

Department of Defense

Annual Report on Civilian Casualties in Connection With United States Military Operations

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Fiscal Year 2018

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Section 1057 of the National Defense Authorization Act for Fiscal Year 2018 states the following:

**Annual Report on Civilian Casualties in Connection With
United States Military Operations**

(a) Annual Report Required.—Not later than May 1 each year, the Secretary of Defense shall submit to the congressional defense committees a report on civilian casualties caused as a result of United States military operations during the preceding year.

(b) Elements.—Each report under subsection (a) shall set forth the following:

(1) A list of all the United States military operations during the year covered by such report that were confirmed, or reasonably suspected, to have resulted in civilian casualties.

(2) For each military operation listed pursuant to paragraph (1), each of the following:

(A) The date.

(B) The location.

(C) An identification of whether the operation occurred inside or outside of a declared theater of active armed conflict.

(D) The type of operation.

(E) An assessment of the number of civilian and enemy combatant casualties.

(3) A description of the process by which the Department of Defense investigates allegations of civilian casualties resulting from United States military operations.

(4) A description of steps taken by the Department to mitigate harm to civilians in conducting such operations.

(5) Any other matters the Secretary of Defense determines are relevant.

(c) Use of Sources.—In preparing a report under this section, the Secretary of Defense shall take into account relevant and credible all-source reporting, including information from public reports and nongovernmental sources.

(d) Form.—Each report under subsection (a) shall be submitted in unclassified form, but may include a classified annex.

(e) Sunset.—The requirement to submit a report under subsection (a) shall expire on the date that is five years after the date of the enactment of this Act.

Department of Defense Report on Civilian Casualties in Connection With United States Military Operations in 2017

The Department of Defense (DoD) welcomes the opportunity to provide Congress with this annual report on civilian casualties in connection with U.S. military operations, as required by Section 1057 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2018.

As noted in Executive Order 13732, *United States Policy on Pre- and Post-Strike Measures To Address Civilian Casualties in U.S. Operations Involving the Use of Force*, of July 1, 2016, the protection of civilians is fundamentally consistent with the effective, efficient, and decisive use of force in pursuit of U.S. national interests. Minimizing civilian casualties can further mission objectives; help maintain the support of partner governments and vulnerable populations, especially in the conduct of counterterrorism and counterinsurgency operations; and enhance the legitimacy and sustainability of U.S. operations critical to U.S. national security. As a matter of policy, U.S. forces therefore routinely conduct operations under policy standards that are more protective than the requirements of the law of war that relate to the protection of civilians.

U.S. forces also protect civilians because it is the moral and ethical thing to do. Although civilian casualties are a tragic and unavoidable part of war, no force in history has been more committed to limiting harm to civilians than the U.S. military. This commitment is reflected in DoD's consistent efforts to maintain and promote best practices that reduce the likelihood of civilian casualties, take appropriate steps when such casualties occur, and draw lessons from DoD operations to further enhance the protection of civilians. Executive Order 13732 catalogues the best practices DoD has implemented to protect civilians during armed conflict, and it directs that those measures be sustained in present and future operations.

I. MILITARY OPERATIONS DURING 2017 THAT WERE CONFIRMED, OR REASONABLY SUSPECTED, TO HAVE RESULTED IN CIVILIAN CASUALTIES

During 2017, U.S. forces engaged in a number of military operations, some of which were assessed to have resulted in civilian casualties. This section provides information regarding: a) Operation INHERENT RESOLVE and other military actions related to Iraq and Syria; b) Operation FREEDOM'S SENTINEL, including support to the North Atlantic Treaty Organization (NATO)-led RESOLUTE SUPPORT Mission; c) U.S. military actions in Yemen against al-Qa'ida in the Arabian Peninsula (AQAP) and the Islamic State of Iraq and Syria (ISIS); d) U.S. military actions in Somalia against ISIS and al-Shabaab; and e) U.S. military actions in Libya against ISIS.

DoD's practice for many years has been not to tally systematically the number of enemy combatants killed or wounded during operations. Although the number of enemy combatants killed in action is often assessed after combat, a running "body count" would not necessarily provide a meaningful measure of the military success of an operation and could even be misleading. For example, the use of such metrics in the Vietnam War has been heavily criticized. We have therefore provided other information that is intended to help give context, such as information regarding the objectives, scale, and effects of these operation.

