

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SENSUS USA, INC.,
Petitioner,

v.

CERTIFIED MEASUREMENT, LLC,
Patent Owner.

Case IPR2015-01439
Patent 6,289,453 B1

Before PHILLIP J. KAUFFMAN, BART A. GERSTENBLITH, and
PATRICK M. BOUCHER, *Administrative Patent Judges*.

GERSTENBLITH, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

A. *Background*

Sensus USA, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting institution of *inter partes* review of claim 43 of U.S. Patent No. 6,289,453 B1 (Ex. 1001, “the ’453 patent”). Certified Measurement, LLC (“Patent Owner”) filed a Preliminary Response (Paper 12, “Prelim. Resp.”). We have jurisdiction under 35 U.S.C. § 314.

Under 35 U.S.C. § 314(a), an *inter partes* review may be instituted only if “the information presented in the [P]etition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the [P]etition.” *See* 37 C.F.R. § 42.108(c).

For the reasons given below, on this record, we are persuaded that Petitioner has not established a reasonable likelihood of prevailing with respect to at least one challenged claim of the ’453 patent. Accordingly, we *deny* the Petition and decline to institute an *inter partes* review of the ’453 patent.

B. *Related Proceedings*

The parties represent that the ’453 patent is at-issue in *Sensus USA, Inc. v. Certified Measurement, LLC*, No. 3:14-cv-01069 (D. Conn.); *Certified Measurement, LLC v. Centerpoint Energy Houston Electric, LLC and Itron, Inc.*, No. 2:14-cv-00627 (E.D. Tex.); *ALSTOM Grid Inc. v. Certified Measurement, LLC*, No. 1:15-cv-00072 (D. Del.); and *ABB Inc. v. Certified Measurement, LLC*, No. 1:15-cv-00461 (D. Del.). Pet. 3–4; Paper 6, 2.

The ’453 patent is also the subject of IPR2015-00572. Pet. 4; Paper 6, 2. Related patents, U.S. Patent Nos. 5,828,751, 6,282,648 B1, and

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8,549,310 B2, are each the subject of two *inter partes* reviews, as shown in the table below.

| U.S. Patent Challenged | <i>Inter Partes</i> Review |
|------------------------|------------------------------|
| 5,828,751 | IPR2015-00570; IPR2015-01262 |
| 6,282,648 B1 | IPR2015-00571; IPR2015-01311 |
| 8,549,310 B2 | IPR2015-00573; IPR2015-01454 |

Pet. 4; Paper 6, 4.

C. Real Parties-in-Interest

The Petition identifies Sensus USA, Inc., Sensus Worldwide Limited, and Sensus Worldwide Holdings Limited as real parties-in-interest. Pet. 3. Patent Owner identifies Certified Measurement, LLC, Inventor Holdings, LLC, and Patent Properties, LLC, as real parties-in-interest. Paper 6, 1–2.

Patent Owner contends that Petitioner’s identification of the real parties-in-interest is incomplete, and that the Petition should be denied as failing to comply with 35 U.S.C. § 312(a)(2). Prelim. Resp. 30–31. Patent Owner asserts that in a related litigation involving the ’453 patent, Petitioner identified an insurance company as covering some of the costs of defending the action against Patent Owner. *See* Ex. 2001. Patent Owner argues:

A hallmark of indemnity or insurance agreements that are available to satisfy part or all of a judgment or to reimburse payments of same is an ability for the insurer or indemnitor to control over [sic] aspects of the litigation, including the defense and maintenance of an *inter partes* review which seek[s] to invalidate the subject patent.

Prelim. Resp. 30. Patent Owner’s argument is generic and fails to identify any specific evidence that any parties other than those identified by

Petitioner actually is exercising control over or could exercise control over this proceeding.¹

Accordingly, we decline to deny the Petition on this basis.

