



NATIONAL SITUATIONAL INFORMATION REPORT FEDERAL BUREAU OF INVESTIGATION

Activity Alert CRIMINAL INVESTIGATIVE DIVISION LOS ANGELES DIVISION

Approved for Release: 3 August 2018

SIR Number: SIR-00323124981

(U//FOUO) Identification of Ghost Guns Production Methods

SOURCE: (U//FOUO) Officers from multiple law enforcement agencies.

(U//LES) The purpose of this National SIR is to raise awareness among law enforcement personnel and public safety officials about ghost guns.¹ Ghost guns complicate the ability of law enforcement to investigate the use of such weapons in violent crimes and pose a threat to law enforcement and public safety. 3D printing, also known as additive manufacturing, is one of the many ways to generate a ghost gun.

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(U) Note: This product reflects the views of the CRIMINAL INVESTIGATIVE Division.

¹ (U) The term "ghost guns" refers to weapons without serial numbers. According to ATF, the serial number must be conspicuously engraved, cast, or stamped on the firearm frame or receiver. A license is not required to make a firearm solely for personal use.

(U//LES) The FBI has identified methods that can be used to manufacture ghost guns. These include:

- (U//LES) 3D-Printed: The process of making a physical object from a three-dimensional digital model, like “The Liberator.”² The technology has advanced rapidly in the last few years, and costs have fallen. Law enforcement has seen production of weapons capable of firing, modifications for existing guns (semi to automatic), and creation of parts (barrels, stocks, suppressors, larger magazines and lower receivers.)³ With the advancement of technology, 3D-printed weapons are becoming more reliable and are able to be fired multiple times before catastrophic failure to the frame.
- (U//LES) Computer Numerical Control (CNC): The process of using computers to control machine tools, such as lathes, mills, and routers. CNC tools create the weapons by drilling, filing, and cutting in three dimensions to automatically carve digitally modeled shapes into polymer, wood or aluminum. Thus far, it appears CNC has only been used to produce frames and firearm lowers. The organization that developed the “The Liberator,” also sells two CNC mills: the Ghost Gunner, and the Ghost Gunner 2. CNC weapons can be highly reliable and can be fired multiple times.
- (U//LES) Cast-Molded: The process in which a liquid material is poured into a mold, which contains a hollow cavity of a completed lower receiver, and then allowed to solidify. The casting is then broken out of the mold to complete the process. Lower receivers with all necessary holes and cavities (requiring no further drilling) is created, establishing a legal firearm. However, the owner still must add the trigger mechanism, and attach a completed upper receiver⁴ to create a functioning firearm.
- (U//LES) Factory-Produced Parts: Mainly sold as “80 percent lower receivers” in which the fire control cavity area is completely solid and no fire control holes are drilled. These parts can be purchased from a variety of websites and gun stores. To create a functioning firearm, the owner must drill into the 80 percent lower receiver using a jig,⁵ add the trigger mechanism, and attach a completed upper receiver.⁶ In many cases, the required jig and drill bit can be purchased as a set with the 80 percent lower receivers. These weapons can be highly reliable and can be purchased legally. 80 percent lower

(U) Gun Control Act of 1968 (GCA):

The GCA, also referred to as Title I of the US federal firearms laws, regulates interstate and foreign commerce in firearms, including, importation, “prohibited persons,” and licensing provisions. After the assassinations of President John F. Kennedy and Dr. Martin Luther King Jr., the US Congress passed the GCA, which imposed stricter licensing and regulations on the firearms industry, established new categories of firearms offenses, and prohibited the sale of firearms and ammunition to felons and certain other prohibited persons, including the mentally ill. It also imposed the first Federal jurisdiction over “destructive devices,” including bombs, mines, grenades and other similar devices. The Firearms Owners’ Protection Act of 1986, Brady Handgun Violence Prevention Act of 1993, and NICS Improvement Act of 2008 were acts incorporated in the GCA.

Source: (U) Online ATF website; “Gun Control Act of 1968,” 30 July 2018; <https://www.atf.gov/rules-and-regulations/gun-control-act>

² (U) “The Liberator” is the first 3D-printed, all plastic firearm. In 2012, 3D plans for “The Liberator” were downloaded more than 100,000 times before federal officials blocked the site, citing international export law.

³ (U) The lower receiver is the part of the firearm which provides housing for internal components such as the hammer, bolt, action and firing mechanism.

