

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK

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UNITED STATES OF AMERICA,

-against-

**MEMORANDUM AND ORDER**

DONTAE SEBBERN and DEXTER WAITERS,

10 Cr. 87 (SLT)

Defendants.

-----X  
**TOWNES, United States District Judge:**

Defendant Dontae Sebbern (“Mr. Sebbern”) moves this Court pursuant to Rule 702 of the Federal Rules of Evidence for an order precluding the government from introducing “any testimony from a so-called firearms identification expert” or, in the alternative, for a pre-trial hearing at which this Court “can make a pre-trial determination of the admissibility of the proposed testimony.” Defendant Sebbern’s Memorandum of Law dated May 24, 2012 (Document #61) (“Sebbern’s Memo”) at 4. Mr. Sebbern also seeks certain discovery pursuant to Rule 16(a)(1)(G) of the Federal Rules of Civil Procedure. In response, the government represents that it has provided the requested discovery and urges this Court to deny Mr. Sebbern’s motion in all other respects. For the reasons set forth below, this Court denies Mr. Sebbern’s motion for preclusion but grants, in part, his request for a hearing.

***BACKGROUND***

In the early morning of November 7, 2009, Jermaine Dickersen was shot and killed in the parking lot of the Holland Houses on Staten Island. Shortly thereafter, police officers responding to the scene of the shooting stopped an automobile occupied by defendants Dontae Sebbern and Dexter Waiters (“Mr. Waiters”). Mr. Sebbern and Mr. Waiters both fled from the vehicle, only to be apprehended after a brief chase. According to the government, both men

dropped handguns as they ran. Mr. Sebborn allegedly dropped a .32 caliber revolver and Mr. Waiters allegedly dropped a 9 millimeter semi-automatic pistol.

Both of the handguns were sent to the New York City Police Laboratory's Firearms Analysis Section, a forensics laboratory. There, firearm examiners test-fired both guns. The cartridge casings and bullets recovered in this process were then compared to casings recovered from the scene and to a 9 millimeter bullet recovered from Mr. Dickersen's body.

On March 24, 2010, the government provided Mr. Sebborn with microscopic analysis reports summarizing the results of these comparisons. The firearm examiners concluded, *inter alia*, that several of the casings recovered from the scene and the bullet recovered from Mr. Dickersen's ribs came from the 9 millimeter handgun allegedly dropped by Mr. Waiters. By motion dated May 24, 2012, Mr. Sebborn moved to preclude expert testimony concerning these conclusions.

### ***DISCUSSION***

Before addressing the specifics of Mr. Sebborn's motion, this Court must briefly review the law relating to the admissibility of expert testimony, which has undergone considerable changes over the last forty years. Prior to the mid 1970's, the admissibility of expert testimony was determined by the so-called "*Frye* test," which evaluated whether the technique used by the proposed expert was "generally accepted" in the relevant scientific or expert "community." *See Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923). However, that standard was not incorporated into the Federal Rules of Evidence when they were adopted in 1975. Rather, Federal Rule of Evidence 702, as originally enacted, provided:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in

issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

For several decades following the enactment of Rule 702, there was some disagreement between circuits and between commentators over whether the *Frye* test survived the adoption of the Federal Rules of Evidence. *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 587 n.5 (1993) (citing authorities). *In Daubert*, the Supreme Court resolved those disagreements, holding that the *Frye* test was superceded by the adoption of the Federal Rules of Evidence. *Id.* at 587. However, while *Daubert* made “plain that Rule 702 embodies a more liberal standard of admissibility for expert opinions than did *Frye*,” *United States v. Williams*, 506 F.3d 151, 161-62 (2d Cir. 2007), *Daubert* expressly rejected the notion “that the Rules themselves place no limits on the admissibility of purportedly scientific evidence.” 509 U.S. at 589. The Supreme Court held that trial courts retained a “gatekeeping responsibility”: “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Id.* at 589, n.7.

