

APPENDIX

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APPENDIX A

NOTE: This disposition is nonprecedential.

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

LARRY GOLDEN,

Plaintiff-Appellant

v.

UNITED STATES,

Defendant-Appellee

2025-2128

Appeal from the United States Court of Federal
Claims in No. 1:25-cv-01019-EGB,
Senior Judge Eric G. Bruggink.

Decided: March 10, 2026

LARRY GOLDEN, Greenville, SC, pro se.

GRANT DREWS JOHNSON, Commercial Litigation
Branch, Civil Division, United States Department of
Justice, Washington, DC, for defendant-appellee. Also
represented by SCOTT DAVID BOLDEN, CONRAD
JOSEPH DEWITTE, JR., BRETT SHUMATE.

Before DYK, SCHALL, and PROST, *Circuit Judges*.

PER CURIAM.

Larry Golden appeals a decision of the U.S. Court of Federal Claims dismissing his complaint and denying his motion for disqualification. *Golden v. United States*, No. 25-1019C, 2025 WL 2542073 (Fed. Cl. Sep. 4, 2025) (“*Order*”). For the reasons set forth below, we affirm.

BACKGROUND

This is Mr. Golden’s fifth appeal to this court regarding similar facts. Mr. Golden previously filed four suits at the Court of Federal Claims alleging generally that the “United States, through the Department of Homeland Security, has caused cell phone manufacturers to produce devices that infringe on one or more of his patents.” *Order*, 2025 WL 2542073, at *1. Mr. Golden was unsuccessful in his prior suits. Our most recent decision affirmed the Court of Federal Claims’ dismissal based on claim preclusion and affirmed the denial of Mr. Golden’s motion to disqualify the Court of Federal Claims judge overseeing his case. *See Golden v. United States*, No. 24-2256, 2025 WL 900873 (Fed. Cir. May 24, 2025).

Mr. Golden brought the present suit against the United States in June 2025 asserting two claims: (1) “the United States has taken [his] intellectual property without compensation in violation of the Fifth Amendment to the United States Constitution” and (2) “the United States has violated his patent rights.” *Order*, 2025 WL 2542073, at *1; *see* S.A. 1310-11.¹ The Court of Federal Claims noted that

¹ “S.A.” refers to the supplemental appendix included with the government’s informal brief.

“there is substantial overlap between the patents relied on [in] this action and those litigated previously. . . . The same products and government initiatives feature in all five complaints.” *Order*, 2025 WL 2542073, at *1.

Mr. Golden filed a motion for disqualification, seeking recusal of the Court of Federal Claims judge. *Id.* Mr. Golden argued that the judge’s prior rulings favoring the United States are proof of bias against Mr. Golden. The Court of Federal Claims denied his motion, finding no ground for recusal and noting that a similar denial of recusal was affirmed on appeal. *Id.*

The government moved to dismiss for lack of jurisdiction and failure to state a claim. *Id.* at *2. Regarding lack of jurisdiction, the government argued that (1) “patent infringement cannot be brought as a taking claim under [the Court of Federal Claims’] Tucker Act jurisdiction” and (2) the entire complaint was untimely “due to the operation of the six-year limitations period” in 28 U.S.C. § 2501. *Id.* Regarding the failure to state a claim, the government argued that everything in the complaint was previously litigated to finality in four decisions of the Court of Federal Claims that were all affirmed on appeal. *Id.*

The Court of Federal Claims granted the government’s motion to dismiss. Because the government’s alleged infringing conduct referenced in the complaint took place between 2003 and 2017, the court dismissed the entire complaint as untimely, due to the six-year limitations period, and thus “beyond [the court’s] jurisdiction.” *Id.*; see, e.g., S.A. 1310. The court also determined that it had no jurisdiction [over] Mr. Golden’s “recharacterized claims” and that “[h]is rights, if any, are under § 1498.” *Id.*

Alternatively, the court dismissed the complaint under Court of Federal Claims Rule 12(b)(6) for failure to state a claim due to claim preclusion because everything in the complaint was “previously litigated to finality in four decisions of [the] court, all of which were affirmed on appeal.” *Id.*

Mr. Golden timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(3).

DISCUSSION

We review de novo a decision of the Court of Federal Claims dismissing a complaint for failure to state a claim under Rule 12(b)(6). *Kam-Almaz v. United States*, 682 F.3d 1364, 1368 (Fed. Cir. 2012). “We also review de novo the grant or denial of a motion to dismiss for lack of jurisdiction.” *Id.* We review a denial of a motion to disqualify for abuse of discretion. *See Shell Oil Co. v. United States*, 672 F.3d 1283, 1288 (Fed. Cir. 2012).

On appeal, Mr. Golden challenges the dismissal of his complaint and the denial of his motion to disqualify the Court of Federal Claims judge presiding over his case.

We agree with the Court of Federal Claims’ decision dismissing Mr. Golden’s complaint for two main reasons. First, the Court of Federal Claims correctly found that Mr. Golden’s allegations are outside the six-year limitations period. “Every civil action against the United States is barred unless the complaint is filed within six years of the time a right of action first accrues.” *FloorPro, Inc. v. United States*, 680 F.3d 1377, 1380 (Fed. Cir. 2012) (citing 28 U.S.C. § 2501). As the Court of Federal Claims found, Mr. Golden filed his complaint in 2025 but his allegations in the complaint about the government’s

activities occurred prior to the six-year mark of 2019. *See Order*, 2025 WL 2542073, at *2; *see, e.g.*, S.A. 1530-31.

Second, the Court of Federal Claims correctly determined that it does not have jurisdiction over Mr. Golden's patent-infringement-based takings claim. As we explained to Mr. Golden in his previous appeal, "a cause of action under the Fifth Amendment is unavailable to patent owners alleging infringement by the government." *Golden v. United States*, 955 F.3d 981, 987 (Fed. Cir. 2020) (citing *Schillinger v. United States*, 155 U.S. 163, 168-69 (1894)). We stated in our previous decision that "28 U.S.C. § 1498 provides the only avenue for a patent owner to bring an action against the government for patent infringement." *Id.* We concluded that the Court of Federal Claims "does not have jurisdiction to hear takings claims based on alleged patent infringement by the government." *Id.* at 988. Thus, the Court of Federal Claims properly dismissed Mr. Golden's patent-infringement-based claims.²

We also agree with the Court of Federal Claims' decision denying Mr. Golden's motion to disqualify. As we explained in our most recent decision where he made a similar assertion, "to the extent that Mr. Golden thinks that past adverse rulings by the [Court of Federal Claims] evinces bias, we have previously observed that 'judicial rulings almost never constitute a valid basis for a bias or partiality motion.'" *Golden*, 2025 WL 900873, at *3 (quoting *Micro Chem., Inc. v. Lextron, Inc.*, 318 F.3d 1119,

² Given our ruling, we need not reach the Court of Federal Claims' alternative ruling dismissing the complaint under Rule 12(b)(6). *See Order*, 2025 WL 2542073, at *2.

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1126 (Fed. Cir. 2003)). Thus, the Court of Federal Claims did not abuse its discretion in denying Mr. Golden's motion to disqualify.

Accordingly, we affirm the Court of Federal Claims' decision dismissing Mr. Golden's complaint and denying his motion to disqualify.

CONCLUSION

We have considered Mr. Golden's remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm.

AFFIRMED

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APPENDIX B

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

LARRY GOLDEN,

Plaintiff-Appellant

v.

UNITED STATES,

Defendant-Appellee

2025-2128

Appeal from the United States Court of
Federal Claims in No. 1:25-cv-01019-EGB,
Senior Judge Eric G. Bruggink.

JUDGMENT

THIS CAUSE having been considered, it is

ORDERED AND ADJUDGED:

AFFIRMED

FOR THE COURT

/s/ Jarret B. Perlow

Jarret B. Perlow
Clerk of Court

March 10, 2026

Date

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APPENDIX C

NOTE: This order is nonprecedential.

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

LARRY GOLDEN,

Plaintiff-Appellant

v.

UNITED STATES,

Defendant-Appellee

2025-2128

Appeal from the United States Court of
Federal Claims in No. 1:25-cv-01019-EGB,
Senior Judge Eric G. Bruggink.

ON PETITION FOR REHEARING EN BANC

Before MOORE, *Chief Judge*, LOURIE, SCHALL¹, BDYK,
PROST, REYNA, TARANTO, CHEN, HUGHES, STOLL,
CUNNINGHAM, and STARK, *Circuit Judges*.²

PER CURIAM.

¹ Circuit Judge Schall participated only in the decision on the petition for panel rehearing.

² Circuit Judge Newman did not participate.

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ORDER

On March 23, 2026, Larry Golden filed a petition for rehearing en banc [ECF No. 35]. The petition was first referred to the panel that heard the appeal, and thereafter the petition was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

FOR THE COURT

/s/ Jarret B. Perlow

Jarret B. Perlow

Clerk of Court

April 29, 2026

Date

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APPENDIX D

**IN THE UNITED STATES COURT OF
FEDERAL CLAIMS**

No. 25-1019C

(Filed: September 4, 2025)

LARRY GOLDEN,

Plaintiff,

v.

THE UNITED STATES,

Defendant.

ORDER

This patent infringement case was filed on June 16, 2025. In the brief period since, it has accumulated 11 motions, 10 attributable to plaintiff, Larry Golden. Defendant has pending a motion to dismiss, which is fully briefed, and with which this order deals. Oral argument is unnecessary.

Nine of the remaining motions initiated by plaintiff will be mooted by our granting of defendant's motion to dismiss. The exception is plaintiff's motion seeking recusal of the undersigned (ECF No. 18). We deny that motion. In sum, plaintiff contends that recusal is required based solely on plaintiff's view that the court's prior rulings favoring the government are proof of bias against plaintiff. The undersigned ruled based on the law, the pleadings and the facts, not on any underlying prejudice towards plaintiff. There is no ground for recusal. A similar denial of recusal was recently affirmed by the Federal Circuit.

This court is familiar with Mr. Golden, having dealt with four prior patent infringement claims:

1. No. 13-307 (filed May 1, 2013) (*“Golden I”*) (dismissed with prejudice, *Golden v. United States*, 156 Fed. Cl. 623, 632 (2021), affirmed 2022 WL 4103287, (Fed. Cir. Sept. 8, 2022));
2. No. 19-104 (*“Golden II”*) (dismissed with prejudice, ECF No. 12 at 3-4 (Fed. Cl. May 14, 2009), affirmed, 955 F.3d 981, 988 (Fed. Cir. 2020));
3. No. 23-185 (*“Golden III”*), dismissed, 2023 WL 4466401, (Fed. Cl. May 30, 2023), affirmed 2023 WL 8663093, (Fed. Cir. Dec. 15, 2023));
4. No. 23-811 (*“Golden IV”*) (dismissed, 171 Fed. Cl. 33 (2024), affirmed 2025 WL 900873 (Fed. Cir. Mar. 24, 2025)).

All four suits originated in the same family of patents held by plaintiff which all deal with means for detecting chemical, radiological, and biological hazards. Mr. Golden alleges generally that the United States, through the Department of Homeland Security, has caused cell phone manufacturers to produce devices that infringe on one or more of his patents. Plaintiff was unsuccessful in his prior claims. Most recently, our decision of April 23, 2024 dismissing plaintiff's complaint for failure to state a claim due to claim preclusion was affirmed by the Federal Circuit on March 24, 2025. *Golden v. United States*, No. 2024-2256, 2025 WL 900873, (Fed. Cir. May 24, 2025).

The present complaint, composed of 285 pages, makes two types of claims: first, that the United States has taken plaintiff's intellectual property

without compensation in violation of the Fifth Amendment to the United States Constitution, and, second, that the United States has violated his patent rights. He relies for jurisdiction on 28 U.S.C. §§ 1491 and 1498. Both types of claims, related to the same family of patents, have appeared in his prior suits here.

Defendant correctly points out in its Notice of Related Cases that there is substantial overlap between the patents relied on this action and those litigated previously. The same “multi-sensor detection” system features in all his past claims as well as his present complaint. The same products and government initiatives feature in all five complaints. Indeed, plaintiff in his current complaint asserts that the “original ‘taking’ . . . of Plaintiffs patented inventions without paying just compensation . . . has transpired since year 2003,” and is “part of the same, continuous, never ending, ‘taking’ transactions.” Compl. 6.

Defendant moves to dismiss, both for lack of jurisdiction and for failure to state a claim. The jurisdictional basis for the motion has two components. The first relates to the “taking” elements of the complaint. Defendant correctly points out that a patent infringement cannot be brought as a taking claim under our Tucker Act jurisdiction, as we and the Federal Circuit have previously ruled in plaintiffs cases. We have no jurisdiction of such recharacterized claims. His rights, if any, are under § 1498. *See Golden v. United States*, 955 F.3d 981, 987-88 (Fed. Cir. 2020).

The second jurisdictional deficiency of the entire complaint is that it is untimely due to the operation of the six-year limitations period. 28 U.S.C. § 2501.

Any specific government infringing conduct referenced in the current complaint took place between 2003 and 2017. The entire complaint, therefore, is untimely and beyond our jurisdiction.

Even if the complaint were not untimely, we would have to dismiss it under RCFC 12(b)(6) for failure to state a claim. As defendant correctly points out, everything in the current complaint has been previously litigated to finality in four decisions of this court, all of which were affirmed on appeal. The circuit affirmed our dismissal of *Golden IV* on grounds of claim preclusion, due to the prior resolutions in *Golden I, II, and III*. *Golden*, No. 2024-2256, at *2-3 (Fed. Cir. Mar. 24, 2025). Claim preclusion applies when the parties are identical or in privity, the first suit proceeded to a final judgment on the merits, and the second claim is based on the same set of transactional facts as the first. All elements were present. *Golden IV* was, in substance, the same claim which had been previously dismissed. We find ourselves in the same situation today. Mr. Golden has refiled the same claim that we have dealt with too often in the past. We therefore grant, in the alternative, defendant's motion to dismiss for failure to state a claim.

Accordingly, the following is ordered:

1. Plaintiffs complaint is dismissed for lack of jurisdiction.
2. Alternatively, we find that, even if jurisdiction were not a bar, we would dismiss with prejudice, for failure to state a claim.
3. Plaintiffs motion requesting recusal is denied. All other pending motions are denied as moot.

