

UNITED STATES COURT OF INTERNATIONAL TRADE

ADC TELECOMMUNICATIONS, INC.,	:	
	:	
Plaintiff,	:	
	:	
v.	:	Before: R. Kenton Musgrave, Senior Judge
	:	Court No. 13-00400
UNITED STATES,	:	
	:	
Defendant.	:	

OPINION

[On Customs’ classification of certain value added modules, plaintiff’s motion for summary judgment denied; defendant’s cross motion for summary judgment granted.]

Decided: October 18, 2017

Michael E. Roll and Brett Ian Harris, Pisani & Roll LLP, of Los Angeles, CA, for the plaintiff.

Guy R. Eddon, Trial Attorney, Commercial Litigation Branch, Civil Division, U.S. Department of Justice, of New York, NY, for the defendant. On the brief were *Benjamin C. Mizer*, Principal Deputy Assistant Attorney General, *Jeanne E. Davidson*, Director, and *Amy M. Rubin*, Assistant Director. Of counsel on the brief was *Beth C. Brotman*, Attorney, Office of the Assistant Chief Counsel, U.S. Customs and Border Protection, of New York, NY.

Musgrave, Senior Judge: This test case is before the court on cross-motions for summary judgment on the proper customs classification of a single entry of three types of “Value Added Modules” (“VAMs”) imported from Mexico in June 2012. The plaintiff claimed to U.S. Customs and Border Protection (“Customs”) that its VAMS are classifiable in Harmonized Tariff Schedule of the United States (“HTSUS”), subheading 8517.62.00, as “machines for the reception, conversion and transmission or regeneration of voice, images or other data”, duty-free. Customs

classified the VAMS in NY L80881 (Dec. 1, 2004) and at liquidation as “other optical appliances and instruments” within subheading 9013.80.90, HTSUS, and assessed customs duties of 4.5 percent. Upon denial of its protest, number 2402-13-100078, the plaintiff brought this suit. Having fulfilled the prerequisites therefor, 28 U.S.C. §2637(a), jurisdiction is proper pursuant to 28 U.S.C. §1581(a).

For the following reasons, judgment will be entered in favor of the defendant.

I. *Standard of Review*

The court hears *de novo* a civil action contesting the denial of a protest under section 515 of the Tariff Act of 1930 on the basis of the record made before the court. *See* 28 U.S.C. §2640(a)(1). On such actions, summary judgment is appropriate when “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” USCIT R. 56(c). “[W]here . . . a question of law is before the [c]ourt on a motion for summary judgment, the statutory presumption of correctness is irrelevant.” *Toy Biz, Inc. v. United States*, 27 CIT 11, 17 (2003), quoting *Blakley Corp. v. United States*, 22 CIT 635, 639, 15 F. Supp. 2d 865, 869 (1998). The court “must consider whether the government’s classification is correct, both independently and in comparison with the importer’s alternative.” *Jarvis Clark Co. v. United States*, 733 F.2d 873, 878 (Fed. Cir. 1984).

Determining the classification of imported merchandise is a two-step process. First, the court must determine the meaning of relevant tariff provisions, a question of law, and second, the court must determine whether the “nature” of the merchandise falls within the tariff provision as properly construed, a question of fact. *See, e.g., Orlando Food Corp. v. United States*, 140 F.3d 1437 (Fed. Cir. 1998). “When the nature of the merchandise is undisputed . . . the classification

issue collapses entirely into a question of law.” *Cummins Inc. v. United States*, 454 F.3d 1361, 1363 (Fed. Cir. 2006). *See, e.g., Bausch & Lomb, Inc. v. United States*, 148 F.3d 1363, 1365-66 (Fed. Cir. 1998); *Clarendon Marketing, Inc. v. United States*, 144 F.3d 1464, 1466 (Fed. Cir. 1998). Here, the parties’ separate factual recitations do not reveal any material factual disputes, and the matter may therefore be resolved summarily. In that analysis, a measure of deference is accorded to Customs classification rulings in proportion to their “power to persuade”. *United States v. Mead Corp.*, 533 U.S. 218, 235 (2001), citing *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944).

