

PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GARMIN INTERNATIONAL, INC. ET AL.
Petitioner

v.

Patent of CUOZZO SPEED TECHNOLOGIES LLC
Patent Owner

Case: IPR2012-00001

Patent No.: 6,778,074

Filed: March 18, 2002

Issued: August 17, 2004

Inventors: Giuseppe A. Cuzzo

Title: Speed Limit Indicator and Method for Displaying Speed and
the Relevant Speed Limit

Docket No.: CUO0001-RE

**PATENT OWNER'S RESPONSE TO DECISION TO INITIATE TRIAL
FOR *INTER PARTES* REVIEW**

Cuozzo Speed Technologies LLC (the "Patent Owner") hereby responds to the Decision to Initiate Trial for *Inter Partes* Review of claims 10, 14, and 17 of U.S. Patent No. 6,778,074 (the "'074 Patent").

BACKGROUND

On September 16, 2012, Garmin International, Inc., *et al.* ("Petitioner") filed a Petition for *Inter Partes* Review under 37 C.F.R. § 42.100 ("Petition"), requesting *inter partes* review of claims 1-20 of the '074 Patent. On January 9, 2013, the Patent Trial and Appeal Board (the "Board") issued a Decision to Initiate Trial for *Inter Partes* Review ("Order") solely as to claims 10, 14 and 17 of the '074 Patent under 35 U.S.C. § 103(a) in view of:

(1) the combination of U.S. Patent No. 6,633,811 ("Aumayer"), U.S. Patent No. 3,980,041 ("Evans"), and U.S. Patent No. 2,711,153 ("Wendt"); and

(2) the combination of DE 19755470 A1 ("Tegethoff"), U.S. Patent No. 6,515,596 ("Awada"), Evans and Wendt.

Paper 15 at 26. The Board denied the Petition as to every other allegation of unpatentability asserted by Petitioner as to claims 1-9, 11-13, 15-16 and 18-20.

SUMMARY OF ARGUMENTS

By this response, Patent Owner respectfully submits the following arguments and supporting evidence:

- A. The proper construction of “integrally attached” is “Joined or Combined to Work as a Complete Unit.”
- B. The '074 patent antedates the Aumayer and Awada references because Inventor Giuseppe Cuzzo conceived the subject matter of claim 10 and diligently reduced his invention to practice from before October 19, 2000, as detailed in his declaration under 37 CFR 1.131 (attached hereto as Exhibit 3001).
- C. Claim 10 is patentable over the combinations of alleged prior art references to Aumayer, Evans, Wendt, Tegethoff, and Awada.

ARGUMENTS

- A. The Proper Construction of “Integrally Attached” is “Joined or Combined to Work as a Complete Unit.”**

In the Order initiating trial, the Board construed the term “integrally attached” in claim 10 to mean “discrete parts physically joined together as a unit without each part losing its own separate identity.” Paper 15 at 8. Though the

Board has not modified its construction, the Board noted in a subsequent order that this construction is a “non-final interpretation.” Paper 26 at 2.¹

For the reasons set forth below, the Board should modify its construction of “integrally attached” to mean “joined or combined to work as a complete unit,” which is consistent the plain and ordinary meaning of the term, the intrinsic evidence and the understanding of one of skill in the art at the time of the invention.

1. Patent Owner's Construction Reflects the Ordinary Meaning of “Integrally Attached.”

The exemplary embodiments described in the specification support Patent Owner's proposed construction of “integrally attached.” In describing an embodiment of the invention, the specification states, “Speedometer 12 **has**...a colored display 18....” '074 Patent, col. 5, lines 8-10 (emphasis added). The colored display 18 is, like the speed denoting markings 16 and the needle 20, a component of the speedometer 12. Thus, the colored display 18 is joined or combined with the speedometer 12 to work as a unit, i.e., a speed limit indicator that provides an integrated display for the driver. Professor Morris opined that the “integrated display” describes the resultant combination of the speedometer and

¹ To the extent the Board's decision on the patentability of claim 10 is not based upon the meaning of “integrally attached,” Patent Owner respectfully requests that the Board either (1) find Patent Owner's proposed construction is correct and enter its finding in its Order, or (2) withdraw its preliminary construction provided in the Order.

colored display that displays the speed and speed limit in the same location. Morris Decl., (Exhibit 2002 to Paper 21), at ¶¶ 30-31.

The Board's construction would seemingly exclude the embodiment in which the colored display 18 is a component of the speedometer 12. The Board states that the "colored display 18 is a separate item from the backplate 14 and from speed denoting marking 16 on backplate 14," and the specification describes "speedometer backplate 14 and speed denoting marking 16 painted on backplate 14 as separate and discrete elements from the colored display 18." Paper 15 at 8.

First, the portion of the specification cited by the Board is a description of one exemplary embodiment of the invention, and the Board does not address the other exemplary embodiments in which the speedometer comprises a liquid crystal display and the colored display is a liquid crystal display. Prof. Morris explained how these disclosures, in his opinion, would teach one of skill in the art "to combine the speedometer readout with the speed limit information on the LCD." Morris Decl., Exhibit 2002 to Paper 21, at ¶¶ 27-29. The resulting electronic embodiment would have a common LCD component shared by the speedometer and colored display. *Id* at 32.

Second, the items cited by the Board – the backplate 14, the speed denoting markings 16, and the colored display 18 – are all components of the speedometer 12. Claim 10 requires that the "speedometer" (not the "backplate" or "speed

denoting markings”) is integrally attached to the colored display. Thus, while an exemplary embodiment of the invention describes the components of the speedometer 12 as separate and discrete elements, all of those components are joined or combined to the speedometer 12 to work as the inventive speed limit indicator.

Therefore, for at least the above reasons, Patent Owner's proposed construction, “joined or combined to work as a complete unit” properly includes the exemplary embodiments of the invention described in the '074 Patent.

2. The Specification's Disclosure is Consistent With the Ordinary Meaning of “Integrally Attached.”

There is no dispute that the '074 Patent uses the term “integrally attached” according to its plain and ordinary meaning. Neither Petitioner nor the Board suggests the inventor acted as his own lexicographer and gave a special definition to the term. Accordingly, the plain and ordinary meaning of the term should govern.