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4. To prevent further waste of judicial time, the clerk's office is directed to not accept any further submissions from Mr. Golden for filing in this docket other than a notice of appeal.

5. The clerk's office is directed to return unfiled any papers submitted by plaintiff which have not yet been processed for filing, including any attempts to amend the complaint, which we deem to be futile.

6. The Clerk of Court is directed to dismiss the complaint and to enter judgment accordingly. No costs.

s/Eric G. Bruggink

ERIC G. BRUGGINK

Senior Judge

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APPENDIX E

**IN THE UNITED STATES COURT OF
FEDERAL CLAIMS**

No. 25-1019 C
Filed: September 5, 2025

LARRY GOLDEN,

Plaintiff,

v.

THE UNITED STATES,

Defendant.

JUDGMENT

Pursuant to the court's Order, filed September 4, 2025, granting defendant's motion to dismiss,

IT IS ORDERED AND ADJUDGED this date, pursuant to Rule 58, that plaintiff's complaint is dismissed, with prejudice, for lack of jurisdiction. No costs.

Lisa L. Reyes,
Clerk of Court

By: s/ Ashley Reams
Deputy Clerk

APPENDIX F

**UNITED STATES COURT OF
FEDERAL CLAIMS**

Scheduled Matters

**Intellectual Property Suits in the United States
Court of Federal Claims**

Posted on:

2017-10-04 Vol. 10 No. 1

By Judge Mary Ellen Coster Williams and Diane E.
Ghrist Published on the American Bar Association's
website

Known as “the People’s Court,” the US Court of Federal Claims (USCFC) was created by Congress as a forum for suits against the government for monetary damages. The USCFC consists of 16 judges appointed by the president and confirmed by the US Senate for terms of 15 years. Appeals from the USCFC are resolved by the US Court of Appeals for the Federal Circuit. The USCFC is unique in the federal trial court system in that it has nationwide jurisdiction, and hears a variety of claims against the US government for money damages, including patent and copyright infringement, government contract disputes, Fifth Amendment takings, tax refund claims, tribal claims, military and civilian personnel cases, and Vaccine Act appeals.

The government has expressly waived its sovereign immunity and consented to be sued for patent infringement under 28 U.S.C. § 1498(a) and copyright infringement under 28 U.S.C. § 1498(b). With the government’s use of intellectual property (IP) steadily increasing, the USCFC has seen a rise in both infringement actions and peripheral IP issues in the

contract arena.¹ This article outlines the USCFC's jurisdiction in IP cases, tracing its historical and legislative roots, and addresses some unique features of IP litigation in this forum, including jurisdiction, third-party practice, indemnification, and remedies.

Eminent Domain and Taking Patent Licenses

On June 25, 1910, Congress passed "An Act to provide additional protection for owners of patents of the United States" (1910 Act), stating in pertinent part:

That whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the Court of Claims.²

Prior to the 1910 Act, the Supreme Court considered patent infringement to be a tort claim for which the government had not waived sovereign immunity.³ The Court of Claims⁴ heard some suits involving allegations of patent infringement on a breach of contract theory if there was proof of a contract obligating the government to pay the patent owner.⁵ The Supreme Court, however, recognized this situation to be an "injustice . . . as applied to rights of the character of those embraced by patents, because of the frequent possibility of their infringement by the acts of [government] officers under circumstances which would not justify the implication of a contract."⁶

Dubbed the "Government Use Statute," the 1910 Act created a means for patent owners to obtain money damages for the government's use of patented inventions while at the same time not restricting the government's use.⁷ Congress styled the 1910 Act un-

der the theory of eminent domain, as the government's taking of a license to use a patented invention would be for the benefit of the public.⁸ As stated in *Calhoun v. United States*, "when a patented device or invention is made or used by or for the United States, [the government] ipso facto takes by eminent domain a compulsory compensable license in the patent; the patentee obtains his Fifth Amendment just compensation for that taking through his action [in the USCFC] under § 1498."⁹

But the 1910 Act proved to be unworkable after the Supreme Court, in *William Cramp & Sons Ship & Engine Building Co. v. International Curtis Marine Turbine Co.*, held that a contractor could be found liable for patent infringement in connection with its performance of work for the government.¹⁰ The Court reasoned that a contractor with the United States is "bound to discharge the obligation of his contract without violating the rights of others."¹¹ The Court continued that a mere contract with the United States does not vest a contractor with the "power to take the property of others upon the assumption that as a result of the contract with the United States he enjoys the right to exercise public and governmental powers possessed by the United States."¹² The *William Cramp* decision opened the door for patent owners to sue federal contractors and subject them to the harsh remedies of injunctions and punitive treble damages available in district court.¹³

The Supreme Court decided *William Cramp* on March 4, 1918, in the midst of World War I. The decision immediately deterred contractors from working with the government for fear of protracted litigation, which in turn hampered the government's ability to procure patented inventions.¹⁴ These undesirable

effects prompted the Acting Secretary of the Navy, Franklin D. Roosevelt, to write a letter to Congress immediately requesting the 1910 Act be amended to protect contractors from litigation. Within four months, Congress passed the 1918 version of the Government Use Statute that clarified the government's assumption of liability for a contractor's unlawful use or manufacture of a patented invention and limited a plaintiffs sole remedy to monetary compensation.¹⁵

Section 1498(a) took its present form in 1949, and retains the bedrock principles established in 1910 and 1918 of (1) defining the government's unlawful use or manufacture of patented articles as a Fifth Amendment taking of a license to use a patented invention, (2) providing government contractor immunity from patent infringement litigation, and (3) limiting available remedies to monetary damages.¹⁶ Section 1498(a) provides in pertinent part:

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture. ... For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the

Government, shall be construed as use or manufacture for the United States.¹⁷

As in the early days of the Government Use Statute, most patent infringement actions under § 1498(a) today center on wartime and national security needs. Other suits involve government-dominated research areas such as outer space exploration.¹⁸

The USCFC's patent infringement actions mirror those in district court, but the USCFC exclusively holds bench trials, and government contractors are frequently third-party defendants. Like in district court, the USCFC typically holds a Markman¹⁹ hearing on claim construction before hearing infringement and validity.²⁰ However, validity may only be raised as an affirmative defense to infringement and not as a counterclaim.²¹ Several judges on the USCFC use the local rules of the Northern District of California and modify those rules to comport with § 1498.²² In addition, the USCFC has a user-friendly alternative dispute resolution program that facilitates the settlement of infringement actions before the court.²³

Scope of Section 1498(a)

As § 1498(a) infringement actions are grounded in eminent domain and not defined by statute, the scope of what constitutes the unlawful taking of a license to use a patent is a creature of case law. As such, the basis for the USCFC's jurisdiction over infringement actions must be linked to the government's taking of a patent license through its "use or manufacture" of the patented invention "without license of the owner thereof or lawful right."²⁴ In contrast, the Patent Act—the statutory basis that governs the processes for issuing and enforcing patents before the United States Patent and Trademark Office (USPTO) and

the district courts—defines patent infringement as a statutory tort in 35 U.S.C. § 271.25 Section 271(a) of the Patent Act provides: “whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.” In contrast, § 1498(a) only references patented inventions “used or manufactured by or for the United States” as potentially infringing acts. The relationship between infringement as a tort under the Patent Act and infringement as a Fifth Amendment taking under § 1498(a) remains a hotly litigated topic before the USCFC.²⁶

In *Decca Ltd. v. United States*, the Court of Claims interpreted § 1498 to mean that the government consented to be sued for damages stemming from direct infringement by consenting to suits for its “taking of a patent license,” because § 1498(a) does not give rise to government liability for activities “which fall short of direct infringement,” including induced and contributory infringement, which contain intent requirements.²⁷ In *Zoltek III*, the Federal Circuit further narrowed § 1498 by holding that direct infringement under § 1498(a) with respect to the United States’ use or manufacture of a patented invention was predicated on § 271(a) of the Patent Act.²⁸ Thus, other definitions of infringement under § 271, such as the importation of an infringing product under § 271(g), were not causes of action available for patent owners in suits against the government under § 1498.

However, in the 2012 en banc decision *Zoltek V*, the Federal Circuit abrogated *Zoltek III*, holding that establishing conduct falling within the definition of

direct infringement codified in 35 U.S.C. § 271(a) is not a predicate to finding infringement under § 1498(a). Instead, the court concluded that the scope of § 1498(a) is “linked to the scope of the patent holder’s rights as granted by the patent grant in title 35 U.S.C. section 154(a)(1).”²⁹ In contrast to the statutory definitions of infringement in § 271, § 154(a)(1) defines the patent grant issued by the USPTO as:

the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, . . . the right to exclude others from using, offering for sale or selling throughout the United States, products made by that process, referring to the specification for the particulars thereof.³⁰

The Federal Circuit thus reverted to its pre—Zoltek III position that a § 1498 action is parallel to a title 35 action and not predicated on the statutory definitions of infringement listed in § 271 of the Patent Act.³¹

In Zoltek V, the appellate court emphasized that § 1498(a) is “its own independent cause of action” with three elements to trigger government liability: (1) the invention must be claimed in a patent; (2) it must be “used or manufactured by or for the United States,” meaning each limitation of the claims must be present in the accused product or process; and (3) the “use or manufacture” of the patented invention must be done without license or lawful right—i.e., “use of an invention that, if done by a private party, would directly infringe the patent.”³² In applying these three requirements, the Zoltek court found

that a government contractor's importation into the United States of a product made by a patented process for use by the government fell within the scope of § 1498(a)'s waiver of sovereign immunity because a private party would be liable for direct infringement for such use of the imported product under 35 U.S.C. §§ 154 and 271(g).³³

The Federal Circuit further stated that “[a]s the patent grant has expanded over the years, so too has the coverage of § 1498(a),” suggesting that any statutory changes to the patent grant under 35 U.S.C. § 154(a)(1) will have a corresponding effect on the scope of § 1498(a).³⁴ As such, the Federal Circuit has recognized that § 1498(a) extends to actions “recognized as being defined by § 271(a)”³⁵ as well as the importation of an infringing product or product made by an infringing process under § 271(g). However, the Federal Circuit has not determined whether the other types of infringement defined in 35 U.S.C. § 271(b), (c), and (f) fall within the scope of actions under § 1498.³⁶ Walking back *Decca*, the *Zoltek V* court hinted at the possibility that § 1498(a) may extend to acts “recognized as being” defined as induced infringement under § 271(b) and contributory infringement under § 271(c), as well as infringement under § 271(f), which defines an act of infringement to be exportation of product components that, when combined abroad, would infringe a patent if the product were to be combined in the United States.³⁷ In sum, while *Zoltek V* clarified that § 1498(a) must be tied to the patent grant under 35 U.S.C. § 154, the decision left open questions regarding the full extent of § 1498(a)'s waiver of sovereign immunity.

Government Contractor Immunity

Underlying the government's assumption of liability for patent infringement under § 1498(a) is the recognition that government contractors are immune from any type of patent infringement claim in district court. Congress amended § 1498(a) in 1918, at the behest of the Secretary of the Navy to expressly provide for government contractor immunity. The statute is clear in providing that "the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States."³⁸ The purpose behind this amendment was to enable the government to procure patented inventions without judicial interference, a goal that was achieved by barring infringement actions against contractors. Under the plain language of the statute, there are two elements a contractor must satisfy for the government to assume liability under § 1498(a). First, a contractor's use or manufacture of the invention must be "for the government," and second, the contractor must have the "authorization or consent of the government" for that use or manufacture.

"For the Government"

In *Advanced Software Design Corp. v. Federal Reserve Bank of St. Louis*, the Federal Circuit interpreted the term "for the government" to mean that the government derives a benefit from the use or manufacture of the patented technology.³⁹ For example, the patented technology itself must be used "in furtherance and fulfillment of a stated Government policy," which would serve the government's in-

terest, for the government's benefit.⁴⁰ In contrast, if the government simply has an "interest in the program generally, or funds or reimburses all or part of its costs," that interest is too remote to support a finding of a government benefit.⁴¹ In other words, the government's mere funding of an infringing activity does not establish that such activity is "for the government" within the meaning of § 1498(a).

Authorization or Consent

The government's authorization of or consent to a contractor's infringing activity may be express or implied.⁴² Federal Acquisition Regulation (FAR) 52.227-1 contains an express grant of "authorization and consent" for contractors and subcontractors for the use and manufacture of any patented invention (1) embodied in the structure or composition of any article delivered to and accepted by the government related to a government contract; or (2) used in machinery, tools, or methods necessary for a contractor to comply with the specifications of a contract, or if such use is directed by a contracting officer's specific written instructions.⁴³ The FAR also requires a contractor to report "promptly and in reasonable written detail" to the contracting officer any claim of patent infringement of which the contractor has knowledge based on the performance of a contract.⁴⁴

To succeed on an implied authorization theory there must be some explicit government action, such as a contracting officer's instruction, or evidence extrinsic to the contract language showing the government's intention to assume liability.⁴⁵ In *Larson v. United States*, the Claims Court recognized that implied authorization "may be found under the following conditions: (1) the government expressly contracted for work to meet certain specifications; (2) the

specifications cannot be met without infringing on a patent; and (3) the government had some knowledge of the infringement.”⁴⁶ The purpose behind permitting the government’s authorization or consent to be implied is tied to the government’s need to procure items without disruption,⁴⁷ and avoid the need for government agencies to perform an exhaustive patent search for products or services they wish to procure.

