

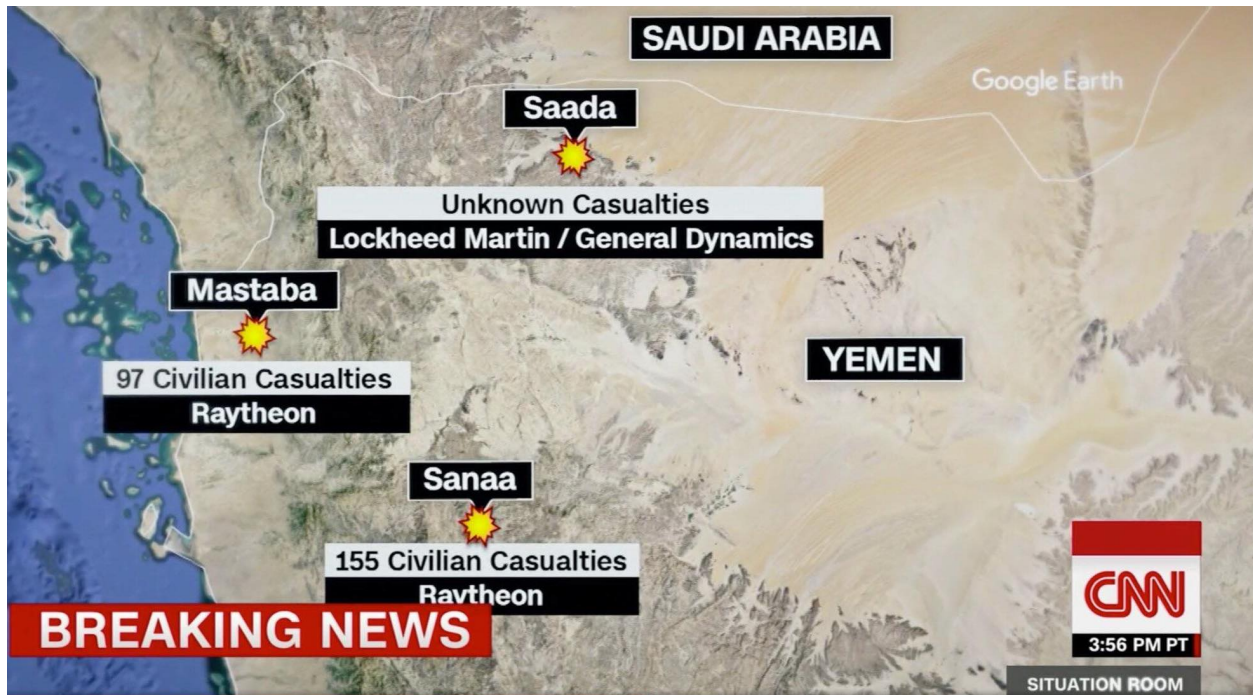


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War Profiteers: The U.S. War Machine and the Arming of Repressive Regimes*

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*A growing body of research in recent years has focused on the companies supplying brutal military occupations and operations. This research aims to build upon this existing research, including the work of William Hartung, the American Friends Service Committee, BDS National Committee, whoprofits.org, Jewish Voice for Peace, Human Rights Watch and Amnesty International. We thank them for their pioneering work.

Executive Summary

After the Saudi bombing of a Yemeni school bus on August 9, 2018 that killed 44 children, CNN revealed that the bomb used in the attack was manufactured by Lockheed Martin. It showed a map of Yemen pinpointing several other attacks where large numbers of civilians have been killed by bombs from not only Lockheed Martin, but also General Dynamics and Raytheon.

It is a rare moment when a mainstream U.S. media outlet makes the connection between U.S. weapons manufacturers and the killing of civilians. But tragically, it is not rare at all that repressive regimes kill and maim civilians with American weapons,

This report focuses on the five largest U.S. arms manufacturers—Lockheed Martin, Boeing, Raytheon, Northrop Grumman and General Dynamics—and their dealings with three repressive nations: Saudi Arabia, Israel and Egypt.

