

**UNCLASSIFIED//FOR OFFICIAL USE ONLY****EXTERNAL TACTICAL INTELLIGENCE REPORT**

FBI Laboratory Division

29 August 2019

Intelligence Unit, Forensic Intelligence Program

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## **(U//FOUO) Modification of Armalite Rifle 15 Variant Rifle to Function as a Fully Automatic Firearm, Which Poses a Potential Threat to Law Enforcement**

### **(U) Thesis**

(U//FOUO) The FBI Laboratory assesses a modified Armalite Rifle 15 (AR15) variant semiautomatic rifle with a particular removable component in the lower receiver very likely<sup>a</sup> enables the firearm to function as a fully automatic rifle and poses a threat to law enforcement. Modifications to a firearm creates a potential safety concern for law enforcement personnel. Examiners and law enforcement officers should be aware of this modification if seen in the field. This assessment is made with high confidence<sup>b</sup>, based on forensic examinations conducted by FBI Firearms/Toolmarks Unit (FTU) experts in the area of firearm examination.

(U//FOUO) All figures are images of the modified AR15 variant.

### **(U) Substantiation**

(U//FOUO) According to FBI files, the Sacramento field office collected an AR15 rifle as evidence during a Mexican Transnational Criminal Organizations investigation and sent the rifle to the FBI Laboratory on 2 April 2015 for further examination. Based on FBI Laboratory examinations, the AR15 semiautomatic rifle was modified to fire fully automatic by inserting a removable component (Figure 1) to the lower receiver. This modification would permit the AR15 variant to fire multiple cartridges with a single pull of the trigger, which is more than is permitted by design and law.

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**(U//FOUO) Figure 1 - AR15 Variant Component to Fire Fully Automatic**



(FBI; 800I-HQ-A3065892-FTU; Serial 1; dated 5 March 2019)

<sup>a</sup> (U) See Appendix A: Expressions of Likelihood

<sup>b</sup> (U) See Appendix B: Confidence in Assessments and Judgments Based on a Body of Information.

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- (U//FOUO) According to open source research, the removable component (Figure 1) can be purchased as an aftermarket part and placed inside the AR15 lower receiver (Figure 2 and 3). The component can also be easily removed and reinserted without showing major indicators of the piece ever being inside of the AR15. (FBI; 800I-HQ-A3065892-FTU; Serial 1; dated 5 March 2019)



- (U//FOUO) According to forensic examinations conducted by FBI Laboratory Firearms Examiner, the aftermarket component, when inserted, impinges on the trigger's disconnecter allowing the bolt-carrier to act as an auto tripping device for fully automatic fire. (FBI; 800I-HQ-A3065892-FTU; Serial 1; dated 5 March 2019)



- (U//FOUO) According to a FBI Laboratory Forensic Examiner, the fully automatic modification requires the removable component and a M16 bolt-carrier (military variant) or an AR15 bolt-carrier (civilian variant) with a bolt-carrier converter. The removable component is sold as the Armalite Rifle Full Automatic (ARFA) kit. However, the ARFA component involved in this modification appeared to be a fabricated (homemade) copy. The ARFA component fits into the AR15 lower receiver immediately behind the hammer. As the M16 or modified AR15 bolt-carrier passes over the ARFA part, it presses down on the disconnecter allowing the rifle to function as an automatic rifle. (FBI; 800I-HQ-A3065892-FTU; Serial 1; dated 5 March 2019)



- (U//FOUO) According to a FBI Laboratory Forensic Examiner, the aftermarket removable component requires no tools to separate from the lower receiver. Additionally, when removed, the rifle is converted back to a semi-automatic and the physical structure looks the same as a traditional AR15 (Figure 4). (FBI; 800I-HQ-A3065892-FTU; Serial 1; dated 5 March 2019)

**(U) Scope Note****UNCLASSIFIED//FOR OFFICIAL USE ONLY**

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(U//FOUO) Information in this report was derived from FBI Laboratory Forensic Firearm Examiners deemed experts in the field of firearm examinations. The source information was collected and is current as of 31 July 2019.

(U) This external tactical intelligence report was prepared by the FBI Laboratory. Comments and queries may be addressed to the FBI Laboratory FTU 703-632-8442 or the Laboratory Forensic Intelligence Program at 703-632-7574.

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**UNCLASSIFIED//FOR OFFICIAL USE ONLY****(U) Appendix A: Expressions of Likelihood**

(U) Phrases such as “the FBI judges” and “the FBI assesses,” and terms such as “likely” and “probably” convey analytical judgments and assessments. The chart below approximates how expressions of likelihood and probability correlate with percentages of chance. Only terms of likelihood should appear in FBI products; the chart includes terms of probability strictly for comparison, as they sometimes appear in reporting of other government agencies. Furthermore, the FBI does not arrive at judgments through statistical analysis; and will not use terms of probability to convey uncertainty in external FBI intelligence products.

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<i>Terms of Likelihood</i>	<b>Almost No Chance</b>	<b>Very Unlikely</b>	<b>Unlikely</b>	<b>Roughly Even Chance</b>	<b>Likely</b>	<b>Very Likely</b>	<b>Almost Certain(ly)</b>
<i>Terms of Probability</i>	<b>Remote</b>	<b>Highly Improbable</b>	<b>Improbable (Improbably)</b>	<b>Roughly Even Odds</b>	<b>Probable (Probably)</b>	<b>Highly Probable</b>	<b>Nearly Certain</b>
	<b>1-5%</b>	<b>5-20%</b>	<b>20-45%</b>	<b>45-55%</b>	<b>55-80%</b>	<b>80-95%</b>	<b>95-99%</b>

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**UNCLASSIFIED//FOR OFFICIAL USE ONLY****(U) Appendix B: Confidence in Assessments and Judgments Based on a Body of Information**

(U) Confidence levels reflect the quality and quantity of the source information supporting a judgment. Consequently, the FBI ascribes high, medium, or low levels of confidence to assessments, as follows:

(U) **High confidence** generally indicates the FBI's judgments are based on high quality information from multiple sources. High confidence in a judgment does not imply the assessment is a fact or a certainty; such judgments might be wrong. While additional reporting and information sources may change analytical judgments, such changes are most likely to be refinements and not substantial in nature.

(U) **Medium confidence** generally means the information is credibly sourced and plausible but not of sufficient quality or corroborated sufficiently to warrant a higher level of confidence. Additional reporting or information sources have the potential to increase the FBI's confidence levels or substantively change analytical judgments.

(U) **Low confidence** generally means the information's credibility or plausibility is uncertain, the information is too fragmented or poorly corroborated to make solid analytic inferences, or the reliability of the sources is questionable. Absent additional reporting or information sources, analytical judgments should be considered preliminary in nature.

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