For example, in *WI Energy*, the Federal Circuit found implied authorization or consent where the government required a contractor to demonstrate an allegedly infringing device as part of bidding requirements under a United States military solicitation for disposable thermal targets.⁴⁸ Following the demonstration, one bidder/patent owner, *WI Energy*, sued a competing bidder, *Blane*, for patent infringement. *Blane* asserted immunity under § 1498(a), despite having no express letter of consent or authorization from the government to infringe any patent. The Federal Circuit nevertheless found implied authorization, stating that “[t]o limit the scope of § 1498 only to instances where the Government requires by specification that a supplier infringe another’s patent would defeat the Congressional intent to allow the Government to procure whatever it wished regardless of possible patent infringement.”⁴⁹ Courts have often found a contractor, through the government’s implied authorization, to be immune from suit from the time it offers to supply or begin to manufacture products for the government.⁵⁰

If these two elements—acting “for the government” with its “authorization or consent”—are met, then a contractor who infringes a patent in the course of its performance of work for the government, under any definition of infringement in § 271 of the Patent Act,

is shielded from liability. In this respect, § 1498(a) serves as an affirmative defense available to government contractors in patent infringement actions in district court.⁵¹ Correlatively, where the government has assumed a contractor's liability, a patent owner can seek judicial relief by filing suit against the government in the USCFC.⁵²

Indemnification

The FAR's patent indemnity provision provides that a contractor shall indemnify the Government and its officers, agents, and employees against liability, including costs, for any infringement of any United States patent . . . arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property . . . or out of the use or disposal by or for the account of the Government of such supplies or construction work.⁵³

Under the FAR, the government must inform the contractor "as soon as practicable" of any action for patent infringement so that the contractor has an opportunity to participate in its defense.⁵⁴ If the government fails to inform a contractor "as soon as practicable" of the pending action, the government cannot invoke the FAR's patent indemnity provision against a contractor.

To participate in its defense, a contractor may opt to join the § 1498(a) litigation as a third-party defendant. Under Rule 14(b) of the Rules of the United States Court of Federal Claims (RCFC), the court "may notify any person with the legal capacity to sue or to be sued who is alleged to have an interest in the subject matter of the suit." Further, a "person served with a notice issued . . . may file an appropriate

pleading setting forth the person's interest in the subject matter of the litigation."⁵⁵ In resolving a petition for mandamus, the Federal Circuit held in *In re UUSI, LLC*, that a third party's potential obligation to indemnify the government for any patent infringement liability provides "sufficient interest in litigation to offer evidence and advance legal arguments appropriate to protect its own interests."⁵⁶ The Federal Circuit noted, however, that a third-party defendant cannot assert any counterclaims against a plaintiff, as such claims would result in litigation between private parties and "impermissibly exceed[] the scope of the Court of Federal Claims' limited jurisdiction."⁵⁷

While a contractor need not participate in the § 1498 litigation, contractors should be aware that failure to appear in response to a notice under Rule 14(b) acts as a waiver of any later argument that the contractor should not indemnify the government on grounds that the USCFC incorrectly decided the patent was valid and infringed. As the USCFC held in *Bowser, Inc. v. United States*:

We think there is implicit in the whole plan and purpose of Subsection 14(b) a congressional intent that the issues of fact and law decided in a suit against the United States in the Court of Claims may not be retried in another court at the insistence of a third party, who had a "possible" interest in the case in this court but who failed to appear and protect his interest after timely notice or summons had been served upon him.⁵⁸

Available Remedies

Under § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire” compensation. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.⁵⁹ In takings jurisprudence, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention.⁶⁰ As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. In contrast, under the Patent Act, damages are measured as either lost profits or a reasonable royalty, i.e., the amount for which the patent owner would be willing to license the patent, based on a hypothetical licensing negotiation between the patent owner and accused infringer.⁶¹

The Court of Claims explained that “reasonable and entire compensation” has two components related to a takings analysis: the first is to determine the value of the license at the time it was taken by the government, and the second involves compensating for the government’s delay in paying for that license.⁶² To calculate the damages related to these two components, the Court of Claims has recognized three methods of valuation of the first component, license value: (1) determination of a reasonable royalty for the license; (2) awarding a percentage of government cost savings arising from governmental use of the patented invention; or (3) awarding lost profits.⁶³ In *Decca*, the Court of Claims recognized that the de-

termination of a reasonable royalty is the preferred method of valuation, applying the same case law as in district court patent infringement actions. Indeed, where the patent owner has commercially licensed its patent on terms that are the "same or substantially similar to the rights taken by the Government," the USCFC uses "virtually, without exception, the reasonable royalty method to value the license taken by the Government."⁶⁴ For the second component of delay compensation, the court multiplies any accrued royalty based on the initial license value by an annual percentage rate determined on a case-by-case basis.⁶⁵

Injunctive relief is not available as a primary remedy. The prospect of government contractors being subject to an injunction would disrupt the government's ability to procure its needed supplies and services.⁶⁶ The USCFC may, however, issue equitable relief that is ancillary to monetary damages. For example, the court may set aside the assignment of a patent to the government where the assignment was unlawful in conjunction with a plaintiff's claim for monetary relief under § 1498(a).⁶⁷ However, the term "entire" in § 1498(a) bars any option for a patent owner to obtain punitive damages against the government.⁶⁸

Another wrinkle to § 1498 jurisprudence is the option to obtain damages for the government's use of a patent prior to its issuance or prior to its application's publication pursuant to required withholding under the Invention Secrecy Act, 35 U.S.C. §§ 181-188. The Invention Secrecy Act permits the government to notify the commissioner of patents to withhold "publication of the [patent] application or the grant of a patent" if the publication or disclosure of a

patent application or patent might be “detrimental to the national security.”⁶⁹ Section 183 of the Invention Secrecy Act provides a right to compensation beginning “on the date of the first use of the invention by the Government.” The patent owner can either enter into a settlement agreement with the government to obtain this compensation, seek additional compensation beyond the settlement agreement in the USCFC or district court, or wait until the patent issues and “bring suit in the United States Court of Federal Claims for just compensation for the damage caused by reason of the order of secrecy and/or use by the Government of the invention resulting from his disclosure.”⁷⁰ In such Invention Secrecy Act cases, the USCFC remanded cases to administrative agencies to pursue settlement agreements with patent owners.⁷¹ In fiscal year 2016, the USPTO, in response to a Freedom of Information Act request, reported that 5,680 patents and patent applications are subject to secrecy orders, largely requested by the Army, Navy, and Air Force.⁷²

Copyright: Section 1498(b)

Section 1498(b) governs the government’s use of copyrighted works:

Hereafter, whenever the copyright in any work protected under the copyright laws of the United States shall be infringed by the United States, by a corporation owned or controlled by the United States, or by a contractor, subcontractor, or any person, firm, or corporation acting for the Government and with the authorization or consent of the Government, the exclusive action which may be brought for such infringement shall be an action by the copyright owner against the

United States in the Court of Federal Claims for the recovery of his reasonable and entire compensation as damages for such infringement, including the minimum statutory damages as set forth in section 504(c) of [the Copyright Act].⁷³

Under § 1498(b), federal employees may bring actions against the government except where: (1) the employee “was in a position to order, influence, or induce use of the copyrighted work by the Government”; or (2) the copyrighted work “was prepared as a part of the official functions of the employee, or in the preparation of which Government time, material, or facilities were used.” In *Blueport Co. v. United States*, the Federal Circuit held that these first two provisos are jurisdictional requirements and act as a limit on the scope and application of § 1498(b).⁷⁴ Section 1498(b) also contains a third provision that before filing an action in the USCFC, the head of a government agency or a corporation owned or controlled by the states can enter into a settlement agreement with the copyright owner and “settle the claim administratively out of available appropriations.”

At first blush, there are a number of similarities between copyright infringement actions under § 1498(b) and patent infringement actions under § 1498(a). As with patent infringement, the government can only be subjected to monetary damages in the form of “reasonable and entire compensation.”⁷⁵ Infringement of a copyright by a contractor must be “for the government” with the “authorization or consent” of the government in order to confer jurisdiction on the USCFC. There are also some stark differences between subsections (a) and (b). Unlike § 1498(a), which makes no reference to the term “patent in-

fringement,” the cause of action under § 1498(b) is explicitly called “infringement,” implicating the definition of infringement under 17 U.S.C. § 106.76

Moreover, unlike patents that are exclusively a federal government property grant, there are two sources of copyright grants: the Copyright Act codified in title 17 of the United States Code and state common law. Under § 1498(b), the government has only waived sovereign immunity with respect to works “protected under the copyright laws of the United States,” meaning under the copyright laws codified in title 17.⁷⁷ A copyright owner is subject to certain restrictions in the Copyright Act, most significantly the requirement that the copyright be registered with the Copyright Office before bringing suit as set forth in 17 U.S.C. § 411(a).⁷⁸

The USCFC has also seen copyright infringement actions related to software.⁷⁹ While software can be either patented or copyrighted, the FAR contains mandatory rights that a software license agreement must confer on the government, “[n]otwithstanding any contrary provisions contained in the Contractor’s standard commercial license.”⁸⁰ These FAR provisions are sweeping, and may be fatal to a claim of either patent or copyright infringement before the USCFC.⁸¹ FAR 52.227-19(b) provides that the “commercial computer software” delivered pursuant to a government contract “may not be used, reproduced, or disclosed by the Government,” except that the commercial computer software may be: (1) used or copied for use with the computer(s) for which it was acquired, including use at any government installation to which the computer(s) may be transferred; (2) used or copied for use with a backup computer if any computer for which it was acquired is in-

operative; (3) reproduced for safekeeping or backup purposes; (4) modified, adapted, or combined with other computer software; (5) disclosed to and reproduced for use by support service contractors or their subcontractors; and (6) used or copied for use with a replacement computer.⁸²

Endnotes

1. See, e.g., *Am. Safety Council, Inc. v. United States*, 122 Fed. Cl. 426, 436 (2015) (preaward bid protest finding technical data rights clauses in solicitation unduly restrictive); *Allied Tech. Grp., Inc. v. United States*, 94 Fed. Cl. 16, 38 (2010) (upholding rejection of the plaintiffs quotation, where the plaintiff conditioned its offer on the government's acceptance of data rights provisions that conflicted with the solicitation); *FN Mfg., Inc. v. United States*, 44 Fed. Cl. 449, 451-52 (1999) (upholding award of a sole source supply contract, where proprietary data rights precluded competitive procurement); *Authentic Apparel Grp., LLC v. United States*, No. 15-16C (Fed. Cl. filed Jan. 6, 2015) (claiming breach of a trademark licensing agreement). In an appeal of a USCFC decision on claim construction, *Liberty Ammunition, Inc. v. United States*, 835 F.3d 1388, 1401-02 (Fed. Cir. 2016), the Federal Circuit found a nondisclosure agreement (NDA) unenforceable because the government official who entered into the NDA lacked the requisite authority to bind the government. Judge Newman dissented.

2. 36 Stat. 851 (1910).

3. *Schillinger v. United States*, 155 U.S. 163, 169 (1894) ("That this action is one sounding in tort is clear. It is in form one to recover damages. The petition charges a wrongful appropriation by the gov-

ernment, against the protest of the claimants, and prays to recover the damages done by such wrong.”).

4. The Court of Claims is the predecessor to the Federal Circuit, and its body of case law prior to 1982 is binding precedent in the USCFC.

5. *Crozier v. Fried. Krupp Aktiengesellschaft*, 224 U.S. 290, 304 (1912).

APPENDIX G

**THE GOVERNMENT CANNOT APPROPRIATE
OR USED A PATENTED INVENTION WITHOUT
PAYING “JUST COMPENSATION”
[U.S. CONST. 5th Amend]**

COUNT I: U.S. Patent No: 7,385,497 “CBR Multi Sensor Detection System”
COUNT II: U.S. Patent No: 7,385,497 “CBR Multi Sensor Detection with Lock Disabling System”
COUNT III: U.S. Patent No: 7,385,497 “CBR Multi Sensor Detection with Automatic/Mechanical Lock Disabling System”
COUNT IV: U.S. Patent No: 7,385,497 “CBR Multi Sensor Detection; Lock Disabling; Stall, Stop, Vehicle Slow-Down System”
COUNT V: U.S. Patent No: 8,106,752 “Cellular and/or Satellite Stall-To-Stop Vehicle Slowdown System”
COUNT VI: U.S. Patent No: 8,106,752 “CBR Multi Sensor Detection with Corresponding Indicator Lights for Visual Confirmation”
COUNT VII: U.S. Patent No: 8,334,761 “Remote Controlled Stall-To-Stop Vehicle Slowdown System”
COUNT VIII: U.S. Patent No: 8,334,761 “Vehicle Slowdown Means is Pre-Programmed to Automatically Activate”

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COUNT IX: U.S. Patent No: 8,531,280 “Product Grouping Detection, Stall-to-Stop, Lock Disabling Security Systems”
COUNT X: U.S. Patent No: RE43,891 “Vehicle Slowdown System Interconnected to the Electromotive System”
COUNT XI: U.S. Patent No: RE43,891 “Vehicle Slowdown System with GPS Location and Tracking”
COUNT XII: U.S. Patent No: RE43,891 “Vehicle Slowdown System Interconnected to the Vehicles Computer Systems”
COUNT XIII: U.S. Patent No: RE43,891 “Pre-Programmed Vehicle Slowdown “Operating” System”
COUNT XIV: U.S. Patent No: RE43,891 “Anti-Terrorism Product Grouping Security Systems”
COUNT XV: U.S. Patent No: RE43,891 “Pre-Programmed Vehicle Stall-to-Stop with Brake Override System”
COUNT XVI: U.S. Patent No: RE43,891 “Vehicle Slow-Down Controlled by a Mobile, Portable, or Fixed Communication Device”
COUNT XVII: U.S. Patent No: RE43,891 “Vehicle Slow-Down System Comprises a Transceiver Carried by the Vehicle”
COUNT XVIII: U.S. Patent No: RE43,891 “Vehicle Stall-to-Stop System with Ignition Lock”

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COUNT XIX: U.S. Patent No: RE43,990 “Internal/External Automatic/Mechanical Lock Disabler System”
COUNT XX: U.S. Patent No: RE43,990 “Maritime Cargo Container Multi-Sensor Detection System”
COUNT XXI: U.S. Patent No: RE43,990 “Internal/External Remote/Electrical Lock Disabler System”
COUNT XXII: U.S. Patent No: RE43,990 “Maritime Container Detection System for Seaport Crane, Harbor Crane, Straddle-Carrier”
COUNT XXIII: U.S. Patent No: RE43,990 “Product Grouping for Maritime Cargo Container Multi-Sensor Detection System”
COUNT XXIV: U.S. Patent No: 9,096,189 “CMDC Device with Bluetooth Connected Multi-Sensor Detection Devices”
COUNT XXV: U.S. Patent No: 9,096,189 “Monitoring Equipment with Radio Frequency (RF) Connected Detection Devices”
COUNT XXVI: U.S. Patent No: 9,096,189 “Monitoring Equipment with WiFi/Internet Connected Detection Devices”
COUNT XXVII: U.S. Patent No: 9,096,189 “Built-in, Embedded Fixed Multi Sensor Detection System”
COUNT XXVIII: U.S. Patent No: 9,096,189 “Built-in Sensor Array for CBRNE-H Detection”