The word “attached” is generally defined to mean “connect[ed] or join[ed]; to connect as an adjunct or associated part.” Webster's II New College Dictionary 72 (1999) (attached hereto as Exhibit 3002). The word “integrally” is generally defined to mean “essential to completeness; constituent; formed as a unit with another part.” Merriam-Webster's Collegiate Dictionary 606 (10th ed. 2002)

(Exhibit 2001 to Paper 21).² Patent Owner's proposed construction is consistent with the plain and ordinary meaning of the terms, because the proposed construction includes the definitions of "attached" ("joined or combined") and "integrally" ("joined to work as a complete unit").

The Board's construction conflicts with the plain and ordinary meaning of the term for at least two reasons. First, the Board's construction adds several extraneous, and thus potentially narrowing, limitations to the term. For example, the Board's construction requires "discrete parts" that are "physically" joined. There is no support for these limitations based on the plain and ordinary meaning of the term "integrally attached," as neither concept is found in any of the definitions.

The Board also adds the limitation that the parts are joined "without each part losing its own separate identity." In every mechanical and electrical situation in which two parts are attached, the parts always keep their respective identities. The only time "parts" might lose their separate identities is perhaps a chemical context in which a reaction takes place, and the resulting product cannot be separated into the original "parts." However, that is certainly not the case here, and there is no support in the plain and ordinary meaning of "integrally attached" which supports the Board's limitation.

² See also, The American Heritage Dictionary 667 (2d. College ed. 1991) ("essential or necessary for completeness; constituent . . . a complete unit") (Exhibit 2001 to Paper 21).

Second, the Board's construction does not give any substantive meaning to the term "integrally." The word "attached" without the "integrally" modifier is used in other claims of the '074 Patent, and it appears that the Board's construction would similarly apply to the meaning of "attached" alone. For example, claim 15 recites, *inter alia*, "a needle" and "an axle having opposing ends with one end *attached* to said needle." In this claim, the Board's construction of "integrally attached" would apply to the use of "attached" – i.e., there are "discrete parts" (the axle and the needle) that are "physically joined together as a unit" (one end of the axle is physically joined with the needle) and "without each part losing its own separate identity" (the needle is still the needle and the axle is still the axle). Under claim construction law, each term in a claim must be given meaning. *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1119 (Fed. Cir. 2004). Patent Owner's proposed construction gives meaning to "integrally" in that the parts "work as a complete unit" such that one part is a component of the other part or a component is shared by the parts.

The District Court of New Jersey reached a similar conclusion in *Safety Rail Source, LLC v. Bilco Co.*, 656 F.Supp.2d 468 (D.N.J. 2009) in construing the term "integrally connecting." In rejecting a proposed construction that merely required "that parts be joined to form a whole," the Court reasoned that weight must be given to "integrally." *Id.* at 483 (quoting *Burns, Morris & Stewart Ltd. P'ship v.*

Masonite Int'l Corp., 401 F.Supp.2d 692, 699-700 (E.D.Tex. 2005) (“If attached or connected is all that is meant, then what purpose is served by integrally? Integrally implies something that is part of the whole or is needed for completeness”) (internal quotations omitted) (citing Merriam-Websters Collegiate Dictionary 606 (10th ed. 2002))).³ Ultimately, the *Safety Rail Source* Court construed “integrally connecting” as: “integrally connecting requires that the connected pieces be joined so as to make up a single complete piece or unit, in such a way that the connection becomes part of [the single complete unit].” *Id.* (internal quotations omitted).

Therefore, Patent Owner’s proposed construction, “joined or combined to work as a complete unit” comports with the plain and ordinary meaning of “integrally attached” and principles of claim construction.

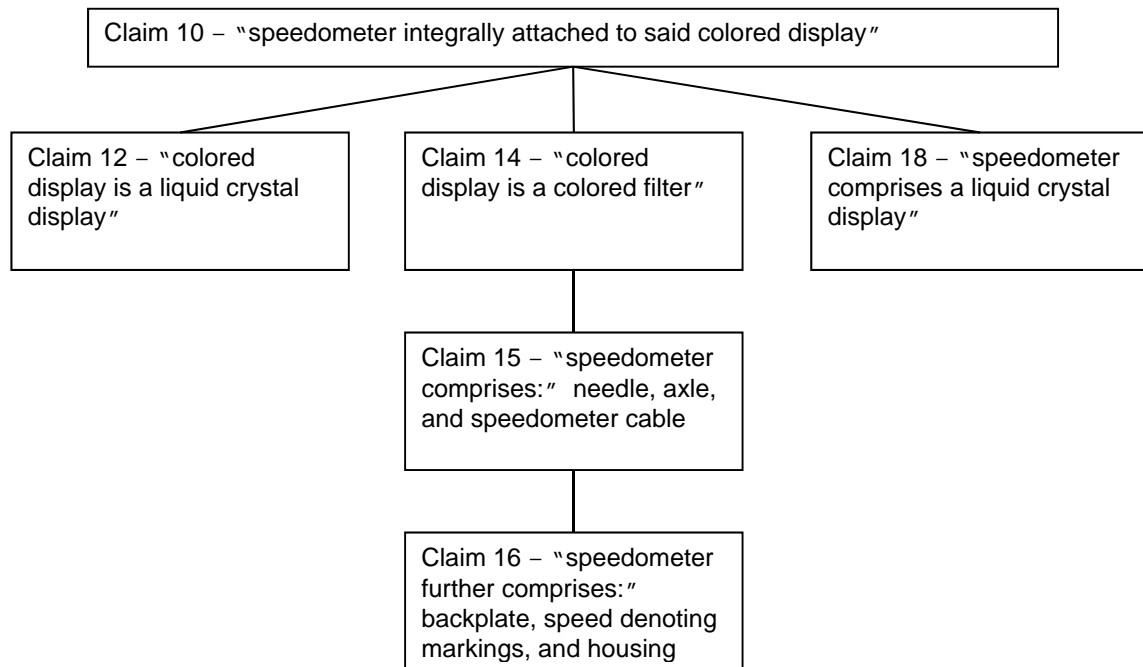
3. Doctrine of Claim Differentiation Supports Cuozzo Speed’s Proposed Construction.

