

I. Introduction

An engineered materials arrestor system (“EMAS”) is a product installed at the end of an airport runway to safely bring to a stop, by absorbing the energy of the aircraft, an aircraft that fails to halt before the end of the runway. For over 15 years, Plaintiff Engineered Arresting Systems Corporation (“ESCO”) was the only EMAS supplier to airports in the United States. In 2014, Defendants Runway Safe LLC and Runway Safe Inc. (collectively “Runway Safe”) began marketing in the United States the EMAS technology of a Norwegian company. In November 2014, Runway Safe installed an EMAS at Chicago Midway International Airport.

ESCO brings this action against Runway Safe, alleging direct and indirect infringement of United States Patent No. 7,597,502 (the “‘502 Patent”). The court renders this memorandum opinion and order to construe the claims of ‘502 Patent.

II. Legal Principles of Claim Construction

Determining infringement is a two-step process. *See Markman*, 52 F.3d at 976 (“[There are] two elements of a simple patent case, construing the patent and determining whether infringement occurred....”). First, the meaning and scope of the relevant claims must be ascertained. *Id.* Second, the properly construed claims must be compared to the accused device. *Id.* Step one, claim construction, is the current issue before the court.

The court construes patent claims without the aid of a jury. *See Markman*, 52 F.3d at 979. The “words of a claim ‘are generally given their ordinary and customary meaning.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The ordinary and customary

meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention. *Id.* at 1313. The person of ordinary skill in the art is deemed to have read the claim term in the context of the entire patent. *Id.* Therefore, to ascertain the meaning of a claim, a court must look to the claim, the specification, and the patent's prosecution history. *Id.* at 1314–17; *Markman*, 52 F.3d at 979. Claim language guides the court's construction of a claim term. *Phillips*, 415 F.3d at 1314. In some cases, “the ordinary meaning of claim language...may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.*; *see also Brown v. 3M*, 265 F.3d 1349, 1352 (Fed. Cir. 2001) (concluding that claims did “not require elaborate interpretation”). A determination that a claim term “needs no construction” or has the “plain and ordinary meaning” may be inadequate when a term has more than one “ordinary” meaning or when reliance on a term's “ordinary” meaning does not resolve the parties' dispute. *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008).

“[T]he context in which a term is used in the asserted claim can be highly instructive.” *Phillips*, 415 F.3d at 1314. Other claims, asserted and unasserted, can provide additional instruction because “terms are normally used consistently throughout the patent.” *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

Claims must also be read “in view of the specification, of which they are a part.” *Markman*, 52 F.3d at 979. The specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a

disputed term.” *Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002) (internal citations omitted). In the specification, a patentee may define a term to have a meaning that differs from the meaning that the term would otherwise possess. *Phillips*, 415 F.3d at 1316. In such a case, the patentee’s lexicography governs. *Id.* The specification may also reveal a patentee’s intent to disclaim or disavow claim scope. *Id.* Such intention is dispositive of claim construction. *Id.* Although the specification may indicate that a certain embodiment is preferred, a particular embodiment appearing in the specification will not be read into the claim when the claim language is broader than the embodiment. *Electro Med. Sys., S.A. v. Cooper Life Scis., Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

The prosecution history is another tool to supply the proper context for claim construction because it demonstrates how the inventor understood the invention. *Phillips*, 415 F.3d at 1317. A patentee may define a disputed term in prosecuting a patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004). Distinguishing the claimed invention over the prior art during prosecution indicates what a claim does not cover. *Spectrum Int’l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988). The doctrine of prosecution disclaimer precludes a patentee from recapturing a specific meaning that was previously disclaimed during prosecution. *Omega Eng’g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). A disclaimer of claim scope must be clear and unambiguous. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002).

Although, “less significant than the intrinsic record in determining the legally operative meaning of claim language,” the court may rely on extrinsic evidence to “shed useful light on the relevant art.” *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and

treatises may help the court understand the underlying technology and the manner in which one skilled in the art might use a claim term, but such sources may also provide overly broad definitions or may not be indicative of how a term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the court in determining the particular meaning of a term in the pertinent field, but “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful.” *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.* Extrinsic evidence may be useful when considered in the context of the intrinsic evidence, *id.* at 1319, but it cannot “alter a claim construction dictated by a proper analysis of the intrinsic evidence,” *On-Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GmbH*, 386 F.3d 1133, 1139 (Fed. Cir. 2004).

III. Discussion

The parties dispute the construction of 4 terms in claim one of the ‘502 Patent. The following table summarizes the parties’ proposed constructions of the disputed terms.