D. The References

Petitioner relies on the following references:

U.S. Patent No. 4,077,005, issued Feb. 28, 1978 (Ex. 1005, “Bishop”);

U.S. Patent No. 5,199,068, issued Mar. 30, 1993 (Ex. 1006, “Cox”);

U.S. Patent No. 5,689,442, issued Nov. 18, 1997 (Ex. 1007, “Swanson”);

U.S. Patent No. 5,699,244, issued Dec. 16, 1997 (Ex. 1014, “Clark”);

and

Computer Data Authentication, Federal Information Processing Standards Publication 113, May 30, 1985 (Ex. 1015, “FIPS 113”).

¹ Patent Owner asserts also that the “the Board should authorize immediate discovery on Petitioner’s failure to comply with the real party-in-interest requirement.” Prelim. Resp. 30–31. In light of the decision we reach herein, declining institution of an *inter partes* review, we need not address further Patent Owner’s position.

E. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claim 43 of the '453 patent on the following grounds:^{2,3}

| Reference(s) | Basis |
|--------------------|----------|
| Bishop | § 102(b) |
| Bishop | § 103(a) |
| Cox | § 102(b) |
| Cox | § 103(a) |
| Swanson | § 102(e) |
| Swanson | § 103(a) |
| Clark | § 102(e) |
| Clark | § 103(a) |
| Clark and FIPS 113 | § 103(a) |

² The Petition identifies five “COUNT[s]” (i.e., grounds), but each of the first two grounds presents the challenge as “under 35 U.S.C. § 102(b) or § 103” and each of the third and fourth grounds presents the challenge as “under 35 U.S.C. § 102(e) or § 103.” Pet. 7–8. Thus, the first four grounds actually present eight challenges to claim 43.

³ In addition to the grounds identified in the table, Petitioner purports to present challenges under § 103(a) “over Bishop . . . in view of the knowledge of a person of ordinary skill in the art,” “over Cox . . . in view of the knowledge of a person of ordinary skill in the art,” “over Swanson . . . in view of the knowledge of a person of ordinary skill in the art,” and “over Clark . . . in view of the knowledge of a person of ordinary skill in the art.” Pet. 7–8. We treat such grounds as subsumed respectively by the asserted grounds under § 103(a) over Bishop alone, Cox alone, Swanson alone, and Clark alone.

Petitioner supports its challenge with a declaration executed by Dr. Seth Nielson, dated June 17, 2015 (Ex. 1003, “the Nielson Declaration”).

F. The '453 Patent

The '453 patent “relates generally to methods and apparatuses for acquiring and certifying physical measurements. . . . [and,] [m]ore particularly, . . . to acquiring and cryptographically certifying a measurement representative of a physical parameter, such that the measurement can be verified at a later time.” Ex. 1001, 1:9–14. The “physical parameter” is described broadly as “any physical quantity measurable by a sensor and representable in digital form.” *Id.* at 4:20–21. Examples of a “physical parameter” include, *inter alia*, “location data, biometric data, temperature, humidity, light levels, noise levels, [and] precipitation.” *Id.* at 4:22–23. A certified measurement may include additional features, e.g., “a unique device ID to identify itself to a measurement recipient.” *Id.* at 6:2–4. The measurement certification device “may include a signal generator for providing a corroborative datum, indicative of an operational condition of the device, to be included in the certified measurement. The corroborative datum could be any quantity that independently attests to the acquisition of the physical measurement.” *Id.* at 6:14–19.

Figure 1 of the '453 patent is reproduced below.