Fundamentally, an independent claim must have a broader scope than the claims which depend from it, and different terms in different claims are presumed to give each claim a different scope. Independent claim 10 recites that the “speedometer is integrally attached to the colored display.” Several claims which

³ In *Sci. Specialties Inc. v. Thermo Fisher Sci. Inc.*, 684 F. Supp. 2d 1187, 1191-1193 (N.D. Cal. 2010), the district court considered the meaning of the modifier “integrally” added to claim terms implying that two pieces were contiguous: “integrally connected,” “integrally tethered,” “integral connection,” and “merges integrally.” Reasoning that “integral and integrally must mean something more than contiguous,” the court surveyed other decisions finding “integral to broadly mean forming a unit or to narrowly refer to being formed in one piece.” *Id.* at 1191(citing decisions) (internal quotations omitted).

depend directly or indirectly from claim 10 are presumed to have a narrower scope than claim 10, and thus support Patent Owner's proposed construction of "integrally attached." Similarly, the limitations recited in the dependent claims of claim 10 illustrate why the Board's construction is overly narrow and that claims 10 does, in fact, encompass the case of a single electronic display that itself operates as a speedometer (or at least display portion of a speedometer) and a colored display.

Claim 10 and the dependent structure of certain of its dependent claims are shown schematically below to illustrate that the term "integrally attached" should be given a construction which encompasses a single electronic display that operates as a speedometer (or at least the display portion of a speedometer) and a colored display.



Based upon the limitations recited in the dependent claims, “integrally attached” in claim 10 should be construed to encompass both mechanical and electronic embodiments of the invention. Dependent claim 14 is directed to a mechanical embodiment of the colored display of the present invention, and dependent claims 15 and 16 recite limitations which are directed to a mechanical embodiment of the speedometer (claim 15 – “said speedometer comprises”; claim 16 – “said speedometer further comprises”) of the present invention. For example, the axle, the speedometer cable, the backplate, the plurality of speed denoting markings affixed to the backplate, and the housing enclosing the backplate are mechanical elements of an embodiment of the speedometer. In contrast, claims 12 and 18 are directed to electronic embodiments of the invention. Professor Morris

explained that one skilled in the art would understand these distinct mechanical and electronic embodiments from the disclosure, because modifying a mechanical embodiment with a rotating LCD colored display, for example, would not make sense. *See* Exhibit 2002 to Paper 21 at ¶¶ 24-28.

Dependent claim 12 requires the colored display to be a liquid crystal display, and dependent claim 18 requires that the speedometer comprises a liquid crystal display. Neither claim 12 nor claim 18 require the speedometer's liquid crystal display to be separate from the colored display's liquid crystal display. In fact, the use of the open-ended term "comprising" and the antecedent "a" in claim 18 indicates that the speedometer includes, but is not limited to, "one or more" liquid crystal displays. It is commonly understood that the "indefinite article[s] 'a' or 'an' in patent parlance carr[y] the meaning of 'one or more' in open-ended claims containing the transitional phrase 'comprising.'" *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000). *See also* Robert C. Faber, *Landis on Mechanics of Patent Claim Drafting* 531 (3d ed. 1990). Thus, claim 18 would certainly encompass a single electronic display that itself operates as a speedometer (or at least display portion of a speedometer) and a colored display. Because claim 18 depends from claim 10, claim 10 has a broader scope than claim 18, and "integrally attached" should not exclude a single electronic display that

itself operates as a speedometer (or at least display portion of a speedometer) and a colored display.

Patent Owner's proposed construction of "integrally attached," "joined or combined to work as a unit," encompasses both the mechanical and electronic embodiments of the invention, and given the recitation of dependent claims 12 and 18, must encompass a single electronic display that itself operates as a speedometer (or at least display portion of a speedometer) and a colored display.

B. Cuozzo Antedates Aumayer and Awada.

Each of the Board's grounds for unpatentability of claim 10 rely upon Aumayer (effective date: October 19, 2000) or Awada (effective date: March 8, 2001), which Petitioner asserted as prior art under § 102(e). Inventor Giuseppe Cuozzo's Rule 131 declaration (the "Cuozzo Declaration") establishes that he conceived the invention of claim 10 from a point in time prior to the effective dates of Aumayer and Awada, and diligently reduced his invention to practice.

1. Cuozzo's Declaration Establishes Conception of the Invention of Claim 10 Prior to October 19, 2000.

Cuozzo conceived the invention of claim 10 in November 1999 when he was cited for speeding. Exhibit 3001 at ¶¶ 8-9. Cuozzo corroborates his conception date with evidence of the date of his citation from an abstract of his driving record (*Id.* at ¶ 8 and exhibits) and nearly identical statement to Invention Submission Corporation ("ISC") that he developed his idea "driving one day." *Id.* at ¶ 12. He

further corroborates his conception date by showing evidence that the car in which he conceived of the invention was destroyed in an accident in May 2000. *Id.* at ¶ 10 and exhibits.

Further corroborating Cuozzo's conception is the Disclosure he prepared for ISC. *Id.* at ¶¶ 11-12 and exhibits. Cuozzo states he delivered and signed the finalized "Disclosure to ISC and Record of Invention" (Exhibit E to Exhibit 3000) on October 30, 2000, showing that he possessed the complete invention before then. In fact, Cuozzo states he had first visited ISC's offices at least several weeks before October 30 for the purpose of obtaining a patent on his invention. *Id.* at ¶ 11. Cuozzo is certain he did this before the October 19, 2000, effective date of Aumayer. *Id.*

2. Cuozzo's Declaration and Corroborating Evidence Demonstrates He Possessed the Complete Invention of Claim 10 Before October 19, 2000.

Claim 10 generally recites a speed limit indicator comprising (i) a global positioning system receiver; (ii) a display controller connected to the GPS receiver that adjusts a colored display in response to signals from the GPS receiver to continuously update the delineation of which speed readings are in violation of the speed limit at the vehicle's present location; and (iii) a speedometer integrally attached to said colored display. An excerpt from Cuozzo's Disclosure (Exhibit E to Exhibit 3000 at page 3) is reproduced here:

1. Describe the idea and what it actually does: *The on-board navigation system uses GPS (Global Positioning System) satellites and BMW technology to help show-and-tell-the way to your destination. This GPS navigation system runs on a CD Rom that has all the information and street names. I think if you can put the speed limit with the street and all you have to do is wire the speedometer to the GPS and buy this new CD-Rom with the information of both street name and speed limits. This also will have school zone and any other speed limits at or low or a street were a speed limit changes.*
2. Explain in detail how the idea would be operated or used. *if you drive down a street and the speed limit is 25 in the speedometer will show 0-25 blue or white and 25-on red. or if there a street speed limit changes on that street you will see it change on the speedometer, school zones or other. I think this will be good so you don't have to look for the speed limit signs. or if you not from that area.*

(i) Cuozzo's Disclosure describes a GPS receiver:

The on-board navigation system uses GPS (Global Positioning System) satellites and BMW technology . . . This GPS navigation system runs on a CD ROM that has all the information and street names . . . the speed limit with the street . . .