The absolute monarchy of Saudi Arabia is using American weapons to repress internal dissent and to bomb Yemen into a humanitarian crisis that has spread death, cholera and famine.

Israel has used American weapons for decades to maintain a 50-year-long hostile military occupation of Palestine and to turn Gaza into a 21st century version of the Warsaw Ghetto, policed with bombs, missiles, F-16s, Apache helicopters and snipers.

The Egyptian military used its American weapons to overthrow the fragile, fledgling democracy that the Egyptian people won in the Arab Spring in 2011, and then to massacre between 1,000 and 2,600 Egyptians in Cairo's Rabaa Square, the deadliest massacre of peaceful protesters anywhere since China's massacre in Tiananmen Square in 1989.

In this report, we document the complicity of the U.S. arms industry in civilian massacres, war crimes and human rights abuses by each of these countries. This is not a case of selling weapons in peacetime that are later implicated in isolated incidents that kill civilians or strike civilian targets. These companies, like the U.S. government itself, collaborate actively with these governments and military forces as they regularly kill civilians and commit other war crimes.

- Weapons contracts include training, support and maintenance, integrating company employees into military operations that systematically violate the laws of war;
- The companies' PR operations reinforce client governments' propaganda to whitewash the reality of how their weapons are used and what they do;
- As war crimes allegations mount, the U.S. government and corporations quickly and quietly replenish weapons stocks and diplomatically shield their clients from accountability;
- Neither the companies nor the U.S. government, which is an active partner in foreign weapons sales, accept responsibility for how these weapons are used.

It is a moral outrage that the leaders of these companies and their stockholders continue to amass fortunes from selling products that, when used for their intended purposes, kill, maim and displace millions of people. If U.S. leaders or their Saudi, Israeli and Egyptian allies are ever held criminally accountable for war crimes, these executives deserve to stand in the dock with them, like German weapons maker Alfred Krupp, who was sentenced to 12 years in prison and stripped of his wealth by the Nuremberg war crimes tribunal.

The weapons manufacturers, who Pope Francis refers to as “merchants of death,” rely on a catastrophic business model that feeds on chaos, political instability, human rights violations, disregard for international law, and the triumph of militarism and brinkmanship over diplomacy. Over 50 years ago, President Eisenhower warned that “an alert and knowledgeable citizenry” was needed to rein in the military-industrial complex. The world is still waiting for U.S. citizens to wake up and put an end to this insidious marriage between war and commerce.

What Drives U.S. Militarism?

After the Saudi bombing of a Yemeni school bus on August 9, 2018 that killed 44 children, CNN revealed that the bomb used in the attack was manufactured by Lockheed Martin. Nima Elbagir, reporting for CNN's Situation Room, [showed a map of Yemen](#) pinpointing several other attacks where large numbers of civilians have been killed by bombs from not only Lockheed Martin, but also General Dynamics and Raytheon.

It is a rare moment when a mainstream US media outlet makes the connection between U.S. weapons manufacturers and the killing of civilians. Unfortunately, as this report makes clear, the killing and maiming civilians with US weapons is a regular occurrence. This is true not only when the U.S. military uses these weapons, but when the companies sell these weapons to repressive regimes overseas.

This report focuses on the five largest U.S. arms manufacturers—Lockheed Martin, Boeing, Raytheon, Northrop Grumman and General Dynamics—and their dealings with three repressive nations: Saudi Arabia, Israel and Egypt.

The United States is the leading purveyor of arms sales, global war and militarism. With [800 military bases in 80 countries](#) around the world, the U.S. has a larger military budget than the [next seven countries combined](#), as well as an arms industry that dominates the global arms trade.

Officially sanctioned terms like “defense” and “security” act as a subterfuge to diminish and camouflage the deadly, dangerous and destabilizing role that the United States is playing in the world.

U.S. policy has bastardized the true meaning and accepted concept of the word “defense”. This has been true especially since the 1980s, as successive U.S. administrations have increasingly used the U.S. armed forces in an offensive rather than a defensive way, to attack other countries from Nicaragua and Panama to Iraq and Libya. Far from bringing security to people at home and abroad, these interventions have created more global insecurity, disrupting the lives of ordinary people and exacerbating tensions between nuclear-armed nations.

