

2018-1316

**United States Court of Appeals
for the Federal Circuit**

ADC TELECOMMUNICATIONS, INC.,

Plaintiff-Appellant,

v.

UNITED STATES,

Defendant-Appellee.

*Appeal from the United States Court of International Trade in
Case No. 13-CV-00400 Senior Judge R. Kenton Musgrave.*

BRIEF OF PLAINTIFF-APPELLANT

MICHAEL E. ROLL
BRETT IAN HARRIS
PISANI & ROLL LLP
1875 Century Park East, Suite 600
Los Angeles, CA 90067
(310) 826-4410

*Attorneys for Plaintiff-Appellant
ADC Telecommunications, Inc.*

CORRECTED AND ORIGINALLY FILED:
FEBRUARY 20, 2018

CERTIFICATE OF INTEREST

Pursuant to Fed. Cir. R. 47.4, counsel for Plaintiff-Appellant certifies the following:

1. The full name of party represented by me is:

ADC Telecommunications, Inc.

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

N/A

3. The parent companies, subsidiaries (except wholly-owned subsidiaries), and affiliates that have issued shares to the public, of the party or amicus curiae represented by me are:

- Following several acquisitions, ADC Telecommunications, Inc. is now known as CommScope Connectivity LLC, a wholly-owned subsidiary of CommScope Technologies LLC.
- CommScope Technologies LLC is a wholly-owned subsidiary of CommScope, Inc. of North Carolina.
- CommScope, Inc. of North Carolina is a wholly owned subsidiary of CommScope, Inc.
- CommScope, Inc. is a wholly owned subsidiary of CommScope Holding Company, Inc.
- CommScope Holding Company, Inc. is a publicly-traded corporation that trades on the NASDAQ Global Select Market under the symbol COMM.

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

Michael E. Roll, Pisani & Roll LLP
Brett Ian Harris, Pisani & Roll LLP
Robert J. Pisani, Pisani & Roll LLP

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. *See* Fed. Cir. R. 47.4(a)(5) and 47.5(b). (The parties should attach continuation pages as necessary):

No other appeal in this civil action has been previously before this or any other appellate court. This case has been designated as a test case in the United States Court of International Trade ("CIT"). CIT cases numbered 11-534, 12-024, 12-030, 12-263, 12-264, 13-026 and 13-230 (all named ADC International OUS, Inc. v. United States) as well as the following cases numbered 13-231, 13-401, 14-120, 14-128, 14-269, 14-272, 15-032, 15-278 and 16-019 (all named ADC Telecommunications, Inc. v. United States), and FDK America, Inc. v. United States, No. 11-385, have been stayed pending final disposition of this case.

TABLE OF CONTENTS

	Page
TABLE OF AUTHORITIES	iii
JURISDICTIONAL STATEMENT	1
STATEMENT OF THE ISSUE	3
STATEMENT OF THE CASE AND STATEMENT OF THE FACTS.....	3
SUMMARY OF ARGUMENT	12
STANDARD OF REVIEW	14
ARGUMENT	14
I. ADC IS ENTITLED TO SUMMARY JUDGMENT IN THIS TARIFF CLASSIFICATION CASE IF THE COURT AGREES WITH ITS INTERPRETATION OF THE RELEVANT HTSUS PROVISIONS	14
A. Customs’ Classification Decision In NYRL L80881 Is Not Entitled To Deference	14
B. Customs’ Classification Decision In This Matter Is Not Entitled To A Presumption of Correctness Under 28 U.S.C. § 2639(a)(1).....	15
II. THE TARIFF CLASSIFICATION OF THE SUBJECT MERCHANDISE IS GOVERNED BY THE GENERAL RULES OF INTERPRETATION (“GRIs”) AND, IN PARTICULAR, GRI 1	18
III. THE ARTICLES AT ISSUE ARE NOT ACCURATELY DESCRIBED AS “OPTICAL APPLIANCES” OR “OPTICAL INSTRUMENTS” CLASSIFIABLE WITHIN HTSUS CHAPTER 90	19
A. An Article <u>Must</u> Permit Or Enhance Human Vision To Be Classified As An “Optical Appliance” Or “Optical Instrument” In The Tariff Schedule.....	20

B.	The Court of International Trade Committed Reversible Error by Classifying the Subject Merchandise Within HTSUS Heading 9013	26
1.	The CIT Erred In Not Applying the Binding Precedent of this Court in <u>Celestaire</u> , Under Which an Article May Be Classified as an “Optical Instrument” Only If It “Permits or Enhances Human Vision”	27
2.	Traditional Principles of Statutory Construction Do Not Support the Classification of the Subject Merchandise as “Optical Appliances” or “Optical Instruments” Within HTSUS Heading 9013	33
3.	The <u>Explanatory Notes</u> Do Not Support the Classification of the Subject Merchandise as “Optical Appliances” or “Optical Instruments” Within HTSUS Heading 9013	37
4.	Continued Adherence to the <u>Celestaire</u> Criteria for Classification of Optical Instruments Is Necessary for the Future Administration of the Tariff Schedule	39
IV.	THE PRODUCTS ARE ACCURATELY DESCRIBED AS “APPARATUS FOR THE TRANSMISSION OR RECEPTION OF VOICE, IMAGES OR OTHER DATA” WITHIN HTSUS HEADING 8517	43
V.	THE PRODUCTS ARE PROPERLY CLASSIFIED WITHIN HTSUS SUBHEADING 8517.62.00 AS “MACHINES FOR THE RECEPTION, CONVERSION AND TRANSMISSION OR REGENERATION OF VOICE, IMAGES OR OTHER DATA”	46
	CONCLUSION	48

TABLE OF AUTHORITIES

	Page(s)
Cases:	
<u>Agfa Corp. v. United States</u> , 520 F.3d 1326 (Fed. Cir. 2008)	16
<u>BASF Corp. v. United States</u> , 482 F.3d 1324 (Fed. Cir. 2007)	18
<u>BMW Mfg. Corp. v. United States</u> , 241 F.3d 1357 (Fed. Cir. 2001)	21-22
<u>CamelBak Prods., LLC v. United States</u> , 649 F.3d 1361 (Fed. Cir. 2011)	18
<u>Carl Zeiss, Inc. v. United States</u> , 195 F.3d 1375 (Fed. Cir. 1999)	14
<u>Celestaire, Inc. v. United States</u> , 120 F.3d 1232 (Fed. Cir. 1997)	<i>passim</i>
<u>Clarendon Marketing, Inc. v. United States</u> , 144 F.3d 1464 (Fed. Cir. 1998)	16
<u>Corporacion Sublistatica v. United States</u> , 511 F. Supp. 805 (Ct. Int’l Trade 1981)	39
<u>Cummins Incorporated v. United States</u> , 454 F.3d 1361 (Fed. Cir. 2006)	14, 16
<u>Davis v. Michigan Dept. of Treasury</u> , 489 U.S. 803 (1989).....	26
<u>Deseret Co. v. United States</u> , 10 CIT 609 (1986)	44
<u>EAC Engineering v. United States</u> , 623 F. Supp. 1255 (Ct. Int’l Trade 1985)	<i>passim</i>
<u>Faus Group, Inc. v. United States</u> , 581 F.3d 1369 (Fed. Cir. 2009)	16, 19, 46
<u>FDA v. Brown & Williamson Tobacco Corp.</u> , 529 U.S. 120 (2000).....	26

Franklin v. United States,
 289 F.3d 753 (Fed. Cir. 2002)14

FTC v. Mandel Brothers, Inc.,
 359 U.S. 385 (1959).....26

Heli-Support, Inc. and Aerotec, Inc. v. United States,
 26 CIT 352 (2002)24, 35, 38

Hensel, Brockman & Lorbacher v. United States,
 20 Cust. Ct. 327, Abs. 52364 (1948).....35

ITT Thompson Industries, Inc. v. United States,
 3 CIT 36 (1982)44

Jarvis Clark Co. v. United States,
 733 F.2d 873 (Fed. Cir. 1984)28

Lenkurt Electric Co. v. United States,
 63 Cust. Ct. 463, CD 3937 (1969).....44

Lonza, Inc. v. United States,
 46 F.3d 1098 (Fed. Cir. 1995)20

Mead Corp. v. United States,
 283 F.3d 1342 (Fed. Cir. 2002)15

Orlando Food Corp. v. United States,
 140 F.3d 1437 (Fed. Cir. 1998)18, 19, 46

Rollerblade, Inc. v. United States,
 112 F.3d 481 (Fed. Cir. 1997)20

SGI, Inc. v. United States,
 122 F.3d 1468 (Fed. Cir. 1997)27

South Corp. v. United States,
 690 F.2d 1368 (Fed. Cir. 1982)22

Sumitomo Shoji New York, Inc. v. United States,
 64 Cust. Ct. 299 (1970)35

United States v. Ataka Am., Inc.,
 550 F.2d 33 (CCPA 1977).....21, 28, 29, 36

United States v. Bliss & Co.,
 6 Ct. Cust. App. 433 (1915).....23

Universal Elecs. Inc. v. United States,
112 F.3d 488 (Fed. Cir. 1997)16, 17, 18, 28

Verosol USA, Inc. v. United States,
941 F. Supp. 139 (Ct. Int’l Trade 1996).....28

Statutes & Other Authorities:

19 U.S.C. § 1514(a)1, 10

19 U.S.C. § 1514(c)(3)(A)1, 10

28 U.S.C. § 1295(a)(5).....1

28 U.S.C. § 1581(a)1

28 U.S.C. § 2107(b)2

28 U.S.C. § 2636(a)(1).....1, 10

28 U.S.C. § 2639(a)(1).....15

28 U.S.C. § 2645(c)2

19 C.F.R. § 159.11

Fed. R. App. P. 4(a)(1).....2

RULE 47.5 STATEMENT OF RELATED CASES

No other appeal in this civil action has been previously before this or any other appellate court. This case has been designated as a test case in the United States Court of International Trade (“CIT”). CIT cases numbered 11-534, 12-024, 12-030, 12-263, 12-264, 13-026 and 13-230 (all named ADC International OUS, Inc. v. United States) as well as the following cases numbered 13-231, 13-401, 14-120, 14-128, 14-269, 14-272, 15-032, 15-278 and 16-019 (all named ADC Telecommunications, Inc. v. United States), and FDK America, Inc. v. United States, No. 11-385, have been stayed pending final disposition of this case.