(ii) Cuozzo's Disclosure also describes connecting the GPS receiver to a display controller ("all you have to do is wire the speedometer to the GPS") that adjusts a colored display in response to signals from the GPS receiver ("the speedometer will show 0-25 blue or white and 25-on red . . . or if the[] street speed limit changes on that street you will see it change on the speedometer"). Cuozzo's disclosure provides that the speed limit information used to adjust the colored display comes from the GPS receiver ("CD-Rom with the information of both street name and speed limits . . . will also have school zone and any other speed

limits”). Cuozzo’s Disclosure describing the color of the vehicle’s speedometer output (from blue or white to red) changing as the speed limit for the street the vehicle is traveling supports the claim’s functional recitation of continuously updating the delineation of which speed readings are in violation of the speed limit at the vehicle’s present location.

Although Cuozzo’s Disclosure does not use the term “display controller,” it refers to the GPS being wired to the speedometer and performing the function of adjusting the display to show speed readings under the limit in blue or white and speed readings over the limit in red. This disclosure is commensurate with the disclosure in the references cited by Petitioner. MPEP § 715.02.

For the Awada reference, Petitioner impliedly asserts the display controller is present because “the processor receives the speed limit information and instructs a display within the interior of the vehicle to display the speed limit . . .” Paper 1 at 37. For the Aumayer reference, Petitioner cites a passage describing “the display device 211 comprises a display controller and a display medium” as well as a processor that “determines the data, which are relevant for the speed display device.” Paper 1 at 34-5. Thus, in both Awada and Aumayer, Petitioner relies on inference that a processor connected to the display device performs the function of delineating which speed readings are in violation of the speed limit at the vehicle’s present location. The Cuozzo Disclosure provides at least that level of detail and

support. Indeed, the Cuozzo Disclosure even specifies how the display device delineates the speed readings by showing them in different colors and explains how the information used to perform this function is provided by the GPS wired to the speedometer.

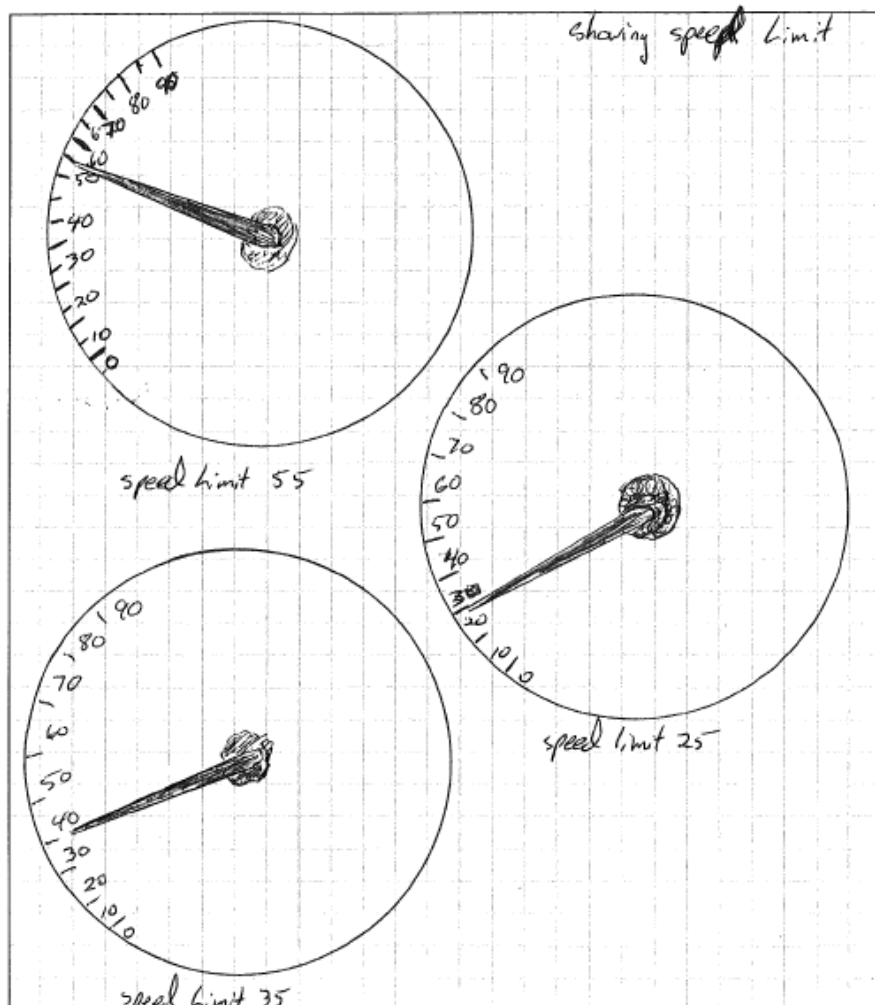
In addition to the October 30 Disclosure, on March 2, 2001 (prior to Awada), Cuozzo described his invention as having a colored display (“My idea is not the same, because my speedometer has a colored display of the speed limit on the roadway.”). Exhibit I to Exhibit 3000 at page 2 (Cuozzo’s analysis of search report results). In addition to this disclosure, Cuozzo’s analysis of the search results provided even more detail confirming his October 30 disclosure. Regarding the colored, integrated display, Cuozzo stated:

For example, one of the colors can be blue. Now if you stay in this blue zone or blue area then you are traveling safely, yet if you past this blue zone and start to get in the red zone on this kind of speedometer, then you know your speeding and that you are not travel safely.

Thus, Cuozzo’s analysis confirms and corroborates his earlier disclosure describing the colored display component of the speedometer and how it delineates the speed readings.

