasons discussed above, we do not sustain the rejection of claims 2–10.

Claims 11–20

Claims 11 and 20 are independent claims, but contain limitations similar to claim 1. *Compare* Br. 22 (Claims App’x.), *with id.* at 25, 28. Claims 12–19 depend from claim 11. *Id.* at 25–27 (Claims App’x.). The Examiner relies on the same deficient findings and reasoning based on Holo and Storteig discussed above, regarding claim 1 (*see supra* the rejection of claim 1). Thus, for the same reasons discussed above, we do not sustain the rejection of claims 11–20.

DECISION

For the above reasons, the Examiner’s rejection of claims 1–20 is reversed.

REVERSED