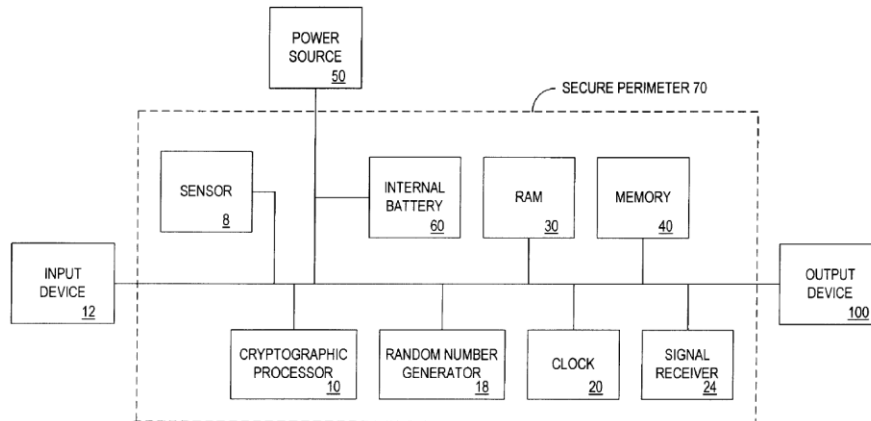


FIG. 1

Figure 1 “illustrates the basic components of a device for secure certification of a physical measurement.” *Id.* at 6:43–44. Such basic components are contained within secure perimeter 70, which “may include physical, electronic, or a combination of physical and electronic features to resist tampering.” *Id.* at 7:23–26, 34–36. The '453 patent describes the “the simplest embodiment of the invention” as follows:

the measurement certification device takes a physical measurement using sensor 8, of any physical parameter or event . . . whose value and/or time of measurement is to be provided to a recipient for later verification. This measurement is added to a time from clock 20, creating an augmented measurement comprising the cleartext time plus the physical measurement. Cryptoprocessor 10 then creates a certified measurement comprising the (cleartext) augmented measurement and a (ciphertext) one-way function representative of at least a portion of the augmented measurement, and outputs the certified measurement at output device 100.

Id. at 7:58–8:6.

G. Illustrative Claim

Claim 43 is the only claim challenged in this proceeding and is reproduced below:

43. A method of generating secure physical measurements, comprising:
- receiving a first signal, the first signal being based at least in part on a first physical measurement;
 - receiving a second signal, the second signal being based at least in part on a second physical measurement;
 - receiving a third signal, the third signal being based at least in part on a time;
 - generating an augmented measurement based at least in part on the first signal, the second signal and the third signal;
 - and
 - performing a cryptographic operation on at least a portion of the augmented measurement to generate a certifiable measurement.

Ex. 1001, 22:22–36.

II. CLAIM CONSTRUCTION

Although Petitioner presents proposed constructions for several claim terms, no terms require express construction for purposes of this Decision.

III. ANALYSIS

A. Anticipation of Claim 43 by Bishop

Petitioner asserts that Bishop discloses each and every element of claim 43 of the '453 patent. Pet. 22–25. The Petition includes a discussion identifying where Bishop allegedly discloses the elements of claim 43. *Id.*

1. Bishop

Bishop relates to a “system for identifying ships and aircraft, both in position and time, utilizing shipboard cryptographic equipment and satellites.” Ex. 1005, at [57]. Bishop discloses shipboard “equipment,”

including storage register 47 that stores individual-identification code word I_S , “navigation equipment 48” that determines position P of a ship, and clock 49 that determines “time-of-day T_1 at which each report is made by the ship.” *Id.* at 2:62–68. Three binary messages corresponding to I_S , P , and T_1 are combined to form a message that Bishop designates $I_S + P + T_1$, and the combined message “is enciphered by a cryptographic encipherment unit 11 to produce the cryptographically enciphered message $C(I_S + P + T_1)$, which is then transmitted by the ship’s transmitter 10.” *Id.* at 3:7–14. Bishop refers to the “enciphered message” as “ M_{US} .” *Id.* at 3:14–15, 24.

2. Discussion

As reflected above, claim 43 recites, *inter alia*, receiving three signals: a first signal “based at least in part on a first physical measurement,” a second signal “based at least in part on a second physical measurement,” and a third signal “based at least in part on a time.” Ex. 1001, 22:24–29. Claim 43 also recites “generating an augmented measurement based at least in part on the first signal, the second signal and the third signal.” *Id.* at 22:30–32.