When international opinion and findings disagree with actions of the U.S. military and government, the U.S. typically finds its own rationale and way of doing exactly as it pleases, citing that its actions are “in the best interest of the United States.” For example, in 1986, when the International Court of Justice (ICJ) [convicted the U.S.](#) government of using force illegally against Nicaragua by supporting the Contras and by mining Nicaraguan harbors, the U.S. formally withdrew from the binding jurisdiction of the court. When the Nicaraguan government

asked the UN Security Council to enforce the payment of reparations ordered by the court, the U.S. predictably vetoed the resolution.

Since then, the U.S. has committed increasingly regular and systematic violations of international law behind a carefully constructed wall of impunity, a pattern only exacerbated by the end of the Cold War and the crimes of September 11th:

- Since the 1980s, the [U.S. has vetoed more](#) UN Security Council resolutions than the other four permanent members combined;
- The U.S. rejects the jurisdiction of international courts, ignores binding international treaties and refuses to sign or ratify new treaties;
- The U.S. Congress has abdicated its constitutional war powers;
- U.S. diplomats and politicians promote political arguments for war to override formal and binding rules of international law that prohibit it. This includes formulating and then abusing new concepts like [“humanitarian intervention”](#) and [“the responsibility to protect.”](#)

Far from bringing protection or “humanitarian intervention” to suffering people overseas, America’s wars have instead plunged country after country into seemingly endless violence, chaos and insecurity.

Once conscious of what the U.S. government is doing in the name of its people, we must ask, what drives an already rich and powerful country like the United States to systematically violate international law in a destabilizing and dangerous bid for global military dominance?

A useful framework for understanding the forces driving U.S. militarism is the idea of the [“military-industrial complex,”](#) which President Eisenhower warned against in his extraordinary farewell speech to the nation in 1961.

“This conjunction of an immense military establishment and a large arms industry is new in the American experience,” Eisenhower told the American public. “The total influence - economic, political, even spiritual - is felt in every city, every State House, every office of the Federal government. Yet we must not fail to comprehend its grave implications. Our toil, resources, and livelihood are all involved; so is the very structure of our society.

“In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.

“We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can

compel the proper meshing of the huge industrial machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together....

“Disarmament, with mutual honor and confidence, is a continuing imperative. Together we must learn how to compose differences, not with arms, but with intellect and decent purpose.”

This was not the first time Eisenhower had warned Americans of the dangers of militarism. In 1949 in [a speech in Saint Louis](#), before he ever ran for public office, the recently retired five-star general responded to growing calls for a nuclear attack on the U.S.S.R. to prevent it building its own nuclear deterrent.

“I decry loose and sometimes gloating talk about the high degree of security implicit in a weapon that might destroy millions overnight...,” Eisenhower declared. “Those who measure security solely in terms of offensive capacity distort its meaning and mislead those who pay them heed. No modern nation has ever equaled the crushing offensive power attained by the German war machine in 1939. No modern nation was broken and smashed as was Germany six years later.”

Eisenhower was deeply conscious of his tragic failure to end the Cold War or rein in the military industrial complex as President. He gave his farewell speech in the full awareness that his successors would be even more susceptible to these dangerous influences. In [a meeting with his closest aides](#), he was even more blunt, telling them, “God help this country when someone sits in this chair who doesn’t know the military as well as I do.”

God help us indeed! Not one of the eleven men who succeeded Eisenhower has stood up to these corrupting powers, and the American public has likewise failed to live up to his hopes that an “alert and knowledgeable citizenry” might restrain the power of the military-industrial complex and the resulting emergence of the United States as a global aggressor and weapons proliferator.

When the Cold War finally ended in 1991, the dominant influence of the military-industrial complex ensured that the “peace dividend” the whole world so desperately hoped for was quickly trumped by the “[power dividend](#),” an expansion of U.S. military power to exploit the vacuum left by the fall of the U.S.S.R.