Term/Phrase	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
1. “vehicle arresting unit”	Preamble is not limiting. In the alternative: plain and ordinary meaning.	“a discrete, prefabricated section of an arresting bed that can be positioned with other prefabricated sections to form the arresting bed.”
2. “ceramic foam”	Plain and ordinary meaning.	“a foam that is ceramic, not glass.”

Term/Phrase	Plaintiff's Proposed Construction	Defendant's Proposed Construction
3. "having a breaking strength to readily break without subverting the arrestment characteristics of the compressible material"	Plain and ordinary meaning.	[Indefinite]
4. "sufficient to arrest travel of a vehicle without catastrophically damaging the vehicle"	Plain and ordinary meaning.	[Indefinite]

1. "vehicle arresting unit"

The preamble to claim one of the '502 Patent contains the phrase "vehicle arresting unit." ESCO argues that the preamble does not limit the claim, but contends that if the court does find the preamble to be limiting, the term "vehicle arresting unit" should be given its plain and ordinary meaning. Runway Safe argues that the phrase "vehicle arresting unit" in the preamble is a claim limitation and that it means "a discrete, prefabricated section of an arresting bed that can be positioned with other prefabricated sections to form the arresting bed."

In general, a preamble describing the use of an invention "do[es] not limit the claims because the patentability of apparatus or composition claims depends on the claimed structure, not on the use or purpose of that structure." *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809 (Fed. Cir. 2002). "[A] preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention." *Id.* at 809. However, the preamble may operate as a claim limitation if it is "necessary to give life, meaning, and vitality" to the claim, *id.* at 808, or recites additional structure underscored as important by the specification,

Deere & Co. v. Bush Hog, LLC, 703 F.3d 1349, 1357-58 (Fed. Cir. 2012). A preamble phrase that provides antecedent basis for a claim limitation generally limits the scope of the claim. *Id.* at 1358 (concluding preamble is limiting where phrase appears only in preamble).

Claim one of the '502 Patent, read without the preamble, defines a structurally complete invention within the body of the claim. The preamble does not provide an antecedent basis for any term used in the body of the claim. Further, deletion of the preamble would not affect the structure of the invention, because the body of the claim refers to vehicle arrestment multiple times, indicating the purpose of the invention within the body of the claim. The preamble is merely a statement of purpose or intended use not required to understand the structure of the invention and is essentially redundant of the body of the claim.

Runway Safe argues that the phrase is limiting because ESCO stated during prosecution of a related application, the application for United States Patent No. 6,971,817¹ (the "'817 Application"), that the "preamble recitation of a 'vehicle arresting unit' must be given effect as a structural limitation on the scope of the claim rather than a statement of purpose."

"[C]lear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention." *Catalina*, 289 F.3d at 808-09. Further, an interpretation asserted in the prosecution of a parent application can also affect continuation applications. *Omega*, 334 F.3d at 1333. "As long as the same claim limitation is at issue, prosecution disclaimer made on the same limitation in an ancestor application will attach." *Id.* However, "[e]very statement made by a patentee during

¹ The '502 Patent is a divisional of United States Patent No. 7,261,490, which is a continuation of the '817 Application.

prosecution to distinguish a prior art reference does not create a separate estoppel. Arguments must be viewed in context.” *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 824 (Fed. Cir. 1992).

In *Omega*, the court addressed construction of a claim limitation used in the prosecution of an ancestor patent. 334 F.3d at 1333. Here, the question is not how to construe a claim limitation, but whether the term is a claim limitation in the context of the specific claim. During prosecution of the ‘817 Application, the United States Patent and Trademark Office rejected a claim as anticipated by United States Patent No. 5,002,620 (the “‘620 Patent”). In response, the applicants asserted that the preamble “vehicle arresting unit” in the ‘817 Application was a structural limitation on the scope of the claim that made the ‘817 Application distinguishable from the ‘620 Patent because the ‘620 Patent discloses “elements selected and combined for strength” and has “no apparent relationship to ‘a vehicle arresting unit.’” The body of the claim in the ‘817 Application did not make clear that the invention was designed for intentional structural failure incident to vehicle arrestment. The preamble “vehicle arresting unit” therefore provided a structural limitation on the scope of the claim that was not apparent from the language in the body of the claim.

In the ‘502 Patent, the body of claim one defines a structurally-complete invention and the fact that the invention is used for vehicle arrestment is apparent from the language of the claim. The preamble is used only to state a purpose or intended use for the invention and could be deleted without affecting the structure of the invention defined in claim one. *See Catalina*, 289 F.3d at 808-09.