II. *Undisputed Facts*

The parties aver as follows. The merchandise at issue consists of fiber optic telecommunications network equipment. Plaintiff’s Rule 56.3 Statement of Material Facts Not in Dispute (“Pl’s MFNID”), ECF No. 33, ¶1; Defendant’s Response to Plaintiff’s Statement of Material Facts Not in Dispute (“Def’s MFNID”), ECF No. 38, ¶1. Fiber optic telecommunications networks operate by pulses of light in the infrared wavelength range, which transmit voice, sound, images, video, e-mail messages, and other information from one point in the network to another. Pl’s MFNID ¶2; Def’s MFNID ¶2. Digital data is encoded into the light pulses by varying the amplitude and the length of laser light that is sent through the network. Pl’s MFNID ¶3; Def’s MFNID ¶3. Fiber optic telecommunications networks are generally designed to use light at infrared wavelengths. Pl’s MFNID ¶5; Def’s MFNID ¶5. Optical fiber shows much lower transmission losses at these wavelengths than comparable electrical or copper networks, meaning that there is little degradation or attenuation of the light signals even over long distances. *Id.* There is no other use for the merchandise other than in optical communication networks. Pl’s MFNID ¶6; Def’s MFNID ¶6. The wavelength of the light typically used to transmit data in a fiber optic telecommunications network

is approximately 1260 nanometers to 1650 nanometers; whereas human eyes can see light only in the wavelength range from about 400 nanometers to 700 nanometers. Pl's MFNID ¶¶ 7-8; Def's MFNID ¶¶ 7-8. Assuming the telecommunications network equipment at issue is used as one would expect in conventional fiber optic telecommunication networks, humans would not be able to see the light that is used in that equipment or those networks. Pl's MFNID ¶8; Def's MFNID ¶8.

The merchandise at issue is included in the plaintiff's "Value Added Module" or "VAM" product line, and the format of each product is intended to ease installation of the articles into the plaintiff's telecommunications network operator customers' fiber optic networks. *See* Pl's MFNID ¶10; Def's MFNID ¶10. Two different features of the VAM products enable this ease of use: first, the optical fibers used in these products include connectors on the ends of the fibers, eliminating the need for telecommunications network providers to splice the fibers into their networks; second, the optical fibers in the VAM products are protected either in a housing or with a jacketing over the actual fiber itself. Pl's MFNID ¶11; Def's MFNID ¶11. This protects the fibers from damage either during the installation process or from the environment during use. *Id.*

The products at bar fall within three different categories of telecommunications network equipment -- splitter modules, monitor modules, and wavelength division multiplexer ("WDM") modules. Pl's MFNID ¶12; Def's MFNID ¶12. Splitter modules take individual signals from a single optical fiber and divide them, enabling that single signal to reach multiple telecommunication network subscribers.¹ Pl's MFNID ¶13; Def's MFNID ¶13. The plaintiff's

¹ A fiber optic cable that enters the housing directs the signal onto a planar lightwave circuit. As an optical data signal enters that circuit, it follows the divided paths established by the splits on the thin film waveguide until it is ultimately divided into the intended number of identical signals (continued...)

monitor modules allow access to signaling and control functions of a communications network in order to evaluate performance and detect problems.² Pl's MFNID ¶¶16; Def's MFNID ¶¶16. Its WDM modules permit infrared signals of two different wavelengths to travel simultaneously on a single fiber, thereby increasing the capacity.³ Pl's MFNID ¶¶21; Def's MFNID ¶¶21.

¹ (...continued)

and exits the splitter module through 32 fibers with connectors on the output side. These connectors enable the network operator to plug the splitter into a fiber distribution hub, which permits the original signal to be directed to specific locations within the network. Pl's MFNID, ¶¶ 13-15; Def's MFNID, ¶¶ 13-15.