Small reductions in U.S. military spending were offset by increased U.S. arms sales to foreign governments. The Bush administration used the First Gulf War in 1991 as a showcase for the destructive power of U.S. weapons, carpet bombing Iraq with 88,500 tons of bombs and hyping the accuracy of its new “precision” weapons. Only later did U.S. officials admit that [only 7%](#) of the bombs and missiles they used against Iraq were precision weapons and that even their accuracy was only between [40%](#) and [60%](#).

The U.S. military then redeployed its planes and pilots from Kuwait to [the Paris Air Show](#) to launch a marketing blitz that led to [record U.S. weapons exports](#) over the next three years, paving the way for President Clinton's second term to be even more lucrative for U.S. arms merchants.

Although [no foreign country or government](#) was responsible for the crimes of September 11, 2001, the U.S. responded by unleashing its war machine on Afghanistan, Iraq and several other countries. Successive U.S. administrations now seem committed to a perpetual state of war, oblivious to both the human cost in the countries targeted and the drain on U.S. national resources.

Despite the incredible human and financial costs of Washington's 17 years of war (and counting), the United States continues to cling to and even expand its military ambitions, repeatedly doubling down on catastrophic failure.

As of 2018, U.S. forces were still at war in Afghanistan, Iraq, Pakistan, Libya, Syria and Somalia. In Yemen, they have been taking part in a Saudi-led war that has plummeted this already poor country into a [humanitarian disaster](#). Since 2009, the 70,000 troops of U.S. Special Operations Command have been [deployed to 133 countries](#) on "secret" operations that Americans are not allowed to know about, although they are obviously no secret to people whose lives are impacted in those countries.

A recent study by the UN Development Program called [Journey to Extremism in Africa: Drivers, Incentives and the Tipping Point for Recruitment](#) found that over 70% of "extremists" in Africa report that it was the killing or detention of a relative or close friend by "security forces" that drove them to the fateful and potentially deadly decision to join an armed group. In other words, it is the militarized "war on terror" itself that is driving people to join these armed groups, by perpetuating the very terror it was conjured up to eliminate.

After 17 years of post-9/11 warfare that has cost trillions of dollars and [millions of lives](#), the [military madness](#) that the U.S. has unleashed is, predictably, as violent, chaotic and unresolved as ever.

The Military Industrial Complex Today

Despite catastrophic U.S. military failures on every front, the Trump administration is threatening a war with Iran and, even more dangerous, potential military confrontations with Russia and China. Rival sectors of the U.S. political class are recklessly stoking a [propaganda war against Russia](#) as a foil for their own political and geostrategic failures.

In a transitional time defined by political corruption, U.S.-led wars and climate chaos, people around the globe rightly fear for the future of the human race and the Earth itself. And yet, no interest group has exploited this unstable and dangerous environment more consistently and successfully than the military-industrial complex that Eisenhower warned us about in 1961.

Eisenhower diplomatically described the “unwarranted influence” of the military-industrial complex as “sought or unsought.” But, as that influence has grown, it has become more obviously “sought” than “unsought.”

In 2002, in the face of broad opposition to a U.S. invasion of Iraq among the international community and the American public, Lockheed Martin’s vice president Bruce Jackson left the company to chair the [“Committee for the Liberation of Iraq,”](#) an organization whose sole purpose was to build political support for a U.S. invasion. The conflict of interest was flagrant, and the war eventually delivered trillions of dollars in sales and bloated stock prices to U.S. arms manufacturers.

The U.S. wars on Afghanistan and Iraq served as a pretext for a [massive increase in U.S. weapons spending](#). Between 1999 and 2011, the U.S. spent \$1.3 trillion on its wars, but even more, \$1.8 trillion, was spent to buy new warplanes, warships, weapons and equipment, most of which were unrelated to the wars it was actually fighting.

Support for the weapons industry by US administrations has been bipartisan. A major beneficiary of President Obama’s record military spending was General Dynamics, whose CEO [Lester Crown and his Chicago family](#) had played a critical role as career-long patrons and fundraisers for Obama’s rise to power.