Cuozzo’s Disclosure describes a speedometer integrally attached to the colored display. In addition to the foregoing description and Cuozzo’s identification of “wiring, lighting, and programming” materials to be used in

practicing the invention, he also described the claimed speedometer and colored display in drawings (Exhibit E to Exhibit 3000 at page 2). In his drawings, Cuozzo shows an analog speedometer output with a colored display showing, for example, the speed readings above 55 m.p.h. (in the embodiment at top, shown in excerpt reproduced below) in red while the speed readings on the scale below 55 are in blue or white. The three different examples demonstrate the delineation changing as the speed limit information from the GPS receiver changes from 55 to 25 to 35 or some variation thereof.



The integrated display shown in Cuozzo's Disclosure supports the integrally attached relationship between the colored display and the speedometer as claim 10 recites.

Cuozzo's October 30, 2000 Disclosure and Record of Invention (Exhibit E to Exhibit 3000) demonstrates that Cuozzo possessed the inventive concepts of claim 10. *Coleman v. Dimes*, 754 F.2d 353, 359 (Fed. Cir. 1985).

3. Cuozzo's Declaration and Corroborating Evidence Demonstrates Diligence from a Point in Time before October 19, 2000, Until Construction Reduction to Practice by Filing His Application in March 2002.

Cuozzo diligently worked to constructively reduce his invention to practice during the critical period from just before October 19, 2000, until Cuozzo filed his patent application on March 18, 2002.

Starting from before his October 30, 2000 Disclosure and Record of Invention (Exhibit E to Exhibit 3000), Cuozzo states that he visited the ISC offices seeking assistance in patenting his invention before the October 19, 2000 effective date of the Aumayer reference. Exhibit 3001 at ¶ 11. Cuozzo gathered information from ISC, filled out paperwork including a Statement of Confidentiality and Non-Use, and reviewed the information ISC provided about their services and the costs of them. *Id.* He returned and signed these documents October 25, 2000, and on October 30, 2000, he executed his invention disclosure. *Id.* at ¶¶ 11-12.

Also on October 30, 2000, Cuozzo entered into an agreement with ISC whereby Cuozzo financed the \$875 cost, and ISC would engage patent counsel to conduct a preliminary patentability search. *Id.* at ¶ 14 and Exhibits F and G. ISC engaged Kaardal & Associates, P.C. (“Kaardal”) to perform the search, and Kaardal confirmed his engagement to Cuozzo by letter dated December 8, 2000.⁴ In response to the preliminary search report from Kaardal, Cuozzo responded with his analysis distinguishing his invention from the references identified in the report. *Id.* at ¶ 16. On March 10, 2001, Cuozzo received Kaardal’s opinion that “patent protection could potentially be obtainable for your invention” and relying upon the attorney’s professional opinion to, he proceeded toward the patent application process. *Id.* at ¶¶ 17-18.

The cost of filing a patent application was a substantial hurdle for Cuozzo, an automotive technician. ISC’s Submission Agreement (Exhibit K to Exhibit 3000) that provided for a referral to patent counsel (under the optional “Patent Services Addendum”) required a total payment of \$9,945. *Id.* at ¶ 18. Cuozzo did

⁴ Mr. Kaardal is no longer permitted to practice before the USPTO based upon circumstances relating to his relationship with ISC. *See* Final Order, In the Matter of Ivar M. Kaardal, Proceeding No. D03-08, *available at* http://e-foia.uspto.gov/Foia/ReterivePdf?system=OED&flNm=0057_DIS_2004-02-04. Notably, Mr. Kaardal’s conduct in the Cuozzo case was different than described in the Final Order in that Cuozzo requested reconsideration of the initial patentability study and provided information and analysis distinguishing his invention from the prior art Kaardal cited. This analysis is presented in substance in the background of the invention section of the ’074 patent and is attached as Exhibit I to Exhibit 3000.

not have that much money easily accessible, so he had to work with his parents to obtain it from a trust account in his name, but not accessible to him. *Id.* at ¶ 19. Cuozzo finally obtained the funds and, on August 8, 2001, he signed the ISC Submission Agreement with the Patent Services Addendum. *Id.* at ¶ 19 and Exhibit L to Exhibit 3000. From August 8, 2001, until his application was filed on March 18, 2002, Cuozzo pressed the patent attorneys for details on the status of his application. *Id.* at ¶ 20. The precise order of events is unclear, but it appears ISC may have made more than one referral on Cuozzo's behalf due to problems with the lawyers to which they referred Cuozzo's case. *Id.* Anthony Campbell, who ultimately filed Cuozzo's application on March 18, 2002, after receiving it January 29, 2002, acted diligently (he explained that he finished the application and requested formal drawings February 11, 2002, and mailed the completed application to Cuozzo immediately thereafter, which is corroborated by Cuozzo's letter dated March 3, 2002 (Exhibit O to Exhibit 3000), despite ISC's initial referral to another attorney, Doug Lingbeck. *See* Email from Anthony Campbell to Cabrach Connor dated Friday, March 8, 2013, attached hereto as Exhibit 3003. Accordingly, Cuozzo's patent attorneys acted with reasonable diligence.

Cuozzo's application was filed March 18, 2002, only two weeks after Cuozzo received the draft for review. Cuozzo's mother wrote the check for the \$370 filing fee. Exhibit 3001 at ¶ 23.

**C. Alleged Combinations Do Not Disclose All Elements of Claim 10
and There Is No Motivation to Combine the Cited References**

Claim 10 recites:

10. A speed limit indicator comprising:

a global positioning system receiver;

a display controller connected to said global positioning system receiver, wherein said display controller adjusts a colored display in response to signals from said global positioning system receiver to continuously update the delineation of which speed readings are in violation of the speed limit at a vehicle's present location; and

a speedometer integrally attached to said colored display.

1. Neither Aumayer nor Evans nor Wendt disclose or suggest “said display controller adjusts a colored display in response to signals from said global positioning system receiver to continuously update the delineation of which speed readings are in violation of the speed limit at a vehicle's present location”

Aumayer discusses “a method of automatically adjusting vehicle speed values displayed in a vehicle according to vehicle location, i.e., according to particular governmental region or country through which the vehicle is currently traveling.” Aumayer, col. 1, ll. 55-59. Aumayer’s method is intended to solve the problem of driving between different regions or countries with different speed limits and different speed measurement units:

Furthermore it is [well known] to provide special markings on the vehicle speed scale at certain special vehicle speed values, such as a maximum speed of 30 km/hr in residential areas or of 130 km/hr as posed or recommended speed on the autobahn in Germany or an expressway. If the user of the vehicle now drives the vehicle into a different country, generally different values are used for the speed limits for the various classes of roads and streets in the different country. Furthermore even the physical units of speed limits, which are posted on signs, may be different.

