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IN RE GERALD J. PHILIPS APPELLANT  
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This is an appeal by Gerald J. Philips (Philips) under 37 CFR 100.7 from a determination of the Department of the Navy (Navy) that the Government shall obtain the entire right, title and interest in an invention. For reasons hereinafter given, the determination of the Navy is affirmed.

#### Background

Philips was employed as a Mechanical Engineer in the Ship Materials Engineering Department, Lubrication, Friction and Wear Branch at the David W. Taylor Naval Ship Research and Development Center at the time the invention was made.

In July 1975, Philips submitted a program proposal entitled 'Applications of Fiber Optics' for development of fiber optics technology for the detection of bearing faults. This proposal was developed from two earlier invention disclosures by Philips. The two earlier invention disclosures had been submitted to the Navy and returned for insufficient interest.

The Navy decided to sponsor the proposed program as shown by work unit summary 2832-164(19304) entitled 'Applications of Fiber Optics,' dated February 15, 1976. The objective of the program was to develop

fiber optic instrumentation for bearing monitoring. Philips is listed as the principal investigator.

On December 15, 1976, Philips entered a drawing and description for an 'Improved Fiber Optic Displacement Sensor' in his laboratory notebook. The entry was subsequently witnessed by two other Government employees. According to Philips, the idea was conceived at home on December 14, and he entered the description in his notebook on his lunch hour the following day. An invention disclosure was not filed with the Navy at that time.

In February 1977, Philips submitted an invention disclosure for a 'Fiber Optic Machinery Performance Monitor,' which did not include the subject matter of the December 15, 1976, notebook entry. The Navy filed for a patent, which eventually issued as U.S. Patent No. 4,196,629, but determined that the title should remain in Philips subject to the reservation of a non-exclusive, irrevocable and royalty-free license. The Navy determination was approved by the Commissioner of Patents and Trademarks on March 14, 1980.

Philips signed a Patent Rights Questionnaire for the present invention on October 21, 1982, which stated that his assigned duties at the time the present invention was made were on the program 'Application of Fiber Optics.' A 'Record and Disclosure of Invention' form, NAVSO 5870/3, for 'A Surface-Contacting Fiber Optic Displacement Transducer,' also signed October 21, 1982, was received on November 4, 1982.

\*2 A patent application, Serial No. 748,084, was filed June 24, 1985, which included claims to the fiber optic transducer in combination with Philips' bearing monitoring system of Patent No. 4,196,629. Claims 13-20 were later submitted to add claims to the probe structure alone.

#### Discussion

Under Paragraph 1(a) of Executive Order 10096 (1950), as amended (1961), the Government shall obtain the entire right, title and interest in and to all inventions made by a Government employee which bear a direct relation to or are made in consequence of the official duties of the inventor. By virtue of Philips' duties to conduct or perform research, development work and to supervise, direct, coordinate or review Government financed or conducted research or development work and to act in liaison capacity among governmental or non-governmental agencies or individuals engaged in such research or development work, there is a presumption under Paragraph 1(c) of the Executive Order that the Government should obtain title. See also 37 CFR 100.6(b)(3).

The Navy determined on July 16, 1986, that the Government is entitled to the full right, title and interest in and to the invention. The 'invention' at issue is the surface-contacting fiber optic displacement transducer. This invention was first described in the inventor's notebook entry dated December 15, 1976. The record shows that there has never been an actual reduction to practice in the form of a working model. Consideration of the December 15, 1976, disclosure combined with the known performance characteristics of the MTI Fotonic Sensor

mentioned in the notebook entry, indicates that the invention was 'made' as of the date of the notebook entry, December 15, 1976, i.e., 'the essential elements of the invention are fully and clearly disclosed in writing in such a manner that the invention can thereby be reduced to practice by one skilled in the art.' [FN1] The differences in the appearance of later drawings of the transducer probe, most noticeably in the elastomer means for biasing the probe tip and an alternate method of mounting, are not sufficient to establish that the invention was made at a later date.

The Navy concluded that the invention bears a 'direct relation' to or was made 'in consequence of' the official duties of the inventor. Executive Order, paragraph 1(a)(3) and 37 CFR § 100.6(b)(1)(iii). Philips' general duties at the time the invention was made are described in part in his position description dated March 31, 1971, as follows:

'1. Conducts engineering research on projects of considerable scope and complexity. He is responsible for the technical approaches, design of test equipment, analysis and interpretation of data, and the preparation of reports on findings.' (Emphasis added).

The position description further states that:

'Incumbent independently plans and develops technical action necessary in developing objectives and programs.'