In office, Obama rewarded General Dynamics with contracts worth tens of billions of dollars for new submarines and destroyers. General Dynamics also made many of the over [100,000 U.S. bombs and missiles](#) that have reduced Mosul, Raqqa, Kobane and other parts of Iraq and Syria to rubble after they were occupied by the Islamic State. Again, under the cloak of U.S. primacy for the protection and advancement of democracy, there is no acknowledgment that the Islamic State

is an outgrowth of the invasion of Iraq and the forces the Obama administration had [itself armed and supported](#) to plunge Syria into chaos.

As Obama launched his 2012 reelection campaign on the strength of withdrawing U.S. forces from Iraq and promises to end the Afghan war in 2014, [General Dynamics' annual report](#) presciently reassured its investors that there would be no peace dividend. “While the level of U.S. defense spending will be impacted by... fiscal realities, there is not a foreseeable peace dividend,” the report said.

Then, as Trump took office in 2017, the [Wall Street Journal predicted](#), “the global aerospace and defense (A&D) sector is likely to experience stronger growth in 2017 after multiple positive but subdued years,” thanks to a “resurgence of global security threats, anticipated increases in U.S. defense budgets,” and increased global arms sales. The *Journal* was right “on the money,” and the stocks of major arms producers hit record highs in 2017.

What the *Journal* failed to mention was that for every weapon sold, every drone produced, every new weapons system under development, there is a family that has lost everything; a child whose school has been bombed; or a teenage boy who is dead, simply for being young and male and in the path of the war on terror. It also failed to note the hidden price paid by Americans, as the lion’s share of their tax dollars are squandered on deadly weapons instead of being invested in [education, healthcare and public services](#) that would improve all our lives.

Outsourcing Death, Destruction... and Profits

Under the Obama administration, Department of Defense funding [averaged \\$653.6 billion per year](#) (in 2016 dollars), 3% more than under Bush Jr's, and 56% more than under Clinton. But like Clinton in the 1990s, Obama also offset small reductions in Pentagon weapons purchases with expanding foreign arms sales. Many of the weapons sales Trump has boasted of since he took office are the result of contracts negotiated under Obama.

But the nature of today's U.S. arms exports is different from those in the 1990s, as the U.S. is not supplying these weapons to allies like Israel, Egypt, Saudi Arabia and other Arab monarchies for defensive purposes. Just as the U.S. has used its own war machine to commit aggression around the world since the 1980s, and more systematically since 2001, it now sells offensive weapons to its allies with the clear, if unspoken, understanding that they will use them to attack and threaten their neighbors, thereby expanding the U.S.'s aggressive war policy by proxy.

War crimes by U.S. allies rarely lead to any loss of U.S. logistical or diplomatic support, as we have seen after Israeli attacks on Lebanon and Palestine and in the Saudi-led war on Yemen. In fact, the U.S. government has rallied to support its allies by quickly and quietly replenishing their weapons stocks and vetoing UN Security Council resolutions to investigate or respond to their crimes.

The U.S. State Department has [an appalling record](#) of failing to enforce U.S. laws that require the suspension of arms sales to countries that use U.S. weapons to kill civilians or otherwise violate international humanitarian law.

The current regime of U.S. arms exports is part of a deliberate strategy to outsource U.S. war-making, projecting military power through alliances with U.S.-armed client states as a substitute for direct U.S. military action. This minimizes both domestic opposition from a war-weary U.S. public and growing international resistance to the catastrophic results of U.S. wars, while U.S. military-industrial interests are well served by ever-growing arms sales to allied governments.

Hitching U.S. interests and foreign policy to repressive regimes around the world is nothing new. In the 1960s and 1970s, the U.S. built the Shah of Iran's military forces into the fifth largest army in the world, even as [Amnesty International reported](#) that Iran had 25,000 to 100,000 political prisoners and "the highest rate of death penalties in the world, no valid system of civilian courts and a history of torture that is beyond belief." The predictable result of the U.S.'s

cynical relationship with the Shah was to trigger the Islamic Revolution and lose all U.S. influence over Iran's future for decades.