² More precisely, the monitor modules at issue use fused biconic tapers to split the infrared light in the network into two or three different output signals: one (containing the majority of the original signal's power) for continuing transmission of data to the next point in the network, and the other(s) for monitoring the presence and strength of the signal in the network through an attached meter. A fused biconic taper is made from two optical fibers that are heated, fused together and pulled as they are fused, creating a coupling zone that permits light of specified wavelengths to travel between the fibers. (The parties disagree over the precise function of the fusing and pulling process, specifically whether it involves a "splitting" of light in a certain desired wavelength range or a "tapping off" of a fraction of the light power in a certain desired wavelength range, but that disagreement is immaterial to the decision here.) The fused biconic tapers used in the manufacture of the monitor modules at issue in this case were specifically designed to work on infrared light in the 1260 nanometer to 1650 nanometer wavelength range -- light that is outside the range of human vision. Pl's MFNID ¶¶ 17-20; Def's MFNID ¶¶ 17-20.

³ WDM modules are used to increase the capacity of an optical communication link by simultaneously impressing two or more different wavelengths of light, each carrying a modulated information signal, onto a single optical fiber. A WDM module will typically have, on one side, two or more pairs of optical fiber connectors, with each pair accommodating an input fiber and an output fiber carrying a unique optical signal at a single wavelength. On the other side, the module will have only one pair of optical fiber connectors, accommodating an input fiber and an output fiber, each carrying all of the corresponding wavelength signals at the first side. The WDM modules in this case combine (*i.e.*, multiplex) two incoming signals at different wavelengths, and pass the combined signals on to a single output connector for output on a single fiber. The WDM modules also function in the opposite direction, by taking two signals at different wavelengths arriving on a single input fiber and separating them onto two separate output fibers. By allowing infrared signals of different wavelengths to travel on a single fiber, the WDM modules double the amount of data and bandwidth available for transmission in the network. The WDM modules at issue in this case perform their
(continued...)

None of the products at issue contain any electronic components or electrical circuit boards. Pl's MFNID ¶28; Def's MFNID ¶28. Each of the products at issue is used primarily or exclusively for purposes of data transmission in a telecommunications network, and is operated exclusively using light in the infrared wavelength range. Pl's MFNID ¶29; Def's MFNID ¶29.

Customs issued New York Ruling Letter ("NYRL") L80881 to the plaintiff in 2004, advising the plaintiff that the VAMs were to be classified in HTSUS subheading 9013.80.90. Pl's MFNID ¶30; Def's MFNID ¶30. There are no material differences between the subject merchandise and the VAMs that were the subject of NYRL L80881. Pl's MFNID ¶32; Def's MFNID ¶32. From 2009 to 2011, Customs approved 44 of the plaintiff's protests involving substantially identical VAMs to the VAMs at issue in this case. Pl's MFNID ¶12; Def's MFNID ¶12. Customs denied the protest at bar in year 2013. Pl's MFNID ¶¶ 37-39; Def's MFNID ¶¶ 37-39.

III. *Analysis*

A.

Proper classification under the HTSUS is directed by the General Rules of

³ (...continued)

intended function either through the use of fused biconic tapers, described above, or thin film filters. The fused biconic tapers in the WDM modules are wavelength-sensitive and can be designed to either combine or separate wavelengths according to the length of the coupling region. A thin-film filtering device is composed of a "stack" of thin layers of glass, providing high spatial dispersion. The refractive index of each layer, observed at the boundaries between crystalline film layers, is different for the different wavelength(s) within an incident light beam. The different wavelengths of the incoming optical signal are thus bent (*i.e.*, refracted) at different angles. The considerable spatial separation realized, in multiple refractions, for the different wavelengths of the incoming signal permits the tapping off of each wavelength onto a separate output fiber. The thin film filter used in the WDM module at issue will only work on light at wavelengths of 1310 nanometers, 1490 nanometers, and 1550 nanometers, and each of these wavelengths is outside the range of human vision. Pl's MFNID, ¶¶ 22-27; Def's MFNID, ¶¶ 22-27.