JURISDICTIONAL STATEMENT

In this case concerning the tariff classification of certain Value Added Modules (“VAMs”) imported by ADC Telecommunications, Inc. (“ADC”), U.S. Customs and Border Protection (“Customs”) liquidated¹ the single entry at issue on April 26, 2013. ADC filed a protest against this liquidation within the 180-day period prescribed by 19 U.S.C. §1514(c)(3)(A). The protest was denied on November 18, 2013 (protest #2402-13-100078). Having previously paid all applicable duties owed on the entry, ADC filed this action on December 12, 2013, which was within the 180-day period prescribed by 28 U.S.C. §2636(a)(1) and 19 U.S.C. §1514(a). The CIT had jurisdiction pursuant to 28 U.S.C. §1581(a), as this case involves a challenge to the denial by Customs of ADC’s protest against the liquidation of the entry in question under Harmonized Tariff Schedule of the United States (“HTSUS”) subheading 9013.80.90.

This Court has jurisdiction of this appeal from a final decision of the CIT pursuant to 28 U.S.C. §1295(a)(5). The judgment of the CIT was entered on October 18, 2017. ADC filed a notice of appeal on December 15, 2017. The

¹ “Liquidation” means the final computation or ascertainment of the duties accruing on an entry. 19 C.F.R. §159.1.

notice of appeal was timely under 28 U.S.C. §§2107(b) and 2645(c), and Fed. R. App. P. 4(a)(1).

This appeal is from a final judgment that disposed of all parties' claims.

STATEMENT OF THE ISSUE

Whether the court below erred in not applying this Court's decision in Celestaire, Inc. v. United States, 120 F.3d 1232 (Fed. Cir. 1997), which limits "optical instruments" to those that aid or enhance human vision, and in classifying ADC's Value Added Modules ("VAMs"), which do not aid or enhance human vision, as "other optical appliances and instruments" within HTSUS subheading 9013.80.90.

STATEMENT OF THE CASE AND STATEMENT OF THE FACTS

In a fiber optic telecommunications network, pulses of light in the infrared wavelength range are used to transmit voice, sound, images, video, e-mail messages and other information from one point in a network to another. Appx70-74, Appx84, Appx143. Digital data is encoded into the light pulses by varying the amplitude and the length of laser light that is sent through the network. Appx71-74. A photo detector at the other end of the transmission path is then used to convert the light into electrical pulses for further processing. Appx74.

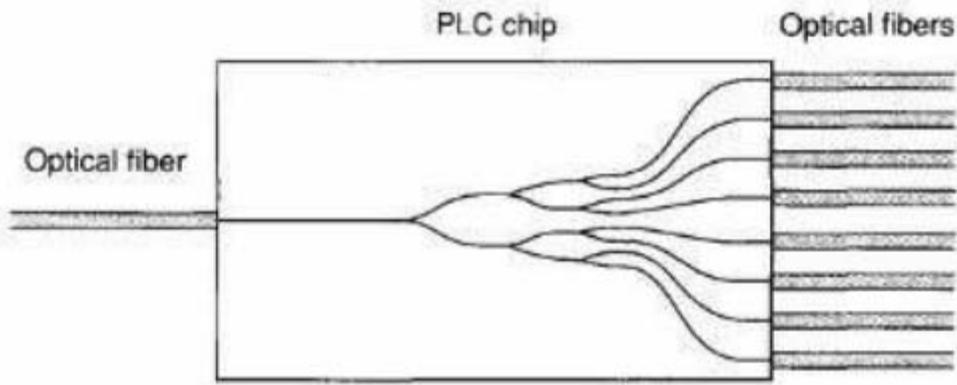
Fiber optic telecommunications networks are generally designed to use light at infrared wavelengths primarily because optical fiber shows much lower transmission losses at these wavelengths than comparable electrical or copper networks, meaning that there is little degradation or attenuation of the light signals

even over long distances. Appx83-85, Appx263. The wavelength of the light typically used to transmit data in a fiber optic telecommunications network is approximately 1260 nanometers to 1650 nanometers. Appx84, Appx237, Appx262. Human eyes, by contrast, can see light only in the wavelength range from about 400 nanometers to 700 nanometers. Appx86, Appx237, Appx262-263. Therefore, 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. Appx76, Appx78, Appx237.

The merchandise at issue in this case consists of fiber optic telecommunications network equipment imported by ADC from Mexico. Appx62. Each of the nine (9) products in this case are included in ADC's "Value Added Module" or "VAM" product line, as the format of each product makes it easier for ADC's telecommunications network operator customers to install the articles into their fiber optic networks. Appx68. 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. This protects the fibers from damage either during the installation process or from the environment during use. Appx68, Appx75.

The nine products in this case fall within three different categories of telecommunications network equipment: (1) splitter modules, (2) monitor modules and (3) wavelength division multiplexer (“WDM”). Appx62. Splitter modules take individual signals from a single optical fiber and divide them, enabling that single signal to reach multiple telecommunication network subscribers. A fiber optic cable that enters the housing directs the signal onto a planar lightwave circuit (“PLC”) (pictured below), which consists of a thin film waveguide with cascaded 1x2 splits deposited on glass substrate. The splits are cascaded until the desired number of splits is achieved, each one increasing the split ratio by a power of 2 (i.e., 1x2, 1x4, 1x8, 1x16, 1x32, etc.). Appx81. As an optical data signal enters the PLC, 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 and exits the splitter module through 32 fibers with connectors on the output side. Appx65. 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 customers or specific locations within the network. Appx66, Appx267



Planar lightwave circuit splitter.

The ADC monitor modules allow access to signaling and control functions of a communications network in order to evaluate performance and detect problems. Appx130-131, Appx263. Specifically, the monitor modules at issue use fused biconic tapers (pictured below) 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. Appx125, Appx263. 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. Appx90, Appx263:



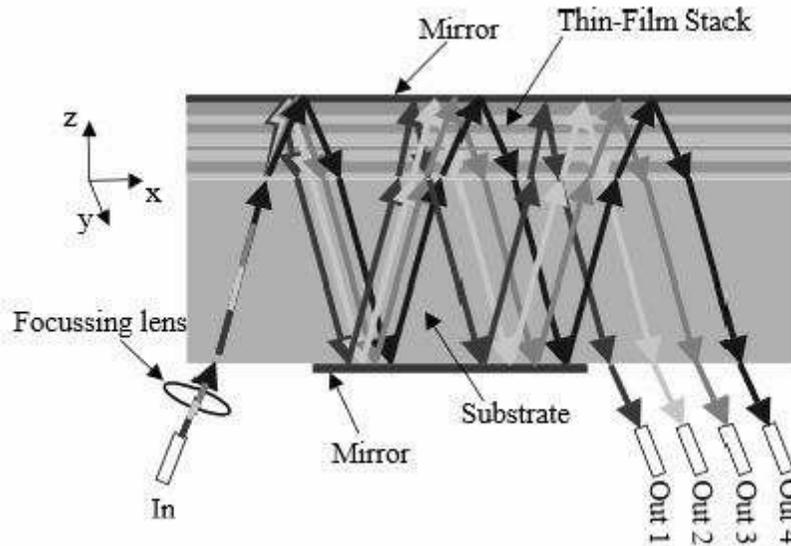
The fusing and pulling process is designed to permit the splitting of light in certain desired wavelength ranges. Appx139. The fused biconic tapers used in the manufacture of the monitor modules at issue in this case were specifically designed to work on infrared light in the 1260 nanometer to 1650 nanometer wavelength range – light that is outside the range of human vision. Appx86, Appx140, Appx237, Appx262-263.

The WDM modules at issue permit infrared signals of two different wavelengths to travel simultaneously on a single fiber. Appx127-129. Wavelength division multiplexing is a technique employed 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 de-combining (*i.e.*, de-multiplexing or separating) them onto two separate output fibers. Appx127-129, Appx264. 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. Appx129.

The WDM modules at issue in this case perform their intended function either through the use of fused biconic tapers, described above, or thin film filters. Appx102, Appx265-266. 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. Appx265-266. The figure below illustrates a four-channel de-multiplexer using a thin film filter stack with spatial dispersion, although the WDM module in this case that features a thin-film filter device actually operates on three different wavelengths of infrared light (1310 nanometers, 1490 nanometers and 1550 nanometers). Appx133. The thin film filter used in the WDM module at issue will only work on light at these three

wavelengths (Appx141), and each of these wavelengths is outside the range of human vision. Appx86, Appx140, Appx237, Appx262-263.



None of the nine products at issue in this case contain any electronic components or electrical circuit boards. Appx80, Appx93. Each of the nine 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. Appx144-148.

Although the entry in question was filed in 2012, the origin of this case actually traces back to 2004. In 2004, Customs issued New York Ruling Letter (“NYRL”) L80881 to ADC. NYRL L80881 advised ADC that its VAM products – including the splitter modules, monitor modules and wavelength division multiplexer modules – were to be classified in HTSUS subheading 9013.80.90, which provides for “other optical appliances and instruments.” Customs did not

provide ADC with any rationale for its decision. Because there are no material differences between the subject merchandise and the VAMs that were the subject of NYRL L80881, ADC was obligated to classify the articles at in accordance with Customs' ruling.

Ultimately, however, ADC disagreed with Customs' conclusion in NYRL L80881. On October 21, 2013, ADC filed Protest No. 2402-13-100078 covering the classification of the VAMs entered in the single entry at issue in this case. See Court File, Protest No. 2402-13-100078. ADC filed this protest within the 180-day period prescribed by 19 U.S.C. §1514(c)(3)(A). The protest was denied on November 18, 2013. Having previously paid all applicable duties owed on the entry in question, ADC filed this action in the CIT on December 12, 2013, which was within the 180-day period prescribed by 28 U.S.C. §2636(a)(1) and 19 U.S.C. §1514(a).