The court concludes that the preamble to claim one is not a claim limitation.

2. “ceramic foam”

ESCO proposes that the term “ceramic foam” should be given its plain and ordinary meaning and argues that a person having ordinary skill in the art would understand that “ceramic foam” includes glass foam². Runway Safe argues that the term should be construed as “a foam that is ceramic, not glass.”

The court first looks to the context in which the phrase is used in the claim. *See Phillips*, 415 F.3d at 1314. Claim one mentions “ceramic foam” once, in the clause “...comprising compressible material in the form of ceramic foam having top, bottom and side surfaces and omitting phenolic foam and cellular concrete...” ‘502 Patent, 6:67-7:2. This context suggests that the term “ceramic foam” is intended to encompass all types of ceramic foam except for those specifically excepted: phenolic foam and cellular concrete.

The term “ceramic foam” is used but one other time in the ‘502 Patent, in the specification. See ‘502 Patent, 3:20-23 (“Block 12 may be cellular concrete fabricated in accordance with the ‘068 patent or otherwise, or may be formed of phenolic foam, ceramic foam, or other suitable material.”). This reference to “ceramic foam” does not, and is not meant to, provide additional guidance as to the meaning of the term. The reference is a description of the types of compressible material that have been used in previous vehicle-arresting blocks, beds, and methods. The word “glass” is not used in the claim or specification of the ‘502 Patent.

Runway Safe argues that the absence of reference to “foam glass” in the ‘502 Patent indicates an intentional omission because “foam glass” is included in the specification of a

² The parties use the phrases “glass foam,” “foam glass,” and “foam that is glass” throughout the briefing in this cause and do not note a distinction among the three. The court assumes no different and will use the term “glass foam” except when directly quoting a source.

related patent cited during prosecution of the '502 Patent, United States Patent No. 8,021,074 (the "'074 Patent'"), in a sentence parallel to a sentence used in the specification of the '502 Patent. The '502 Patent states that a block "may be formed of phenolic foam, ceramic foam, or other suitable material." '502 Patent, 3:22-23. The '074 Patent states that a block "may be formed of phenolic, ceramic, *foam glass* or other suitable material" (emphasis added). '074 Patent, 4:7-8. Runway Safe posits that the omission of the phrase "foam glass" suggests that the term "ceramic foam" does not encompass glass foam.

"[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable." *Omega*, 334 F.3d at 1325-26. Runway Safe relies on *Microsoft* to assert that the court should construe the term in the '502 Patent in light of the language in the '074 Patent. *See Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004). In *Microsoft*, the patentee "expressly," "explicitly," and "unambiguously" limited its invention in the prosecution history of a related patent, and the specification of the related patent was identical to the patent at issue. *Id.* at 1349. Here, Runway Safe asks the court to infer a limitation from ESCO's inclusion of "foam glass" in a list with the word "ceramic" in the specification of the '074 Patent. The '074 Patent does not contain an explicit or unambiguous limitation of the term "ceramic foam." Further, the specification of the '074 Patent is not identical to the specification of the '502 Patent. The court concludes that inclusion in the '074 Patent and omission in the '502 Patent of the term "foam glass" does not impose a disclaimer or limitation with regard to the term "ceramic foam" in the '502 Patent.

Runway Safe also argues that the term "ceramic foam" does not encompass glass foam because United States Patent No. 4,007,917 (the "'917 Patent'") cited as prior art in the '502

Patent, refers to ceramic foams and glass foams separately. “[P]rior art cited in a patent or cited in the prosecution history of the patent constitutes intrinsic evidence.” *V-Formation, Inc. v. Benetton Grp. SpA*, 401 F.3d 1307, 1311 (Fed. Cir. 2005). “[W]hen prior art that sheds light on the meaning of a term is cited by the patentee, it can have particular value as a guide to the proper construction of the term, because it may indicate not only the meaning of the term to persons skilled in the art, but also that the patentee intended to adopt that meaning.” *Id.*

In *V-Formation*, the court relied on statements from a patent cited as prior art to the patents at issue to construe the term “releasably attaching” to exclude rivets. 401 F.3d at 1311. The court reasoned that the prior-art patent used language “strikingly similar” to the patents at issue. *Id.* Further, the prior-art patent contained statements that made explicit that rivets were not releasable, such as “permanently attached ... through the use of rivets” and “a more permanent fastener such as a rivet.” *Id.* at 1311-12. Finally, the prior-art patent was issued in 1996, and the patents at issue were issued in 1998 and 2000. *Id.* at 1308, 1311.