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COUNT XXIX: U.S. Patent No: 9,096,189 “Monitoring Equipment with Built-in Sensor Array for CBRNE-H Detection”
COUNT XXX: U.S. Patent No: 9,096,189 “CBRNE-H Sensors Disposed In, On, Upon, or Adjacent a Multi Sensor Detection Device”
COUNT XXXI: U.S. Patent No: 9,096,189 “Lock Disabling Mechanism for Monitoring Equipment”
COUNT XXXII: U.S. Patent No: 9,096,189 “Monitoring Equipment with Near-Field Communication (NFC) for CBRNE-H Detection”
COUNT XXXIII: U.S. Patent No: 9,589,439 “Product Grouping Inventions, (Devices, Apparatuses, and Systems for Border Security)”
COUNT XXXIV: U.S. Patent No: 9,589,439 “CMDC Device with Biometric Fingerprint/Facial Lock Disabler”
COUNT XXXV: U.S. Patent No: 9,589,439 “Monitoring Equipment Capable of Wired or Wireless Communication”
COUNT XXXVI: U.S. Patent No: 9,589,439 “Monitoring Equipment Capable of Receiving Signals from Cargo Container CBR Devices”
COUNT XXXVII: U.S. Patent No: 9,589,439 “Built-in, Embedded Multi Sensor Detection System Capable of Human Sensing”

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COUNT XXXVIII: U.S. Patent No: 9,589,439 “Built-in, Embedded Multi Sensor Detection System with Alarm System”
COUNT XXXIX: U.S. Patent No: 9,589,439 “Detection System for Detecting Motion, Perimeter, Temperature, Tampering, Theft”
COUNT XL: U.S. Patent No: 9,589,439 “Multi-Sensor Detection System with Limited Types of Communication Means”
COUNT XLI: U.S. Patent No: 9,589,439 “Multi-Sensor Detection System Implemented by the Government”
COUNT XLII: U.S. Patent No: 9,589,439 “Multi-Sensor Detection Device and Monitoring Equipment “Tap” Exchange Data”
COUNT XLIII: U.S. Patent No: 9,589,439 “Communicating, Monitoring, Detecting, and Controlling (CMDc) Device”
COUNT XLIV: U.S. Patent No: 9,589,439 “New, Improved Upon, and Useful—Cell Phone”

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**TWELVE FEDERAL JUDGES INFERRED TO
SAY: INFRINGEMENT OCCURS WHEN A
“CONSUMER / MOBILE / CELLULAR DEVICE
IS INTEGRATED WITH A CBRNE-H
DETECTION CAPABILITY”**

COUNT LVI: Claim 1 U.S. Patent No: 11,645,898 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LVII: Claim 1 of U.S. Patent No: 10,984,619 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LVIII: Claim 5 U.S. Patent No: 10,163,287 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LIX: Claim 23 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LX: Claim 22 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXI: Claim 20 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXII: Claim 19 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”

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COUNT LXIII: Claim 17 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXIV: Claim 16 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXV: Claim 15 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXVI: Claim 14 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXVII: Claim 13 U.S. Patent No: 9,589,439 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXVIII: Claim 1 U.S. Patent No: 9,096,189 “Consumer / Mobile / Cellular Device Integration with a Detection Capability”
COUNT LXIX: U.S. Patents are: [11,645,898]; [10,984,619]; [10,163,287]; [9,589,439]; and [9,096,189] “Consumer / Mobile / Cellular Device Integration with a Detection Capability”

COUNT LVI:
Claim 1 U.S. Patent No: 11,645,898
“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

1. Count LVI incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or

manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 1 of his ‘898 patent’.

2. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

3. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

4. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

5. Upon information and belief, the United States Court of Federal Claims; the United States District

Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden's "Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there's an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government's unlawful takings of a compulsory, non-exclusive, license to infringe Golden's independent claim 1 of his '898 patent' is inevitable.

6. Upon information and belief, the Government has in the past, and continues to unlawfully "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 1 of Golden's '898 patent', is found in the following Government initiative(s):

- Consumer devices (Laptop; Tablet, etc.): "use or manufacture" for the United States Department of Defense's Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense (DoD JPEO-CBRND)

7. Upon information and belief, "[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained," and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, "reasonable and entire compensation" is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. "*Intellectual*

Property Suits in the United States Court of Federal Claims"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit A*

COUNT LVII:

Claim 1 of U.S. Patent No: 10,984,619

"Consumer / Mobile / Cellular Device Integration
with a Detection Capability"

8. Count LVII incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government "used or manufactured" Golden's "Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—"invention—independent claim 1 of his '619 patent'.

9. Upon information and belief, the United States has in the past, and continues to "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device "without license of the owner thereof or lawful right to use or manufacture the same" [28 U.S.C. § 1498(a)] without paying "reasonable and entire compensation".

10. According to this United States Court of Federal Claims: "[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to "reasonable and entire compensation". Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)'s roots in eminent domain, not tort." *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) ("The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...") *Intellectual Property Suits in the United States Court of Federal Claims*"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit A*

11. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

12. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 1 of his ’619 patent’ is inevitable.

13. Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 1 of Golden’s ’619 patent’, is found in the following Government initiative(s):

- Consumer or Mobile devices (Laptop; Tablet, iPhone, Android Phone, etc.): “use or manufacture” for the United States Department of Defense’s Defense Threat Reduction Agency Android Tactical Assault Kit Chemical,

Biological, Radiological, and Nuclear Plug-in
Sensors (DoD DTRA-ATAK CBRNE)

14. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *Intellectual Property Suits in the United States Court of Federal Claims*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LVIII:

Claim 5 U.S. Patent No: 10,163,287

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

15. Count LVIII incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 5 of his ‘287 patent’.

16. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

17. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit*

18. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit*

19. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDc) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 5 of his ’287 patent’ is inevitable.

20. Upon information and belief, the Government has in the past, and continues to unlawfully “use or

manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 5 of Golden’s ’287 patent’, is found in the following Government initiative(s):

- Mobile or Cellular devices (iPhone, Android Phone, Cell Phone, PDA, etc.): “use or manufacture” for the United States Department of Homeland Security’s Science and Technology Directorate Broad Agency Announcement 07-10 *Cell-All Ubiquitous Chemical and Biological Sensing* (DHS S&T “Cell-All”)

21. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LIX:

Claim 23 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

22. Count LIX incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 23 of his ‘439 patent’.

23. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

24. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

25. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just

compensation required by the Fifth Amendment.”). *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

26. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 23 of his ‘439 patent’ is inevitable.

27. Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 23 of Golden’s ‘439 patent’, is found in the following Government initiative(s):

- Samsung Galaxy “Fingertip Heart Rate Monitor” (monitoring device)
- Samsung Galaxy interconnected to the “Samsung Gear S2 Smartwatch” (detection device)
- Samsung Galaxy (communicating device) and Samsung Gear S2 smartwatch (detection device) interconnected to the Yale Assure Lock (controlling device)

- Samsung Galaxy (communicating device) and “Samsung SmartThings Hub” (communicating device - interface-gateway) interconnected to the Yale Assure Lock (controlling device)
- Samsung Galaxy (communicating device) and Samsung Gear S2 (detection device) interconnected to the “Volkswagen Car-Net e-Remote” (controlling - locking device)

28. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *Intellectual Property Suits in the United States Court of Federal Claims*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LX:

Claim 22 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

29. Count LX incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 22 of his ’439 patent’.

30. Upon information and belief, the United States has in the past, and continues to “use or manufacture”

Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device "without license of the owner thereof or lawful right to use or manufacture the same" [28 U.S.C. § 1498(a)] without paying "reasonable and entire compensation".

31. According to this United States Court of Federal Claims: "[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to "reasonable and entire compensation". Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)'s roots in eminent domain, not tort." *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) ("The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...") "*Intellectual Property Suits in the United States Court of Federal Claims*"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit*

32. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have 'taken' the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment." "*Intellectual Property Suits in the United States Court of Federal Claims*"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit*

33. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden's "Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there's an integration of a consumer, mobile, or cellular device

with a detection capability. Therefore, the Government's unlawful takings of a compulsory, non-exclusive, license to infringe Golden's independent claim 22 of his '439 patent' is inevitable.

34. Upon information and belief, the Government has in the past, and continues to unlawfully "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 22 of Golden's '439 patent', is found in the following Government initiative(s):

- Apple's iPhone / iPad Camera Biosensor for Facial & Heart Rate Monitor (monitoring device)
- Apple's iPhone and the iPad interconnected to the Apple Watch (detection device)
- Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to the August Smart Lock (controlling device)
- Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); Apple's HomeKit; August Connect (communicating device); interconnected to the August Smart Lock (locking device)
- Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to Ford's MyFord Mobile App (controlling device)

35. Upon information and belief, "[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained," and in § 1498(a)

what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LXI:

Claim 20 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

36. Count LXI incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 20 of his ’439 patent’.

37. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

38. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent

domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

39. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

40. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 20 of his ’439 patent’ is inevitable.

41. Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 20 of

Golden's '439 patent', is found in the following Government initiative(s):

- Qualcomm / NASA "Cell-All": Apple iPhone CBRNE detection
- "Kromek D3S-NET": Apple iPhone CBRNE detection
- Biomeme "two3" Mobile Thermocycler: Apple iPhone for Bio/Chem detection
- Smartphone-operated "LAMP box": Apple iPhone for Bio/Chem detection
- Alluviam LLC HazMasterG3: Apple iPhone CBRNE detection
- FePhone Point-of-Care: Apple iPhone for Bio/Chem detection
- NutriPhone Lab-on-a-Chip: Apple iPhone for Bio/Chem detection
- FeverPhone: Apple iPhone for Bio/Chem detection
- Solar Thermal PCR Test: Apple iPhone for Bio/Chem detection
- Lab-on-a-Drone: Apple iPhone for Bio/Chem detection

42. Upon information and belief, "[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained," and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, "reasonable and entire compensation" is the exclusive remedy for patent infringement under

§ 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LXII:

Claim 19 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

43. Count LXII incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 19 of his ’439 patent’.

44. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

45. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) *“Intellectual Property Suits in the United States*

Court of Federal Claims"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit*

46. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have 'taken' the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment."'). *"Intellectual Property Suits in the United States Court of Federal Claims"*; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit*

47. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden's "Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there's an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government's unlawful takings of a compulsory, non-exclusive, license to infringe Golden's independent claim 19 of his '439 patent' is inevitable.

48. Upon information and belief, the Government has in the past, and continues to unlawfully "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 19 of Golden's '439 patent', is found in the following Government initiative(s):

- EAGER: Mobile-Phone Based Single Molecule Imaging for DNA

- INSPIRE Track 2: Public Health Nanotechnology and Mobility (PHeNoM) (CMDC device)
- PFI: BIC Human-Centered Smart-Integration of Mobile Imaging and Sensing (CMDC device)
- EFRI-BioFlex: Cellphone-Based Digital Immunoassay Platform (CMDC device)
- “Multimode Smartphone Biosensor” for Bio/Chem detection
- EAGER: Lab-in-a-Smartphone for Bio/Chem detection
- PFI-BIC “Pathtracker: Smartphone-based for Mobile Infectious Disease Detection -
- I-Corps: Ultra-Sensitive Lateral Flow Reporters / Lab-on-Phone Platform for Bio/Chem detection
- Smartphone (iPhone) Microscope for Bio/Chem detection
- Smartphone (iPhone) Biosensor “Cradle” for Bio/Chem detection
- AOptix Stratus MX Peripheral for the Apple (iPhone) Smartphone (fingerprint and iris imaging)
- PositiveID - Boeing / M-Band Apple (iPhone) Smartphone (fingerprint and facial detection)
- Samsung Galaxy “Microscope” Smartphone for Bio/Chem detection

49. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v.*

Chandler-Dunbar Co., 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LXIII:

Claim 17 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

50. Count LXIII incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 17 of his ‘439 patent’.

51. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

52. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not

analogous to that in litigation between private parties ...”) *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit*

53. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit*

54. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 17 of his ’439 patent’ is inevitable.

55. Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 17 of Golden’s ’439 patent’, is found in the following Government initiative(s):

- “VOCKET System” / “Nett Warrior” Smartphone System for CBRNE detection
- GammaPix for Android Smartphones for CBRNE detection
- “Biotouch System” / “Nett Warrior” Smartphone System for Bio/Chem detection
- MultiRae Pro Wireless Portable Multi Threat Radiation and Chemical Detector

56. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *Intellectual Property Suits in the United States Court of Federal Claims*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LXIV:

Claim 16 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

57. Count LXIV incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 16 of his ‘439 patent’.

58. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

59. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

60. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

61. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling

(CMDC) Device, that occurs when there's an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government's unlawful takings of a compulsory, non-exclusive, license to infringe Golden's independent claim 16 of his '439 patent' is inevitable.

62. Upon information and belief, the Government has in the past, and continues to unlawfully "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 16 of Golden's '439 patent', is found in the following Government initiative(s):

- NRL: SIN-VAPOR / Smartphone System for CBRNE detection
- iPhone "Biodetector" Smartphone for CBRNE detection
- FLIR: identiFINDER R300 / Smartphone System for radiation detection

63. Upon information and belief, "[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained," and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, "reasonable and entire compensation" is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *Intellectual Property Suits in the United States Court of Federal*

Claims"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit A*

COUNT LXV:

Claim 15 U.S. Patent No: 9,589,439

"Consumer / Mobile / Cellular Device Integration
with a Detection Capability"

64. Count LXV incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government "used or manufactured" Golden's "Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—" invention—independent claim 15 of his '439 patent'.