Petitioner asserts that Bishop’s measurement of position P via sensors in its navigation equipment discloses generating the recited first and second signals based in part on a first and second physical measurement, respectively (Pet. 23 (citing Ex. 1003 ¶ 40; Ex. 1005, 1:65–2:10, 2:62–68)), which are received by Bishop’s computing device and combined into a digital position signal (*id.* at 23–24 (citing Ex. 1003 ¶ 40; Ex. 1005, 3:7–23)). Specifically, Petitioner contends that “[t]he position of a ship or vehicle is itself a physical measurement that is made up of several separate physical measurements. For example[,] position can be expressed as

‘longitude’ and ‘latitude,’ as ‘x’ and ‘y’ coordinates on a map, or as a vector and a distance from a reference point.” *Id.* (citing Ex. 1003 ¶ 40). Petitioner asserts that Bishop’s position P signal is combined into an augmented measurement with “time and a code word.” *Id.* at 24 (citing Ex. 1003 ¶ 40; Ex. 1005, 3:7–23).

Patent Owner contends that the alleged augmented measurement in Bishop, upon which Petitioner relies, “has only three components: an identification code, I_S , a position, P, and a time-of day, T_I .” Prelim. Resp. 9 (citing Ex. 1005, 2:52–3:18). Patent Owner asserts that Bishop’s alleged augmented measurement “includes *only one signal based on a physical measurement*—the position P, which is determined by shipboard- or aircraft-based navigation equipment—and a signal based on a time—the time-of-day, T_I , determined by a clock.” *Id.* at 10.

Petitioner’s argument is not persuasive because Petitioner fails to show that Bishop’s position P signal is formed from two separate signals based at least in part on two physical measurements. Petitioner’s cited portions of Bishop fail to disclose how position P is generated aside from stating that “position P of the ship is determined to an accuracy of ± 2 nm . . . by the ship’s navigation equipment 48.” Ex. 1005, 2:63–66. Petitioner, however, has not identified where, if at all, Bishop discloses how the navigation equipment generates the position of the ship. Petitioner’s citations to Bishop’s column 3 refer to Bishop’s disclosure of generating a combined message, which Bishop designates as $I_S + P + T_I$, and then enciphers. *See, e.g., id.* at 3:7–23. Additionally, Petitioner’s reliance on paragraph 40 of the Nielson Declaration fares no better. Dr. Nielson’s testimony includes the same statements as the Petition without providing

additional explanation or evidentiary support for us to conclude that Bishop expressly or inherently discloses that its position P signal is formed from two separate signals based at least in part on two physical measurements. *See* 37 C.F.R. § 42.65(a).

Accordingly, on this record, we are not persuaded that Petitioner has established a reasonable likelihood of prevailing on the assertion that Bishop discloses each and every element of claim 43 of the '453 patent.

B. Obviousness of Claim 43 over Bishop

Petitioner asserts that Bishop would have rendered the subject matter of claim 43 obvious to one of ordinary skill in the art. Pet. 20–25. In particular, with respect to whether Bishop receives a first and a second signal based in part on a first and second physical measurement, respectively, Petitioner contends that “[i]t would also be obvious to a person of ordinary skill in the art to measure and include other physical measurements (including without limitation, speed and heading) with messages that are sent.” Pet. 24 (citing Ex. 1003 ¶ 40).

Patent Owner contends that Petitioner fails to articulate any reasoning with rational underpinning as to why one of ordinary skill in the art would have modified Bishop’s disclosure. Prelim. Resp. 13. Patent Owner asserts that Dr. Nielson’s testimony “does not provide any facts, data, or analysis to support the opinion stated.” *Id.* at 13–14.

We agree with Patent Owner. Petitioner’s argument and paragraph 40 of the Nielson Declaration fail to provide any reason as to why one of ordinary skill in the art would have been motivated to modify Bishop by “measur[ing] and includ[ing] other physical measurements . . . with messages that are sent.” Pet. 24. Rather, Petitioner’s entire position, and

Dr. Nielson's complete testimony, as to why this element of claim 43 would have been obvious consist of the same single conclusory sentence quoted above, and nothing more. *See* 37 C.F.R. § 42.65(a).

Accordingly, Petitioner has not established, on this record, a reasonable likelihood of prevailing on the assertion that Bishop would have rendered the subject matter of claim 43 of the '453 patent obvious as of the effective filing date of the claimed invention.