Here, the prior art—the ‘917 Patent—refers in its specification to “ceramic foam or glass foam” and describes separate tests for determining the energy absorption capacity of each. The ‘917 Patent consistently refers to ceramic foam and glass foam as two separate materials. The ‘917 Patent does not contain a clear statement distinguishing ceramic foam and glass foam. *Id.* at 1311-12. Runway Safe asks the court to base its claim construction on the implication of treating ceramic foam and glass foam differently in the ‘917 Patent. “[S]tatements made in the prosecution history...regarding the prior art...require[] clear and unmistakable statements of disavowal” to effect a disclaimer of claim scope. *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1358 (Fed. Cir. 2003). Moreover, the application for the ‘917 Patent was filed in 1975, more than three decades before the application for the ‘502 Patent was filed in 2007.

“[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1313. The court concludes that the ‘914 Patent’s discussion of ceramic foam and glass foam as separate materials does not impose a limitation with regard to the term “ceramic foam” in the ‘502 Patent.

Each side provides references to dictionaries and textbooks to support its position. “[E]xtrinsic evidence can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean. *Id.* at 1319. However, “there is a virtually unbounded universe of potential extrinsic evidence of some marginal relevance that could be brought to bear on any claim construction question.” *Id.* at 1318. “[E]ach party will naturally choose the pieces of extrinsic evidence most favorable to its cause, leaving the court with the considerable task of filtering the useful extrinsic evidence from the fluff.” *Id.*

Runway Safe proposes several examples of glass foams and ceramic foams being presented separately in textbooks, dictionaries, and other extrinsic sources naming distinct purposes for each. However, Runway Safe presents no unequivocal authority for the notion that glass foam is not a type of ceramic foam. ESCO directs the court to dictionaries, textbooks, and statements by experts that expressly include glass within the definition of ceramics. *See, e.g.*, Hawley’s Condensed Chemical Dictionary (15th Ed.) (defining “glass” as “[a] ceramic material...”). The court acknowledges Runway Safe’s argument that although glass is a ceramic, glass foam is not a ceramic foam; however, in the absence of intrinsic or extrinsic evidence on which the court may rely to incorporate that concept into its claim

construction, the court concludes that the extrinsic evidence supports the proposition that “ceramic foam” as used in the ‘502 Patent encompasses glass foam.

Therefore, the court concludes that a person of ordinary skill in the art would understand “ceramic foam” to have its plain and ordinary meaning, which encompasses glass foam.

3. **“having a breaking strength to readily break without subverting the arrestment characteristics of the compressible material”**

Runway Safe argues that the term “having a breaking strength to readily break without subverting the arrestment characteristics of the compressible material” is indefinite. ESCO argues that the term is not indefinite and proposes that the court construe the term to have its plain and ordinary meaning.

“[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). The definiteness requirement “mandates clarity, while recognizing that absolute precision is unattainable.” *Id.* at 2129. “The claims...must provide objective boundaries for those of skill in the art.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014). “Claim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention. *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014) (citing *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U.S. 45, 65-66 (1923) (finding ‘substantial pitch’ sufficiently definite because one skilled in the art ‘had no difficulty ... in determining what was the substantial pitch needed’ to practice the invention)). Thus,

when a term of degree is used in the claim, the examiner should determine whether the specification provides some standard for measuring that degree. *Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1367 (Fed. Cir. 2010). A term of degree is not indefinite if the specification provides examples or teachings that can be used to measure a degree even without a precise numerical measurement. *See Interval Licensing*, 766 F.3d at 1371-72.

Here, the term “having a breaking strength to readily break without subverting the arrestment characteristics of the compressible material” describes the degree of strength of the “frangible material positioned above the top surface” of the arresting unit. ‘502 Patent, 7:4-9. The abstract expounds on the claim language, stating that the frangible material “provides a stronger, more damage resistant surface, while still readily fracturing in an arresting incident.” The specification further explains that the frangible material “provides increased resistance” to the deleterious effects of jet-blast phenomena and other external forces and specifies that “[t]he word ‘frangible’ is used in its ordinary dictionary sense of being breakable or shatterable without necessarily implying weakness or delicacy.” ‘502 Patent, 3:38-43, 3:55-57. The specification also provides an example of a suitable material and thickness for the frangible layer: “top sheet [of frangible material] may comprise a section of cement board or other suitable material. Typically, if commercially available cement board is used for top sheet, it may have a thickness of up to about one-half inch, with a five-sixteenths inch thickness used in a currently preferred embodiment.” ‘502 Patent, 6:2-7.