Id. at col. 1, ll. 23-32.

Aumayer proposes to solve this problem by the following method:

- (a) determining a current actual position of the vehicle with a positioning device
- (b) locating the current actual position of the vehicle determined in step a) on a digital map;
- (c) identifying a region, such as state, country or city area, in which the current actual position is located on the digital map; and
- (d) displaying automatically on a display device at least one of an actual current speed of the vehicle and allowed speed limits in the region for at least one type of road or street in physical units used in the region identified in step c).

Id. at col. 1, l. 64 – col. 2, l. 8.

Aumayer discusses a “locating step” in which “[t]he region or area in which the vehicle is located is determined.” *Id.* at col. 3, ll. 60-62; Fig. 1a. Aumayer defines “region or area” as “a state, a country or a city or metropolitan region, in which respective predetermined speed limits exist for corresponding road or street types.” *Id.* at col. 3, ll. 62-65. The locating step is performed by a GPS locating device which determines the geographic position of the vehicle and then locates the vehicle on a digital map or chart “that includes region boundaries.” *Id.* at col. 4, ll. 41-48; Fig. 1b. A “region-determining step” is then executed to determine the region of the vehicle from the position on the digital map. *Id.* at col. 4, ll. 48-51.

After the “locating step” is complete, a “display adjustment step” is performed to update information shown on a speed display device 101 based on the current region of the vehicle. “Data regarding the vehicle, such as weight, engine size or whether or not a trailer is attached” are used to identify “the speed limits for different classes of roads or streets in the region in which the vehicle is located.” *Id.* at col. 4, ll. 56-60; Fig. 1c. The physical units for the region (e.g., mph or kmh) are also identified. If an adjustment to the speed display device 101 is necessary (i.e., if the vehicle has changed regions), the physical units of speed are changed, and “at least one maximum speed is displayed in the display device, which is the speed limit for a particular type of street or road, so that e.g. the maximum permitted speed is 50 km/hr in places in Germany.” *Id.* at col. 4, l. 66 – col. 5, l. 6.

The method of Aumayer does not include a “display controller...[that] continuously update[s] the delineation of which speed readings are in violation of the speed limit at a vehicle’s present location,” as recited in claim 10. The “speed limit” discussed in Aumayer is a speed limit for a certain class of road in a given region and is not based on the “vehicle’s present location.” Aumayer repeatedly states that the vehicle’s location is used in the “locating step” to identify the current region of the vehicle, and it is the speed limits associated with the region (not the geographic position determined by the GPS locating device) which are displayed on the speed display device 101. One of ordinary skill in the art would not consider a region (i.e., “a state, a country or a city”, as defined by Aumayer) as a “vehicle’s present location,” as recited in claim 10. For example, one of ordinary skill in the art would not equate “United States” with a “vehicle’s present location” considering that that there is no speed limit which corresponds to the “United States.”

Therefore, it is respectfully submitted that Aumayer neither discloses nor suggests a “display controller...[that] continuously update[s] the delineation of which speed readings are in violation of the speed limit at a vehicle's present location,” as recited in claim 10.

Neither Evans nor Wendt cure the above-described deficiencies of Aumayer. Neither Evans nor Wendt disclose or suggest the use of “a display controller” or “a global positioning system receiver.”

Therefore, because neither Aumayer nor Evans nor Wendt, either alone or in combination, discloses or suggests a “display controller [that] adjusts a colored display in response to signals from said global positioning system receiver to continuously update the delineation of which speed readings are in violation of the speed limit at a vehicle's present location,” as recited in claim 10, it is respectfully submitted that claim 10 is allowable.

2. There is No Motivation to Combine Aumayer, Evans and Wendt

As noted above, Aumayer is specifically directed to “a method of automatically adjusting vehicle speed values displayed in a vehicle according to vehicle location, i.e., according to particular governmental region or country through which the vehicle is currently traveling.” Aumayer, col. 1, ll. 55-59. On the other hand, Evans and Wendt are directed to entirely manual devices which are fixedly attached to conventional, mechanical speedometers. Evans discusses a fixed, immovable color plate 12 to be adhered to the cover of a speedometer with an adhesive (like rubber cement), and the Board has already stated that one of ordinary skill in the art would not be motivated to combine Aumayer and Evans. Order at pp. 17-18. Wendt discusses essentially the same device as Evans – a

rubber suction cup unit 18 which is fixed to a glass cover 14 of a speedometer 10 with a layer 21 of contact or pressure type adhesive. The only difference between the devices discussed in Evans and Wendt is that the device in Wendt includes a pointer 16 rotatably mounted on the suction cup unit 18. However, the pointer 16 requires manual rotation by the driver. Wendt, col. 3, ll. 17-22. Thus, it is respectfully submitted that one of ordinary skill in the art would not combine the dynamic, continuously controlled display system of Aumayer with the immovable color plate 12 of Evans or the manually rotated pointer 16 and rubber suction cup unit 18 of Wendt.

Furthermore, Aumayer cannot be combined with Evans or Wendt, because the references teach away from their combination. MPEP § 2145. Aumayer discusses a “combined instrument” in the form of a “speed display device 101” which executes the method of automatically adjusting vehicle speed values displayed in a vehicle. Aumayer asserts that the combined instrument “advantageously comprises a display screen so that the method according to the invention can be performed without mechanical or structural arrangements, for example not a speedometer with a pointer, with which speed values are indicated.” Aumayer, col. 2, ll. 49-53. Thus, Aumayer expressly states that its method should not be performed with any mechanical or structural arrangements, and specifically not with a speedometer with a pointer.