In the CIT, the Government argued that the VAM products at issue in this case were correctly considered "other optical appliances and instruments" and therefore correctly classified within HTSUS subheading 9013.80.90. The CIT agreed in a decision issued on October 18, 2017.

Because the CIT failed to apply binding precedent of this Court interpreting the term "optical instrument" for tariff purposes, ADC filed the instant appeal. For the reasons set forth below, ADC believes that the CIT's decision granting

summary judgment to the Government with respect to the tariff classification of the subject merchandise was reversible error.

.

SUMMARY OF ARGUMENT

Binding precedent of this Court in Celestaire, Inc. v. United States, 120 F.3d 1232 (Fed. Cir. 1997) establishes that an article that does not “permit or enhance human vision” cannot be classified as an “optical instrument” under the HTSUS as a matter of law. Unlike products properly classified as “optical appliances or instruments” within HTSUS Chapter 90, the articles at issue do not aid or enhance human vision by making visible images clearer (contact lenses of heading 9001), brighter (telescopes of heading 9005), larger (microscopes of heading 9011) or more permanent (cinematographic cameras and projectors of heading 9007). Rather, as established by the uncontroverted evidence in this case, the products at issue are used solely for purposes of facilitating data transmission in a telecommunications network. In fact, each model of the subject merchandise operates on light having wavelengths in the range of 1260 nanometers to 1625 nanometers – wavelengths that are well outside the range of human vision. The optical signals acted upon by these products are never visible, and therefore the subject merchandise is never used to create or enhance visible images in the manner of the Chapter 90 exemplars. This merchandise does not “permit or enhance human vision,” and therefore, under Celestaire, cannot be classified as an “optical appliance and instrument” within Chapter 90.

Because each of the products at issue is used exclusively by telecommunications companies to assist in the transmission and reception of digital voice, image and data across advanced, high-speed broadband networks, the subject merchandise is accurately described as “other apparatus for the transmission or reception of voice, images or other data” within HTSUS heading 8517 – specifically, the merchandise is properly classified within HTSUS subheading 8517.62.00, covering “[o]ther 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 [than modems]”.

The CIT decision in this case should be reversed because that court failed to apply the Celestaire criteria for classification of “optical instruments,” yielding a result that is directly at odds with this Court’s precedent, unsupported by the text and structure of the tariff schedule, and ill-suited to the future administration of trade in fiber optic computer networking products. The Court should therefore reject the CIT’s classification of the VAM products at issue within HTSUS heading 9013, and instead rule that the articles are properly classified with other fiber optic telecommunication equipment within HTSUS heading 8517.

STANDARD OF REVIEW

The proper scope and meaning of a tariff term is a question of law that this Court reviews de novo. Franklin v. United States, 289 F.3d 753, 757 (Fed. Cir. 2002). The determination whether particular goods fall within a particular tariff term, as properly construed, is a question of fact. Id. However, where, as here, there are no material factual disputes as to the imported articles, “the classification issue collapses entirely into a question of law” which is reviewed de novo. Cummins Incorporated v. United States, 454 F.3d 1361, 1363 (Fed. Cir. 2006); see also Carl Zeiss, Inc. v. United States, 195 F.3d 1375, 1378 (Fed. Cir. 1999) (classification of undisputed merchandise is entirely a question of law).

ARGUMENT

I. ADC IS ENTITLED TO SUMMARY JUDGMENT IN THIS TARIFF CLASSIFICATION CASE IF THE COURT AGREES WITH ITS INTERPRETATION OF THE RELEVANT HTSUS PROVISIONS.

A. Customs’ Classification Decision In NYRL L80881 Is Not Entitled To Deference.

When this Court performs a de novo classification review, it affords a Customs classification ruling “a measure of deference proportional to its ‘power to persuade,’” which in turn “depends on the thoroughness evident in the classification ruling, the validity of its reasoning, its consistency with earlier and later pronouncements, the formality attendant the particular ruling, and all those

factors that give it [the] power to persuade.” Mead Corp. v. United States, 283 F.3d 1342, 1346 (Fed. Cir. 2002).

Even a cursory review of NYRL L80881 demonstrates that it lacks anything approaching a thorough and carefully reasoned analysis of the tariff classification issue in this case. Like most rulings issued by the CBP National Commodity Specialist Division in New York (unlike those rulings issued by Customs Headquarters in Washington, DC), the conclusion in NYRL L80881 is an ipse dixit completely devoid of legal reasoning. There is no discussion in the ruling regarding the legal requirements for classification within HTSUS heading 9013, and no analysis of the characteristics of the subject merchandise in light of those standards. Moreover, as explained further below, given the central and definitive holding in Celestaire, Inc. v. United States, 120 F.3d 1232 (Fed. Cir. 1997), no Customs ruling that fails to acknowledge the existence of this decision, let alone discuss a principled legal basis for distinguishing its holding, can reasonably be described as persuasive. As a result, there is no basis for affording the Customs decision in NYRL L80881 any deference in this case.

B. Customs’ Classification Decision In This Matter Is Not Entitled To A Presumption of Correctness Under 28 U.S.C. §2639(a)(1).

Although a Customs classification decision “is presumed to be correct” under 28 U.S.C. §2639(a)(1), it is important to note that this presumption attaches

only to factual determinations. Universal Elecs. Inc. v. United States, 112 F.3d 488, 492 (Fed. Cir. 1997). However, where, as here, the nature of the merchandise is undisputed, “the classification issue collapses entirely into a question of law,” and the court reviews Customs’ classification decision de novo. Cummins Inc. v. United States, 454 F.3d 1361, 1363 (Fed. Cir. 2006). See also Faus Group, Inc. v. United States, 581 F.3d 1369, 1371-1372 (Fed. Cir. 2009) and Agfa Corp. v. United States, 520 F.3d 1326, 1328 (Fed. Cir. 2008) (“The ultimate issue as to whether particular imported merchandise has been classified under an appropriate tariff provision is a question of law which we review de novo.”). The propriety of summary judgment in this case, therefore, turns entirely on the proper construction of the HTSUS, which is a legal question, and Customs enjoys no statutory presumption of correctness with regard to that decision. See Clarendon Marketing, Inc. v. United States, 144 F.3d 1464, 1466 (Fed. Cir. 1998) and Universal Elecs., 112 F.3d at 492 (“the presumption carries no force as to questions of law.”).

This case solely concerns the proper scope and meaning of the tariff term “optical instrument.” This is a pure question of law. If this Court agrees with ADC’s legal position (set forth in detail below) that articles must “permit or enhance human vision” to be classified as “optical instruments” within HTSUS heading 9013, summary judgment in ADC’s favor would be appropriate, as it is undisputed that the subject articles transmit light solely in the infrared wavelength

range invisible to humans. There is no dispute between the parties, on the other hand, concerning the operation of the merchandise in question, the nature of its constituent components, whether the products are designed to operate on light having wavelengths within the range of human vision, etc. In other words, there is no factual dispute between the parties concerning this merchandise, and therefore no “evidentiary burden” to be met, no presumption of correctness to be applied and no “preponderance of the evidence” necessary for plaintiff to reach. “[T]he importer has no duty to produce *evidence* as to what the law means because evidence is irrelevant to that legal inquiry.” Universal Elecs., 112 F.3d at 492 (emphasis in original).

The CIT’s opinion in this case thus correctly stated that “[W]here . . . a question of law is before the [c]ourt on a motion for summary judgment, the statutory presumption of correctness is irrelevant.” Appx14. However, it is clear that the CIT ignored its own statement of the law and erred when prefacing its summary of ADC’s legal argument by stating that “[o]n its burden of overcoming the presumption of correctness of Customs’ classification, the plaintiff argues that” Appx21. In applying evidentiary burdens and presumptions to the pure question of law at issue in this case, it appears that the CIT incorrectly sought “to apply the presumption of correctness not as a procedural device governing evidence, but rather as a means of affording deference to Customs’ interpretation

of the law.” Universal Elecs., 112 F.3d at 492. This Court should reject that approach, and conduct a true de novo review of the legal question at issue as required by this Court’s precedents.

II. THE TARIFF CLASSIFICATION OF THE SUBJECT MERCHANDISE IS GOVERNED BY THE GENERAL RULES OF INTERPRETATION (“GRIs”) AND, IN PARTICULAR, GRI 1.

The tariff classification of all merchandise imported into the United States is governed by the General Rules of Interpretation (“GRIs”) and the Additional U.S. Rules of Interpretation (“ARIs”), which provide a framework for classification under the HTSUS. See BASF Corp. v. United States, 482 F.3d 1324, 1325-26 (Fed. Cir. 2007).

According to GRI 1, the HTSUS headings, as well as relative section or chapter notes, govern the classification of a product. Thus, when determining the correct classification for merchandise, a court first construes the language of the headings in question, in light of any related section or chapter notes. Orlando Food Corp. v. United States, 140 F.3d 1437, 1441 (Fed. Cir. 1998). Moreover, the GRIs are to be considered in numerical order. In other words, as per GRI 1, the headings and relevant notes are to be exhausted before inquiries, such as those required by the relative specificity and essential character rules of GRI 3, are considered. CamelBak Prods., LLC v. United States, 649 F.3d 1361, 1364 (Fed. Cir. 2011).

Only after determining the proper heading does a court look to the subheadings to decide the correct classification for the merchandise. Orlando, 140 F.3d at 1441 (citing GRI 6). See also Faus Group, Inc. v. United States, 581 F.3d 1369, 1372 (Fed. Cir. 2009).

In this case, as explained further below, the proper tariff classification of the subject merchandise may be determined solely by reference to the language of the relevant headings, as well as the applicable chapter notes.

III. THE ARTICLES AT ISSUE ARE NOT ACCURATELY DESCRIBED AS “OPTICAL APPLIANCES” OR “OPTICAL INSTRUMENTS” CLASSIFIABLE WITHIN HTSUS CHAPTER 90.