The court concludes that a person skilled in the art would be able to ascertain the meaning of “having a breaking strength to readily break without subverting the arrestment characteristics of the compressible material” given the context of the term in the claim and the further explanation in the specification, including an example of a layer having the

characteristics specified in the term. Further, the specification does not support a construction of this term in a way other than the plain and ordinary meaning of the words as they would be understood by a person of ordinary skill in the art.

Each of the words in the disputed claim term is commonly understood. This court easily understands the term. The court rejects the notion that one of skill in the art would be confused by the term. “Breaking strength,” “readily break,” “subverting,” “arrestment characteristics,” and “compressible” have widely accepted meanings.

The court concludes that the term is to be given its **plain and ordinary meaning** with no further construction required.

4. “sufficient to arrest travel of a vehicle without catastrophically damaging the vehicle”

Runway Safe argues that the term “sufficient to arrest travel of a vehicle without catastrophically damaging the vehicle” is indefinite because the scope of the limitation depends upon the conditions in which the invention is used. Runway Safe asserts that the ‘502 Patent does not identify the type of vehicle to be arrested or the conditions of arrestment. ESCO argues that the term is not indefinite and proposes that the court construe the term to have its plain and ordinary meaning.

The term “sufficient to arrest travel of a vehicle without catastrophically damaging the vehicle” in claim one describes the term “deformable material.” The specification expounds on the word “travel” and identifies the “vehicle” contemplated by the term and the conditions in which the vehicle is to be arrested in its statement that “[t]his invention relates to arresting the forward motion of vehicles, such as aircraft overrunning a runway....” The term “aircraft” is used numerous other times throughout the specification and no other vehicle is mentioned. The specification illustrates what is included within “catastrophic[] damag[e]” by stating that the

“suitable arresting material characteristics are selected to enable aircraft travel to be arrested within a desired distance, without causing passenger injury or aircraft damage such as landing gear failure.” This provides two examples of the damage the invention seeks to avoid: landing gear failure and any damage to the aircraft that would cause injury to passengers. *See Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1335 (Fed. Cir. 2010) (“Because the intrinsic evidence here provides ‘a general guideline and examples sufficient to enable a person of ordinary skill in the art to determine [the scope of the claims],’ the claims are not indefinite....”) (quoting *In re Marosi*, 710 F.2d 799, 803 (Fed. Cir. 1983)).

Although, as Runway Safe points out, there are many variables affecting arrestment, such as the type, size, and speed of the aircraft in question, the court concludes that a person skilled in the art of aircraft arrestment would understand what would be “sufficient to arrest travel of a vehicle without catastrophically damaging the vehicle” in light of the potentialities. The court does not find the term difficult to understand, and concludes that a person of ordinary skill in the art would be able to comprehend the term in the context of aircraft arrestment. Finally, the specification does not support a construction of this term in a way other than the plain and ordinary meaning of the words as they would be understood by a person of ordinary skill in the art.

The court concludes that the term is to be given its **plain and ordinary meaning** with no further construction required.

IV. Conclusion

It is common and accepted practice in arguing claim construction for the parties to engage the court in the minutiae of scientific words and phrases to convince the court that persons of skill in the art speak a totally different language than the person on the street, or in a litigation context, the typical juror. Although this is sometimes true, it is not always true. The construing court should not fall prey to the temptation to believe that every word or concept of a term compels viewing the term through an extremely narrow prism utilized only by the person of skill in the art. In this case, “having a breaking strength to readily break without subverting the arrestment characteristics of the compressible material” and “sufficient to arrest travel of a vehicle without catastrophically damaging the vehicle” are two such examples. When evidence is presented and this case is argued, the jury will have no trouble grasping what these terms commonly mean. Nor would one of ordinary skill in the art at the time of the invention.

The following table summarizes the court’s adopted determinations and constructions of the disputed terms.

Term/Phrase	Court’s Adopted Construction
1. “vehicle arresting unit”	Not a limiting term.
2. “ceramic foam”	Plain and ordinary meaning, encompassing glass foam.
3. “having a breaking strength to readily break without subverting the arrestment characteristics of the compressible material”	Plain and ordinary meaning, no further construction necessary.
4. “sufficient to arrest travel of a vehicle without catastrophically damaging the vehicle”	Plain and ordinary meaning, no further construction necessary.

For the above reasons, the court construes the disputed claims as noted and so **ORDERS**. No further claim terms require construction.

SIGNED this 19th day of September, 2016.



LEE YEAKEL
UNITED STATES DISTRICT JUDGE