Evans and Wendt discuss the exact opposite of Aumayer. Both Evans and Wendt discuss devices which (1) are specifically intended to work with mechanical speedometers with pointers, and (2) could only function with mechanical speedometers with pointers, because both devices attach to a speedometer cover. Evans states that its device is meant to work with a standard mechanical speedometer – “it would be highly desirable to provide a simple inexpensive speed warning device...which could be connected to the standard installed vehicle speedometer without any disassembly of the speedometer and without the need of special brackets, fittings or skilled labor.” Evans, col. 1, ll. 55-60. In fact, Evans further states that use of a speedometer of special design like the combined instrument in Aumayer would be too expensive and unsuccessful – “A few specialized devices have been employed in conjunction with speedometers to give speed warnings. However, such devices are expensive and invariably require disassembly of the speedometer or the construction of a speedometer of special design and its substitution for the one with which the vehicle is equipped. Few of such devices have ever been used and none have been used extensively and successfully.” *Id.* at col. 1, ll. 46-52. The Wendt device is also meant to work with a standard mechanical speedometer – “I have invented a plurality of forms of maximum speed indicators, all of which have the advantage that they are universally adaptable to existing speedometers.” Wendt, col. 5, ll. 4-7; see also *id.*

at col. 1, ll. 21-25 (“One of the objects of the invention is the provision of an improved adjustable speed limit indicator which is quickly attachable to the glass cover of a speedometer.”). Wendt further states that use of a speedometer which automatically adjusts vehicle speed values like the combined instrument in Aumayer would frustrate the purpose of the Wendt device, because the driver would not observe speed limit signs but would rely on the automatic adjustments – “The present speed limit indicator, when used on a speedometer, will discipline the driver and cause him to look for and observe speed limit signs and then make a temporary record of the speed limit by moving the pointer to that point on the speedometer.” *Id.* at col. 5, ll. 4-7.

Therefore, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine Aumayer with Evans or Wendt, because (1) the fully manually and mechanical devices of Evans and Wendt are incompatible with the automatic and continuously controlled electronic display of Aumayer, and (2) Aumayer specifically counsels against use of mechanical speedometers, whereas Evans and Wendt specifically incorporate mechanical speedometers.

3. Neither Tegethoff nor Awada nor Evans nor Wendt disclose or suggest “said display controller adjusts a colored display in response to signals from said global positioning system receiver to continuously update the delineation of which speed readings are in violation of the speed limit at a vehicle's present location

Tegethoff does not disclose or suggest a “display controller...[that] continuously update[s] the delineation of which speed readings are in violation of the speed limit at a vehicle’s present location,” because the “maximum permissible speed” discussed in Tegethoff is not a “speed limit,” as recited in claim 10. The ’074 patent clearly describes the “speed limit” as the “legal speed limit” at a vehicle’s present location. ’074 patent, col. 1, ll. 13-15; *see also* col. 2, ll. 18-23 (“Therefore, a need exists for a new and improved speed limit indicator and method for displaying speed and the relevant speed limit that can be used for displaying the current speed of a vehicle and how it relates to the legal speed limit for current location in which the vehicle is traveling.”).

The “maximum permissible speed” discussed in Tegethoff is indicated by a mark 5 on a display system showing a scale for speed measurement 29. Tegethoff states that the “maximum permissible speed” can be set in one of three ways: (1) manually by the driver, (2) “according to an element for navigation and a database with traffic control information,” or (3) “by an element for receiving transmitters outside the vehicle for traffic control.” Tegethoff at 6. In each of these ways, there is no disclosure or suggestion that the “maximum permissible speed” is the legal “speed limit,” as recited in claim 10. For example, a driver could manually set the “maximum permissible speed” at 45 mph even though the legal speed limit is 65 mph, simply because the drive feels more comfortable if he does not drive faster

than 45 mph. Further, if the “maximum permissible speed” is set based on “an element for navigation and a database with traffic control information,” the “maximum permissible speed” could be marked as 45 mph even though the legal speed limit is 65 mph, because there is traffic. And still further, if the “maximum permissible speed” is set based on “an element for receiving transmitters outside the vehicle for traffic control,” the “maximum permissible speed” could be marked as 45 mph even though the legal speed limit is 65 mph, because the vehicle receives signals from traffic control transmitters. In none of these instances is the “maximum permissible speed” discussed in Tegethoff the “speed limit” as recited in claim 10.

Accordingly, because Tegethoff does not display the legal speed limit and, therefore, cannot display speed readings in violation of the speed limit, Tegethoff neither discloses nor a “display controller...[that] continuously update[s] the delineation of which speed readings are in violation of the speed limit at a vehicle’s present location,” as recited in claim 10.

Awada does not cure the above-described deficiencies of Tegethoff. Awada discusses an apparatus for reporting a posted speed limit to the driver of a vehicle. Awada, Abstract. The apparatus of Awada consists of a numerical display 110 and a warning light 120 mounted on a vehicle dashboard 107. *Id.* at col. 2, ll. 28-32. The numerical display 110 is updated based on the vehicle’s location to display the

speed limit. *Id.* at col. 2, ll. 38-42. However, there is no discussion or suggestion in Awada of any device that displays “speed readings” of the vehicle. If, for example, the vehicle in Awada is on a highway with a speed limit of 65 mph, the numerical display 110 will statically display the number “65”. Neither the numerical display 110 nor the warning light 120 display “speed readings” of the vehicle. In fact, Awada does not mention a speed dial or speedometer or any other device which includes a component for displaying “speed readings,” except for the vague reference to “a speedometer interface 264” which is optional and is solely meant to report information about the vehicle’s current speed to a CPU 254 that operates the warning light 120. *Id.* at col. 4, ll. 33-35. Therefore, Awada neither discloses nor suggests a “display controller...[that] continuously update[s] the delineation of which speed readings are in violation of the speed limit at a vehicle’s present location.”

Accordingly, neither Awada nor Tegethoff, either alone or in combination, discloses or suggests a “display controller...[that] continuously update[s] the delineation of which speed readings are in violation of the speed limit at a vehicle’s present location,” as recited in claim 10.

Neither Evans nor Wendt cure the above-described deficiencies of Tegethoff and Awada. As explained above with respect to Aumayer, neither Evans nor Wendt disclose or suggest the use of “a display controller” or “a global positioning

system receiver.”

Therefore, because neither Tegethoff nor Awada nor Evans nor Wendt, either alone or in combination, discloses or suggests a “display controller [that] adjusts a colored display in response to signals from said global positioning system receiver to continuously update the delineation of which speed readings are in violation of the speed limit at a vehicle's present location,” as recited in claim 10, it is respectfully submitted that claim 10 is allowable.