C. Anticipation of Claim 43 by Cox

Petitioner asserts that Cox discloses each and every element of claim 43 of the '453 patent. Pet. 25–27. The Petition includes a discussion identifying where Cox allegedly discloses the elements of claim 43. *Id.*

1. Cox

Cox “relates to a system for verifying the identity of [computer-based training] users who perform the training in an unsupervised environment.” Ex. 1006, 1:7–10. When a user registers with the system, a digital copy of the user's signature, along with “discriminator data” (signature size, signature density ratio, time to create the signature, and number of erasures) are captured, encrypted, and stored for later use in a verification process. *Id.* at 4:3–44. During a subsequent training session, the system randomly generates requests for session signatures, which are registered and stored with the time, date, and discriminator data collected at the time of registration of the session signatures. *Id.* at 4:58–5:12. Each of these is then encrypted “for security purposes,” and the encrypted data are stored on a magnetic storage medium, e.g., a disk, enabling subsequent comparison with the original verified signature and discriminator data. *Id.* at 5:35–40, 5:52–6:4 (describing the detection of anomalies in the discriminator data, i.e.,

instances where a discriminator datum falls outside a predetermined range of acceptable deviation as compared to the corresponding discriminator datum of the verified signature).

2. *Discussion*

As recited above, claim 43 includes the step of “generating an augmented measurement based at least in part on the first signal, the second, signal and the third signal.” Ex. 1001, 22:30–32. Petitioner asserts that Cox teaches this step of claim 43 because “Cox discloses combining and storing the measured signature, discriminator data (which includes signature size and signature density), and the date and time.” Pet. 27 (citing Ex. 1003 ¶ 48; Ex. 1006, 1:56–58, 4:67–5:13, 5:35–43, Fig. 2).

Patent Owner contends that Cox fails to teach combining the measured signature, time, and discriminator data to create an augmented measurement. Prelim. Resp. 17–18. Patent Owner asserts that “rather than form an augmented measurement . . . Cox separately stores, in encrypted form, signature representations, time and date, and discriminator data.” *Id.*

Petitioner does not propose a construction for “augmented measurement” aside from stating that it “is described in the individual claims of the patent.” Pet. 17. Nevertheless, Petitioner’s argument suggests that generating an “augmented measurement” requires effecting some combination of the elements recited in the claim—the first signal, the second signal, and the third signal. *See* Pet. 27 (asserting that Cox disclosing “combining” the previously recited elements of the claim in arguing that Cox teaches “generating an augmented measurement”). Thus, both Petitioner and Patent Owner recognize that generating an augmented measurement requires combining specified elements of the claim. We agree.

The parties' recognition that an augmented measurement requires combining specified elements of the claim is consistent with the specification of the '453 patent. The '453 patent explains that an "augmented measurement comprising the cleartext time plus the physical measurement" is created by *adding* a physical measurement of any physical parameter or event to a time. Ex. 1001, 7:66–8:2.

Petitioner's citations to Cox and the Nielson Declaration do not reflect that Cox discloses combining the signature, time, and discriminator data to form an augmented measurement. Rather, the cited portions of Cox teach that a registered signature is *stored with* a time and discriminator data, but do not disclose combining these elements. Petitioner has not explained how the storage of disparate pieces of data, even on the same physical disk, generates an "augmented measurement" as recited in claim 43. The Nielson Declaration, as with its discussion of Bishop, is identical to the Petition, and does not provide additional explanation as to how Cox discloses this step of claim 43.

Accordingly, on this record, we are not persuaded that Petitioner has established a reasonable likelihood of prevailing on the assertion that Cox discloses each and every element of claim 43 of the '453 patent.