65. Upon information and belief, the United States has in the past, and continues to "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device "without license of the owner thereof or lawful right to use or manufacture the same" [28 U.S.C. § 1498(a)] without paying "reasonable and entire compensation".

66. According to this United States Court of Federal Claims: "[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to "reasonable and entire compensation". Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)'s roots in eminent domain, not tort." *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) ("The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...") "*Intellectual Property Suits in the United States Court of Federal Claims*"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit A*

67. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have 'taken' the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment."'). *"Intellectual Property Suits in the United States Court of Federal Claims"*; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit A*

68. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden's "Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there's an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government's unlawful takings of a compulsory, non-exclusive, license to infringe Golden's independent claim 15 of his '439 patent' is inevitable.

69. Upon information and belief, the Government has in the past, and continues to unlawfully "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 15 of Golden's '439 patent', is found in the following Government initiative(s):

- MIT: "NFC" Samsung Galaxy Smartphone Sensor for CBRNE detection
- Navy Marine Corps Intranet (NMCI) Network - Samsung Galaxy (communication network for CBRNE monitoring)

70. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *Intellectual Property Suits in the United States Court of Federal Claims*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LXVI:

Claim 14 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

71. Count LXVI incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 14 of his ‘439 patent’.

72. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

73. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to

“reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit*

74. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit*

75. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 14 of his ’439 patent’ is inevitable.

76. Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC)

Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 14 of Golden's '439 patent', is found in the following Government initiative(s):

- "Cell-All" Rhevision & SeaCoast: Samsung Galaxy for CBRNE detection
- Navy Marine Corps Intranet (NMCI) Network of detection devices - Samsung Galaxy
- 1"x2" Detection Device (DD) for CBRNE detection; Samsung Galaxy Smartphone -
- NetS² SmartShield G500 Radiation Detector Samsung Galaxy Smartphone
- "Kromek D3S-ID": A Standalone Isotope ID (biometric device)

77. Upon information and belief, "[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained," and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, "reasonable and entire compensation" is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. "*Intellectual Property Suits in the United States Court of Federal Claims*"; Vol. 10 No. 1, Also, Published on the American Bar Association's website. *Exhibit A*

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COUNT LXVII:

Claim 13 U.S. Patent No: 9,589,439

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

78. Count LXVII incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention— independent claim 13 of his ’439 patent’.

79. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

80. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

81. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an

eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

82. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 13 of his ’439 patent’ is inevitable.

83. Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 13 of Golden’s ’439 patent’, is found in the following Government initiative(s):

- PositiveID / “Firefly DX” Samsung Galaxy Smartphone for detecting CBRNE
- “Biotouch” Samsung Galaxy for detecting bio-hazards
- Samsung Galaxy “BioPhone” for detecting bio-hazards

- “COINS” Nano-Embedded Sensors for Smartphones CBRNE detection
- Variable’s “NODE+Oxa” for the Apple (iPhone) Smartphone CBRNE detection
- Smartphone-Based Rapid Diagnostic Tests for CBRNE detection
- Navy Marine Corps Intranet (NMCI) Network - Apple iPad
- Apple iPad Tablet Boeing MH-6 Little Bird Helicopter
- “TOUGHBOOK 31” Laptop Passport Systems Inc. Base Control Unit (BCU)
- “TOUGHBOOK 31” Laptop K-Max Self-flying Helicopter

84. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LXVIII:

Claim 1 U.S. Patent No: 9,096,189

“Consumer / Mobile / Cellular Device Integration
with a Detection Capability”

85. Count LXVIII incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—independent claim 1 of his ’189 patent’.

86. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

87. According to this United States Court of Federal Claims: “[U]nder § 1498(a), a patent owner who successfully proves infringement is entitled to “reasonable and entire compensation”. Like the definition of infringement, the remedies available to a patentee are limited by § 1498(a)’s roots in eminent domain, not tort.” *Leesona Corp. v. United States*, 599 F.2d 958, 964 (Ct. Cl. 1979) (“The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties ...”) “*Intellectual Property Suits in the United States Court of Federal Claims*”; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

88. According to this United States Court of Federal Claims: [W]hen the government has infringed, it is deemed to have ‘taken’ the patent license under an

eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.”). *“Intellectual Property Suits in the United States Court of Federal Claims”*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

89. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device, that occurs when there’s an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government’s unlawful takings of a compulsory, non-exclusive, license to infringe Golden’s independent claim 1 of his ’189 patent’ is inevitable.

90. Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 1 of Golden’s ’189 patent’, is found in the following Government initiative(s):

- “Cell-All”: Synkera MikroKera Ultra CBRNE detection
- 2”x2” Detection Device (DD) Samsung Galaxy Smartphone CBRNE detection
- NetS² SmartShield G300 Radiation Detector Samsung Galaxy Smartphone

91. Upon information and belief, “[t]he proper measure in eminent domain is what the owner has lost, not what the taker has gained,” and in § 1498(a) what is taken from the patent owner is a compulsory nonexclusive license to use or manufacture the patented invention. *Id.* at 969 (citing *United States v. Chandler-Dunbar Co.*, 299 U.S. 53, 76 (1913)). As such, in § 1498 actions, “reasonable and entire compensation” is the exclusive remedy for patent infringement under § 1498(a) and is akin to just compensation under the Fifth Amendment of the Constitution. *Intellectual Property Suits in the United States Court of Federal Claims*; Vol. 10 No. 1, Also, Published on the American Bar Association’s website. *Exhibit A*

COUNT LXIX:

Plaintiff’s U.S. Patents are: [11,645,898]; [10,984,619]; [10,163,287]; [9,589,439]; and [9,096,189]
 “Consumer / Mobile / Cellular Device Integration
 with a Detection Capability”

92. Count LXIX incorporate all the pleadings and attachments of this complaint that precedes this section which alleges the Government “used or manufactured” Golden’s “Communicating, Monitoring, Detecting, and Controlling (CMDC) Device—” invention—defined in Golden’s ‘898, ‘619, ‘287, ‘439, and ‘189 patents; without license or lawful right to do so. § 1498(a).

93. Upon information and belief, the United States has in the past, and continues to “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device “without license of the owner thereof or lawful right to use or manufacture the same” [28 U.S.C. § 1498(a)] without paying “reasonable and entire compensation”.

94. Upon information and belief, the United States Court of Federal Claims; the United States District Court for the Northern District of California; and the United States Court of Appeals for the Federal Circuit has confirmed the infringement of Golden's "Communicating, Monitoring, Detecting, and Controlling (CMDc) Device, that occurs when there's an integration of a consumer, mobile, or cellular device with a detection capability. Therefore, the Government's unlawful takings of a compulsory, non-exclusive, license to infringe Golden's '898, '619, '287, '439, and '189 patents' are inevitable.

95. Upon information and belief, the Government has in the past, and continues to unlawfully "use or manufacture" Golden's patented Communicating, Monitoring, Detecting, and Controlling (CMDc) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of Golden's '898, '619, '287, '439, and '189 patents', is described in the following Government initiative(s):

96. Significant advancements in mobile technology have occurred since September 11, 2001, both in the advancement of the devices and the infrastructures that support them. For example, mobile devices like the Android™ and iPad® can now operate equally and seamlessly via traditional cellular networks, as well as with infrastructure/ad hoc wireless networks.

97. The Defense Advanced Research Projects Agency (DARPA) has launched a program known as the Transformative Apps Program. The purpose of this program is to place the correct mobile applications into the hands of warfighters. To facilitate this, a military application store is being created to promote

collaboration between developers and users in the field.

98. Another DoD initiative is Connecting Soldiers to Digital Applications (CSDA), sponsored by the Army Capabilities Integration Center (ARCIC) and the Army CIO/G6, with support from the Army Training and Doctrine Command (TRADOC) deputy commanding general for Initial Military Training, and other Army organizations. The purpose of this initiative is to determine the value of giving soldiers applications on mobile devices [ARMY]. During Phase One of the initiative the Army experimented with several types of smart phones to evaluate the effectiveness and usefulness of various mobile applications in the field. Devices tested included the Apple iPhone®, Google Android™ devices, and Microsoft Windows Mobile™ phones [C4ISR]. On these devices, applications were tested which covered a wide range of functions.

99. DoD is also starting to integrate chemical and biological sensors into mobile devices. Researchers from the University of California, San Diego have developed a miniature chemical sensor which can detect harmful gas in the air and automatically send the information about the type and transmitting range of the gas. The chemical sensor is a silicon chip with hundreds of independent miniature sensors. These can identify the molecule of specific toxic gas and then report on it.

100. 2013: Smartphones and Handheld Devices for Defense and Homeland Security Strategies, Plans, Challenges & Opportunities Symposium:

- “U.S. Coast Guard Smartphones Needs, Challenges & Opportunities” Rear Admiral Robert E. Day, Jr., Assistant Commandant for

Command, Control, Communications, Computers & Information Technology, (C4IT) & Director, Coast Guard Cyber Command, Pre-Commissioning Detachment, U.S. Coast Guard.

- “DoD Mobile Strategy” Mr. Mark Norton, Senior Engineer, Department of Defense, Office of the Chief Information Officer, Office of the Under Secretary of Defense (CIO/OSD).
- “Update on Spectrum Sharing for Mobile Devices at the Tactical Edge” Mr. Julius Knapp, Chief Engineer, Office of Engineering and Technology, Federal Communications Commission (FCC).
- “Secure Smartphone Computing, Needs and Opportunities for a Secure yet Mobile Platform” Mr. Keith Trippie, Executive Director, Enterprise System Development, Office of the Chief Information Officer, Department of Homeland Security (DHS).
- “DISA’s Strategic Mobility Vision” Mr. Gregory Youst, Chief Mobility Engineer, Technology and Integration Division, Chief Technology Officer, Defense Information Systems Agency (DISA) (invited).
- “Content-Based Mobile Edge Networking (CBMEN)” Dr. Keith Gremban, PhD., Program Manager, Content Based Mobile Edge Networking (CBMEN), Defense Advanced Research Project Agency (DARPA).
- “Transformative Apps Program” Mr. Doran Michaels, Program Manager, Transformative Apps, DARPA.

- “Windshear II Update” Mr. John-Isaac Clark, Chief Innovation Officer, Thermopylae Sciences & Technology & Mr. Lenwood Washington, Senior Systems Engineer, Mission Integration Directorate, Acquisition and Engineering, National Reconnaissance Office (NRO).
- “Advancements in Mobile Devices for Chem-Bio Detection and Characterization” Dr. Calvin CHUE, PhD., Research Biologist, U.S. Army Research, Development and Engineering Command (RDECOM).
- “ADAPT Unattended Ground Sensor Using Android Operating System and Original Design Manufacturers” Mr. Mark Rich, Program Manager, Strategic Technology Office, DARPA.

101. 2013: “The U.S. Department of Defense confirmed in a statement on Friday that Apple’s iOS 6 mobile operating system is secure enough to connect to secure Pentagon networks.”

102. 2013: “The U.S. Department of Defense confirmed in a statement on Friday that Apple’s iOS 6 mobile operating system is secure enough to connect to secure Pentagon networks.”

103. 2013: “Samsung’s potential government deal signals new era for mobile security: Samsung may be ready to sign deals with the FBI and the U.S. Navy. Analysts say the news is proof that mobile in the enterprise has arrived. Samsung is close to inking a deal with the FBI and the U.S. Navy for mobile devices.”

104. 2013: “National Institute of Standards and Technology (NIST), which examines and tests mobile devices and technologies for security clearance,

granted the Apple software FIPS 140-2 certification (Level 1) last Friday. This approves iPhones and iPads running the software in conjunction with the U.S. government's lowest level of national security clearance."

105.2013: "The U.S. Department of Defense announced today that it was further dropping its exclusive BlackBerry contract and opening all of its mobile communications networks to Apple, Google, and other device makers. 'The Department of Defense is taking a leadership role in leveraging mobile device technology by ensuring its workforce is empowered with mobile devices,' Defense Department Chief Information Officer Teri Takai said in a statement today."

106.2013: "Samsung recently received the nod from the Pentagon for any Samsung device protected by the Knox security software, which includes the Galaxy S4 and other compatible tablets."

107. 2013: "For the first time, Apple's push into federal use opens up the U.S. government and military to competition for device procurement in the mobile space."

108. 2014: "The mobile device management system--MDM--began operating Jan. 31 as a control system through which approved devices must operate to get access to Defense Department networks. The MDM enforces security policies by blocking or permitting certain functions on smartphones and tablets."

109. 2014: "By opening its networks to Samsung and Apple devices, Defense Information Systems Agency (DISA) intends to broaden the variety of mobile computers that troops and civilian Defense Department employees can use in the field, on bases, in offices and

elsewhere to receive and send information and work almost anywhere at any time.”

110. 2014: “Samsung has announced that five of its Galaxy devices have been approved for the U.S government’s Defense Information System Agency (DISA) products list. The devices include the Galaxy S4, Galaxy S4 Active, Galaxy Note 3, the Galaxy Note Pro 12.2 and the Galaxy Note 10.1 2014 Edition. All of them are using Android 4.4 (KitKat) along with Samsung’s KNOX secure workspace platform, which includes system-level encryption for enterprise-based apps.”

111. 2014: “The United States Air Force is replacing 5000 legacy BlackBerry smartphones with Apple’s iPhone, and eventually all of their BlackBerry users will have to make the changeover. The announcement, reported by Defense News, comes as the future of BlackBerry within the Department of Defense is debated, with the chips seeming to fall on the side of transitioning away from a network supporting a mish-mash of BlackBerry 6 and 7 devices to a mix of modern devices — though apparently without BlackBerry 10 in that mix.”

112. 2015: “Navy Plans for Android and iOS Devices. The Navy Enterprise Networks (NEN) Program Office is making progress on plans to transition to more modern mobile devices. Early users will be able to choose between the iPhone 5c and 5s, but the Navy wants to be as flexible as possible and allow users to pick the devices that will work best for them, and plans to approve a wider range of devices. Approval to use the iPhone 6 and iPad Air is expected in Jan. or Feb. 2015, and approval to use Samsung Android phones and tablets is expected in March.”