It is longstanding DoD policy to comply with the law of war in all military operations, however characterized. All DoD operations in 2017 were conducted in accordance with law of war requirements, including law of war protections for civilians, such as the fundamental principles of distinction and proportionality and the requirement to take feasible precautions in planning and conducting attacks to reduce the risk of harm to civilians and other persons and objects protected from being made the object of attack.

DoD assesses that there are credible reports of approximately 499 civilians killed and approximately 169 civilians injured during 2017 as a result of Operation INHERENT RESOLVE in Iraq and Syria, Operation FREEDOM'S SENTINEL in Afghanistan, and U.S. military actions in Yemen against AQAP and ISIS. For the purposes of this report, these are incidents in which U.S. aircraft conducted the strike or strikes or where U.S. personnel engaged in ground combat. DoD has no credible reports of civilian casualties from U.S. military operations in Somalia or Libya in 2017. Sub-sections A through E below and the accompanying classified annex provide additional information about these operations.

The assessments of civilian casualties are based on reports that DoD has been able to assess as "credible"; *i.e.*, based on the available information, it is assessed that it is more likely than not that the report regarding civilian casualties is correct. Section II of this report describes in more detail the processes for conducting these assessments.

A. Operation INHERENT RESOLVE and other military actions related to Iraq and Syria

Operation INHERENT RESOLVE. During 2017, as part of the United States' comprehensive strategy to defeat ISIS, U.S. forces conducted a systematic campaign of airstrikes and other vital actions against ISIS forces in Iraq and Syria and carried out airstrikes and other necessary actions against al-Qa'ida in Syria in the context of the ongoing armed conflict against those groups. U.S. forces were also deployed to Syria to conduct actions against ISIS with indigenous ground forces. In Iraq, U.S. forces advised and coordinated with Iraqi forces and provided training, equipment, communications support, intelligence support, and other support to select elements of the Iraqi security forces, including Iraqi Kurdish Peshmerga forces.

During 2017, the U.S.-led Coalition to defeat ISIS conducted more than 10,000 strikes, which killed hundreds of ISIS leadership figures and facilitators in Iraq and Syria; disrupted ISIS's command control network; degraded its use of unmanned aerial systems; reduced its ability to conduct research and development, procurement, and administration; and denied sources of funding for terrorist activities. These losses have undermined ISIS's ability to conduct attacks throughout the region and the world. With the loss of terrain and the liberation of the local population, ISIS can no longer generate funding through extortion and taxation. Additionally, airstrikes and ground operations crippled ISIS's use of hydrocarbon generating facilities and facilitation routes that moved and supplied ISIS fighters and supported illicit oil sales. U.S. forces have also degraded ISIS media operations.

These actions helped support partners, in particular the Iraqi Security Forces (ISF) and Syrian Democratic Forces (SDF), to make extraordinary progress over the past year, liberating Mosul and Raqqa – the former capitals of ISIS's self-proclaimed "caliphate" – during 2017. The liberation of Mosul provided the ISF with the momentum that led to the quick liberation of Tal Afar and Hawijah. During 2017, more than 61,500 square kilometers were liberated from ISIS control across Iraq and Syria, equating to the liberation of more than 98 percent of the land once claimed by ISIS and of more than 4.5 million people from ISIS oppression. Actions in Iraq were undertaken in coordination with the Government of Iraq, and in conjunction with Coalition partners.

In 2017, U.S. forces participating in the Defeat-ISIS campaign in Syria also took a limited number of strikes against Syrian government and pro-Syrian government forces in order to counter immediate threats to U.S. and partner forces while engaged in that campaign.

DoD assesses that there were credible reports of civilian casualties caused by Operation INHERENT RESOLVE in Iraq and Syria during 2017, as indicated earlier in the report.

For Operation INHERENT RESOLVE, U.S. Central Command (USCENTCOM) publishes a monthly report that: (1) catalogues reports of civilian casualties that have been received, including the date and location in which the civilian casualties reportedly occurred and the source of the report (*e.g.*, a military unit's own after-action reporting, media report, non-governmental organization report, posting on social media); and (2) whether reports of civilian casualties have been assessed to be credible or not, and if not, the general reasons why such reports were assessed not to be credible. The monthly report also identifies the reports of civilian casualties that still remain to be assessed.