Interpretation (“GRIs”) and, if relevant, the Additional U.S. Rules of Interpretation (“ARIs”). *See, e.g., Orlando Food Corp., supra*, 140 F.3d at 1439-40. The GRIs are statutory,⁴ not optional, and they are applied in numerical order. *See Honda of America Manufacturing, Inc. v. United States*, 607 F.3d 771, 773 (Fed. Cir. 2010); *See also Orlando Food Corp.*, 140 F.3d at 1440; *Bauerhin Technologies Ltd. Partnership v. United States*, 110 F.3d 774, 777 (Fed. Cir. 1997) (“we begin our inquiry by examining the descriptions of the relevant headings, subheadings, and accompanying notes”).

GRI 1 provides, *inter alia*, that the “titles of sections, chapters and subchapters are provided for ease of reference only” and that “for legal purposes, classification shall be determined according to the terms of the headings and any relative section or chapter notes and, provided such headings or notes do not otherwise require, according to” GRIs 1 through 6. GRI 3, which codified a judicial rule of specificity, provides that when goods are, *prima facie*, classifiable under two or more headings, classification shall be effected in the following order: (a) by the heading that provides the most specific description over the more general description, (b) by the “material” or component which gives the goods their essential character, or (c) if headings merit equal consideration then by that which is last in numerical order. GRI 6 provides that classification at the subheading level shall be determined according to the terms of comparable subheadings and any related notes and, *mutatis mutandis*, to the preceding GRIs. *See, e.g., Orlando Food Corp.*, 140 F.3d at 1440.

⁴ *See Libas, Ltd. v. United States*, 193 F.3d 1361, 1364 (Fed. Cir. 1999) (noting that the chapter and section notes of the HTSUS are statutory law, not optional interpretive rules).

In that process, the terms of HTSUS are to be construed according to their common commercial meanings. *Millenium Lumber Distribution Ltd. v. United States*, 558 F.3d 1326, 1329 (Fed. Cir. 2009). Additional albeit non-binding guidance is available in the Explanatory Notes (“ENs”) of the Harmonized Commodity Description and Coding System (“HCDCS”), maintained by the World Customs Organization Council, as these are considered “generally indicative of the proper interpretation” of the HTSUS. *Lynteq, Inc. v. United States*, 976 F.2d 693, 699 (Fed. Cir. 1992), quoting H.R. Conf. Rep. No. 576, 100th Cong., 2d Sess. 549 (1988), *reprinted in* 1988 *U.S.C.C.A.N.* 1547, 1582; *see also* T.D. 89-80, 54 Fed. Reg. 35127, 35128 (Aug. 23, 1989).

The first step, then, is to determine which headings and accompanying notes describe the imported VAMs. Customs classified the merchandise in chapter 90, HTSUS, which covers “optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof.” Of some interest here, “thereof,” it is notable that heading 9001 includes “Optical fibers and optical fiber bundles” and “optical fiber cables other than those of heading 8544”.⁵ Heading 9013, in which Customs classified the VAMs, includes “other optical appliances and instruments, not specified or included elsewhere in this chapter; parts and accessories thereof”.

Also noteworthy is Additional U.S. Note 3 to chapter 90, which provides:

For the purposes of this chapter, the terms “*optical appliances*” and “*optical instruments*” refer only to those appliances and instruments which incorporate one

⁵ Heading 8544, HTSUS addresses (italics added) “Insulated (including enameled or anodized) wire, cable (including coaxial cable) and other insulated electric conductors, whether or not fitted with connectors; *optical fiber cables*, made up of individually sheathed fibers, whether or not assembled with electric conductors or fitted with connectors.” The fibers used with these devices can be either bundled or individually sheathed. *See* Pl’s MFNID, ¶ 11; Def’s MFNID, ¶¶ 11.

or more optical elements, but do not include any appliances or instruments in which the incorporated optical element or elements are solely for viewing a scale or for some other subsidiary purpose.

Thus, “optical appliances” and “optical instruments” of heading 9013 must: (1) “incorporate one or more ‘optical elements,’” and (2) the incorporated optical elements must not be “solely for viewing a scale or for some other subsidiary purpose.” Further, for classification in heading 9013, they must also not be specified or included elsewhere in chapter 90. The defendant thus argues the VAMs are not so specified or included elsewhere in chapter 90, and that they were, and are, therefore properly classifiable under subheading 9013.80.90, HTSUS, as “Other optical appliances and instruments: Other”. Def’s Br. at 5.