*Daubert* provided a list of specific factors bearing on reliability that trial courts could consider in executing the gatekeeping obligation. These factors – sometimes referred to as the “*Daubert* factors” – can be summarized as follows:

- (1) whether a theory or technique has been or can be tested;
- (2) “whether the theory or technique has been subjected to peer review and publication;”
- (3) the technique’s “known or potential rate of error” and “the existence and maintenance of standards controlling the technique’s operation;”
- and (4) whether a particular technique or theory has gained general acceptance in the relevant scientific community.

*Williams*, 506 F.3d at 160 (citing *Daubert*, 509 U.S. at 593-94). However, the *Daubert* Court did not “presume to set out a definitive checklist or test,” noting that “[m]any factors” might bear on the Rule 702 inquiry. *Daubert*, 509 U.S. at 593.

In *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), the Supreme Court addressed the question of “how *Daubert* applies to the testimony of engineers and other experts who are not scientists.” *Id.* at 141. The Supreme Court clarified that the “gatekeeping” obligation applied “not only to testimony based on ‘scientific’ knowledge, but also to testimony based on ‘technical’ and ‘other specialized’ knowledge.” *Id.* However, while *Kumho Tire* held that trial courts considering the reliability of the testimony of non-scientists could consider the *Daubert* Factors, it reminded trial courts that they were not required to do so because the “list of factors was meant to be helpful, not definitive.” *Id.* at 151.

In 2000, Rule 702 was amended in response to *Daubert* and “the many cases applying [it], including *Kumho Tire* . . . .” Advisory Committee Notes relating to the 2000 Amendments to Rule 702. As amended, Rule 702 provided:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Rule 702 was further amended in 2011, and currently reads as follows:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

However, the 2011 amendments, which were “part of the restyling of the Evidence Rules to make them more easily understood and to make style and terminology consistent throughout the rules,” were “intended to be stylistic only” and were not intended “to change any result in any ruling on evidence admissibility.” Advisory Committee Notes relating to the 2011 Amendments to Rule 702.

### ***Ballistics Testimony***

Prior to *Daubert*, “ballistics testimony was accepted almost without question in most federal courts in the United States.” *United States v. Glynn*, 578 F. Supp. 2d 567, 569 (S.D.N.Y. 2008) (citing cases). However, “this practice was subjected to new scrutiny in light of *Daubert* and *Kumho Tire* and the subsequent amendment to Federal Rule of Evidence 702.” *Id.*

Cognizant that these authorities gave courts “a more significant gatekeeper role with respect to the admissibility of scientific and technical evidence than courts previously had played,” *id.*, district courts engaged in a painstaking analysis of the *Daubert* factors in order to fully satisfy that gatekeeping function. Several of these courts addressed the admissibility of proposed expert testimony that certain ballistics evidence recovered from crime scenes, such as bullets or cartridge casings, were fired or ejected from firearms connected with defendants.

The ballistics comparisons at issue in these cases were made pursuant to the “AFTE Theory” – a theory of toolmark identification adopted by the Association of Firearms and Toolmark Examiners (the “AFTE”), an international organization for firearms and toolmark examiners. As explained in *United States v. Otero*, 849 F. Supp. 2d 425 (D.N.J. 2012):

Toolmark identification is based on the theory that tools used in the manufacture of a firearm leave distinct marks on various firearm components, such as the barrel, breech face or firing pin. The theory further posits that the marks are individualized to a particular firearm through changes the tool undergoes each time it cuts and scrapes metal to create an item in the production of the weapon. Toolmark identification thus rests on the premise that any two manufactured products, even those produced consecutively off the same production line, will bear microscopically different marks. With regard to firearms, these toolmarks are transferred to the surface of a bullet or shell casing in the process of firearm discharge. Depending on the tool and the type of impact it makes on the bullet or casing, these surface marks consist of either contour scratch lines, known as striations (or striae), or impressions. For example, rifling (spiraled indentations) inside of a gun barrel will leave raised and depressed striae, known as lands and grooves, on the bullet as it is fired from the weapon, whereas the striking of the firing pin against the base of the cartridge, which initiates discharge of the ammunition, will leave an impression but not striae.