It should be noted that the U.S.-led Coalition to defeat ISIS, as a matter of strategy and policy, considers all civilian casualties to be the combined result of "Coalition" action and jointly

attributed to Coalition members. It is rarely the case that a single civilian casualty occurs solely from the actions of one nation's military activities. Coalition personnel from multiple countries take part in every strike in some manner, from the initial collection and analysis of intelligence, to the Coalition's deliberate targeting process, and finally, in conducting the strikes themselves. In our view, this is the most appropriate way to view civilian casualty incidents related to Coalition action in Iraq and Syria. Public reports released by USCENTCOM about civilian casualties reflect this approach.

Due to the number of reports of civilian casualties in Iraq and Syria received during 2017 and the resources required to review each report, as of February 26, 2018, more than 450 reports of civilian casualties from 2017 remained to be assessed. As described below, DoD continues to assess reports and updates assessments if DoD receives additional information on any report of civilian casualties.

Additional Military Action in Syria. Additionally, on April 6, 2017, U.S. forces in the Mediterranean Sea operating beyond the territorial sea of any State struck the Shayrat military airfield in Syria in response to the chemical weapons attack on Syrian civilians in southern Idlib Province, Syria, on April 4, 2017. The strike, which involved 59 Tomahawk Land Attack missiles, was assessed to have resulted in the damage or destruction of fuel and ammunition sites, air defense capabilities, and 20 percent of Syria's operational aircraft. DoD has no credible reports of civilian casualties resulting from this strike.

B. Operation FREEDOM'S SENTINEL, including support to the North Atlantic Treaty Organization (NATO)-led RESOLUTE SUPPORT Mission

During 2017, U.S. forces operated in Afghanistan to eliminate the reemergence of safe-havens that enable terrorists to threaten the United States or its interests, support the Afghan government and the Afghan military as they confront terrorist organizations in the field, and help create conditions to support a political process to achieve a lasting peace. In the context of the ongoing armed conflict in Afghanistan, U.S. forces in Afghanistan trained, advised, and assisted Afghan forces; conducted and supported counterterrorism actions against al-Qa'ida and against ISIS; and took appropriate measures against those who provide direct support to al-Qa'ida, threaten U.S. and Coalition forces, or threaten the viability of the Afghan government or the ability of the Afghan National Defense and Security Forces to achieve campaign success.

These actions included strikes, such as (1) the strike on February 26, 2017, that killed Taliban commander Mullah Abdul Salam, along with four other enemy combatants in Kunduz; (2) the strike on an ISIS tunnel complex in Achin district, Nangarhar Province, on April 13, 2017, that was designed to minimize the risk to Afghan and U.S. forces conducting clearing operations in the area while maximizing the destruction of ISIS fighters and facilities; (3) the strike on April

19, 2017, that killed Quari Tayib, once known as the Taliban shadow governor of Takhar Province, along with eight additional Taliban fighters in Kunduz Province; (4) the strike on an ISIS headquarters in Kunar Province on July 11, 2017, that killed an emir of ISIS, Abu Sayed; and (5) the strike on December 1, 2017, that killed the Taliban's "Red Unit" commander Mullah Shah Wali, along with one of Wali's deputy commanders and three other insurgents in Helmand Province. These actions also included strikes on seven Taliban drug labs and one Taliban command-and-control node in northern Helmand Province during November 2017.

DoD assesses that there were credible reports of civilian casualties caused by U.S. military actions in Afghanistan during 2017, as indicated earlier in the report.

C. U.S. military actions in Yemen against al-Qa'ida in the Arabian Peninsula (AQAP) and ISIS

During 2017, a small number of U.S. military personnel were deployed to Yemen to conduct actions in the context of the armed conflict against AQAP and ISIS. U.S. forces continued to work closely with the Government of Yemen and regional partner forces to dismantle and ultimately eliminate the terrorist threat posed by these groups. U.S. forces conducted a number of airstrikes against AQAP operatives and facilities in Yemen, and supported United Arab Emirates- and Yemen-led efforts to clear AQAP from Shabwah Governorate.

For example, on January 20, 21, and 22, 2017, the U.S. military conducted strikes in al-Baydah Governorate, which killed five AQAP operatives. On January 28, 2017, U.S. forces conducted a raid on an AQAP compound in al-Bayda, Yemen, to gather information to help prevent future terrorist attacks, killing 14 AQAP operatives. U.S. forces also conducted a counter-terrorism operation against a compound associated with AQAP in Ma'rib Governorate, Yemen, on May 23, 2017, which killed seven AQAP militants through a combination of small arms fires and airstrikes. On November 20, 2017, U.S. airstrikes in al-Bayda Governorate, Yemen, killed five AQAP militants, including an AQAP leader responsible for planning and conducting terrorist attacks against Yemeni and Coalition forces and an al-Bayda-based facilitator. U.S. forces also conducted eight airstrikes in Yemen in December 2017 that targeted both AQAP and ISIS, resulting in the death of an AQAP external operations facilitator and the AQAP deputy arms facilitator with ties to senior AQAP leadership and who was responsible for facilitating the movement of weapons, explosives, and finances in Yemen.