4. There is No Motivation to Combine Tegethoff with Awada or with Evans or Wendt.

One of ordinary skill in the art would not be motivated to combine Tegethoff with Awada, because the references teach away from their combination. MPEP § 2145. As noted above, Tegethoff discusses a fully electronic display system which displays a mark 5 indicating a “maximum permissible speed” on a scale for speed measurement 29. The “maximum permissible speed” is set manually or based on traffic information. Thus, the “maximum permissible speed” does not correspond to the legal speed limit, which is the sole function of the numerical display 110 in Awada. In fact, the concept of allowing manual control of the placement of the “maximum permissible speed” mark 5 in Tegethoff teaches away from the combination with Awada which utilizes the posted speed limit. That is, one of ordinary skill in the art would not use the Tegethoff device, which allows the driver to set the mark 5 above a posted speed limit, with the numerical display 110

of Awada, because the entire purpose (warning a driver when he is going faster than the posted speed limit) would be frustrated.

For the same reason, one of ordinary skill in the art would not be motivated to combine Awada with Evans or Wendt. Awada discusses an electronic apparatus that automatically adjusts the numerical display 110 and warning light 120 based on the posted speed limit at the vehicle's location. And, as noted above, Awada does not mention a speed dial or a speedometer or any other device having a component to display speed readings to the driver. On the other hand, Evans and Wendt are directed to entirely manual devices which are fixedly attached to conventional, mechanical speedometers. Evans discusses a fixed, immovable color plate 12 to be adhered to the cover of a speedometer with an adhesive (like rubber cement), and the Board has already stated that one of ordinary skill in the art would not be motivated to combine an automatically adjustable device and Evans. Order at pp. 17-18. Wendt discusses essentially the same device as Evans – a rubber suction cup unit 18 which is fixed to a glass cover 14 of a speedometer 10 with a layer 21 of contact or pressure type adhesive. The only difference between the devices discussed in Evans and Wendt is that the device in Wendt includes a pointer 16 rotatably mounted on the suction cup unit 18. However, the pointer 16 requires manual rotation by the driver. Wendt, col. 3, ll. 17-22. Like Tegethoff, the driver could rotate the pointer 16 to a value beyond the posted speed limit

which would frustrate the entire purpose (warning a driver when he is going faster than the posted speed limit) of Awada. Thus, it is respectfully submitted that one of ordinary skill in the art would not combine the automatically adjustable display device of Awada with the immovable color plate 12 of Evans or the manually rotated pointer 16 and rubber suction cup unit 18 of Wendt.

Furthermore, neither Tegethoff nor Awada can be combined with Evans or Wendt, because the references teach away from their combination. MPEP § 2145. Tegethoff expressly states that its computerized display system is meant to replace the conventional speedometers discussed in Evans and Wendt – “The object of the present invention is to create a display system that has the good readability of analog pointer instruments and, moreover, in an easily understandable manner provides additional information that facilitates the safe and economical operation of the vehicle. This object is attained with a display system.” Tegethoff at p. 2. Similarly, Awada notes the advantages of an automatic display system – “it would be helpful if the driver were provided with a constant indication of the posted speed limit, as a display on the dashboard of an automobile.” Awada, col. 1, ll. 16-21.

Evans and Wendt, on the other hand, discuss the exact opposite of Tegethoff and Awada. Both Evans and Wendt discuss devices which (1) are specifically intended to work with mechanical speedometers with pointers, and (2) could only

function with mechanical speedometers with pointers, because both devices attach to a speedometer cover. Evans states that its device is meant to work with a standard mechanical speedometer – “it would be highly desirable to provide a simple inexpensive speed warning device...which could be connected to the standard installed vehicle speedometer without any disassembly of the speedometer and without the need of special brackets, fittings or skilled labor.” Evans, col. 1, ll. 55-60. In fact, Evans further states that use of a speedometer of special design like the display system in Tegethoff and the automatic display system of Awada would be too expensive and unsuccessful – “A few specialized devices have been employed in conjunction with speedometers to give speed warnings. However, such devices are expensive and invariably require disassembly of the speedometer or the construction of a speedometer of special design and its substitution for the one with which the vehicle is equipped. Few of such devices have ever been used and none have been used extensively and successfully.” *Id.* at col. 1, ll. 46-52. The Wendt device is also meant to work with a standard mechanical speedometer – “I have invented a plurality of forms of maximum speed indicators, all of which have the advantage that they are universally adaptable to existing speedometers.” Wendt, col. 5, ll. 4-7; *see also id.* at col. 1, ll. 21-25 (“One of the objects of the invention is the provision of an improved adjustable speed limit indicator which is quickly attachable to the glass

cover of a speedometer.”). Wendt further states that use of a speedometer which is automatically adjustable like the display system in Tegethoff and the automatic display system of Awada would frustrate the purpose of the Wendt device, because the driver would not observe speed limit signs but would rely on the automatic adjustments – “The present speed limit indicator, when used on a speedometer, will discipline the driver and cause him to look for and observe speed limit signs and then make a temporary record of the speed limit by moving the pointer to that point on the speedometer.” *Id.* at col. 5, ll. 4-7.

Therefore, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine Tegethoff or Awada with Evans or Wendt, because (1) the fully manually and mechanical devices of Evans and Wendt are incompatible with the electronic displays of Tegethoff and Awada, and (2) Tegethoff and Awada specifically incorporate electronic displays, whereas Evans and Wendt specifically incorporate fully mechanical speedometers.

Therefore, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine (i) Tegethoff with Awada, (ii) Tegethoff with Evans or Wendt, or (iii) Awada with Evans or Wendt, because the references in each combination teach away from each other.

CONCLUSION

In light of the remarks herein, Patent Owner respectfully requests that the Board reconsider the Decision to Initiate Trial for *Inter Partes* Review. If the Board has any questions, comments, or suggestions, the undersigned attorney earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Kasha Law LLC, Deposit Account No. 50-4075.

Respectfully submitted,

/John R. Kasha/

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Attorney for the Patent Owner

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Date: March 11, 2013

CERTIFICATE OF SERVICE

In accordance with 37 C.F.R § 1.550(f), a copy of the Patent Owner's Response to Decision Initiate Trial for *Inter Partes* Review filed by the Cuozzo Speed Technologies LLC on March 11, 2013 including Exhibits 3000-3003, which include the Declaration of Giuseppe A. Cuozzo, was duly served on the *Inter Partes* Requester via e-mail on March 11, 2013 to the following e-mail addresses:

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