⁴ (U) Upper receiver refers to the upper or top part of a firearm.

⁵ (U) A jig, when referring to firearms, is a fixture that helps you locate the necessary holes and slots that must be drilled and milled into the lower receiver casting/forging.

⁶ (U) Upper receiver refers to the upper or top part of a firearm.

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receivers, or any of the other components to build a gun, do not meet the definition of a “firearm” and are therefore not subject to regulation or licensing. These 80 percent lower receivers are sold under various names, such as 80 percent receivers, 80 percent finished, 80 percent complete, or unfinished lower.

(U//LES) Although 3D-printed plastic guns are often easy to identify as a ghost gun, the other techniques referenced above create firearms that look similar to standard firearms.⁷ The only ways to fully identify a ghost gun are through the lack of serial number, running the firearm through a firearm database, or through a subject interview. The FBI recommends the following steps to help identify the criminal use of ghost guns⁸ and their manufacturers.

- (U//LES) During source interviews involving firearms smuggling, manufacturing, possession, or purchasing, law enforcement officials should ask sources if they have knowledge of ghost guns to include individuals inquiring about purchasing tools and machines needed for manufacturing ghost guns.
- (U//LES) During the execution of search warrants resulting in the seizure of firearms, law enforcement officials should look for the components and tools used in the manufacture of firearms such as 80 percent lower receivers, jigs, drill presses, molds, CNC mills, and 3D printers for further investigation and/or seizure, if warranted.
- (U//LES) Law enforcement officials interviewing subjects in possession of suspected ghost guns should ask these subjects to identify the suppliers or individuals manufacturing homemade firearms.
- (U//LES) Law enforcement officials interviewing subjects suspected of trafficking firearms should ask the subjects if they have experience building firearms, or have knowledge of gun manufacturing.

(U) This report has been prepared by the CRIMINAL INVESTIGATIVE DIVISION and the LOS ANGELES FIELD OFFICE of the FBI. Comments and queries may be addressed to the Violent Crimes Intelligence Unit at 202-324-2290 or at ViolentCrimes@fbi.gov.

⁷ (U) See Appendix A: Photographic Examples of Ghost Guns

⁸ (U) FBI Comment: Although possessing a ghost gun for personal use by a non-felon is not a violation of federal law, the FBI is concerned that use of ghost guns in the commission of crimes will complicate identification of weapons used.

(U) Appendix A: Photographic Examples of Ghost Guns



Figure 1: The Liberator: A plastic (ABS) handgun, which uses .380 ACP cartridges. Fired 9 shots. Fifteen of its 16 pieces were 3D-printed.

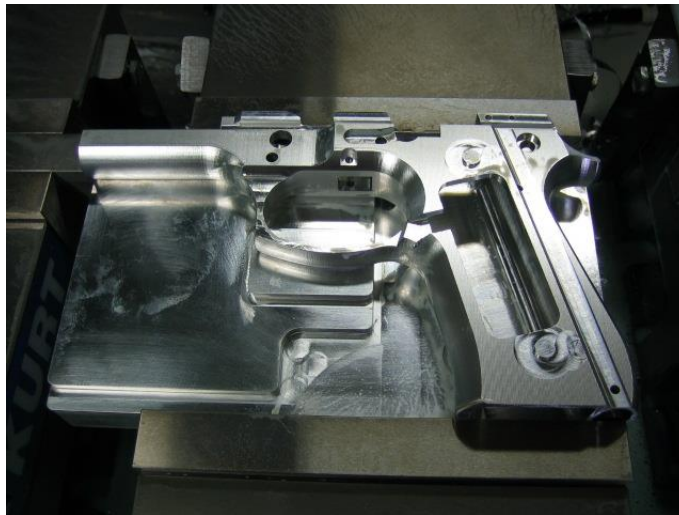


Figure 2: Computer Numerical Control produced Beretta 92FS/M9 frame.



Figure 3: Ghost Gunner, a CNC mill, measures about a foot in each direction.



Figure 4: Top: An AR15 with a cast molded lower. Bottom Left: Four examples of cast molded lowers for an AR15. Bottom Right: Cast mold and attachments for an AR15 lower.



Figure 5: An 80 percent lower kit, includes the lower, the jig, and the drill bits.