D. Obviousness of Claim 43 over Cox

Petitioner provides no meaningful analysis of its obviousness challenge over Cox independent of its anticipation challenge. Pet. 25–27. Instead, Petitioner relies on a blanket assertion, repeated by Dr. Nielson, that "Cox alone, or in combination with the knowledge of a person of ordinary skill in the art, discloses all of the recitations of the Challenged Claim of the [']453 Patent, and either anticipates or renders obvious the Challenged

Claim.” *Id.* at 25; Ex. 1003 ¶ 44. An “obviousness analysis requires more than an *ipse dixit* assertion that everything in a reference was also well known in the art.” *See generally Samsung Elecs. Co. v. Imperium Holdings*, Case IPR2015-01233, slip op. at 18 (PTAB Dec. 1, 2015) (Paper 14).

Failure to present evidence of that knowledge and evidence of a rationale for modifying the teachings of the reference in accordance with that knowledge does not comply with 37 C.F.R. §§ 42.104(b)(4) and 42.104(b)(5).

Accordingly, for the reasons discussed above and in Section III.C.2, Petitioner has not established, on this record, a reasonable likelihood of prevailing on the assertion that Cox would have rendered the subject matter of claim 43 of the ’453 patent obvious as of the effective filing date of the claimed invention.

E. Anticipation of Claim 43 by Swanson

Petitioner asserts that Swanson discloses each and every element of claim 43 of the ’453 patent. Pet. 27–29. The Petition includes a discussion identifying where Swanson allegedly discloses the elements of claim 43. *Id.*

1. Swanson

Swanson relates “to a surveillance system for capturing and storing information concerning events of interest for subsequent use in investigations and courtroom proceedings.” Ex. 1007, 1:6–8. Event sensors controlled by, and connected to, a control processor acquire event information, which is subsequently encrypted and stored. *Id.* at 2:58–3:10. The control processor maintains a timer and time stamps each frame of event information “comprising images, sounds and conditions prior to storage in the data storage device” to keep track of when certain frames of images and

associates sounds and conditions are acquired, as well as “to facilitate subsequent synchronization of information.” *Id.* at 6:40–47.

2. *Discussion*

Petitioner asserts that Swanson’s sensors measure images and sound and “provide the digital signals representative of sound and video measurements to the computer.” Pet. 28 (citing Ex. 1003 ¶ 52; Ex. 1007, 2:58–65, 6:16–39, 10:43–48). Petitioner contends that each of Swanson’s frames “includes a separate physical measurement.” *Id.* (citing Ex. 1003 ¶ 52; Ex. 1007, 9:52–58).

As discussed above, claim 43 includes the step of “generating an augmented measurement based at least in part on the first signal, the second signal and the third signal.” Ex. 1001, 22:30–32. With respect to this step of claim 43, Petitioner asserts that “Swanson discloses a computing device that combines data from sensors (including sound and video) and the time from the timer into time-stamped sensor data.” Pet. 29 (citing Ex. 1003 ¶ 54; Ex. 1007, 6:39–51, 8:40–56, 10:49–55, 14:1–3, Fig. 1).

Patent Owner asserts that Petitioner fails to show that Swanson discloses an augmented measurement. Prelim. Resp. 21–22. In particular, Patent Owner contends that Swanson describes storing measurements made by different sensors separately from one another and time stamping each frame to synchronize the information. *Id.* at 22.

Petitioner’s citations to Swanson include the following as relevant to the “generating an augmented measurement” step of claim 43:

In order to keep track of when certain frames of images 28 and associated sounds 36 and conditions 42 are acquired, as well as to facilitate subsequent synchronization of information (especially if acquired by different sensors), the

control processor 10 maintains a timer 45 and time stamps each frame of event information (76 in FIGS. 4A and 4B) comprising images, sounds and conditions prior to storage in the data storage device 18. By time stamping the event information output from the sensors 12, 14 and 16,^[4] the system 100 advantageously does not require use of sophisticated and expensive sensors having time synchronization capabilities.

Ex. 1007, 6:40–51 *cited in* Pet. 29. This quotation reveals that Swanson time stamps “each frame of event information” prior to storage in data storage device 18. *Id.* Additionally, the event information “compris[es] images, sounds and conditions.” *Id.*; *see id.* at 10:49–51 (describing encrypting “all of the frames of event information 76 (images, sounds and conditions)”).