For over a century, the U.S. has installed and supported dictators and absolute monarchs on every continent, trained their torturers and secret police, and made enemies of their downtrodden people. The harvest of [these catastrophic U.S. policies](#) still fills endless graveyards, from the Democratic Republic of Congo to Central America to Korea and Vietnam.

The vain hope that the U.S. can use such “puppet” governments as reliable instruments of U.S. policy has never been realized. As historian Gabriel Kolko [astutely observed](#) in 1988, “The notion of an honest puppet is a contradiction that the United States has failed to resolve anywhere in the world since 1945.”

Does anyone believe that this latest generation of U.S. allies will be any different? Israel's Netanyahu? Sisi in Egypt? Saudi's Bin-Salman? Will they really use the war machines the U.S. has built for them to serve U.S. interests instead of to pursue their own autocratic ambitions?

The sad truth is that we don't need to speculate, as each of them is already using American weapons mainly to kill and terrorize their own people and their neighbors.

The Egyptian military used its American weapons to overthrow the fragile, fledgling democracy that the Egyptian people won in the Arab Spring in 2011, and then to massacre between 1,000 and 2,600 Egyptians in Cairo's Rabaa Square, the [deadliest massacre](#) of peaceful protesters anywhere since China's massacre in Tiananmen Square in 1989.

Israel has used American weapons for decades to attack Lebanon, to maintain a 50-year-long hostile military occupation of the Occupied Palestinian Territories and to turn Gaza into a 21st century version of the Warsaw Ghetto, policed with bombs, missiles and bullets by F-16s, Apache helicopters and snipers.

The Saud family founded Saudi Arabia in 1932 to impose an absolute monarchy and a new form of Islam on the people of Arabia. [They have built a dystopia](#), where oil wealth fuels lives of luxury and absolute power for hundreds of princes, even as they publicly chop off the heads of ordinary men and women for thought crimes like political dissent, “blasphemy” and “sorcery.”

Saudi Arabia has the third largest military budget in the world, after only the U.S. and China, and is now using its “Made in the U.S.A.” war machine to bomb its neighbor, Yemen, into a humanitarian abyss that threatens millions of people with starvation, disease and death.

But the military-industrial interests driving these blood-soaked, failed U.S. policies do not care who lives or who dies or what carnage and chaos they produce. They see only the revenues and profits on their balance sheets, which are always in the black, never in the red like the blood that flows from the real-world results of the weapons they produce.

This report is focused on the five largest U.S. arms manufacturers—Lockheed Martin, Boeing, Raytheon, Northrop Grumman and General Dynamics—and their dealings with three repressive nations: Saudi Arabia, Israel and Egypt. Focusing on these three countries provides a revealing sampling of how these weapons are used. While Saudi Arabia purchases US weapons with its oil riches, most of the weapons provided to Israel and Egypt are paid for by US tax dollars. In both cases, it is the weapons companies that profit.

The five companies we researched dominate the global arms business and reap the lion's share of U.S. military contracts. The revenues from their arms sales totalled \$140 billion in 2017. Roughly \$105 billion was paid for by U.S. taxpayers, out of total Pentagon spending of \$208 billion on weapons procurement and development. But they also earned about \$35 billion in 2017 from their [ever-growing arms sales to foreign governments](#), particularly Saudi Arabia.

This report is meant to delve deeply into those connections to show how the weapons industry, named by Pope Francis “the Merchants of Death,” are indeed reaping enormous profits off the suffering of some of the poorest and more abused people in the world.

Lockheed Martin

Company Profile

Lockheed Martin is the largest arms producer in the world. Based in Bethesda, Maryland, it employs 97,000 people worldwide, and it has business operations in over 70 countries.

[The company earned](#) \$36 billion in arms sales in 2015, and then \$41 billion in 2016, or 86% of its total revenues of \$47 billion. In 2017, [its total sales increased again](#), to \$51 billion.