DoD assesses that there were credible reports of civilian casualties caused by U.S. military actions in Yemen against AQAP and ISIS during 2017, as indicated earlier in the report.

D. U.S. military actions in Somalia against ISIS and al-Shabaab

During 2017, U.S. forces in Somalia were countering the terrorist threat posed by ISIS and al-Shabaab, an associated force of al-Qa'ida. In the context of the armed conflict against those groups, U.S. forces conducted a number of airstrikes against ISIS and al-Shabaab. For example, on January 7, 2017, Somali partner forces, African Union Mission in Somalia (AMISOM) forces, and U.S. advisors conducted a self-defense strike against al-Shabaab in Gaduud, Somalia. On June 11, 2017, U.S. forces also conducted an airstrike in southern Somalia on an al-Shabaab command and logistics node, killing a number of militants. Periodic strikes continued throughout the summer and fall of 2017, killing numerous al-Shabaab militants. On November 21, 2017, U.S. forces conducted an airstrike against an al-Shabaab camp 125 miles northwest of Mogadishu, killing more than 100 militants. Strikes continued into December 2017, with U.S. forces conducting more airstrikes against al-Shabaab vehicle-borne improvised explosive devices and al-Shabaab militants. U.S. forces also advised, assisted, and accompanied regional forces, including Somali and African Union Mission in Somalia (AMISOM) forces, during counterterrorism actions in Somalia in 2017.

As indicated earlier in the report, DoD has no credible reports of civilian casualties resulting from U.S. strikes in Somalia in 2017. One 2017 report of civilian casualties in Somalia remains under investigation.

E. U.S. military actions in Libya against ISIS

During 2017, U.S. forces conducted a number of airstrikes in Libya as part of the ongoing armed conflict against ISIS. For example, on January 19, 2017, U.S. forces conducted airstrikes destroying two ISIS camps 45 kilometers southwest of Sirte. On September 26, 2017, U.S. forces also conducted two airstrikes in Libya, killing several ISIS militants. These airstrikes were conducted in coordination with Libya's Government of National Accord.

As indicated earlier in the report, DoD has no credible reports of civilian casualties resulting from U.S. strikes in Libya in 2017.

II. DOD PROCESSES FOR ASSESSING REPORTS OF CIVILIAN CASUALTIES FROM U.S. MILITARY OPERATIONS

As reflected in Executive Order 13732, *United States Policy on Pre- and Post-Strike Measures To Address Civilian Casualties in U.S. Operations Involving the Use of Force*, of July 1, 2016, the U.S. military, as appropriate and consistent with mission objectives and applicable law, including the law of war, has a practice of reviewing or investigating incidents involving civilian casualties, including by considering relevant information from all available sources, such as

other agencies, partner governments, and nongovernmental organizations and taking measures to mitigate the likelihood of future incidents of civilian casualties.

Specific processes for reviewing or investigating incidents have varied over the years and have varied by geographic combatant command and by operation. Department of Defense has different processes due to host nation requests, different mission objectives, different operational designs, different available resources, and different organizational designs and command relationships within the Area of Responsibilities. As but one example, some commands do not have access on the ground to areas where civilian casualties are suspected to have occurred. Commands also work to improve their processes over time and adapt to the ever-changing fog and friction of war. The following is a general description of processes U.S. military units used during 2017.

After a report of civilian casualties resulting from a command's operations becomes known, the command or another entity (such as a specialized board or team) will seek to assess the credibility of the report. The command or entity would consider reports from any source, including its own after-action reporting or reports from external sources, such as a nongovernmental organization, the news media, or social media. In assessing the report, the command or entity would seek to review all readily available information from a variety of sources. This may include, but is not limited to, operational planning data, video surveillance and other data from Intelligence, Surveillance, and Reconnaissance (ISR) assets, witness observations (including those of partnered forces) where available, news reports, and information provided by nongovernmental organizations and other sources such as local officials or social media.