As noted above, at the time of entry ADC classified the products at issue in accordance with NYRL L80881. Specifically, ADC classified the merchandise within HTSUS heading 9013, which provides for (among other things) “other optical appliances and instruments.” The threshold question that must be answered in this case is whether the products are “optical appliances” or “optical instruments” as these terms have been defined for tariff purposes. Based upon clear and binding precedent of this Court, they are not.

A. An Article Must Permit Or Enhance Human Vision To Be Classified As An “Optical Appliance” Or “Optical Instrument” In The Tariff Schedule.

According to the Explanatory Notes,² Chapter 90, entitled “Optical, Photographic, Cinematographic, Measuring, Checking, Precision, Medical or Surgical Instruments and Apparatus; Parts and Accessories Thereof,” includes, among other things, “a wide group comprising not only simple optical elements of headings 90.01 and 90.02, but also optical instruments and apparatus ranging from spectacles of heading 90.04 to more complex instruments used in astronomy,

² The Explanatory Notes constitute the World Customs Organization’s official interpretation of the HTSUS. While not legally binding on the parties, the Notes provide a commentary on the scope of each heading and interpretive rule of the HTSUS and are useful in ascertaining the classification of merchandise under the HTSUS. See Lonza, Inc. v. United States, 46 F.3d 1098, 1109 (Fed. Cir. 1995) (“While the Explanatory Notes do not constitute controlling legislative history, they do offer guidance in interpreting HTS[US] subheadings.”); see also Rollerblade, Inc. v. United States, 112 F.3d 481, 486 n.3 (Fed. Cir. 1997) (although the Explanatory Notes are not controlling legislative history, “they are nonetheless intended to clarify the scope of HTSUS subheadings and to offer guidance in interpreting its subheadings”).

photography, cinematography or for microscopic observation.” As explained in the “Statement of the Facts” section above, the subject merchandise does contain some components that convey and act upon light – specifically, fiber optic cables, planar lightwave circuits, fused biconic tapers, thin film filters and lenses. The presence of these optical elements, however, is not the end of the matter with regard to classification of the article as a whole.

In Celestaire, Inc. v. United States, 120 F.3d 1232 (Fed. Cir. 1997), this Court set forth the following test to determine whether a particular item is an “optical instrument” for HTSUS purposes:

- 1) the device must act on or interact with light;
- 2) the device must permit or enhance human vision through the use of one or more optical elements; and
- 3) the device must use the optical properties of the device in something more than a “subsidiary” capacity.

Celestaire, 120 F.3d at 1233.³

³ Although this test was adopted from United States v. Ataka Am., Inc., 550 F.2d 33 (CCPA 1977), a case decided under the Tariff Schedule of the United States, or “TSUS” (the predecessor tariff schedule to the HTSUS), the Celestaire court explicitly adopted that decision as binding precedent in determining the classification of “optical instruments” under the HTSUS. CCPA cases are binding precedent in the Court of Appeals for the Federal Circuit. See, e.g., BMW Mfg.

Evaluating the subject merchandise in light of these cumulative criteria, it is clear that none of the nine different articles at issue in this case can, as a matter of law, properly be considered “optical appliances” or “optical instruments” classifiable as such within HTSUS heading 9013. Although the devices “act on” or “interact with” light, as apparatus used exclusively for the transmission of data through a fiber optic telecommunications network these items transmit light solely in the infrared wavelength range – these articles cannot “permit or enhance human vision” because the optical output of these items can never be seen by humans during normal operation.⁴ Indeed, in EAC Engineering v. United States, 623 F. Supp. 1255 (Ct. Int’l Trade 1985), the CIT held this factor alone to be determinative, deciding that the “spark detectors” at issue in that case were “non-optical because they detect only infrared radiation (invisible to the human eye) and

Corp. v. United States, 241 F.3d 1357, 1362 (Fed. Cir. 2001) and South Corp. v. United States, 690 F.2d 1368, 1370 (Fed. Cir. 1982) (en banc). We note that the Celestaire court made no distinction between “optical instruments” and “optical appliances” as both contain “optical elements” as that term was defined by the court.

⁴ In fact, viewing the infrared output of the devices at issue is dangerous and can damage human vision. Appx137.

therefore do not aid human vision.” Celestaire, 120 F.3d at 1234 (summarizing EAC Engineering).⁵ “A necessary prerequisite to classifying [an article] as an

⁵ EAC Engineering, like Ataka, was decided under the TSUS. However, the Celestaire court cited the decision in EAC Engineering with approval, as EAC Engineering was based upon the same test for optical instruments (i.e., “aiding or enhancing human vision”) adopted by the Celestaire court for the definition of an “optical instrument” under the HTSUS. Moreover, the TSUS definition of the term “optical instruments”, found in the headnotes to Part 2 of Schedule 7, was **identical** to the salient part of Additional Note 3 to Chapter 90: “The term “optical instruments”, . . . , embraces only instruments which incorporate one or more optical elements, but does not include any instrument in which the incorporated optical element or elements are solely for viewing a scale or for some subsidiary purpose.” The Celestaire court’s treatment of EAC Engineering should be contrasted with its discussion of United States v. Bliss & Co., 6 Ct. Cust. App. 433 (1915), which Celestaire rejected as “interpreting an entirely different tariff schedule, with far different categories applicable to optical instruments.”

‘optical instrument’ is that it aids vision.” EAC Engineering, 623 F. Supp. at 1261.⁶

Importantly, the Celestaire decision did not break new ground with regard to judicial interpretations of the term “optical instrument” for tariff purposes, and the decision expressly acknowledged its debt to prior holdings of the Court of Customs and Patent Appeals, the Customs Court and the Court of International Trade under one or more versions of the predecessor tariff schedule, the Tariff Schedules of the United States (“TSUS”). Every one of these cases, as well as cases cited by those cases, namely:

Decca Radar, Inc. v. United States, 57 Cust. Ct. 165, 171 (1966)

Bendix Corp. v. United States, 57 Cust. Ct. 184, 197 (1966)

Paillard, Inc. v. United States, 57 Cust. Ct. 439, 448 (1966)

Engis Equip. Co. v. United States, 294 F. Supp. 964, 967 (Cust. Ct. 1969)

Sumitomo Shoji New York, Inc. v. United States, 64 Cust.Ct. 299, 302 (1970)

⁶ Contrary to claims made by Customs in several administrative rulings issued since Celestaire was decided, there is nothing in this Court’s decision in Celestaire that purports to limit the criteria concerning an “optical appliance” to the marine sextant at issue in that case, and at least one subsequent decision of the Court of International Trade expressly relied upon the Celestaire criteria without limitation. See, e.g., Heli-Support, Inc. and Aerotec, Inc. v. United States, 26 CIT 352, 357 (2002).

Parsons Optical Laboratories v. United States, 68 Cust. Ct. 143, 147 (1972)
United States v. Ataka Am., Inc., 550 F.2d 33, 36 (CCPA 1977)
EAC Engineering v. United States, 623 F. Supp. 1255, 1260 (Ct. Int'l Trade
1985)

included an express requirement that an optical instrument must aid human vision.

It is this long and consistent line of cases that led the EAC Engineering court to state that “the government does not cite any case in which merchandise classified as optical instruments did not aid or enhance human vision.” EAC Engineering, 623 F. Supp. at 1260. Indeed, until the CIT’s decision below, no such case had been decided in the thirty years since.

Unlike the products properly classified as “optical appliances or instruments” within Chapter 90, the network equipment at issue does not “aid or enhance human vision” by making visible images clearer (contact lenses of heading 9001), brighter (telescopes of heading 9005), larger (microscopes of heading 9011) or more permanent (cinematographic cameras and projectors of heading 9007). Rather, as discussed above, each of the articles at issue are used exclusively for purposes of facilitating data transmission in a fiber optic telecommunications network. The optical signals generated by this merchandise are never visible, and therefore are never used to create or enhance visible images in the manner of the other goods classified in heading 9013 or elsewhere in HTSUS Chapter 90.

In sum, an article may be classified as an “optical instrument” within HTSUS heading 9013 only where the “device permits or enhances human vision through the use of one or more optical elements.” Celestaire, 120 F.3d at 1233. The subject merchandise neither permits nor enhances human vision, as the output it generates is in the infrared wavelength range and is used solely for data transmission. Based upon Celestaire and the overwhelmingly consistent precedents upon which it was based, therefore, this merchandise is precluded from classification within HTSUS heading 9013 as a matter of law.

B. The Court of International Trade Committed Reversible Error by Classifying the Subject Merchandise Within HTSUS Heading 9013.

It is a “fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.” Davis v. Michigan Dept. of Treasury, 489 U.S. 803, 809 (1989). In reading the statutory language in context, the Court must “fit, if possible, all parts into an harmonious whole.” FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 133 (2000) (quoting FTC v. Mandel Brothers, Inc. 359 U.S. 385, 389 (1959)). The CIT ignored this precept throughout its opinion below, yielding a result that is directly at odds with this Court’s precedent, unsupported by the text and structure of the tariff schedule, and ill-suited to the future administration of trade in fiber optic computer networking products. The

Court should therefore reject the CIT's classification of the VAM products at issue within HTSUS heading 9013.

1. The CIT Erred In Not Applying the Binding Precedent of this Court in Celestaire, Under Which an Article May Be Classified as an “Optical Instrument” Only If It “Permits or Enhances Human Vision.”

As explained above, this Court's decision in Celestaire established that a particular item can be classified as an “optical instrument” under the HTSUS only where the “device permits or enhances human vision through the use of one or more optical elements.” Celestaire, 120 F.3d at 1233. The CIT refused to apply the Celestaire criteria in this case, however, stating as follows:

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.

Appx.28.