113. 2016: "This fiscal year Marines will receive Samsung smart phones that make calling for fire support easier, quicker and more accurate. The Target Handoff System Version 2, or THS V.2, is a portable system designed for use by dismounted Marines to locate targets, pinpoint global positioning coordinates and call for close air, artillery and naval fire support using secure digital communications."

114. 2016: "Both the LG Electronics G5 and V10 received a security certification from the U.S. Defense Information Systems Agency, as well as a certification by the National Information Assurance Partnership, which administers independent tests to see if the devices are reliable and secure. The two newer LG smartphone models have joined the select list of official devices that can be used by Department of Defense employees, according to the handset manufacturer and a DOD website. LG's older models, the G3 and G4 also received DISA certifications. The phones come equipped with LG's encryption technology from 2013, LG GATE. The advanced tech has secure email options, supports Virtual Private Network (VPN), and can remotely wipe the phone's memory."

115. 2016: "Use of Mobile Technology for Information Collection and Dissemination": A DACS Technology Assessment Report: The Data & Analysis Center for Software (DACs) was one of several United States Department of Defense (DoD) sponsored Information Analysis Centers (IACs), administered by the Defense Technical Information Center (DTIC). It was managed by the U.S. Air Force Research Laboratory (AFRL) and operated by Quanterion Solutions Inc. under a long-term DoD contract. The website is no longer available and was replaced by <https://www.csiac.org/> DACS Report Number 518055: Contract FA1500-10-D-0010;

Prepared for the Defense Technical Information Center; Prepared By: Chet Hosmer, Chief Scientist; Carlton Jeffcoat, Vice President, Cyber Security Division; Matt Davis, Malware Analyst; Wetstone/Allen Corporation of America; 10400 Eaton Place; Fairfax, VA 22030; Thomas McGibbon, DACS Director; Quanterion Solutions Inc. 100 Seymour Road Utica, NY 13502. (Paragraphs 79-84 below were taken from the Report)

116. Mobile technology is increasingly being utilized as a tool for information dissemination and collection across the Government. The Department of Defense (DoD), Department of Homeland Security (DHS), Intelligence communities, and law enforcement are among those agencies utilizing mobile technology for information management. The primary mobile devices being utilized are the iPad®, iPhone®, Android™, and Windows Mobile™. The open architecture of these devices is advantageous for rapid application development and release. New mobile technologies such as the iPhone®, iPad®, Android™ and similar devices have revolutionized the way information can be distributed. In the past, mobile devices such as Personal Data Assistants (PDAs) primarily focused on data storage and display. Today, an increasingly large number of devices are focusing not only on data storage and display, but also on communication and processing. As a result, organizations have begun leveraging mobile technology as a means of information dissemination. These organizations include, but are not limited to, Government organizations such as the Department of Defense (DoD), the United States Army, the Department of Homeland Security (DHS), and a number of critical infrastructure organizations.

THE USPTO ALLOWABLE SUBJECT MATTER
FOR HEART RATE MONITORING
U.S. Patent No: 8,106,752

10. A multi-sensor detection and lock disabling system for monitoring products and for detecting [] chemical, biological, ...

25. The multi-sensor detection [] of claim 24 wherein the cell phone detector case has a display or LCD screen for visualization of the status of the sensors and other data reporting information.

26. The multi-sensor detection [] of claim 25 wherein the cell phone detector case is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, *heart rate, pulse or signature* ...

U.S. Patent No: RE43,990

56. A [] multi-sensor detection system for monitoring products and for detecting at least one [] chemical, human, biological ...

64. The [] multi-sensor detection system of claim 56, capable of transmitting biometric and authentication data include, but is not limited to, [] *heart rate, pulse and signature*.

136. A [] multi-sensor detection system for monitoring and for detecting at least one [] human, [] chemical, biological ...

143. The multi-sensor detection system of claim 136, wherein the [] multi-sensor detection device is embedded into, placed in, on, upon or adjacent [] capable of transmitting biometric and authentication data that includes, but is not limited to, fingerprint

recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, *heart rate, pulse and signature*.

U.S. Patent No: 9,589,439

1. A multi sensor detection system capable of identifying, monitoring, detecting ...

10. The multi-sensor detection system of claim 1, capable of transmitting biometric and authentication data include, but is not limited to, at least one of fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, *heart rate, pulse and signature*.

Alleged in complaints

Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 22 of Golden’s ‘439 patent’, is found in the following Government initiative(s):

- Apple’s iPhone / iPad Camera Biosensor for *Facial & Heart Rate Monitor* (monitoring device)

Upon information and belief, the Government has in the past, and continues to unlawfully “use or manufacture” Golden’s patented Communicating, Monitoring, Detecting, and Controlling (CMDC) Device (i.e., consumer, mobile, or cellular device integration with a detection capability). The alleged Government infringement of independent claim 23 of

87a

Golden's '439 patent', is found in the following Government initiative(s):

Samsung Galaxy "*Fingertip Heart Rate Monitor*" (monitoring device)

**GOLDEN ALLEGES THE GOVERNMENT HAS
"UNLAWFULLY" TAKEN A COMPULSORY,
NON-EXCLUSIVE LICENSE TO
"MANUFACTURE OR USE" GOLDEN'S
PATENTED INVENTIONS UNDER SECTION
1498(a)**

COUNT LXXI (Infringement of Plaintiff's 9,589,439 Patent) GOLDEN'S PATENTED INVENTIONS COMBINATIONS
COUNT LXXII (Infringement of Plaintiff's 10,984,619 Patent) GOLDEN'S PATENTED INVENTIONS COMBINATIONS
COUNT LXXIII (Infringement of Plaintiff's 10,984,619 Patent) GOLDEN'S PATENTED INVENTIONS COMBINATIONS
COUNT LXXIV (Infringement of Plaintiff's 11,645,898 Patent) GOLDEN'S PATENTED INVENTIONS COMBINATIONS
COUNT LXXV (Infringement of Plaintiff's 11,645,898 Patent) GOLDEN'S PATENTED INVENTIONS COMBINATIONS

Elon Musk has reportedly collected at least \$38 billion in funding through government contracts, loans, subsidies, and tax credits that go as far back as 20 years, according to a recent Washington Post analysis. His electric-car maker Tesla has collected \$11.4 billion in regulatory credits, per the Washington Post, but most of the funds (via government contracts from NASA and the Department of Defense) are to his rocket maker, SpaceX. A separate ABC News analysis

found SpaceX and Tesla were granted at least \$18 billion in federal contracts in the past decade.

Massive Government Support for Musk Companies

According to The Post, nearly two-thirds of the funds Musk's businesses received came in just the last five years. In 2024 alone, \$6.3 billion in federal and state funds were committed to his ventures, marking a record high.

The money primarily came from contracts with NASA and the Department of Defense... Tesla, on the other hand, has collected \$11.4 billion in regulatory credits designed to encourage electric vehicle production.

Tesla, which struggled financially in its early years, secured a \$465 million low-interest loan from the U.S. Energy Department in 2010. This helped the company launch the Model S and expand production. Musk later repaid the loan ahead of schedule, but government support continued in other ways. Tesla's ability to sell emissions credits to other automakers played a huge role in making the company profitable. Without these credits, Tesla would have lost \$700 million in 2020 instead of reporting an \$862 million profit, according to The Post's analysis of Securities and Exchange Commission filings. https://finance.yahoo.com/news/report-says-elon-musks-businesses-150042117.html?r=sycsrp_catchall

SpaceX

An autonomous spaceport drone ship (ASDS) is a modified ocean-going barge developed by SpaceX and equipped with propulsion systems to maintain precise position and a large landing platform. They were

developed to recover the first stage (also called the booster) of its launch vehicles.

SpaceX / Starlink

Elon Musk's two most ambitious companies, Tesla and SpaceX, have revolutionized their respective industries. At the heart of this collaboration lies the seamless integration of Starlink's high-speed satellite internet with Tesla's advanced vehicle systems. The idea is simple: Tesla cars equipped with Starlink receivers would be able to connect to the internet anywhere in the world, even in remote areas where traditional networks fail.

Integrating Starlink with Tesla vehicles has the potential to revolutionize in-car connectivity, offering seamless internet access in even the most remote locations. This advancement could significantly enhance various aspects of Tesla's performance, from navigation and entertainment to autonomous driving capabilities. Integrating Starlink into Tesla cars could provide several advantages:

Navigation & Mapping: Real-time satellite data would enhance Tesla's navigation systems, improving accuracy and responsiveness.

Autonomous Driving Enhancement: FSD (Full Self-Driving) could benefit from faster data processing and improved connectivity in areas with poor cellular reception.

Roadside Assistance & Emergency Services: Reliable satellite internet would ensure connectivity for remote breakdowns and emergencies.

Tesla's Autopilot

Tesla's Autopilot can independently drive cars for specific tasks: keeping the car in the lane, accelerating, or braking is what it can do. However, any driver must pay attention and always be ready to actively take part in driving himself.

It's also worth noting that, through a suite of sensors, cameras, and computers, Autopilot gets a constant feed of information on what's happening with the car's ambient environment: from detecting other vehicles, traffic signs, lanes, the list goes on and on. In this aspect, the vehicle should be able to drive safely and stay on the road, but it is not infallible. The driver must still be alert and prepared to take over at any moment.

To understand its environment, Tesla's Autopilot combines computer vision with AI, cameras, and ultrasonic sensors. Tesla, however, phased out its use of radar in newer vehicles (to 2021, at least) in favor of a camera-only system, Tesla Vision.

The system assists with steering, accelerating, and braking based on what it detects, similar to how a human driver uses their eyes and brain to make driving decisions. Tesla offers different levels of driver assistance:

- ☒ Basic Autopilot: Handles lane-keeping and adaptive cruise control.
- ☒ Enhanced Autopilot: Adds features like automatic lane changes, auto park, and smart summon.
- ☒ Full Self-Driving (FSD) Beta: A more advanced system that can navigate city streets but requires driver supervision.

Despite these capabilities, Tesla's Autopilot and FSD are not fully autonomous—the driver must keep their hands on the wheel and always stay attentive.

Tesla's alleged infringement occurs when a CBRNE detection capability is added to an unmanned, autonomous, semi-autonomous, or self-drive vehicle.

Tesla's Cybertrucks are designed for CBRN (Chemical, Biological, Radiological, and Nuclear) reconnaissance. These specialized vehicles are equipped to detect and analyze hazardous materials in various environments. Key Features:

Detection Systems: These trucks typically include advanced sensors for detecting chemical agents, biological pathogens, and radiological threats.

Mobile Laboratories: Many models feature onboard laboratories for real-time analysis of samples collected in the field.

Robust Design: They are built to withstand harsh conditions and provide protection for personnel against CBRN threats.

Communication Equipment: Equipped with secure communication systems to relay data back to command centers.

GOLDEN'S ALLEGED GOVERNMENT PATENT INFRINGEMENT UNDER SECTION 1498(a)

Golden alleges at least the United States Department of Defense (DoD); the United States Energy Department (DoE); the National Aeronautics and Space Administration (NASA); Elon Musk; and at least the affiliated companies of Elon Musk that include Tesla, SpaceX, Starlink, and Tesla Vision, are

literally, and/or under the doctrine of equivalents infringing claims 5-9 of Golden's 8,334,761 patent; claims 23-35 of Golden's RE43,891 patent; claims 44-57 of Golden's RE43,891 patent; and claims 1-2 of Golden's 11,645,898 patent.

Claims 5-9 of Golden's 8,334,761 patent

117. 5. A vehicle adapted for receipt of a signal to control the vehicles' stall-to-stop means or vehicle slowdown means, comprising:

at least one of a brake, a foot peddle, a light, a speed control, an ignition system, a steering wheel, a transmission, a fuel system, and a motor;

an electrical system in electrical communication with at least one of the brake, the foot peddle, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

a computer system in signal transmission communication with at least one of the brake, the foot peddle, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

a receiver in electrical communication with the electrical system and adapted to receive at least one control signal to activate a stall-to-stop means or vehicle slowdown means;

a receiver in computer communication with the computer system and adapted to receive at least one control signal to activate a stall-to-stop means or vehicle slowdown means; and

wherein the at least one control signal is communicated from the receiver to the electrical system or the computer system to control at least one

of the brake, the foot peddle, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

wherein the stall-to-stop means or vehicle slowdown means is pre-programmed to automatically activate without any action from a driver of the vehicle and without receiving a signal remote from the vehicle that was generated in response to manual actuation when sensors of navigation, guidance, motion, distance, weight, and/or height obtain sufficient input and are interconnected to the vehicles onboard electrical system and/or computer system for controlling at least one of the brake, a brake override system, an electronic throttle, the foot peddle, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor.

6. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 5, wherein the vehicle is electric, a car, truck, ship, boat, train, or plane.

7. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 5, wherein the stall-to-stop means or vehicle slowdown means is pre-programmed to automatically activate when it is determined an emergency exist for the vehicle, driver, passenger(s), pedestrians or surrounding environment.

8. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 5, wherein the stall-to-stop means or vehicle slowdown means is pre-programmed to automatically activate when there is a sensed condition of: vehicle parking, speeding; driving too fast for conditions; construction zone; school zone; accident ahead; brake failure; acceleration/deceleration failure.

9. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 5, wherein the stall-to-stop

means or vehicle slowdown means is pre-programmed to automatically activate when the vehicle moves outside a designated perimeter or zone.

Claims 23-35 of Golden's RE43,891 patent

118. 23. A vehicle adapted for receipt of a signal from a pre-programmed automated system to control the vehicles' stall-to-stop means or vehicle slowdown means, comprising: at least one of a brake, a foot peddle, a radar, a camera, a navigational system, a light, a speed control, an ignition system, a steering wheel, a transmission, a fuel system, and a motor;

an electrical system in electrical communication with at least one of the brake, the foot peddle, the radar, the camera, the navigational system, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

a computer system in signal transmission communication with at least one of the brake, the foot peddle, the radar, the camera, the navigational system, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

a receiver in electrical communication with the electrical system and adapted to receive at least one control signal from a pre-programmed automated system to activate a stall-to-stop means or vehicle slowdown means to stall or slow down the vehicle;

a receiver in computer communication with the computer system and adapted to receive at least one control signal from a pre-programmed automated system to activate a stall-to-stop means or vehicle slowdown means to stall or slow down the vehicle; and

wherein the at least one control signal is communicated from the receiver to the electrical system or the computer system to control at least one of the brake, the foot peddle, the radar, the navigational system, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

wherein the receivers, the computer system, and the electrical system are part of at least one pre-programmed operating system of unintended acceleration, pre-crash, reverse acceleration, stabilization, lane departure, cruise control, driverless vehicle, and chemical biological radiological nuclear explosive (CBRNE) detection;

wherein the control signal to activate the stall-to-stop or vehicle slowdown is not remote from the vehicle and the signal to activate is initiated when at least one of the vehicle's operating systems for monitoring the vehicle's condition exceeds a pre-programmed vehicle operating system parameter.

24. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, further including a global positioning system (GPS) receiver adapted for communication with at least one satellite.

25. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, pre-programmed automated system further including a cellular communication device adapted for communication with at least one cell phone tower; further including, at least one satellite connection capable of communicating with the pre-programmed automated system; further including, at least one modem connection for short- and long-range radio frequency transmissions with the pre-programmed automated system.

26. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, where-in the at least one control signal is sent to the pre-programmed automated system for bringing a vehicle experiencing unintended acceleration to a slowdown, idle or stop.

27. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, further includes vehicles pre-programmed to automatically activate the stall-to-stop means or vehicle slowdown means when sensors of at least one of; navigation, camera, radar, guidance, motion, distance, weight, height are interconnected to the vehicles onboard electrical system and/or computer system for controlling at least one of a brake, a brake override system, an electronic throttle, a foot peddle, a light, a speed control, an ignition system, a steering wheel, a transmission, a fuel system, and a motor.

28. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, further includes vehicles pre-programmed to automatically activate the stall-to-stop means or vehicle slowdown means; when the vehicle is electric, a car, truck, ship, boat, train, or plane.

29. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, further includes vehicles pre-programmed to automatically activate the stall-to-stop means or vehicle slowdown means; when it is determined an emergency exist for the vehicle, driver, passenger(s), pedestrians or surrounding environment.

30. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, further includes vehicles pre-programmed to automatically activate the stall-to-stop means or vehicle slowdown means; when there is an in-vehicle notification warning of: crash, vehicle parking, speeding; driving too fast for conditions;

construction zone; school zone; accident ahead; brake failure; acceleration/deceleration failure; acceleration/deceleration cruise control.

31. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, further includes vehicles pre-programmed to automatically activate the stall-to-stop means or vehicle slowdown means; when the vehicle is in forward movement, backward or reverse movement, side movement, cruise control movement, or lane departure movement or when the vehicle moves outside a designated perimeter or zone.

32. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, further includes vehicles pre-programmed to automatically activate the stall-to-stop means or vehicle slowdown means; when there is a detection of a bomb, weapon of mass destruction, chemical or biological agents, located in, on, or adjacent to a vehicle.

33. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, pre-programmed automated system is designed to be used with or without biometrics for authentication and identification, thereby allowing access to the vehicle by authorized, trained and equipped individuals and preventing access to the vehicle by unauthorized, untrained, and unequipped individuals.

34. The stall-to-stop disabling and slowdown system of claim 23 wherein the pre-programmed automated system can be grouped into anti-terrorist product groupings based on the categories of similarities of design, of at least one of; sensors, software, interfaces, detector cases, locks, mobile communication devices, handheld communication devices, vehicle slowing and stopping devices, specification, development and

implementation; similarities in material composition of at least one of: steel, stainless steel, composites, brass, copper, aluminum, fiber, silicon, plastic, combining of materials parts or elements to form a whole; similarities in security problems of at least one of; theft, detection for chemical, biological, radiological, nuclear, explosive compounds and agents, detection for weapons of mass destruction, biometrics for identifying terrorist, scanning to identify a terrorist threat; grouping security devices to form a network of ubiquitous sensing and detecting.

35. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 23, wherein a communication link is present of at least one of a WiFi connection, a Broadband connection, an Internet connection, a Cellular connection, a Radio Frequency (RF) connection, a Bluetooth connection, and a Satellite connection, capable of signal communication thereto and therefrom monitoring equipment and a central processing unit (CPU) or a transceiver on the vehicle.

Claims 44-57 of Golden's RE43,891 patent

119. 44. A vehicles' stall-to-stop system or vehicle slowdown system in signal communication with a pre-programmed automated system is adapted, modified, or designed to control the vehicles' stall-to-stop means or vehicle slowdown means, comprising:

an electrical system in electrical communication with at least one of a brake, a foot peddle, a radar, a camera, a navigational system, a light, a speed control, an ignition system, a steering wheel, a transmission, a fuel system, and a motor;

a computer system in signal transmission communication with at least one of the brake, the foot

peddle, the radar, the camera, the navigational system, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

a receiver in electrical communication with the electrical system and adapted to receive at least one control signal from a pre-programmed automated system to activate a stall-to-stop means or vehicle slowdown means;

a receiver in computer communication with the computer system and adapted to receive at least one control signal in response to one of the vehicle's operating systems for monitoring the vehicle's condition upon exceeding a pre-programmed vehicle operating system parameter from the pre-programmed automated system to activate a stall-to-stop means or vehicle slowdown means such that the speed of the vehicle is initially decreased immediately after activation of the means upon initial receipt of the at least one control signal; and

wherein the at least one control signal is communicated from the receiver to the electrical system or the computer system to control at least one of the brake, the foot peddle, the radar, the navigational system, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor.

45. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a global positioning system (GPS) receiver adapted for communication with at least one satellite.

46. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted,

modified or designed to include a cellular communication device adapted for communication with at least one cell phone tower; further including, at least one satellite connection capable of communicating with the pre-programmed automated system; further including, at least one modem connection for short and long range radio frequency transmissions to and from the pre-programmed automated system.

47. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a brake override system for stopping or slowing a vehicle experiencing unintended acceleration.

48. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a pre-crash system for stopping or slowing a vehicle to prevent a crash.

49. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a reverse acceleration slowdown system for stopping or slowing a vehicle traveling in reverse.

50. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a stabilization system for stopping or slowing a vehicle to prevent a vehicle turnover.

51. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system

designed to perform as a lane departure system for stopping or slowing a vehicle to prevent or minimize accidents when the vehicle begins to move out of its lane.

52. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a remote vehicle slowdown system for stopping or slowing a vehicle by remote means.

53. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as an adjusted cruise control system for stopping or slowing a vehicle to prevent a crash.

54. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a door lock and unlocking system for stopping or slowing the vehicle and locking a terrorist, thief, or user trying to elude the law inside the vehicle.

55. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle designed to perform as a driverless or autonomous vehicle for stopping or slowing a vehicle that is in operation with or without a user, driver or operator inside the vehicle.

56. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a chemical, biological, radiological, nuclear and explosives detection system

for stopping or slowing a vehicle when a harmful, hazardous, or dangerous compound or agent is detected.

57. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, wherein a communication link is present of at least one of a WiFi connection, a Broadband connection, an Internet connection, a Cellular connection, a Radio Frequency (RF) connection, a Bluetooth connection, and a Satellite connection, capable of signal communication thereto and therefrom monitoring equipment and a central processing unit (CPU) or a transceiver on the vehicle.

Claims 1-2 of Golden's 11,645,898 patent

120. 1. A pre-programmed stall, stop, vehicle slow-down system, that comprises at least one central processing unit (CPU), capable of:

processing instructions to stall, stop, or slow-down a vehicle when the vehicle receives a signal from at least one of a personal computer (PC), a cellphone, a smartphone, a laptop, a tablet, a PDA, or a handheld;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle receives a signal from at least one of cellular, satellite, or radio-frequency (RF);

processing instructions to stall, stop, or slow-down a vehicle when the vehicle is experiencing unintended acceleration;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle is experiencing lane departure;

processing instructions to stall, stop, or slow-down a vehicle when a collision or crash is detected;

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processing instructions to stall, stop, or slow-down a vehicle when the vehicle has been reported as stolen;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle has moved outside a pre-programmed designated perimeter;

processing instructions to stall, stop, or slow-down a vehicle when at least one of a chemical hazard, a biological hazard, a radiological hazard; a nuclear hazard; or explosives have been detected;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle is at least a driverless vehicle; a self-drive vehicle; an autonomous vehicle; a human controlled vehicle; a manned or unmanned convoy vehicle, or a manned or unmanned aerial, land, or sea vehicle; and,

Wherein, when the central processing unit (CPU) processes instructions to stall, stop, or slowdown a vehicle, a distress signal is sent to at least one of a monitoring site, a control center, or is recorded for storage.

121. 2. A vehicle, that comprises at least one onboard computer system, electronic system, fuel system, air system, braking system, ignition system, transmission system, or PowerDrive system, capable of:

- stalling, stopping, or slowing down a vehicle when the vehicle receives a signal from at least one of a personal computer (PC), a cellphone, a smartphone, a laptop, a tablet, a PDA, or a handheld;
- stalling, stopping, or slowing down a vehicle when the vehicle receives a signal from at least one of cellular, satellite, or radio-frequency (RF);

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- stalling, stopping, or slowing down a vehicle when the vehicle is experiencing unintended acceleration;
- stalling, stopping, or slowing down a vehicle when the vehicle is experiencing lane departure;
- stalling, stopping, or slowing down a vehicle when a pedestrian, obstacle, collision or crash is detected; stalling, stopping, or slowing down a vehicle when the vehicle has been reported as stolen;
- stalling, stopping, or slowing down a vehicle when the vehicle has moved outside a pre-programmed designated perimeter;
- stalling, stopping, or slowing down a vehicle when at least one of a chemical hazard, a biological hazard, a radiological hazard; a nuclear hazard; or explosives have been detected;
- stalling, stopping, or slowing down a vehicle when the vehicle is at least a driverless vehicle; a self-drive vehicle; an autonomous vehicle; a human controlled vehicle; a manned or unmanned convoy vehicle, or a manned or unmanned aerial, land, or sea vehicle; and,
- Wherein, the vehicle is stalled, stopped, or slowed down, a distress signal is sent to at least one of a monitoring site, a control center, or is recorded for storage.

**A COMPARATIVE CHART OF TUSLA'S
AUTOPILOT AND GOLDEN'S PRE-
PROGRAMMED STALL, STOP, VEHICLE SLOW-
DOWN SYSTEM**

Tesla's Autopilot	Patent #: RE43,891; Independent Claim 44
Tesla's Autopilot can independently drive cars for specific tasks: keeping the car in the lane, accelerating, or braking based on what it detects, similar to how a human driver uses their eyes and brain to make driving decisions. Tesla's Autopilot combines computer vision with AI, cameras, and ultrasonic sensors. 1-Basic Autopilot: Handles lane-keeping and adaptive cruise control. 2-Enhanced Autopilot: Adds features like automatic lane changes, auto park, and smart summon. 3-Full Self-Driving (FSD) Beta: A more advanced system that can navigate city streets but requires driver supervision. Tesla's Autopilot and FSD are not fully autonomous—the driver must keep their hands on the wheel and always stay attentive.	A vehicles' stall-to-stop system or vehicle slowdown system in signal communication with a pre-programmed automated system is adapted, modified, or designed to control the vehicles' stall-to-stop means or vehicle slowdown means, comprising:
Tesla's Autopilot can independently drive cars for specific tasks: keeping the car in the lane, accelerating, or braking based on what it detects, similar to how a	an electrical system in electrical communication with at least one of a brake, a foot peddle, a radar, a camera, a navigational system, a light, a speed control, an ignition

human driver uses their eyes and brain to make driving decisions. Tesla's Autopilot combines computer vision with AI, cameras, and ultrasonic sensors. Tesla offers different levels of driver assistance: 1-Basic Autopilot: Handles lane-keeping and adaptive cruise control. 2-Enhanced Autopilot: Adds features like automatic lane changes, auto park, and smart summon. 3-Full Self-Driving (FSD) Beta: A more advanced system that can navigate city streets but requires driver supervision. Tesla's Autopilot and FSD are not fully autonomous—the driver must keep their hands on the wheel and always stay attentive.	system, a steering wheel, a transmission, a fuel system, and a motor;
Tesla's Autopilot can independently drive cars for specific tasks: keeping the car in the lane, accelerating, or braking based on what it detects, similar to how a human driver uses their eyes and brain to make driving decisions. Tesla's Autopilot combines computer vision with AI, cameras, and ultrasonic sensors. Tesla offers different levels of driver assistance: 1-Basic Autopilot: Handles lane-keeping and adaptive cruise control. 2-Enhanced Autopilot: Adds features like automatic lane changes, auto park, and smart	a computer system in signal transmission communication with at least one of the brake, the foot peddle, the radar, the camera, the navigational system, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor;

summon. 3-Full Self-Driving (FSD) Beta: A more advanced system that can navigate city streets but requires driver supervision. Tesla's Autopilot and FSD are not fully autonomous—the driver must keep their hands on the wheel and always stay attentive.	
Tesla's Autopilot can independently drive cars for specific tasks: keeping the car in the lane, accelerating, or braking based on what it detects, similar to how a human driver uses their eyes and brain to make driving decisions. Tesla's Autopilot combines computer vision with AI, cameras, and ultrasonic sensors. Tesla offers different levels of driver assistance: 1-Basic Autopilot: Handles lane-keeping and adaptive cruise control. 2-Enhanced Autopilot: Adds features like automatic lane changes, auto park, and smart summon. 3-Full Self-Driving (FSD) Beta: A more advanced system that can navigate city streets but requires driver supervision. Tesla's Autopilot and FSD are not fully autonomous—the driver must keep their hands on the wheel and always stay attentive.	a receiver in electrical communication with the electrical system and adapted to receive at least one control signal from a pre-programmed automated system to activate a stall-to-stop means or vehicle slowdown means;
Tesla's Autopilot can independently drive cars for specific tasks: keeping the car	a receiver in computer communication with the computer system and adapted

in the lane, accelerating, or braking based on what it detects, similar to how a human driver uses their eyes and brain to make driving decisions. Tesla's Autopilot combines computer vision with AI, cameras, and ultrasonic sensors. Tesla offers different levels of driver assistance: 1-Basic Autopilot: Handles lane-keeping and adaptive cruise control. 2-Enhanced Autopilot: Adds features like automatic lane changes, auto park, and smart summon. 3-Full Self-Driving (FSD) Beta: A more advanced system that can navigate city streets but requires driver supervision. Tesla's Autopilot and FSD are not fully autonomous—the driver must keep their hands on the wheel and always stay attentive.	to receive at least one control signal in response to one of the vehicle's operating systems for monitoring the vehicle's condition upon exceeding a pre-programmed vehicle operating system parameter from the pre-programmed automated system to activate a stall-to-stop means or vehicle slowdown means such that the speed of the vehicle is initially decreased immediately after activation of the means upon initial receipt of the at least one control signal; and
Tesla's Autopilot can independently drive cars for specific tasks: keeping the car in the lane, accelerating, or braking based on what it detects, similar to how a human driver uses their eyes and brain to make driving decisions. Tesla's Autopilot combines computer vision with AI, cameras, and ultrasonic sensors. Tesla offers different levels of driver assistance: 1-Basic Autopilot: Handles lane-keeping and adaptive cruise control. 2-	wherein the at least one control signal is communicated from the receiver to the electrical system or the computer system to control at least one of the brake, the foot peddle, the radar, the navigational system, the light, the speed control, the ignition system, the steering wheel, the transmission, the fuel system, and the motor.