On its burden of overcoming the presumption of correctness of Customs’ classification, the plaintiff argues that VAMs are not classifiable as optical appliances or optical instruments because precedent dictates that an optical appliance or instrument must aid or enhance human vision, which these devices cannot do because they operate beyond the visible spectrum. Pl’s Br. at 14-18. The plaintiff’s preferred classification is in chapter 85, HTSUS, which covers “electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles.” *Id.* at 18-20; *see* Chapter 85, HTSUS. The precise heading to which the plaintiff directs attention, 8517, HTSUS, includes “other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network), other than transmission or reception apparatus of heading 8443, 8525, 8527 or 8528; parts thereof”. The plaintiff contends that the VAMs are properly classifiable as “Other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or

wireless network (such as a local or wide area network): Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus: Other” under subheading 8517.62.00, HTSUS. Pl’s Br. at 20-21.

B.

Comparing the language of the headings, on the one hand “other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network)” of heading 8517 would appear apt insofar as it describes the sole purpose of the VAMs. However, because it constitutes an imprecise description, heading 8517 is inapplicable, as discussed further below.

Where the meaning of the statute is plain and unambiguous, that meaning prevails. *See, e.g., Muwwakkil v. Office of Personnel Management*, 18 F.3d 921 (Fed. Cir. 1994). The parties acknowledge that the VAMS at bar are *fiber optic* telecommunications network equipment, Pl’s Br. at 3, Def’s Br. at 7, and while their papers assume a lack of definitive meaning of the term “optical” in the HTSUS, all of their inclinations at definitions are circular in using “optic” or some variation thereof (the plaintiff’s argument also lends itself to an ambiguity claim, which would require further inquiry for resolution). The lack of an express definition in the HTSUS, however, does not make “optical” ambiguous: when drafting chapter 90, HTSUS, in addition to traditional “optical” devices operating within the visible spectrum, the authors made the express addition of heading 9001, HTSUS, thereby making plain their awareness of the “optical” properties of fiber optics in “light” transmission -- including that which is beyond the visible spectrum. The words themselves lead only to that conclusion. Indeed, it would be incredible if the drafters had not intended this provision of chapter 90 applicable to future fiber optic development, since tariff statutes are enacted “not only for

the present but also for the future, thereby embracing articles produced by technologies which may not have been employed or known to commerce at the time of the enactment”. *Corporacion Sublistatica v. United States*, 1 CIT 120, 126, 511 F. Supp. 805, 809 (1981). See Additional U.S. Note 3, HTSUS.

The appropriate classification of the VAMs at bar is thus resolved by the plain meaning of “optical” in the statute, as properly understood and apparent in heading 9013. The defendant’s papers reference several lexicographic definitions that reinforce such understanding:

An “optical element,” the statutory term included in Additional U.S. Note 3 to Chapter 90, is defined as “a part of an optical instrument which acts upon the light passing through the instrument, such as a lens, prism or mirror.” *McGraw Hill Dictionary of Scientific and Technical Terms* at 1044 (Exhibit 4). The *Oxford English Dictionary* defines “optical” to include “[o]f or relating to light, as the medium of sight, or in relation to its physical properties; of or relating to optics. Also in extended use: of or relating to radiation in the immediately adjacent parts of the electromagnetic spectrum, i.e. the infrared and ultraviolet.” *Oxford English Dictionary*, definition of “optical” at 2 (Exhibit 5). The *Merriam-Webster Dictionary* provides several definitions for “optical,” including “of, relating to, or utilizing light especially instead of other forms of energy,” and “of or relating to the science of optics.” *Merriam-Webster Dictionary*, definition of “optical” at 1 (Exhibit 6). “Optics” is defined as “a science that deals with the genesis and propagation of light, the changes that it undergoes and produces, and other phenomena closely associated with it.” *Id.* at 4.

Def’s Br. at 8-9.