The CIT's analysis is erroneous. As explained above, the proper meaning and scope of HTSUS terms is a matter of statutory interpretation, i.e., a question of law. See, e.g., SGI, Inc. v. United States, 122 F.3d 1468, 1471 (Fed. Cir. 1997). A fundamental corollary of this point is that an interpretation of a tariff provision cannot change simply because “the products are of a different nature” – in other words, simply because different facts are at issue. This Court has long recognized that the desire for “uniform and consistent interpretation and application” of the

customs laws is central to customs policy, and that “the goals of the tariff laws are best promoted when importers know with some certainty how their imports will be classified and taxed before they import the goods.” Jarvis Clark Co. v. United States, 733 F.2d 873, 876-77 (Fed. Cir. 1984). See also Universal Elecs., 112 F.3d at 492 n.3. The CIT would apply this Court’s Celestaire test for “optical instruments” under one set of facts and refuse to apply it under others, introducing precisely the uncertainty that this Court and Congress sought to avoid. “Under such an approach, the meaning of tariff terms could depend on the quality of the importer's advocacy and could shift from case to case based on the showing made by the particular importer.” Universal Elecs., 112 F.3d at 492 n.3., citing Verosol USA, Inc. v. United States, 941 F. Supp. 139, 141 n.5 (Ct. Int’l Trade 1996).

This Court established that an article may be classified as an “optical instrument” under the HTSUS only where the “device permits or enhances human vision,” and the CIT was not free to ignore that criterion simply because this case doesn’t concern the marine sextant that was at issue in Celestaire.⁷ Moreover, the

⁷ As noted in footnote 3, supra, the Celestaire test for “optical instruments” was based upon identical criteria set forth by the Court of Customs and Patent Appeals in United States v. Ataka Am., Inc., 550 F.2d 33, 36 (CCPA 1977), which this Court adopted as binding precedent. Celestaire, 120 F.3d at 1233. The CIT additionally tries to avoid application of the Celestaire criteria in this case by

additional reason given by the CIT for refusing to apply Celestaire – namely, that the case was an anachronism, inapplicable in the age of fiber optic telecommunications – does not withstand scrutiny.

The CIT attempts to cast its holding in this case as consistent with the historical treatment of fiber optic telecommunications products under the tariff schedule, ultimately claiming that the classification of such products in “the chapter on optical goods” supports the classification of ADC’s VAMs under heading 9013. Appx27. A closer look at that history, however, leads to the exact opposite conclusion.

In its opinion, the CIT writes as follows:

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

relying upon a single clause within the court’s opinion in Ataka suggesting that “none of the foregoing criteria is determinative in every case” Appx28. This effort must fail for two reasons. First, there is no similar qualification found anywhere in Celestaire. Second, the quoted language from Ataka is merely dicta given that the actual conclusion of the Ataka court, immediately following the language cited by the CIT, expressly held that “the term ‘optical instrument(s)’ encompasses devices which . . . permit or enhance human vision through the use of one or more optical elements” Ataka, 550 F.2d at 37.

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 cases from this court and its predecessor as well as that of the Court of Appeals for the Federal Circuit had decided that the 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.**

Appx26-27 (emphasis added).

The CIT ends its recounting of the history here, but this is not the end of the story. In fact, contrary to the court’s opinion, fiber optics for data transmission were removed from the start of the chapter on optical goods when the HTSUS was adopted in 1989. Fiber optic products “put up in cables, ribbons, or similar form, for the transmission of voice, data, or video communications” that were previously classified under TSUS item 707.90.10 were (and are) now classified under HTSUS heading 8544, within the same chapter that covers “other apparatus for

transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network” (see HTSUS heading 8517). The Explanatory Notes for heading 8544 specifically state that “[o]ptical fiber cables are used mainly in telecommunications because their capacity for the transmission of data is greater than that of electrical conductors.” Indeed, heading 9001 by its very terms only covers “optical fiber cables other than those of heading 8544.” (emphasis added).

From the start, therefore, the HTSUS anticipated the rise of fiber optic technology for telecommunications networking purposes and established clearly that such products were to be classified within HTSUS Chapter 85. In the words of the CIT, this consolidation of telecommunications networking products within Chapter 85 – including those that utilized fiber optic technology – “better reflect[ed] emerging technologies making their way into the channels of international commerce” than did the undifferentiated lumping together of all such products within Chapter 90. Appx26.

An early international discussion regarding a proposal to consolidate all fiber optic products within heading 9001 forcefully demonstrates this point. In 1990, the United States proposed to eliminate the term “optical fiber” from the text of heading 8544, suggesting instead that all optical fibers be classified in heading 9001 (essentially reverting to the tariff treatment of optical fibers that prevailed

under the TSUS). Japan and the European Union disagreed with this proposal, however, countering that “optical fibre cables for the transmission of information [should] remain classified in heading 85.44, and those for optical apparatus in heading 90.01.” See ADD. 001-005. The U.S. proposal was never adopted, and the text of heading 8544 remains the same today as it was when the HTSUS was first enacted nearly 30 years ago.

By the time Celestaire was decided in 1997, therefore, the clear segregation of products employing “optical elements” intended for data transmission (classifiable in Chapter 85) from those intended for “visual” purposes (classifiable in Chapter 90) was firmly established and known to this Court. The CIT thus errs in trying to limit the reach of the Celestaire decision by describing it as “not about fiber optics” and “focused only on the traditional, pre-1980s tariff use of ‘optical.’” Appx28. Rather, the requirement established by Celestaire that an “optical instrument” classifiable in HTSUS Chapter 90 must “permit or enhance human vision” reflected an informed and correct understanding of congressional intent to exclude from that chapter products that did not affect human vision – i.e., those that are used in telecommunications networks. This intent – as well as judicial respect for it – remains just as important today as it was when Celestaire was decided.

2. Traditional Principles of Statutory Construction Do Not Support the Classification of the Subject Merchandise as “Optical Appliances” or “Optical Instruments” Within HTSUS Heading 9013.

Apart from the failure to apply this Court’s binding precedent in Celestaire, the CIT’s reasoning in this case is flawed as a matter of statutory interpretation and textual analysis. The CIT held that “[t]he appropriate classification of the VAMs at bar is . . . resolved by the plain meaning of ‘optical’ in the statute, as properly understood and apparent in heading 9013.” Appx23. The court quoted several dictionary definitions of the term “optical,” and cited the Explanatory Note to HTSUS heading 9001 for the proposition that the tariff definition of “optical elements” includes articles, such as certain optical fibers and lenses, that reflect, attenuate, filter or diffract light, including visible, ultraviolet or infrared light.

Based upon these sources, the CIT concluded as follows:

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. For the above reasons, the court finds no merit in the plaintiff’s arguments against classification in heading 9013, HTSUS.

Appx29 (citation to the Explanatory Notes to heading 9001 omitted).

Importantly, however, the tariff provision at issue in this case, heading 9013, covers “*optical instruments*” – not “optical elements” or the term “optical” standing alone. Therefore, definitions of the terms “optical” or “optical elements”

that include light outside the range of human vision are not dispositive of the classification of the subject merchandise as “optical instruments” within heading 9013, even if the VAMs include individual components that would fall within those definitions. In other words, not every article containing “optical elements” or employing “optical” principles is an “optical instrument” for tariff classification purposes.

The customs courts have long recognized this fact. For example, as noted above, EAC Engineering concerned the tariff classification of two different types of spark detectors, each of which emitted an electrical impulse when exposed to a sudden surge of infrared radiation. Glass filters in the product prevented the accidental triggering of the devices by extraneous visible light, while fiber optic probes transmitted the infrared radiation emitted by sparks to the photoelectric cell inside the detector. Although the filters and fiber optic components were clearly “optical elements” classifiable as such under the tariff schedule, the court held that spark detectors were not “optical instruments” for tariff purposes because they detected only infrared radiation invisible to the human eye, and therefore did not aid human vision. EAC Engineering, 623 F. Supp. at 1260. EAC Engineering also “recognized that, although an instrument may have an optical system in the form of lenses, prisms, and mirrors, and [use] principles established in the science of optics, **it is not necessarily an optical instrument.**” 623 F. Supp. at 1261, citing

Hensel, Brockman & Lorbacher v. United States, 20 Cust. Ct. 327, Abs. 52364 (1948) (emphasis added). See also Sumitomo Shoji, supra, where the Customs Court held that a parabolic mirror was not an optical instrument even though the function of the mirror was clearly to reflect light.

Moreover, the text of HTSUS Chapter 90 Additional U.S. Note 3 does nothing to change this conclusion. This note states that:

[f]or the purposes of this chapter, the terms “optical appliances” and “optical instruments” refer only to those appliances and instruments which incorporate one 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.

Of course, it is true that based upon this note an instrument must contain optical elements that are used for a non-subsidary purpose to be classified as an “optical instrument.” It is quite a different matter, however – and manifestly incorrect – to conclude that every article incorporating such optical elements is an optical instrument. The language of Additional U.S. Note 3 to Chapter 90 establishes necessary, but not sufficient, conditions for the classification of optical appliances and instruments. We know this because every single case cited in this brief that was decided under the TSUS, as well as the two cases concerning optical instruments decided under the HTSUS since EAC Engineering (i.e., Celestaire and Heli-Support, Inc.), involved a tariff schedule that included the exact same

language as this note. See TSUS Headnote 3, part 2, schedule 7 (Appx980-982), which read as follows:

The term “optical instruments”, as used in this part, embraces only instruments which incorporate one or more optical elements, but does not include any instrument in which the incorporated optical element or elements are solely for viewing a scale or for some other subsidiary purpose.

None of the cited decisions found this language alone dispositive with regard to the meaning of “optical instrument.” Ataka, for example, concluded that “the term ‘optical instrument(s)’ encompasses devices which act upon or interact with light, which permit or enhance human vision through the use of one or more optical elements, **and, in light of headnote 3**, which utilize the optical properties of the device in something beyond a ‘subsidiary’ capacity.” Ataka, 550 F.2d at 37 (footnote omitted, emphasis added). More than 50 years of customs jurisprudence concerning the tariff classification of optical instruments, therefore, firmly establishes that such articles must “permit or enhance human vision.” As recognized by Celestaire, the fact that HTSUS Additional U.S. Note 3 to Chapter 90 also mandates that optical instruments contain optical elements that are used for a non-subsidiary purpose merely establishes a separate and additional requirement.

3. The Explanatory Notes Do Not Support the Classification of the Subject Merchandise as “Optical Appliances” or “Optical Instruments” Within HTSUS Heading 9013.