After reviewing the available information, a competent official determines whether it is more likely than not that civilians were injured or killed. If warranted, a more extensive administrative investigation would be conducted to find facts about the incident, and to make relevant recommendations, such as identifying process improvements to reduce the risk of further civilian casualty incidents.

DoD acknowledges that there are differences between DoD assessments and reports from other organizations. These differences result from a variety of factors. For example, nongovernmental organizations and media outlets often use different types of information and different methodologies to assess whether civilian casualties have occurred. Some organizations conduct on-the-ground assessments and interviews, while others rely heavily on media reporting. DoD assessments seek to incorporate all available information, including tools and information that are not available to other organizations – such as operational planning data and intelligence sources. As the RESOLUTE SUPPORT (RS) Mission explained in an April 2018 report that

sought to explain discrepancies between its assessments and those of the United Nations Assistance Mission in Afghanistan (UNAMA):

The RS investigation team assess that in several of the cases where casualties were alleged to be from air strikes, no aerial platforms were nearby at the time, and reported explosions may have resulted from concealed IEDs or insurgents firing rockets and mortars. In other cases, RS investigators have access to surveillance information that gives them confidence that civilians were not present at the scene of a strike.

For example, on November 19, 2017, in the air campaign under new US authorities striking Taliban revenue streams, a suspected drug lab was struck in northern Helmand. UNAMA relayed information to RS alleging that nine civilians from the same family were killed in the strike. They shared detailed information about three women, two boys and four girls – including a one-year-old. This claim of nine dead was included in the UNAMA report, but not counted by RS. RS investigations disproved the allegation as surveillance of the house over a significant period of time showed no sign of the presence of a family. Local government officials said that no civilians were killed.

It also bears noting that DoD’s assessments reflect DoD’s efforts to review reports of civilian casualties. In some cases, DoD has not been able to assess a report as credible because insufficient information has been provided or because investigators have not yet been able to review the report due to a large volume of reports. However, DoD assessments continue to be conducted, and existing assessments are updated if new information becomes available.

III. STEPS DOD TAKES TO MITIGATE HARM TO CIVILIANS

As mentioned earlier in the report, Executive Order 13732, *United States Policy on Pre- and Post-Strike Measures To Address Civilian Casualties in U.S. Operations Involving the Use of Force*, of July 1, 2016, catalogues the best practices DoD implements to protect civilians during armed conflict, and it directs that those measures be sustained in present and future operations.

For ease of reference, the relevant portion of Executive Order 13732 is reproduced as follows.

“**Sec. 2. Policy.** In furtherance of U.S. Government efforts to protect civilians in U.S. operations involving the use of force in armed conflict or in the exercise of the Nation’s inherent right of self-defense, and with a view toward enhancing such efforts, relevant departments and agencies shall continue to take certain measures in present and future operations.

(a) In particular, relevant agencies shall, consistent with mission objectives and applicable law, including the law of armed conflict:

(i) train personnel, commensurate with their responsibilities, on compliance with legal obligations and policy guidance that address the protection of civilians and on implementation of best practices that reduce the likelihood of civilian casualties, including through exercises, pre-deployment training, and simulations of complex operational environments that include civilians;

(ii) develop, acquire, and field intelligence, surveillance, and reconnaissance systems that, by enabling more accurate battlespace awareness, contribute to the protection of civilians;

(iii) develop, acquire, and field weapon systems and other technological capabilities that further enable the discriminate use of force in different operational contexts;

(iv) take feasible precautions in conducting attacks to reduce the likelihood of civilian casualties, such as providing warnings to the civilian population (unless the circumstances do not permit), adjusting the timing of attacks, taking steps to ensure military objectives and civilians are clearly distinguished, and taking other measures appropriate to the circumstances; and

(v) conduct assessments that assist in the reduction of civilian casualties by identifying risks to civilians and evaluating efforts to reduce risks to civilians.

(b) In addition to the responsibilities above, relevant agencies shall also, as appropriate and consistent with mission objectives and applicable law, including the law of armed conflict:

(i) review or investigate incidents involving civilian casualties, including by considering relevant and credible information from all available sources, such as other agencies, partner governments, and nongovernmental organizations, and take measures to mitigate the likelihood of future incidents of civilian casualties;

(ii) acknowledge U.S. Government responsibility for civilian casualties and offer condolences, including *ex gratia* payments, to civilians who are injured or to the families of civilians who are killed;

(iii) engage with foreign partners to share and learn best practices for reducing the likelihood of and responding to civilian casualties, including through appropriate training and assistance; and

(iv) maintain channels for engagement with the International Committee of the Red Cross and other nongovernmental organizations that operate in conflict zones and encourage

such organizations to assist in efforts to distinguish between military objectives and civilians, including by appropriately marking protected facilities, vehicles, and personnel, and by providing updated information on the locations of such facilities and personnel.”