Comparing a test bullet or cartridge fired from a firearm of known origin to another bullet or cartridge of unknown origin, the examiner seeks to determine congruence in the pattern of marks left on the examined specimens. This process is known as “pattern matching.” . . . An examiner observes three types of characteristics on spent bullets or cartridges: class, subclass and individual. Class characteristics are gross features common to most if not all bullets and cartridge cases fired from a type of firearm, for example, the caliber and the number of lands and grooves on a bullet. Individual characteristics are microscopic markings produced in the manufacturing process by the random imperfections of tool surfaces (the constantly changing tool as described above) and by use of and/or damage to the gun post-manufacture. According to the theory of toolmark identification espoused by the [AFTE], individual characteristics “are unique to

that tool and distinguish it from all other tools.” *Theory of Identification as it Relates to Toolmarks*, AFTE Journal, Vol. 30, No. 1, Winter 1998, at 87. Subclass characteristics generally fill the gap between the class and individual characteristics categories. They are produced incidental to manufacture but apply only to a subset of the firearms produced, for example, as may occur when a batch of barrels is formed by the same irregular tool.

*Id.* at 427-28.

The comparison of test bullets and cartridges to those of unknown origins, however, involves “the exercise of a considerable degree of subjective judgment.” *Glynn*, 578 F. Supp. 2d at 573. First, some subjectivity is involved in the examination of the evidence, which is done visually using a comparison microscope. Since “[t]he bullets and/or shell casings recovered from the crime scene may be damaged, fragmented, crushed, or otherwise distorted in ways that create new markings or distort existing ones,” an examiner must rely on his or her experience to distinguish the undistorted toolmarks from other markings. *Id.* That process is made more complicated by the fact that comparison microscopes “produce flat images despite the fact that a bullet or casing is round, thereby producing distortions not unlike those on a map showing the globe.” *Id.* at 573, n.11.

In addition, the standards employed by examiners invite subjectivity. “The AFTE theory of toolmark comparison permits an examiner to conclude that two bullets or two cartridges are of common origin, that is, were fired from the same gun, when the microscopic surface contours of their toolmarks are in ‘sufficient agreement.’” *Otero*, 849 F. Supp. 2d at 431. The AFTE defines “sufficient agreement” as follows:

This sufficient agreement is related to the significant duplication of random toolmarks as evidenced by a pattern or combination of patterns of surface contours. Significance is determined by the comparative examination of two or more sets of surface contour

patterns comprised of individual peaks, ridges and furrows. Specifically, the relative height or depth, width, curvature, and spatial relationship of the individual peaks, ridges and furrows within one set of surface contours are defined and compared to the corresponding features in the second set of surface contours. Agreement is significant when it exceeds the best agreement demonstrated between toolmarks known to have been produced by different tools and is consistent with agreement demonstrated by toolmarks known to have been produced by the same tool. The statement that “sufficient agreement” exists between two toolmarks means that the agreement is of a quantity and quality that the likelihood another tool could have made the mark is so remote as to be considered a practical impossibility.

*Theory of Identification, Range of Striae Comparison Reports and Modified Glossary Definitions – An AFTE Criteria for Identification Committee Report*, AFTE Journal, Vol. 24, No. 3, 1992, at 337.

In part because of this reliance on the subjective judgment of the examiners, the AFTE Theory has been the subject of criticism. For example, in a 2009 report, the National Research Council of the National Academy of Sciences (the “NRC”) observed that AFTE standards acknowledged that ballistic comparisons “involve subjective qualitative judgments by examiners and that the accuracy of examiners’ assessments is highly dependent on their skill and training.” National Research Council, Committee on Identifying the Needs of the Forensic Sciences Community, *Strengthening Forensic Science in the United States: A Path Forward*, 5-20 (2009) (hereafter, the “NRC Report”). The NRC Report further stated that “a fundamental problem with toolmark and firearms analysis is the lack of a precisely defined process. . . . AFTE has adopted a theory of identification, but it does not provide a specific protocol.” *Id.* at 5-21. The NRC Report concluded that, “[e]ven with more training and experience using new techniques,

the decision of the toolmark examiner remains a subjective decision based on unarticulated standards and no statistical foundation for estimation of error rates.” *Id.* at 5-20.