The CIT placed great weight in its opinion on the Explanatory Notes to heading 9001, and their definition of the term “optical elements” to include articles that act upon visible, ultraviolet or infrared light. Appx29. However, an examination of the only Explanatory Note specifically concerning “optical instruments” conclusively demonstrates that the articles of heading 9013 are limited to those that “permit or enhance human vision.”

Like HTSUS heading 9013, subheading 9031.49 covers “other optical instruments and appliances.”⁸ The Explanatory Notes for HTSUS subheading 9031.49, however, explicitly indicate that articles that do not affect human vision are included within that provision:

⁸ The “other optical instruments and appliances” classifiable within heading 9031 are limited to those that otherwise meet the terms of the heading – i.e., “measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter” and “profile projectors.” The scope of the “other optical appliances and instruments” classifiable within heading 9013, on the other hand, is not so limited and includes those that are generally “not specified or included elsewhere in this chapter.”

Tariff Provision	<u>Explanatory Note</u> Concerning Scope of Optical Instruments Included
Subheading 9031.49 (other optical instruments and appliances)	This subheading covers not only instruments and appliances which provide a direct aid or enhancement to human vision, but also other instruments and apparatus which function through the use of optical elements or processes.

There is no similar Explanatory Note for heading 9013. In fact, there are many tariff provisions within HTSUS Chapter 90 that contain the terms “optical instrument,” “optical appliance,” or both: see, e.g., HTSUS subheadings 9014.10.10, 9014.20.20, 9014.80.10, 9015.80.20, 9018.90.10, 9018.90.20, 9027.10.40, 9027.90.64 and 9027.90.68. Neither the Explanatory Notes for heading 9013 nor those applicable to any of these other provisions contain similar language dispensing with the requirement that optical instruments or appliances must aid or enhance human vision. The most natural reading of the Explanatory Note to HTSUS subheading 9031.49, therefore, is that it establishes an exception from the general rule that optical instruments or appliances must aid or enhance human vision for goods classified within that subheading only. Indeed, both the Celestaire and Heli-Support courts must have necessarily reached this same conclusion, as the same Explanatory Note language for HTSUS subheading 9031.49 has been included in the Explanatory Notes since well before those

decisions were issued in 1997 and 2002, respectively. See Appx984-989 (copy of Explanatory Note to heading 9031 from 1992).

4. Continued Adherence to the Celestaire Criteria for Classification of Optical Instruments Is Necessary for the Future Administration of the Tariff Schedule.

In its opinion below, the CIT correctly notes that “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.’” Appx22-23, citing Corporacion Sublistatica v. United States, 511 F. Supp. 805, 809 (Ct. Int’l Trade 1981). Discarding the Celestaire requirement that an “optical instrument” of Chapter 90 must “permit or enhance human vision” would undermine this principle, however, and lead directly to ossification in this area of law.

In the CIT’s view, the fact that some fiber optic products operating upon light outside the visible spectrum are classified within heading 9001 necessarily means that all “optical instruments” must be classified within Chapter 90, because “it would be incredible if the drafters had not intended this provision of chapter 90 applicable to future fiber optic development” Appx22. This starts from a faulty premise, however – namely, that heading 9001 includes fiber optic products intended for data transmission. It does not. We explained above in Section B.1. that fiber optic products used for data transmission in telecommunication networks

are, in fact, not classified in heading 9001, but rather in Chapter 85 – the chapter covering a variety of equipment used in telecommunications networks. Indeed, optical fibers transmitting light at infrared wavelengths are particularly well-suited for use in such networks because 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. Appx15. As noted previously, the Explanatory Notes for heading 8544 specifically recognize this point, stating that “[o]ptical fiber cables are used mainly in telecommunications because their capacity for the transmission of data is greater than that of electrical conductors.” Moreover, the Explanatory Notes to heading 8517 explicitly state that “[t]his heading covers apparatus for the transmission or reception of speech or other sounds, images or other data between two points by variation of an electric current **or optical wave** flowing in a wired network or by electro-magnetic waves in a wireless network.” (emphasis added).

By moving instruments and apparatus used in fiber optic telecommunications networks – i.e., those articles utilizing “optical elements” not to “permit or enhance human vision,” but to transmit data using light in the infrared wavelength spectrum – to HTSUS Chapter 85, then, it is clear that the drafters did not intend for either Chapter 90 in general or heading 9001 in particular to be “applicable to future fiber optic development” with regard to such

merchandise. Indeed, the development of Chapter 85 to encompass products intended for the transmission of data in fiber optic networks continues to this day.

For example, numerous members of the World Trade Organization, including the United States, signed the Declaration On Trade In Information Technology Products (the “Information Technology Agreement,” or “ITA”) in 1996. As explained in Presidential Proclamation No. 7011 (62 Fed. Reg. 35909 (July 2, 1997)) (issued to implement the agreement), the products agreed by the parties to be eligible for tariff concessions under the ITA were set forth in two attachments: Attachment A, which included a listing of specific HTS provisions determined to be used for information and communications technology purposes, and Attachment B, a catchall which included a positive list of specific products within certain categories that were to be eligible for the tariff concessions wherever they were classified in the HTS. Importantly, “optical fiber cables” of heading 8544 were included in Attachment A, reflecting the international understanding that these fiber optic products were used for telecommunications purposes. Telecommunications networking equipment of heading 8517 was also included in Attachment A.

Although many products classifiable within Chapter 90 are listed in Attachment A to the ITA, “other optical appliances and instruments” of HTS subheading 9013.80 are not, reflecting the international understanding that this

provision is not intended to cover information technology products such as those used in telecommunications networks. This remained the case even after the scope of products covered by the ITA was expanded in 2016. Indeed, U.S. Customs has issued literally dozens of administrative rulings holding that instruments and appliances employing optical elements that are used in fiber optic telecommunications networks are classified within HTSUS heading 8517 – a search of Customs’ online ruling search system (<https://rulings.cbp.gov/>), for example, using the search terms “optical” and “8517” indicates the most recent one was issued in April 2017.

Adoption of the CIT’s reasoning in its decision below – holding that any article incorporating “optical elements” is necessarily classified within Chapter 90 – would necessarily arrest this trend in its tracks. Indeed, the court’s opinion in this case seems to relish this conclusion, stating:

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.

By sweeping all fiber optic telecommunications equipment into Chapter 90, thereby limiting heading 8517 to networking equipment using copper wire, the CIT’s decision in this case is backward-looking, standing in stark contrast to its

earlier (and correct) pronouncement that “tariff statutes are enacted ‘not only for the present but also for the future.’” The Explanatory Notes, international understanding and U.S. Customs rulings all demonstrate that telecommunications equipment for use in fiber optic networks is intended to be classified outside of Chapter 90. The Celestaire decision takes perfect account of this understanding by limiting the classification of “optical instruments” within Chapter 90 to those articles that utilize “optical elements” to “permit or enhance human vision.” Under that criteria, instruments and apparatus used in fiber optic telecommunications networks – i.e., those that transmit data using light in the infrared wavelength spectrum, outside the range of human vision – are properly placed within HTSUS Chapter 85. This Court should therefore reaffirm application of Celestaire in this case, and reject the CIT’s classification of the VAM products at issue within HTSUS heading 9013.

IV. THE PRODUCTS ARE ACCURATELY DESCRIBED AS “APPARATUS FOR THE TRANSMISSION OR RECEPTION OF VOICE, IMAGES OR OTHER DATA” WITHIN HTSUS HEADING 8517.

HTSUS heading 8517 covers, among other items, “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.” According to the Explanatory Notes:

[t]his heading covers apparatus⁹ for the transmission or reception of speech or other sounds, images or other data between two points by variation of an electric current or optical wave flowing in a wired network or by electro-magnetic waves in a wireless network. The signal may be analogue or digital. The networks, which may be interconnected, include telephony, telegraphy, radio-telephony, radio-telegraphy, local and wide area networks.

Examples of such items provided in the Explanatory Notes include network interface cards (e.g., Ethernet interface cards), modems (combined modulators-demodulators), routers, bridges, hubs, repeaters and channel to channel adaptors, and multiplexers and related line equipment (e.g., transmitters, receivers or electro-optical converters).

As devices used to assist in the transmission of video, voice and other data in fiber optic telecommunication networks, the splitter modules, monitor modules and wavelength division multiplexer modules at issue in this case fall squarely within the terms of heading 8517. In fact, the Government's own expert described the subject merchandise in precisely these terms:

⁹ The term "apparatus" has been broadly defined by the Court of International Trade and its predecessor court as a combination of articles and materials which are intended, adapted, and necessary for the accomplishment of some purpose. See Deseret Co., v. United States, 10 CIT 609, 611 (1986); ITT Thompson Industries, Inc. v. United States, 3 CIT 36 (1982); Lenkurt Electric Co. v. United States, 63 Cust. Ct. 463, 467-68, CD 3937 (1969).

ADC's devices form a part of the infrastructure of data communication networks capable of transmitting light signals representing many different types of data, including voice, images, video, and any other computer data.

Appx235-236, Appx262, Appx268. See also Appx 241:

Q: Letter B [of the report] states, "The imported merchandise consists of passive optical devices used in optical communication networks." Is it your opinion then that there's no other uses that you know of for the particular imported merchandise at issue here?

A. That's correct, there are no other uses I know of.

Moreover, the parties are in perfect agreement regarding the specific functions performed in a telecommunications network by each of the three types of apparatus at issue. Specifically, the ADC monitor modules allow access to signaling and control functions of a communications network in order to evaluate performance and detect problems. Appx130-131, Appx263. The ADC splitter modules take individual signals from a single optical fiber and divide them, enabling that single signal to reach multiple telecommunication network subscribers. Appx81, Appx266. Wavelength Division Multiplexing 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. Appx128-129, Appx264.

In sum, the record is replete with uncontroverted evidence demonstrating that the individual value added modules at issue are each used exclusively for the

transmission of data in a fiber optic telecommunications network. Appx144-151. Given this evidence, and the clear scope of the relevant statutory provision, the subject merchandise is accurately described as “other apparatus for the transmission or reception of voice, images or other data” within HTSUS heading 8517.