In accordance with the foregoing, heading 9013’s “other optical appliances and instruments, not specified or included elsewhere in this chapter” is (also) an apt description of the VAMs. This is so, because such appliances and instruments, used in conjunction with the “optical fibers” of heading 9001, HTSUS, are plainly covered by chapter 90, HTSUS. See Additional U.S. Note 3 to Chapter 90; see also *infra*. “Optical” within the remainder of the chapter should not be interpreted in a way that would conflict with heading 9001, and *vice versa*, unless it is clear that the

words used in the HTSUS or its notes are intended to that effect. *See, e.g., E.I. Dupont de Nemours & Co. v. United States*, 24 CIT 1301, 1303 (2000), referencing *Princess Cruises, Inc. v. United States*, 201 F.3d 1352, 1362 (Fed. Cir. 2000). An “optical” appliance or instrument with no purpose but to channel and direct information through fiber optic cables, and which is not the fibers themselves, would fall within heading 9013, HTSUS, *i.e.*, “other optical appliances and instruments, not specified or included elsewhere in this chapter”. And the appropriate subheading of heading 9013 for the VAMs can only be “Other devices, appliances and instruments: Other”, *i.e.*, subheading 9013.80.90, HTSUS, in accordance with Customs’ original classification thereof.

The plaintiff’s arguments do not obviate that 9013.80.90, HTSUS covers the optical, light-signal manipulation, functionality of the VAMs at bar. The plaintiff would juxtapose heading 9013 against heading 8517, HTSUS, but, as the defendant correctly points out, that is a dubious proposition⁶ because the plaintiff’s optical devices are excluded from chapter 85 by Note 1(m) to Section XVI (which covers chapter 85, HTSUS), which provides: “this section does not cover . . . [a]rticles of Chapter 90.” *See* Def’s Br. at 16-17. Simply put: as to which of chapter 90 and chapter 85 provides the “more specific” heading on an article’s classification, there is no “comparison” involved, because Note 1(m) renders GRI 3 inapplicable. *Cf. Sharp Microelectronics Tech., Inc. v.*

⁶ If heading 8517 were indeed applicable, the foregoing would lend itself to application of GRI 3(a), pursuant to which the question is which of the two proposed headings would be the more specific; and such consideration would only lead to the conclusion that heading 9013 is the more precise, because “other apparatus for the transmission or reception of voice, images or other data” of heading 8517 encompasses a much broader range of goods than heading 9013’s more specific description of the VAMs’ “optical” functionality. In other words, *per* GRI 3(a), heading 9013, HTSUS, would be the more specific and appropriate heading for the VAMs at bar, as the plaintiff’s arguments do not persuade otherwise. Furthermore, were it even necessary to apply GRI 3(b) or (c), the result would appear to be the same.

United States, 20 CIT 793, 802, 932 F. Supp. 1499, 1506 (1996) (“Note 1(m) to Section XVI is controlling under GRI 1”), *aff’d* 122 F.3d 1446 (Fed. Cir. 1997); *E.T. Horn Co. v. United States*, 945 F.2d 1540, 1544 (Fed. Cir. 1991) (relative specificity inapplicable where competing tariff provisions are mutually exclusive). The *Sharp* appellate court further observed that “[i]f one determines that . . . [the] device belongs in heading 9013 because it is not more specifically captured elsewhere in the schedule, then Note 1(m) complements the rule of relative specificity by excluding the device from classification in” chapters 84 or 85. 122 F.3d at 1450. The plaintiff provided no compelling counter-argument but only reminded the court that Customs agents earlier reached a different conclusion on the plaintiff’s VAMs. Pl’s Resp. at 16. This court, however, is neither bound nor persuaded by these agents’ determinations. The plaintiff’s optical devices are *prima facie* classifiable in chapter 90 and are therefore excluded from chapter 85 pursuant to Note 1(m).

C.

A brief history of fiber optics and other relevant judicial decisions will clarify this court’s decision. First, the court acknowledges that fiber optics are now a near-universal staple of modern technology using pulses of light and refraction in glass to efficiently transmit information quickly across long distances. In every moment, these systems are linking computer networks, transporting data for high speed internet, making long distance telephone conversations possible, and directing crystal clear images to television screens. Fiber optic technology is used to connect the world in ways inconceivable a mere century ago.