Similarly, Dr. Adina Schwartz – a Professor at John Jay College of Criminal Justice who spent several years as an Associate Appellate Counsel in The Legal Aid Society’s Federal Defender Services Unit Appeals Bureau – has written several articles questioning the validity of the assumptions underlying the AFTE Theory and the adequacy of proficiency testing for firearm examiners. For example, in an article often quoted by the defense bar, Dr. Schwartz asserts that toolmark examiners have “not developed the requisite statistical empirical foundations” to substantiate the claim that they are “able to single out a particular firearm or other tool as the source of an evidence toolmark, to the exclusion of all other tools in the world.” Adina Schwartz, *A Systemic Challenge to the Reliability and Admissibility of Firearms and Toolmark Identification*, 6 Colum. Sci. & Tech. L. Rev. 2, 31-32 (2004-05). In that same article, Dr. Schwartz argues that “rigorous proficiency testing has yet to occur,” noting that proficiency testing of particular examiners cannot be generalized to the field of firearms and toolmark examination as a whole in light of the subjectivity involved and the lack of “specific, articulable criteria for determining when the resemblances between toolmarks are so great that they must have come from the same tool.” *Id.* at 61. Dr. Schwartz concludes that “all firearms and toolmark identifications should be excluded until the development of firm statistical empirical foundations for identifications and a rigorous regime of blind proficiency testing.” *Id.* at 104.

### ***The Instant Motion***

Although the government has not provided many details regarding the expert ballistics testimony which they seek to admit in this case, the information provided thus far implies that

this testimony will rely on the ATFE Theory. The microscopic analysis reports which the government has provided to the defense state that ballistic examiners conducted microscopic comparisons of test bullets and cartridges to bullets and cartridges recovered from the crime scene and “concluded that these specimens were fired from one gun, based on sufficient agreement of class and individual characteristics . . . .” In addition, the government states in its Memorandum of Law in Opposition to Defendants’ Motion (the “Gov’t Memo”) that New York City Police Laboratory’s Firearms Analysis Section “is an AFTE-certified lab that follows and conducts its analysis utilizing the AFTE protocols for ballistic analysis.” *Id.* at 12, n.2.

Defendant Sebbert’s motion principally relies on the above-mentioned criticisms of the AFTE Theory. The defense motion quotes portions of the NRC Report, highlighting those sections which state that “decision of the toolmark examiner remains a subjective decision based on unarticulated standards and no statistical foundation for estimation of error rates” and that the AFTE Theory “does not provide a specific protocol” for determining when “sufficient agreement” exists. Sebbert’s Memo at 3. The defense motion also asserts that the NRC Report concluded that the basic research to validate the assumption that every gun has unique individual characteristics has never been done. *Id.* at 4. In addition, the defense motion quotes Dr. Schwartz’s conclusion that “all firearms and toolmark identification should be excluded until adequate statistical empirical foundations and proficiency testing are developed for the field.” *Id.* at 2.

Relying on these criticisms, Mr. Sebbert argues that “any testimony from a so-called identification expert should be precluded . . . .” *Id.* at 4. In the alternative, Mr. Sebbert argues that a pretrial hearing should be conducted to enable this Court to “make a pre-trial

determination of the admissibility of the proposed testimony from the Government's ballistics 'experts.'" *Id.*

### ***The Preclusion Argument***

Mr. Sebbert's first argument is unsupported by any legal authority. To be sure, the defense motion lists the *Daubert* factors and cites to two district court decisions: *United States v. Green*, 405 F. Supp. 2d 104 (D.Mass. 2005), and *United States v. Glynn*, 578 F. Supp. 2d 567 (S.D.N.Y. 2008). However, the motion fails to apply the *Daubert* factors or discuss the cases that have.