V. THE PRODUCTS ARE PROPERLY CLASSIFIED WITHIN HTSUS SUBHEADING 8517.62.00 AS “MACHINES FOR THE RECEPTION, CONVERSION AND TRANSMISSION OR REGENERATION OF VOICE, IMAGES OR OTHER DATA.”

As noted earlier, when determining the correct classification for merchandise, a court must first construe the language of the headings in question, in light of any related section or chapter notes. Only after determining the proper heading does a court look to the subheadings to decide the correct classification for the merchandise. Orlando Food Corp., 140 F.3d at 1441, Faus Group, Inc., 581 F.3d at 1372. In this case, having demonstrated that HTSUS heading 8517 most accurately describes the subject merchandise, a review of the subheadings within that heading indicates that the most accurate tariff classification of the VAMs at issue is “machines for the reception, conversion and transmission or regeneration of voice, images or other data” within HTSUS subheading 8517.62.00.

It is undisputed that the goods at issue are not “telephone sets, including telephones for cellular networks or for other wireless networks.” Therefore, this merchandise cannot be classified within HTSUS subheadings 8517.11.00,

8517.12.00 or 8517.18.00. Moreover, the VAMs are not properly described as “base stations” within HTSUS subheading 8517.61.00. According to the Explanatory Notes, “[t]he most common types of base stations are those for cellular networks, which receive and transmit radio waves to and from cellular telephones or to other wired or wireless networks. Each base station covers a geographical area (a cell). If the user moves from one cell to another while telephoning, the call is automatically transferred from one cell to another without interruption.” Based upon the evidence regarding the use of the subject merchandise, this term does not describe the VAMs at issue in this case.

Rather, the merchandise is properly described as machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus. The consistent testimony of both witnesses below demonstrates that the telecommunications modules at issue in this case are used in the transmission of data in a fiber optic telecommunications network. See, e.g., Appx144-151, Appx268 (“ADC’s devices form a part of the infrastructure of data communication networks capable of transmitting light signals representing many different types of data, including voice, images, video, and any other computer data.”). Therefore, the subject merchandise is most accurately classified within HTSUS subheading 8517.62.00, covering “[o]ther 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.”

CONCLUSION

For the reasons set forth above, this Court should reverse the decision of the CIT and hold that the goods in question are properly classifiable as “machines for the reception, conversion and transmission or regeneration of voice, images or other data” within HTSUS subheading 8517.62.00.

/s/ Michael E. Roll
Michael E. Roll
Brett Ian Harris
Robert J. Pisani
Pisani & Roll
1875 Century Park East
Suite 600
Los Angeles, CA 90067
310-826-4410

Dated: February 20, 2018

ADDENDUM

UNITED STATES COURT OF INTERNATIONAL TRADE

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

JUDGMENT

This case having been duly submitted for decision, and the court, after due deliberation, having rendered a decision herein; Now, therefore, in conformity therewith, it is

ORDERED, ADJUDGED AND DECREED that the plaintiff’s motion for summary judgment on U.S. Customs and Border Protection (“Customs”) Protest Number 2402-13-100078 be, and it hereby is, DENIED; and it is further

ORDERED, ADJUDGED AND DECREED that the defendant’s cross-motion for summary judgment on Customs’ classification of the plaintiff’s imported “Value Added Modules: Wavelength Division Multiplexers, Passive Optical Splitter Modules and Monitor Modules” under subheading 9013.80.9000 of the Harmonized Tariff Schedule of the United States, be, and it hereby is, GRANTED.

SO ORDERED.

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

Dated: October 18, 2017
New York, New York

Slip Op. 17 - 144

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

Court No. 13-00400

Page 2

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

Court No. 13-00400

Page 3

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

Court No. 13-00400

Page 4

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...)

Court No. 13-00400

Page 5

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...)

Court No. 13-00400

Page 6

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.

Court No. 13-00400

Page 7

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).

Court No. 13-00400

Page 8

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.

Court No. 13-00400

Page 9

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

Court No. 13-00400

Page 10

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

Court No. 13-00400

Page 11

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

Court No. 13-00400

Page 12

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.

Court No. 13-00400

Page 13

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*,

Court No. 13-00400

Page 14

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).

Court No. 13-00400

Page 15

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.

Court No. 13-00400

Page 16

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

Court No. 13-00400

Page 17

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.

Court No. 13-00400

Page 18

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



How Fiber Optics Was Invented

The History of Fiber Optics from Bell's Photophone to Corning Researchers

by [Mary Bellis](#)

Updated July 31, 2017

Fiber optics is the contained transmission of light through long fiber rods of either glass or plastics. The light travels by process of internal reflection. The core medium of the rod or cable is more reflective than the material surrounding the core. That causes the light to keep being reflected back into the core where it can continue to travel down the fiber. Fiber optic cables are used for transmitting voice, images, and other data at close to the speed of light.

WHO INVENTED FIBER OPTICS

Corning Glass researchers Robert Maurer, Donald Keck, and Peter Schultz invented fiber optic wire or "Optical Waveguide Fibers" (patent #3,711,262) capable of carrying 65,000 times more information than copper wire, through which information carried by a pattern of light waves could be decoded at a destination even a thousand miles away.

Fiber optic communication methods and materials invented by them opened the door to the commercialization of fiber optics. From long-

distance telephone service to [the Internet](#) and medical devices such as the endoscope, fiber optics are now a major part of modern life.

TIMELINE

1854 - John Tyndall demonstrated to the Royal Society that light could be conducted through a curved stream of water, proving that a light signal could be bent.

1880 - [Alexander Graham Bell](#) invented his "[Photophone](#)," which transmitted a voice signal on a beam of light. Bell focused sunlight with a mirror and then talked into a mechanism that vibrated the mirror. At the receiving end, a detector picked up the vibrating beam and decoded it back into a voice the same way a phone did with electrical signals. However, many things—a cloudy day, for instance—could interfere with the Photophone, causing Bell to stop any further research with this invention.

1880 - William Wheeler invented a system of light pipes lined with a highly reflective coating that illuminated homes by using light from an electric arc lamp placed in the basement and directing the light around the home with the pipes.

1888 - The medical team of Roth and Reuss of Vienna used bent glass rods to illuminate body cavities.

1895 - French engineer Henry Saint-Rene designed a system of bent glass rods for guiding light images in an attempt at early television.

1898 - American David Smith applied for a patent on a bent glass rod device to be used as a surgical lamp.

1920s - Englishman John Logie Baird and American Clarence W. Hansell patented the idea of using arrays of transparent rods to transmit images for television and facsimiles respectively.

1930 - German medical student Heinrich Lamm was the first person to assemble a bundle of optical fibers to carry an image. Lamm's goal was to look inside inaccessible parts of the body. During his experiments, he reported transmitting the image of a light bulb. The image was of poor quality, however. His effort to file a patent was denied because of Hansell's British patent.

1954 - Dutch scientist Abraham Van Heel and British scientist Harold. H. Hopkins separately wrote papers on imaging bundles. Hopkins reported on imaging bundles of unclad fibers while Van Heel reported on simple bundles of clad fibers. He covered a bare fiber with a transparent cladding of a lower refractive index. This protected the fiber reflection surface from outside distortion and greatly reduced interference between fibers. At the time, the greatest obstacle to a viable use of fiber optics was in achieving the lowest signal (light) loss.

1961 - Elias Snitzer of American Optical published a theoretical description of single mode fibers, a fiber with a core so small it could carry light with only one wave-guide mode. Snitzer's idea was okay for a medical instrument looking inside the human, but the fiber had a light loss of

one decibel per meter. Communications devices needed to operate over much longer distances and required a light loss of no more than 10 or 20 decibels (measurement of light) per kilometer.

1964 - A critical (and theoretical) specification was identified by Dr. C.K. Kao for long-range communication devices. The specification was 10 or 20 decibels of light loss per kilometer, which established the standard. Kao also illustrated the need for a purer form of glass to help reduce light loss.

1970 - One team of researchers began experimenting with fused silica, a material capable of extreme purity with a high melting point and a low refractive index. Corning Glass researchers Robert Maurer, Donald Keck and Peter Schultz invented fiber optic wire or "Optical Waveguide Fibers" (patent #3,711,262) capable of carrying 65,000 times more information than copper wire. This wire allowed for information carried by a pattern of light waves to be decoded at a destination even a thousand miles away. The team had solved the problems presented by Dr. Kao.

1975 - The United States government decided to link the computers at the NORAD headquarters at Cheyenne Mountain using fiber optics to reduce interference.

1977 - The first optical telephone communication system was installed about 1.5 miles under downtown Chicago. Each optical fiber carried the equivalent of 672 voice channels.

By the end of the century, more than 80 percent of the world's long-distance traffic was carried over optical fiber cables and 25 million kilometers of the cable. Maurer, Keck, and Schultz-designed cables have been installed worldwide.

GLASS FIBER OPTICS AT THE US ARMY SIGNAL CORP

The following information was submitted by Richard Sturzebecher. It was originally published in the Army Corp publication *Monmouth Message*.

In 1958, at the US Army Signal Corps Labs in Fort Monmouth New Jersey, the manager of Copper Cable and Wire hated the signal transmission problems caused by lightning and water. He encouraged Manager of Materials Research Sam DiVita to find a replacement for copper wire. Sam thought glass, fiber, and light signals might work, but the engineers who worked for Sam told him a glass fiber would break.

In September 1959, Sam DiVita asked 2nd Lt. Richard Sturzebecher if he knew how to write the formula for a glass fiber capable of transmitting light signals. DiVita had learned that Sturzebecher, who was attending the Signal School, had melted three triaxial glass systems using SiO₂ for his 1958 senior thesis at Alfred University.

Sturzebecher knew the answer. While using a [microscope](#) to measure the index-of-refraction on SiO₂ glasses, Richard developed a severe headache. The 60 percent and 70 percent SiO₂ glass powders under [the microscope](#) allowed higher and higher amounts of brilliant white light to pass through the microscope slide and into his eyes. Remembering the headache and the brilliant white light from high

SiO₂ glass, Sturzebecher knew that the formula would be ultra pure SiO₂. Sturzebecher also knew that Corning made high purity SiO₂ powder by oxidizing pure SiCl₄ into SiO₂.