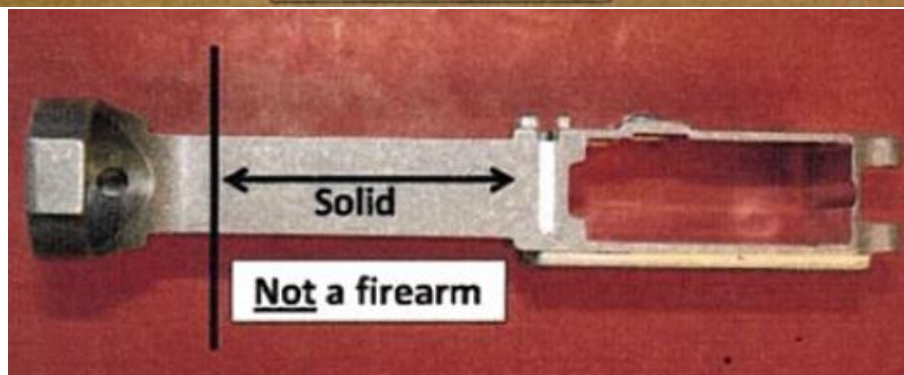
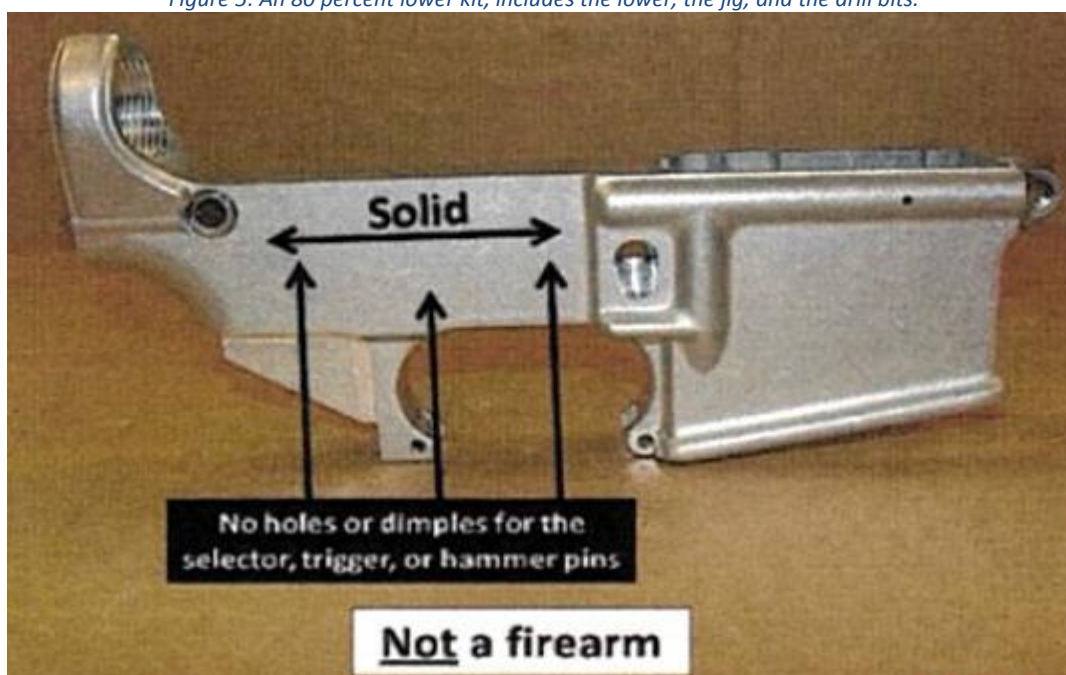


Figure 6: Examples of 80 percent lower with no holes or dimples, therefore not a firearm.

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1. The product increased my knowledge of an issue or topic. (Check one)

- ☐ 5. Strongly Agree
- ☐ 4. Somewhat Agree
- ☐ 3. Neither Agree or Disagree
- ☐ 2. Somewhat Disagree
- ☐ 1. Strongly Disagree

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2. The product helped me decide on a course of action. (Check one)

- ☐ 5. Strongly Agree
- ☐ 4. Somewhat Agree
- ☐ 3. Neither Agree or Disagree
- ☐ 2. Somewhat Disagree
- ☐ 1. Strongly Disagree

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3. The product was timely to my needs. (Check one)

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- ☐ 2. Somewhat Disagree
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Comments (please use reverse or attach separate page if needed):