\*3 In addition, in his Patent Rights Questionnaire dated October 21, 1982, Philips states that his official duties at the time the invention was made were on the program 'Application of Fiber Optics.' That program's objectives were:

'To reduce auxiliary machinery maintenance costs by developing fiber optics instrumentation for: (a) quality control of new bearings prior to installation; (b) checks for proper bearing installation in newly assembled equipment; (c) detection of incipient bearing faults in operating machinery.' (Emphasis added).

In his Patent Rights Questionnaire, Philips describes the relationship between the invention and his official duties and assigned tasks as follows:

'In the assigned duties the inventor was to utilize existing fiber optic sensors to aid in developing new bearing condition monitoring methods. Disadvantages of the prior art were found, which ultimately [sic] led to the present invention.' (Emphasis added).

From the above, it is concluded that Philips' official duties at the time the invention was made included the task of developing fiber optic instrumentation for bearing condition monitoring and were not limited, as argued by Philips, to the duties described in his general position description.

The circumstance of Executive Order 10096, paragraph 1(a)(3), of the invention bearing a 'direct relation' to the official duties of the inventor is 'that the invention could reasonably be expected to arise from the official duties of the inventor.' [FN2] The circumstance of the invention having been made 'in consequence of' the inventor's official duties has the meaning 'that the invention is made as an obvious and direct result of the performance of those duties [of the inventor], whether or not the subject invention was an anticipated result of the performance of those duties.' [FN3]

While Philips was not specifically assigned to develop an encapsulated probe, at the time the invention was made his official

duties included the tasks of developing fiber optic instrumentation and utilizing existing fiber optic sensors to aid in developing new bearing condition monitoring methods. Philips' position description clearly contemplates the exercise of a measure of creative ability above that expected from an ordinary craftsman in the accomplishment of these tasks. This indicates that he would be expected to solve problems encountered in the performance of his assigned duties. The present invention solves the problem of contamination which one would expect to encounter in the task of adapting existing fiber optic instrumentation to a bearing measurement environment. The invention has direct application to the project to which Philips was assigned, regardless of the fact that the invention was not used and was not necessary for the successful completion of the project. Under these circumstances, the Commissioner holds that the invention was made as an obvious and direct result of, and, therefore, was made 'in consequence of' Philips' performance of his official duties.

\*4 Philips has argued that the invention 'was conceived of as a generic motion sensor--it was not conceived of as a bearing sensor.' For support he points to the notebook entry which does not mention bearings. It is very difficult to evaluate an inventor's mental processes in making an invention, particularly an invention made ten years ago. Invention rights determinations must be made based on a consideration of the objective evidence of the circumstances as a whole. In this case, there is a presumption under the Executive Order that the Government should obtain title; it is Philips' burden to rebut that presumption. The applicability of the invention to the project to which Philips was assigned is strong objective evidence in favor of the Government's position that the invention was a direct result of the performance of the inventor's official duties. The fact that the invention may be capable of broader application and was described broadly in Philips' lab notebook fails to establish that, at the time the invention was made, the invention was not an obvious and direct result of Philips' performance of his official duties.

Philips has argued that the previously cited statement that '[d]isadvantages of the prior art were found, which ultimately [sic] led to the present invention' is ambiguous and that:

'[d]isadvantages of the prior art were not found in consequence of the inventor's official duties. The disadvantages of the prior art were found in the patent literature.'

One example is in the MTI Fotonic Sensor literature later supplied by Philips, which states that '[i]t would obviously be desirable to make displacement measurements completely independent of surface reflectivity.' When the disadvantages became known is not necessarily determinative. Rather, it is the circumstances surrounding the making of the invention which are critical. As discussed above, those circumstances reasonably show that the invention was made as a direct result of Philips' performance of his duties.

Philips has argued that the circumstances surrounding the making of the present invention are very similar to those surrounding the making of an earlier invention for a 'Fiber Optic Machinery Performance Monitor,' Patent No. 4,196,629, in which the Government took only a non-exclusive, irrevocable and royalty-free license and that a similar result should apply in this case. Government employee rights determinations are, of necessity, made on a case-by-case basis. The

determinations in one case are not controlling in another case because there is no way to evaluate the similarity of the surrounding circumstances other than by reconsidering the earlier decision. Such reconsideration would not always find the earlier decision to be controlling.

The Navy has also made a determination of Government interest based on 37 CFR § § 100.6(b)(1)(i) and (b)(1)(ii). In view of the above determination under § 100.6(b)(1)(iii), it is unnecessary to consider these further grounds of Government interest.

#### Decision

**\*5** The determination of the Navy that the Government is entitled to an assignment of all right, title and interest in and to the invention is affirmed.

FN1. Government Patents Board, Interpretations and Opinions No. 1 dated March 5, 1951.

FN2. Government Patents Board, Interpretations and Opinions No. 4 (proposed) dated July 8, 1953.

FN3. Id.

2 U.S.P.Q.2d 1641

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