He suggested that DiVita use his power to award a federal contract to Corning to develop the fiber.

DiVita had already worked with Corning research people. But he had to make the idea public because all research laboratories had a right to bid on a federal contract. So in 1961 and 1962, the idea of using high purity SiO₂ for a glass fiber to transmit light was made public information in a bid solicitation to all research laboratories. As expected, DiVita awarded the contract to Corning Glass Works in Corning, New York in 1962. Federal funding for glass fiber optics at Corning was about \$1,000,000 between 1963 and 1970. Signal Corps Federal funding of many research programs on fiber optics continued until 1985, thereby seeding this industry and making today's multibillion dollar industry that eliminates copper wire in communications a reality.

DiVita continued to come to work daily at the US Army Signal Corps in his late 80's and volunteered as a consultant on nanoscience until his death at age 97 in 2010.

ADDENDUM
(Explanatory Notes)

158. The Sub-Committee agreed to maintain the first part of heading 85.44 unchanged, and propose that the Committee amend the corresponding Explanatory Note to indicate, on page 1403, that non-metal conductors were also covered by this heading.

Structured nomenclature of heading 85.44

159. The Sub-Committee then examined the new subdivisions for heading 85.44 proposed by the EEC. Several delegates argued that it would be very difficult to distinguish between, for example, cable for energy transmission of subheading 8544.2 and cable for information transmission of subheading 8544.4. They also expressed reservations about the feasibility of distinguishing, in practice, between harnesses for energy transmission, used in means of transport (subheading 8544.31), and harnesses for energy transmission, used for other purposes (subheading 8544.39); they also questioned the use of the term "harnesses", in these subheadings.
160. It was also pointed out that coaxial cables remained a very important group of products; electric conductors for the transmission of energy and electric conductors for the transmission of information did exist for voltages not exceeding 80 V, but the present subheadings for these categories of products were absent from the EEC proposal.
161. In reply to some of these comments, the Delegate of the EEC explained that the English term "harnesses" referred to bundles of cables; the harnesses for the transmission of energy in means of transport, referred to in subheading 8544.31, were those used for motor vehicles, aeroplanes, satellites and rockets, for example, whereas those to be covered by subheading 8544.39 were used for other applications, such as domestic electrical appliances.
162. The Sub-Committee then rejected the EEC proposal for a new structured nomenclature of heading 85.44, for lack of support.

Possible regrouping of optical fibre cables in a single heading

163. The Delegate of Japan supported the EEC proposal that optical fibre cables for the transmission of information remain classified in heading 85.44, and those for optical apparatus in heading 90.01. His Administration was not in favour of grouping all optical fibre cables in heading 90.01, as proposed by the United States. Hence he did not agree with the deletion of the term "optical fibre" from the text of heading 85.44.

Annex I to
Doc. 36.250 E
(RSC/3/Sept. 90)

164. In his view, there was no reason why optical fibres for the transmission of information should fall in heading 90.01, which was now reserved for optical apparatus, since :

1. Optical fibres for the transmission of information and those used for optical apparatus differed primarily in two respects, namely :

(i) end-use,

(ii) technical characteristics.

The technical characteristics were as follows :

(a) Standards relating to the goods :

- (i) constituent materials : optical fibres for the transmission of information were made of crystal glass, whereas optical fibres for optical apparatus were made of plastics or other glass;
- (ii) "attenuation coefficient" (i.e., rate of reduction of light quality in the optical fibre) : less than 4 dB/km in the case of optical fibres for the transmission of information, and several dozen dB/km in the case of optical fibres for optical apparatus.

(b) Diameter of the optical fibre :

optical fibres for the transmission of information had a diameter of 100 μ , whereas optical fibres for optical apparatus had a diameter of several dozen μ or 1 mm.

(c) Manufacturing process :

optical fibres for the transmission of information were manufactured by drawing the crystal glass, whereas optical fibres for optical apparatus were nozzle-projected.

2. Optical fibres for the transmission of information were used for the same purposes as wire or cable for electric conductors. Moreover, certain optical fibres for the transmission of information were covered with copper or aluminium wire.

If optical fibres of this kind were classified in Chapter 90, cable for the transmission of information would be classified in two different Chapters, and this would not be desirable.

165. The Delegate of the EEC agreed with the distinguishing criteria listed by the Delegate of Japan and favoured maintaining the status quo, under which optical fibre cables fulfilling the same functions fell in a single heading. In other words, optical fibre cables for the transmission of information should, in his view, remain classified in heading 85.44, while those for optical appliances would remain in heading 90.01. Nevertheless, he could accept the deletion of the "individually sheathed fibres" criterion for optical fibre cables for the transmission of information of heading 85.44, in view of developments in the manufacturing techniques for the goods concerned.
166. However, many other delegates voiced their support for the United States Administration's proposal to group all optical fibre cables in heading 90.01, regardless of their function. They agreed that the distinguishing criterion based on individual sheathing of optical fibres, as applied to the optical fibre cables for the transmission of information of present heading 85.44, was no longer relevant.
167. It was also pointed out that if optical fibre cables were grouped together in a single heading it would be possible to create suitable subheadings, on the basis of criteria to be agreed, to give separate status to cables for the transmission of information. In their view subheadings 9001.12 and 9001.13, proposed by the United States, could fulfil this function.

Annex I to
Doc. 36.250 E
(RSC/3/Sept. 90)

168. There being no agreement the Sub-Committee agreed to submit both alternatives (i.e., the EEC proposal and the United States proposal) to the Committee, in square brackets. However, it was recognized that the individual sheathing of optical fibres was no longer the only criterion for distinguishing optical fibre cables for the transmission of information from those used for optical appliances. The Sub-Committee also considered that whatever the Committee decided, it would be necessary to establish definite criteria for distinguishing between these two categories of optical fibre cables.

Connectors, splices and other apparatus for connecting optical fibres

169. The Delegate of New Zealand agreed that connectors for optical fibres should be given separate status in heading 90.01. He proposed in the meeting that subheading 9001.14 in the United States proposal (see paragraph 155 above) be amended to read :

"9001.14 -- Apparatus and equipment for connecting optical fibres".

He added that these were simply devices for connecting optical fibres, which could be made of glass or plastics.

170. The Delegate of the United States pointed out that the Sub-Committee was concerned with connectors for optical fibres, not equipment for connecting optical fibres; the text proposed by New Zealand therefore posed a problem.
171. The Delegate of the EEC considered that connectors which performed an electrical function should be excluded from this proposal, otherwise many articles now covered by Chapter 85 would have to be transferred to heading 90.01.
172. The Delegate of the Netherlands said that the term "connectors" should be clarified, as it could cover mechanical devices used to connect several optical fibre cables in order to make a longer cable and such devices in his view, should be excluded from heading 90.01. Optoelectronic devices which transmitted a light source from one end of an optical fibre cable to the other, in order to produce an electrical signal, should also be excluded from that heading.

173. The Delegate of Austria said that he favoured the text proposed at the Sub-Committee's Second Session, which was reproduced in square brackets at Annex II to Doc. 35.950, page II/8. The term "equipment" should be avoided in this instance, as the goods at issue were connecting pieces.
174. The Delegate of Australia said that his Administration would be willing to send samples to the Committee, to help identify these devices for connecting or splicing optical fibres.
175. Following this exchange of views, and in the absence of agreement, the Sub-Committee decided to submit the following text to the Committee, in square brackets : "Switches for optical fibres, splices and other connectors for optical fibres"; this text would constitute the second part of the text of heading 90.01, and also the text of subheading 9001.14 in the United States proposal. The Sub-Committee also adopted Australia's proposal that samples be sent to the Committee, to help it take an informed decision on the amendments to be made to the legal texts or the Explanatory Notes, as necessary.
176. The texts provisionally adopted for headings 85.44 and 90.01 are reproduced in square brackets, at Annex II to this Report.

Chapter 90

Heading 90.01

177. The proposals concerning this heading were examined in conjunction with those relating to heading 85.44.
178. The Sub-Committee's comments and conclusions on this subject are reported in paragraphs 153 to 176 above.

Heading 90.10. New subheadings 9010.41, 9010.42 and 9010.49

179. The Sub-Committee examined the United States Administration's proposal that :
- (i) the text of subheading 9010.20 be amended to read as follows :

**United States Court of Appeals
for the Federal Circuit**

CERTIFICATE OF SERVICE

ADC Telecommunications, Inc. v. United States, No. 2018-1316

I, Robyn Cocho, being duly sworn according to law and being over the age of 18, upon my oath depose and say that:

Counsel Press was retained by PISANI & ROLL, LLP, Attorneys for Plaintiff-Appellant to print this document. I am an employee of Counsel Press.

On **February 20, 2018**, Counsel for Appellant has authorized me to electronically file the foregoing **Corrected Brief of Plaintiff-Appellant** with the Clerk of Court using the CM/ECF System, which will send notice of such filing to the following registered CM/ECF users:

Guy Eddon
United States Department of Justice
26 Federal Plaza
Room 346
New York, NY 10278
guy.r.eddon@usdoj.gov

Attorneys for Defendant-Appellee

Upon acceptance by the Court of the e-filed document, six paper copies will be filed with the Court, via Federal Express, within the time provided in the Court's rules.

/s/ Robyn Cocho
Counsel Press

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION, TYPEFACE REQUIREMENTS AND TYPE STYLE
REQUIREMENTS**

1. This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B).

 x The brief contains 10,260 words,
excluding the parts of the brief exempted by Federal Rule of
Appellate Procedure 32(a)(7)(B)(iii), or

 The brief uses a monospaced typeface and contains lines
of text, excluding the parts of the brief exempted by Federal
Rule of Appellate Procedure 32(a)(7)(B)(iii).

2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6).

 x The brief has been prepared in a proportionally spaced
typeface using MS Word 2002 in a 14 point Times New
Roman font or

 The brief has been prepared in a monospaced typeface using
MS Word 2002 in a characters per inch font.

02/20/2018
Date

/s/ Michael E. Roll
Michael E. Roll