The science of fiber optics began developing in earnest in the mid-nineteenth century when European inventors experimented with light refraction over distances. Mary Bellis, *How Fiber Optics Were Invented: The History of Fiber Optics from Bell’s Photophone to Corning Researchers*,

available at: <https://www.thoughtco.com/birth-of-fiber-optics-4091837> (last visited this date). Over the next century this experimentation led to the theorization that this technology could be used to transfer data over much longer distances. *Id.* The only problem was discovering how to minimize loss to allow for efficient transmission. *Id.* In 1970 Corning Glass Works turned theory into reality, and thus paved the way for the commercialization of fiber optics for telecommunications; by the end of the 1970s, cities had begun installing optical telephone networks, and to this point the adoption of fiber optics in these United States has been relatively swift, as it is now “the” standard for fixed-line data transmission, having largely replaced copper line transmission thereof. *See id.*

The customs bar is not only presumed well-aware, but has been a principal driver, of the periodic updates to the tariff schedules to better reflect emerging technologies making their way into the channels of international commerce. As of 1984, the Tariff Schedules of the United States (“TSUS”; the predecessor to the HTSUS), Schedule 7, Part 2, Subpart A addressed “optical elements”. Therein, TSUS items 708.01 to 708.93 described lenses, prisms, mirrors, telescopes and more. There was no mention of fiber optics. And by 1985, at least eight cases⁷ from this court and its predecessor as well as that of the Court of Appeals for the Federal Circuit had decided that the

⁷ *See Decca Radar, Inc. v. United States*, 57 Cust. Ct. 165, 171 (1966) (microscopes); *Bendix Corp. v. United States*, 57 Cust. Ct. 184, 197 (1966) (polarimeter); *Paillard, Inc. v. United States*, 57 Cust. Ct. 439, 448 (1966) (anamorphic lenses and adapters); *Engis Equip. Co. v. United States*, 62 Cust. Ct. 29, 33, 294 F. Supp. 964, 967 (1969) (autocollimators); *Sumitomo Shoji New York, Inc. v. United States*, 64 Cust. Ct. 299, 302 (1970) (parabolic mirrors for ceilometer systems); *Parson Optical Laboratories v. United States*, 68 Cust. Ct. 143, 147 (1972) (applanation tonometers); *United States v. Ataka Am., Inc.*, 550 F.2d 33, 36 (CCPA 1977) (“*Ataka*”) (gastrointestinal fiberscopes); *EAC Engineering v. United States*, 9 CIT 534, 540, 623 F. Supp. 1255, 1260 (1985) (spark detectors).

TSUS term “optical instrument” required that a device must aid human vision. None of these cases considered fiber optic network technologies.

In the 1985 update that encompassed Schedule 7, Part 2, Subpart A, the TSUS drafters added item 707.90, thus listing as the first item of that Subpart “optical fibers, whether or not in bundles, cables or otherwise put up, with or without connectors and whether mounted or not mounted”. Item 707.90, TSUS. The statistical suffix included “put up in cables, ribbons, or similar form, for the transmission of voice, data, or video communications.” Item 707.90.10, TSUS. Notably, these items were added during the aforementioned era of rapid growth in the then-emerging industry of fiber optics for data transmission, and they were adopted into the harmonized system in 1988, where they have remained at the start of the chapter on optical goods.

In 1997 the Court of Appeals for the Federal Circuit considered an appeal from the classification of a marine sextant device. *Celestaire v. United States*, 120 F.3d 1232 (Fed. Cir. 1997).⁸ Relying on the criteria in *Ataka*,⁹ *Celestaire* set forth three conditions for a particular item to be classified as an “optical instrument” under the HTSUS:

1. Whether the device acts on or interacts with light;
2. Whether the device permits or enhances human vision through the use of one or more optical elements; and
3. Whether the device uses the optical properties of the device in something more than a “subsidiary” capacity.

⁸ This is the only case to directly address the application of “optical” after the 1985 TSUS additions.