Swanson’s teaching of time stamping each frame supports Petitioner’s argument that a first signal based in part on a first physical measurement, e.g., sound, is combined with a third signal based at least in part on a time, e.g., time stamp. The cited portions of Swanson, however, do not expressly disclose combining a first and a second signal, each signal based at least in part on a first or second physical measurement, respectively.⁵ And, Petitioner fails to explain how or why one of ordinary skill in the art would

⁴ Swanson explains that “surveillance system 100 comprises a control processor 10, an imaging sensor 12, an audio sensor 14, and environmental sensor 16, and a data storage device 18.” Ex. 1007, 3:36–39.

⁵ In fact, Petitioner’s argument that “Swanson discloses a computing device that combines data from sensors (including sound and video) and the time from the timer into time-stamped sensor data” fails to assert that Swanson combines the data from the sensors. *See* Pet. 29. In other words, Petitioner’s argument appears to only address a combination based on a first *or* second signal, as recited in claim 43, with a third signal, but does not address a combination based on the first *and* second signals.

understand such combination to be inherent in Swanson's disclosure. As explained *supra* in our discussion of the Cox-based grounds, we agree with the parties' implications that "generating an augmented measurement" requires effecting a combination based at least in part on the first, second, and third signals. Petitioner's reliance upon Dr. Nielson's testimony fares no better. Dr. Neilson repeats the same conclusory statement, without additional elaboration or explanation. *See* Ex. 1003 ¶ 54; 37 C.F.R. § 42.65(a).

Accordingly, on this record, we are not persuaded that Petitioner has established a reasonable likelihood of prevailing on the assertion that Swanson discloses each and every element of claim 43 of the '453 patent.

F. Obviousness of Claim 43 over Swanson

Petitioner provides no meaningful analysis of its obviousness challenge over Swanson independent of its anticipation challenge. Pet. 27–29. Instead, Petitioner relies on a blanket assertion, repeated by Dr. Nielson, that "Swanson alone, or in combination with the knowledge of a person of ordinary skill in the art, discloses all of the recitations of the Challenged Claim of the [']453 Patent, and either anticipates or renders obvious the Challenged Claim." *Id.* at 27; Ex. 1003 ¶ 50. As explained above, *see* Section III.D, Petitioner's failure to present evidence of that knowledge and evidence of a rationale for modifying the teachings of the reference in accordance with that knowledge does not comply with 37 C.F.R. §§ 42.104(b)(4) and 42.104(b)(5). *See generally Samsung Elecs.*, Case IPR2015-01233, slip op. at 18 (Paper 14).

Accordingly, for the reasons discussed above and in Section III.E.2, Petitioner has not established, on this record, a reasonable likelihood of

prevailing on the assertion that Swanson would have rendered the subject matter of claim 43 of the '453 patent obvious as of the effective filing date of the claimed invention.

G. Anticipation of Claim 43 by Clark

Petitioner asserts that Clark discloses each and every element of claim 43 of the '453 patent. Pet. 29–32. The Petition includes a discussion identifying where Clark allegedly discloses the elements of claim 43. *Id.*

1. Clark

Clark is directed to “[a] handheld graphic user interface . . . personal digital assistant (PDA) computer . . . for the collection of data associated with position information.” Ex. 1014, at [57]. Clark explains:

A farmer may conveniently carry his PDA with him as he farms to make data entries on the spot. This data is thusly “validated” by its time stamp and place of entry with GPS position data. This includes the completion of various farm operations such as tilling, the application of chemicals or herbicides to a field, the observed temperature or rainfall, a scouting observation of insect or disease infestation or virtually any other data

Id. at 3:41–49.

2. Discussion

As discussed above, claim 43 includes the step of “generating an augmented measurement based at least in part on the first signal, the second, signal and the third signal.” Ex. 1001, 22:30–32. Petitioner asserts that “Clark discloses combining the GPS, chemical, temperature or rainfall physical measurements (the first and second signals) and the time (the third signal[]) into time-stamped, validated data entries (augmented measurements).” Pet. 31 (Ex. 1003 ¶ 60; Ex. 1014, 3:41–46).