During 2017, all operations previously listed were conducted consistent with the best practices identified in Executive Order 13732. For example, pre-deployment training for U.S. military units during 2017 included instruction on the law of war, rules of engagement, and other policies related to protecting civilian populations. Also, during U.S. military operations in 2017, practices related to protecting civilians during operations included: (1) characterizing the operating environment in an effort to identify the locations of civilians in advance of operations; (2) carefully crafting the operational design to avoid civilians during planned ground maneuver; (3) conducting shaping actions to reduce the need later to conduct fires in self-defense; (4) optimizing targeting processes; and (5) taking active measures to mitigate weapons’ effects in order to protect civilians and structures.

Characterizing the operating environment -- Available sensors (*e.g.*, visual sensors, human intelligence, signals intelligence) were used to characterize the battlespace to determine where the enemy was located, where civilians were located, and where the enemy kept equipment, arms, and other objects required to fight. For large operations, this process can start a year or more in advance. For smaller operations, the process can start weeks ahead of ground force maneuver. Characterizing the battlespace is a continual process used during target selection, target engagement, and post-strike assessments.

Crafting the operational design -- U.S. military planners also worked with partner forces during 2017 to design battle plans so ground forces were able to maneuver around areas of the enemy and civilians in such a way as to reduce harm to civilians.

Conducting shaping actions -- U.S. forces also relied heavily on precision-guided munitions (PGMs) during 2017 to conduct shaping actions designed to degrade enemy capabilities and defenses well ahead of the arrival of ground forces. Although the law of war does not require the use of PGMs when non-precision-guided weapons may be used in compliance with the law of war, commanders understood that shaping actions could use a relatively few, well-placed PGMs to concentrate force for greater effects in degrading enemy defensive capabilities. This helped speed up the successful liberation of enemy-held areas and maximized the protection of civilians and structures. When supporting partner forces, most munitions were employed dynamically as the partner force maneuvered and was in contact with the enemy. By using shaping actions to shorten the period when ground forces would be in contact with enemy forces, the number of munitions employed by liberating forces in the conflict can often be decreased, resulting in more protection of civilians from the dangers of combat.

Optimizing targeting processes -- During U.S. military operations in 2017, measures were also taken during targeting processes to protect civilians more fully. For example, strike processes worked with commanders to define the required effects of different strikes, intelligence sources and analysis were used to identify enemy forces as accurately as possible, and determinations were made whether the required effects could be achieved through non-kinetic options. For example, in some instances, simply bringing aircraft overhead was enough to get the enemy to react and to slow or stop a counterattack and thus enable friendly forces to regain the initiative. Additionally, some lawful targets were not attacked due to concerns about collateral effects on objects and/or certain persons, even though such collateral harm would not have been excessive. Before strikes, U.S. forces often leveraged multiple ISR assets to do collateral scans to help protect transient civilians. This included employment of multiple strike aircraft and ISR platforms to clear for and to protect transient civilians during attacks. In situations where commanders determined a strike was required, they were often able to choose weapons that would achieve the desired effects but that would also cause the least amount of collateral damage.

Mitigating weapons' effects -- During U.S. military operations in 2017, techniques were used to mitigate weapons' effects on civilians and structures. One example was to delay the fuse on air-to-ground munitions. Delaying the fuse buries the munition, allowing the ground to absorb fragmentation from the munition and to channel the blast, which can more effectively protect nearby civilians and structures. Low-yield and direct fire munitions were also used to reduce the likelihood of causing collateral damage. Another technique used during U.S. military operations in 2017 was to use specific angles of entry for munitions sent into target areas, which allowed for the munitions to strike more precisely (*e.g.*, a particular floor of a building or other specific location of hostile forces), thereby further minimizing civilian casualties and effects on structures.

As mentioned earlier, we believe that the U.S. military operations listed above were conducted consistent with the best practices identified in Executive Order 13732. Unfortunately, despite the best efforts of U.S. forces, civilian casualties are a tragic but at times unavoidable consequence of combat operations. This is especially true when fighting in urban areas and against adversaries like ISIS and al-Qa'ida who use civilians as shields and whose tactics include intentionally endangering the lives of innocents.