In fact, at least four district courts have engaged in a thorough evaluation of the *Daubert* factors in cases in which the government sought to admit the sort of ballistics testimony at issue here. *See Otero*, 849 F. Supp. 2d at 431-35; *United States v. Taylor*, 663 F. Supp. 2d 1170, 1175-1178 (D.N.M. 2009); *United States v. Diaz*, No. CR 05-00167 WHA, 2007 WL 485967, at \*4-\*11 (N.D. Cal. Feb. 12, 2007); *United States v. Montiero*, 407 F. Supp. 2d 351, 365-72 (D.Mass. 2006). Each of these courts engaged in lengthy hearings, involving multiple witness and the presentation of documentary evidence. *Otero*, 849 F. Supp. 2d at 429 (three-day hearing at which the parties "submitted various documents"); *Taylor*, 663 F. Supp. 2d at 1171 (two-day hearing); *Diaz*, 2007 WL 485967, at \*1 (four-day hearing, at which the court "received . . . voluminous literature items"); *Montiero*, 407 F. Supp. 2d at 355 (six-day evidentiary hearing and "extensive documentary evidence replete with photographs, demonstratives, and journal articles"). In all four cases, Dr. Schwartz testified for the defense. *Id.* Moreover, in at two of these cases, the courts expressly addressed the criticisms set forth in the NRC Report. *Otero*,

849 F. Supp. 2d at 430; *Taylor*, 663 F. Supp. 2d at 1178. Yet, in none of these cases did the courts preclude the ballistics expert from testifying.

The two cases cited by Mr. Sebborn are not to the contrary. Indeed, in both of those cases, the court allowed the government's ballistics expert to testify, but placed some restrictions on the opinions the experts were permitted to offer. In *Green*, the court considered "the reliability of the expert's methodology in the case at bar," noting, *inter alia*, that the examiner did not take notes or photographs and had "no coherent database with which to compare the shell casings he was reviewing." 405 F. Supp. 2d at 119-21. The court concluded that the methodology was inadequate to permit the expert "to conclude that the match he found . . . permits the exclusion of all other guns as the source of the shell casings" which were at issue in that case. *Id.* at 124 (internal quotations omitted). However, the court nonetheless permitted the expert to testify regarding his observations, noting that the expert, as "a seasoned observer of firearms and toolmarks," might "be able to identify marks that a lay observer would not." *Id.*

In *Glynn*, Judge Rakoff considered the decisions in *Monteiro*, *Green*, and *Diaz*, and found that all three concluded that ballistics identification testimony lacked "sufficient rigor to be received as science." 578 F. Supp. 2d at 571. However, Judge Rakoff also found that the "methodology ha[d] garnered sufficient empirical support as to warrant its admissibility." *Id.* Accordingly, he permitted the ballistics expert to testify, but limited the degree of confidence which the expert was permitted to express with respect to his findings. Opining that the expert would "seriously mislead the jury as to the nature of the expertise involved" if he testified "that he had matched a bullet or casing to a particular gun 'to a reasonable degree of ballistic

certainty,” *id.* at 574, Judge Rakoff limited the expert to stating that it was “more likely than not” that the bullet or casing came from a particular gun. *Id.* at 575.

Accordingly, neither *Glynn* nor *Green* support the argument that the government’s ballistics expert should be entirely precluded from testifying. These cases may support a request to limit the degree of confidence which the expert can express with respect to his findings. However, while the headnote of Mr. Sebbert’s motion argues that, “The Government’s ‘Expert’ on Firearms Identification Should be Precluded or Limited,” the rest of the motion neither makes further mention of, nor proposes, any limitations. Since the motion does not argue for a specific limitation and since the government’s response does not address this issue, this Court cannot address it at this juncture.

### ***The Need for a Daubert Hearing***

Mr. Sebbert’s motion also argues, in the alternative, for a pre-trial hearing at which the Court can “make a pre-trial determination of the admissibility of the proposed testimony from the Government’s ballistics ‘experts.’” Sebbert’s Memo at 4. Relying on *United States v. Williams*, 506 F.3d 151 (2d Cir. 2007), the government argues that a *Daubert* hearing is unnecessary.