⁹ *Ataka* predated the 1985 changes to the TSUS.

Id. at 1233, citing *Ataka*, 550 F.2d at 37 (and noting that the basis of this decision was the binding nature of decisions from the Court of Customs and Patent Appeals). The *Ataka* court also followed these requirements with the acknowledgment that “none of the foregoing criteria is determinative in every case, but they are useful in determining the statutory meaning of ‘optical instrument(s).’” 550 F.2d at 37. Critically, this case was also not about fiber optics and instead focused only on the traditional, pre-1980s tariff use of “optical”. As a decision of the Court of Appeals for the Federal Circuit, the prescribed meaning of “optical” is binding on this court; however, it is not binding where the products are of a different nature or intended meaning within the statute, as envisioned in that court’s clarification that the foregoing criteria is not determinative in every case.

“[I]t is a standard rule of statutory interpretation that ‘where the same word or phrase is used in different parts of the same statute, it will be presumed, in the absence of any clear indication of a contrary intent to be used in the same sense throughout the statute.’” *Railtech Boutet, Inc. v. United States*, 27 CIT 1023, 1031 (2003), quoting *Productol Chemical Co. v. United States*, 74 Cust. Ct. 138, 151 (1975). To delimit the meaning of “optical” in heading 9013, HTSUS, to that part of the light spectrum that is visible to the naked human eye would render heading 9001, HTSUS, largely meaningless, and that limitation would necessarily apply to all of chapter 90 and the HTSUS as a whole. Accordingly, *Celestaire* cannot be read to mean what the plaintiff implores.

Beyond the HTSUS and precedent, the nonbinding Explanatory Notes anticipate optical to include light beyond the visible spectrum. *See* Def. Br. at 19-22. After the *Celestaire* decision was issued, it is noteworthy that the ENs to heading 9001 were revised (coincidentally or otherwise) to describe explicitly the term “optical element,” the statutory term used in Additional

U.S. Note 3 to chapter 90, by expressly referencing light that is not visible to humans. The ENs to heading 90.01(D) thus currently describe “optical elements” as follows:

(D) Optical elements of any material other than glass, whether or not optically worked, not permanently mounted (*e.g.*, elements of quartz (other than fused quartz), fluorspar, plastics or metal; optical elements in the form of cultured crystals of magnesium oxide or of the halides of the alkali or the alkaline-earth metals).

Optical elements are manufactured in such a way that they produce a required optical effect. An optical element does more than merely allow light (*visible, ultraviolet or infrared*) to pass through it, rather the passage of light must be altered in some way, for example by being reflected, attenuated, filtered, diffracted, collimated, etc.

EN 90.01(D), HTSUS (Exhibit 8 at XVIII-9001-2) (*italics added; bolding omitted*). The ENs’ definition of “optical element” precisely describes the optical elements of the plaintiff’s VAMs and is consistent with the common and commercial meaning. The ENs unambiguously state that the wavelengths of “light” with which the optical elements may interact include ultraviolet and infrared light in addition to visible light. *Id.* For the above reasons, the court finds no merit in the plaintiff’s arguments against classification in heading 9013, HTSUS.

In passing, the court also notes the parties’ argument over whether heading 8517, HTSUS, includes non-electronic machines. The court need not decide the broader contentions; suffice it to state here that heading 8517, HTSUS, addresses the antecedent fixed-line data-transmission technology of fiber optics (*i.e.*, via copper line) and otherwise gives no indication that optical fiber technology should be included therein in contravention of chapter 90, HTSUS, and as discussed above, other language in that chapter specifically proscribes classification of “optical” appliances or instruments such as the VAMs at bar from classification under chapter 85, HTSUS.

IV. Conclusion

In accordance with the foregoing, the court denies plaintiff's motion for summary judgment and grants defendant's cross-motion therefor, as Customs properly classified plaintiff's VAMs under subheading 9013.80.90, HTSUS. Judgment to that effect will be entered separately.

/s/ R. Kenton Musgrave
R. Kenton Musgrave, Senior Judge

Dated: October 18, 2017
New York, New York