Patent Owner asserts that Petitioner fails to show that Clark teaches an augmented measurement “because in Clark each measurement is time stamped and recorded separately.” Prelim. Resp. 26.

We recognize that Petitioner relies upon Clark’s teaching of a data entry, e.g., observed temperature, as a first signal based in part on a first physical measurement, and Clark’s teaching of GPS position data as a second signal based in part on a second physical measurement. *See* Pet. 30–31; *see id.* at 31 (also indicating that GPS position data could constitute both the first and second signals because position is made up of several separate physical measurements, e.g., longitude and latitude). And, we agree with Petitioner that Clark teaches that a farmer’s data entry is “validated” by a time stamp and place of entry with GPS position data. Even accepting these contentions, however, Petitioner has not shown where Clark discloses effecting the combination based on first, second, and third signals that its implicit construction of “generating an augmented measurement” requires. Assuming Petitioner intended to rely on Clark’s use of the term “validated,” Petitioner does not explain how or why one of ordinary skill in the art would understand that “validated” results in such generation of an augmented measurement. Petitioner’s reliance upon Dr. Nielson’s testimony fares no better because, as with Dr. Nielson’s testimony in support of Petitioner’s other grounds, his testimony repeats verbatim the same conclusory sentence from the Petition, without additional elaboration or explanation. *See* Ex. 1003 ¶ 60; 37 C.F.R. § 42.65(a).

Accordingly, on this record, we are not persuaded that Petitioner has established a reasonable likelihood of prevailing on the assertion that Clark discloses each and every element of claim 43 of the ’453 patent.

H. Obviousness of Claim 43 over Clark

Petitioner provides no meaningful analysis of its obviousness challenge over Cox independent of its anticipation challenge. Pet. 29–32. Instead, Petitioner relies on a blanket assertion, repeated by Dr. Nielson, that “Clark alone, or in combination with the knowledge of a person of ordinary skill in the art, discloses all of the recitations of the Challenged Claim of the [’]453 Patent, and either anticipates or renders obvious the Challenged Claim.” *Id.* at 29; Ex. 1003 ¶ 44. As explained above, *see* Section III.D, Petitioner’s failure to present evidence of that knowledge and evidence of a rationale for modifying the teachings of the reference in accordance with that knowledge does not comply with 37 C.F.R. §§ 42.104(b)(4) and 42.104(b)(5). *See generally Samsung Elecs.*, Case IPR2015-01233, slip op. at 18 (Paper 14).

Accordingly, for the reasons discussed above and in Section III.G.2, Petitioner has not established, on this record, a reasonable likelihood of prevailing on the assertion that Clark would have rendered the subject matter of claim 43 of the ’453 patent obvious as of the effective filing date of the claimed invention.

I. Obviousness of Claim 43 over Clark and FIPS 113

Petitioner asserts that the combination of Clark and FIPS 113 would have rendered the subject matter of claim 43 obvious to one of ordinary skill in the art. Pet. 32–33. Petitioner contends:

To the extent that Clark may not specifically, expressly or inherently disclose element 43[f] reciting “performing a cryptographic operation on at least a portion of the augmented measurement to form a certified measurement,” FIPS 113 discloses a federal standard method of encrypting any type of data that can be used with Clark.

Id. at 32. Petitioner does not contend that FIPS 113 remedies the deficiencies discussed above with respect to whether Clark teaches or suggests the “generating an augmented measurement” step of claim 43.

Accordingly, for the reasons discussed in Section III.G.2, Petitioner has not established, on this record, a reasonable likelihood of prevailing on the assertion that Clark and FIPS 113 would have rendered the subject matter of claim 43 of the ’453 patent obvious as of the effective filing date of the claimed invention.

IV. CONCLUSION

For the foregoing reasons, we are persuaded that the information presented in the Petition does not demonstrate that there is a reasonable likelihood that Petitioner would prevail in challenging claim 43 of the ’453 patent as unpatentable.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied* as to the challenged claim of the ’453 patent; and

FURTHER ORDERED that no *inter partes* review is instituted.

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