To the extent that Mr. Sebbert is requesting a separate *Daubert* hearing, the Court agrees with the government that such a hearing is unnecessary. In *Williams*, one of the defendants requested a *Daubert* hearing to challenge the admissibility of ballistics and tire tread evidence that the government intended to present at trial. *United States v. Williams*, No. S100CR.1008 (NRB), 2004 WL 2980027, at \*24 (S.D.N.Y. Dec. 22, 2004). In response, the government

argued that no hearing was necessary because “ballistic and tire tread evidence is accepted, reliable evidence that is routinely admitted in federal cases.” *Id.*

The trial judge denied the request for a *Daubert* hearing. Judge Buchwald listed the *Daubert* factors in a footnote, but did not apply them. Rather, she cited to various post-*Daubert* cases – mostly from outside this Circuit – which had held that ballistics testimony was admissible under Federal Rule of Evidence 702, and observed that the defense had “not offered any reason . . . to depart from the reasoning of these cases.” *Id.* However, before the expert’s testimony was presented to the jury, Judge Buchwald conducted a hearing at which the government laid the foundation for the expert’s testimony.

On appeal, one of the defendants argued that “the district court abused its discretion by (1) denying him a *Daubert* hearing and (2) failing to undertake an adequate inquiry into the reliability of [the expert’s] firearms identification methodology.” 506 F.3d at 159. The Second Circuit held that the district court had not abused its discretion, stating, “[t]he formality of a separate hearing was not required.” *Id.* at 161. The Court of Appeals found that “*Daubert* was satisfied” because the district court “went through the exercise of considering the use of ballistic expert testimony in other cases,” and because “the government provided an exhaustive foundation for [the ballistic examiner’s] expertise.” *Id.*

While *Williams* holds that a separate *Daubert* hearing is unnecessary, it does not hold that district courts can rely solely on case law in discharging the gatekeeping function. The Court of Appeals implied that reliance on prior case law alone would be insufficient to satisfy *Daubert*, stating:

Because the district court’s inquiry here did not stop when the separate hearing was denied, but went on with an extensive

consideration of the expert's credentials and methods, the jury could, if it chose to do so, rely on her testimony which was relevant to the issues in the case. We find that the gatekeeping function of *Daubert* was satisfied and that there was no abuse of discretion.

Id. at 162. The Second Circuit also expressly cautioned against reading *Williams* "as saying that any proffered ballistic expert should be routinely admitted." *Id.*

This Court, like the district court in *Williams*, sees no need to hold a separate *Daubert* hearing. This Court has reviewed the opinions in *Otero*, *Taylor*, *Diaz*, and *Montiero*, and is persuaded by those thorough and well-reasoned decisions that ballistics testimony of the sort proffered in this case is admissible under *Daubert*.<sup>1</sup> This Court sees no need to duplicate the considerable efforts of those courts. However, before the government's ballistics expert can testify before the jury, this Court will conduct a hearing at which the government shall be required to provide the sort of "exhaustive foundation" supplied to the district court in *Williams*.<sup>2</sup> At that same hearing, the parties may address the issue of what, if any, limitations should be placed on the degree of confidence expressed by the expert with respect to his or her conclusions.

### ***CONCLUSION***

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<sup>1</sup>In addition, this Court is aware that many other federal courts have admitted this sort of ballistics testimony, often without expressly applying the *Daubert* factors themselves. *United States v. Willock*, 696 F. Supp. 2d 536, 563-64 (D.Md. 2010) (citing cases).

<sup>2</sup>In *Williams*, the government established, *inter alia*, the expert's "service as a firearms examiner for approximately twelve years; her receipt of 'hands-on training' from her section supervisor; [her] attendance at seminars on firearms identification; [the] publication of her writings in a peer review journal; her obvious expertise with toolmark identification; her experience examining approximately 2,800 different types of firearms; and her prior expert testimony on between 20 and 30 occasions." 506 F.3d at 161 (bracketed material added).