Enhanced Autopilot: Adds features like automatic lane changes, auto park, and smart summon. 3-Full Self-Driving (FSD) Beta: A more advanced system that can navigate city streets but requires driver supervision. Tesla's Autopilot and FSD are not fully autonomous—the driver must keep their hands on the wheel and always stay attentive.	
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Tesla Cybertruck Autopilot: “manufactured for” or “used by” the Government	Patent #: RE43,891; Dependent Claims 56, & 57
Tesla's Cybertrucks are designed for CBRN (Chemical, Biological, Radiological, and Nuclear) reconnaissance. Key Features: • Detection Systems: Sensors for detecting chemical agents, biological pathogens, and radiological threats. • Mobile Laboratories: Many models feature onboard laboratories for real-time analysis of samples collected in the field. • Robust Design: They are built to withstand harsh conditions and provide protection for personnel against CBRN threats. • Communication Equipment: Equipped with secure communica-	56. The vehicles' stall-to-stop means or the vehicles' slow-down means of claim 44, further can be adapted, modified or designed to include a vehicle system designed to perform as a chemical, biological, radiological, nuclear and explosives detection system for stopping or slowing a vehicle when a harmful, hazardous, or dangerous compound or agent is detected.

tion systems to relay data back to command centers. Examples of Use: • Military Applications: Used by armed forces for reconnaissance missions. • Civilian Operations: Deployed by emergency response teams during incidents involving hazardous materials. Current Models: • Specific models may vary but Tesla produce the vehicles tailored for CBRN operations.	
Tesla offers a mobile app that provides various functionalities for Cybertruck owners. Key features include: Vehicle Control • Remote start and stop • Lock and unlock doors • Control climate settings Monitoring • Check battery status and range • View charging progress • Access vehicle location Navigation and Updates • Send destinations: vehicle navigation system • Receive software updates and notifications Additional Features • Schedule service appointments • Access Tesla's customer support The app is available for both iOS and Android devices.	57. The vehicles' stall-to-stop means or the vehicles' slowdown means of claim 44, wherein a communication link is present of at least one of a WiFi connection, a Broadband connection, an Internet connection, a Cellular connection, a Radio Frequency (RF) connection, a Bluetooth connection, and a Satellite connection, capable of signal communication thereto and therefrom monitoring equipment and a central processing unit (CPU) or a transceiver on the vehicle.

Tesla continuously updates the app, so features may evolve over time. For the latest information, refer to Tesla's official website or app store listings.	
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A COMPARATIVE CHART OF HOW ELON MUSK U.S. PATENT #11,567,514 ISSUED ON JANUARY 31, 2023 IS ANTICIPATED BY GOLDEN'S 11,645,898 PATENT

The Tesla Autonomous Electric Vehicle is "manufactured for" or "used by" the Government	Patent #: 11,645,898; Independent Claim 2
"Using the vehicle actuators, the steering, braking, acceleration, and/or other operating functionality is actuated" "[a] safe stop may require gradual braking and determining a safe stopping location, such as the side of the road or a parking spot" "the output of vehicle controller 707 is vehicle control commands that are fed to vehicle actuators 713 for controlling the operation of the vehicle such as the speed, braking, and/or steering, etc. of the vehicle" "vehicle controller 707 can adjust the speed, acceleration, steering, braking, etc. of the vehicle by transmitting commands to vehicle actuators 713"	2. A vehicle, that comprises at least one onboard computer system, electronic system, fuel system, air system, braking system, ignition system, transmission system, or PowerDrive system, capable of:

“remote interface component 751 includes a smartphone application running on a smartphone device” “the destination location is provided from a user via a smartphone device” “At 101, a destination is received. For example, a user selects a “find me” feature from a mobile application on a smartphone device. The “find me” feature determines the location of the user and transmits the user’s location to a vehicle summon module” “In various embodiments, the vehicle summon module is implemented across one or more modules that may exist on the vehicle and/or remote from the vehicle.” “a remote server in communication with the autonomous vehicle executes portions of the summon functionality” <i>Equivalent: “Servers Ultimate” is a powerful app designed to transform the Android smartphone into a versatile and powerful server” “[s]ervers Ultimate is an advanced mobile application available for Android devices that enables users to run various types of servers directly from their smartphones”</i>	stalling, stopping, or slowing down a vehicle when the vehicle receives a signal from at least one of a personal computer (PC), a cellphone, a smartphone, a laptop, a tablet, a PDA, or a handheld;
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“The vehicle can be stopped if an object is detected or contact with the remote user is lost” “remote interface component 751 is one or more remote components that may be used remotely from the vehicle to automatically navigate the vehicle” “Different sub-paths may be implemented [] such as forwards or reverse. [] the paths include actions such as opening a garage door, closing a garage door [], making a call, sending a message, etc. The additional actions may require stopping the vehicle and/or executing actions“ “a user may release a summon button on the mobile app to indicate the vehicle should stop immediately”	stalling, stopping, or slowing down a vehicle when the vehicle receives a signal from at least one of cellular, satellite, or radio-frequency (RF);
“At 611, navigation is overridden. In response to a detected obstacle and/or contact lost with the user, automatic navigation is overridden. For example, in the event the vehicle is traveling at a slow speed, the vehicle can immediately stop. In the event the vehicle is traveling at a higher speed, the vehicle safely stops. A safe stop may require gradual braking and determining a safe stopping location, such as the side of the road or a parking spot.”	stalling, stopping, or slowing down a vehicle when the vehicle is experiencing unintended acceleration;

“based on lane lines, traffic signals, other vehicles, etc., the summon functionality determines an appropriate orientation of the road” “[a]dditional sensor data may include ultrasonic, radar, lidar, audio, or other appropriate sensor data. Additional data may also include annotated data, such as map data ... an annotated map may annotate vehicle lanes, speed lines, intersections, and/or other driving metadata” “[R]oads [] (lanes, etc.) used to augment the vision data for generating the occupancy grid ... “drivable space in an environment surrounding a vehicle is inferred... vehicles, obstacles, lanes, [] etc. are identified ...” “lane lines, and other traffic control features are detected and utilized for determining drivable space and driving parameters”	stalling, stopping, or slowing down a vehicle when the vehicle is experiencing lane departure;
“At 611, navigation is overridden. In response to a detected obstacle and/or contact lost with the user, automatic navigation is overridden” “vehicle controller 707 is used to control notification systems including warning systems to inform the driver and/or	• stalling, stopping, or slowing down a vehicle when a pedestrian, obstacle, collision or crash is detected; stalling, stopping, or slowing down a vehicle when the vehicle has been reported as stolen;

passengers of driving events such as a potential collision” “auxiliary data such as sensor data from ultrasonic or other sensors is used to identify obstacles such as pedestrians, vehicles, speed bumps, traffic control signals, etc.” “the deceleration applied to stop the vehicle depends on the environment of the vehicle, whether there are potential collisions such as an obstacle or pedestrian in front of the path of the vehicle”	
“As another example, the user must continue to hold down a button (or maintain contact with a sensor) on the key fob for the vehicle to automatically navigate. In the event contact is lost, the automatic navigation will terminate. In some embodiments, the termination of the navigation safely slows down the vehicle and puts the vehicle in a safe, resting mode, such as parked along the side of the road, in a nearby parking space, etc. In some embodiments, loss of contact may, depending on the scenario, immediately stop the vehicle. For example, a user may release a summon button on the mobile app to indicate the vehicle should stop immediately, similar to a dead man's switch.”	stalling, stopping, or slowing down a vehicle when the vehicle has moved outside a pre-programmed designated perimeter;

701, perception module 703, path planner module 705, vehicle controller 707, additional sensors 709, safety controller 711, vehicle actuators 713, and network interface 715. In various embodiments, the different components are communicatively connected. For example, sensor data from vision sensors 701 and additional sensors 709 are fed to perception module 703. Output of perception module 703 is fed to path planner module 705. The output of path planner module 705 and sensor data from additional sensors 709 is fed to vehicle controller 707. In some embodiments, the output of vehicle controller 707 is vehicle control commands that are fed to vehicle actuators 713 for controlling the operation of the vehicle such as the speed, braking, and/or steering, etc. of the vehicle”	
“safety controller 711 is used to determine how to respond to a detected safety concern. For example, at slow speeds, a vehicle can be brought to an immediate stop but at high speeds the vehicle must be safely slowed down and parked in a safe location”	Wherein, the vehicle is stalled, stopped, or slowed down, a distress signal is sent to at least one of a monitoring site, a control center, or is recorded for storage.

“in various embodiments, the vehicle’s operation is monitored to enforce safety” “a computer program product embodied on a computer readable storage medium; and/or a processor, such as a processor configured to execute instructions stored on and/or provided by a memory coupled to the processor” “navigation server 761 is a remote server and can function as a remote cloud server and/or storage.”	
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TESLA’ FSD CHIP PERFORMS SUBSTANTIALLY THE SAME FUNCTION; IN SUBSTANTIALLY THE SAME WAY; TO ACHIEVE SUBSTANTIALLY THE SAME RESULTS AS GOLDEN’S PATENTED CPU FOR SELF-DRIVING AND AUTONOMOUS VEHICLES

Tesla’s Full Self-Driving Chip (FSD Chip, previously Autopilot Hardware 3.0) is an autonomous driving chip designed by Tesla and introduced in early 2019 for their own cars. Tesla claims the chip is aimed at autonomous levels 4 and 5. Fabricated on Samsung’s 14 nm process technology, the FSD Chip incorporates 3 quad-core Cortex-A72 clusters for a total of 12 CPUs operating at 2.2 GHz, a Mali G71 MP12 GPU operating 1 GHz, 2 neural processing units operating at 2 GHz, and various other hardware accelerators. The FSD supports up to 128-bit LPDDR4-4266 memory.

The Model Y, announced by Tesla in July 2016, is a five-seater SUV-type electric vehicle

(EV) that began deliveries in 2020. The most important feature of Tesla's vehicles is that they have a huge centralized processing unit.

This unit can be called "Drive Computer" or "Self Driving Computer", but MarkLines calls it "Drive Computer". The Model Y Drive Computer is housed in a large, almost A4-sized housing. It contains two large boards, close to the size of the housing, and one small board, about a quarter of the size.

https://www.marklines.com/en/report/fomalhaut_009

There is a safety system that incorporates a dual-core lockstep CPU which conducts the final arbitration of the car actuators. This CPU determines if the two plans generated by the two FSD chips on the FSD computer match and if it's safe to drive the actuators.

When powered on and engaged, sensory input is fed to the board from a variety of sources. Those include current car readings such as inertial measurement unit (IMU), radar, GPS, ultrasonic sensors, wheel ticks, steering angle, and maps data. There are 8 external vision cameras (and 1 internal camera on some vehicles) and 12 ultrasonic sensors. Data is fed to both FSD chips simultaneously for processing. The two chips independently form a future plan for the car - a detailed plan of what the car should do next. The two independently derived plans from both chips are then consequently sent to the safety system which compares them to ensure an agreement was reached. Once the two plans from both chips agree on the calculated plan, the car can proceed and act on that plan (i.e.,

operate the actuators). The drive commands are then validated and sensory information is used as feedback for ensuring the commands executed the desired operations. The full operation loop operates continuously at a high frame rate.

Claim 1 of Golden's '898 patent

1. A pre-programmed stall, stop, vehicle slow-down system, that comprises at least one central processing unit (CPU), capable of:

processing instructions to stall, stop, or slow-down a vehicle when the vehicle receives a signal from at least one of a personal computer (PC), a cellphone, a smartphone, a laptop, a tablet, a PDA, or a handheld;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle receives a signal from at least one of cellular, satellite, or radio-frequency (RF);

processing instructions to stall, stop, or slow-down a vehicle when the vehicle is experiencing unintended acceleration;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle is experiencing lane departure;

processing instructions to stall, stop, or slow-down a vehicle when a collision or crash is detected;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle has been reported as stolen;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle has moved outside a pre-programmed designated perimeter;

processing instructions to stall, stop, or slow-down a vehicle when at least one of a chemical hazard, a

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biological hazard, a radiological hazard; a nuclear hazard; or explosives have been detected;

processing instructions to stall, stop, or slow-down a vehicle when the vehicle is at least a driverless vehicle; ***a self-drive vehicle; an autonomous vehicle***; a human controlled vehicle; a manned or unmanned convoy vehicle, or a manned or unmanned aerial, land, or sea vehicle; and,

Wherein, when the central processing unit (CPU) processes instructions to stall, stop, or slow-down a vehicle, a distress signal is sent to at least one of a monitoring site, a control center, or is recorded for storage.

Note: Both the Tesla Full Self-Driving Chip (FSD Chip) and Golden's patented Central Processing Unit (CPU) are specifically designed for self-drive and autonomous vehicles.

Sincerely,

s/ Larry Golden

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