Lockheed Martin operates through four divisions: Aeronautics; Missiles and Fire Control; Rotary and Mission Systems; and Space Systems. Its 2017 revenues of \$51 billion were made up of: \$20.1 billion from Aeronautics, (including \$7.2 billion in foreign sales); \$7.2 billion from Missile and Fire Control (\$2.4 billion in foreign sales); \$14.2 billion from Rotary and Mission Systems (\$4 billion in foreign sales); and \$9.5 billion from Space Systems (\$1.3 billion in foreign sales). [Lockheed's 2017 Annual Report](#) states that, "A key component of our strategic plan is to grow our international sales."

Dealings with Saudi Arabia

Lockheed Martin has had [a business relationship with Saudi Arabia](#) since 1965, supplying it with warships, warplanes, helicopters, missiles and other weapons.

Lockheed Martin weapons and technology have played [a major role in the Saudi-led war](#) against the Houthi government and people of Yemen since March 2015. The war on Yemen has consisted mainly of a brutal campaign of aerial bombardment against military and civilian targets. The U.S. has supplied Saudi Arabia with more than half of its 325 military aircraft, from fighter aircraft to Lockheed KC-130 refueling tankers and C-130 Hercules transport planes.

Saudi airstrikes have repeatedly hit civilian targets, including homes, schools, markets, food storage facilities and hospitals. In August 2018, Lockheed bombs hit a [school bus](#), killing 40 children. The United Nations, Human Rights Watch and Amnesty International all accuse Saudi Arabia and its allies of conducting airstrikes that lack military justification and cause indiscriminate and disproportionate civilian deaths and injuries, which means that they are war crimes.

As of September 2017, the UN had documented [9,245 verified war deaths in Yemen](#), including 5,558 civilians. But this can only be a small fraction of the actual death toll, which by late 2018

was likely to be [over 100,000](#). The war has caused a humanitarian crisis in which the UN estimates that as many as 18 million Yemenis will be at risk of starvation by the end of 2018. A cholera epidemic caused by the destruction of Yemen's water supply has killed at least 2,300 people and infected [over a million](#).

The remains of [M26 cluster munitions](#) made by Lockheed Martin were found at the site of two missile strikes in Yemen, one in Hajja in April 2015 and another in Saada in July 2015. Cluster munitions are designed to open up in mid air to release hundreds of submunitions to kill and wound people over a large area. Unexploded submunitions can keep killing and maiming innocent civilians for years. Cluster munitions have been outlawed by an international treaty signed by 108 countries, but not by the United States.

[Lockheed's M26 MLRS rocket](#) has a range of 20 miles and is armed with 644 submunitions. The U.S. General Accounting Office (GAO) has found that the ["dud" rate of the M77 submunitions](#) in M26 rockets can be as high as 23%, with each rocket leaving up to 148 unexploded bomblets to kill and maim unsuspecting civilians for many years. Though Lockheed has not sold M26 rockets to Saudi Arabia, it has sold them to other members of the Saudi-led coalition: Bahrain, Egypt, and the United Arab Emirates, but none of them has accepted responsibility for these two attacks on civilians.

Lockheed Martin also produces the PAC-3 version of the Patriot missile, a defensive system designed to intercept incoming missiles. The US approved [sales of this missile defense system to Saudi Arabia](#), including the sale of 202 PAC -3 Missiles and associated equipment for \$1.75 billion in October 2014. The US State Department approved [an additional sale in July 2015](#) worth \$5.4 billion, under which Lockheed Martin and Raytheon provide Patriot missiles and associated equipment, parts and logistical support.

A naval blockade of Yemeni ports has been an integral part of the Saudi-led coalition's war on Yemen. [The UN has been calling](#) for a lifting of the blockade since April 2017, as millions of Yemenis are at risk of starvation and millions more require humanitarian assistance. The blockade has severely restricted supplies of food, fuel, and medical supplies, contributing to the near collapse of Yemen's health system and the humanitarian disaster.

Lockheed Martin is directly supporting this effort to starve Yemen of vital resources. As part of the \$110 billion arms package agreed upon in May 2017, Lockheed Martin is selling four [Littoral Combat Ships](#) to Saudi Arabia for \$6 billion. These are a new model of fast, shallow-draught U.S. warships designed to operate in coastal waters, which Saudi Arabia clearly plans to use in its naval blockade of Yemen.

Lockheed Martin stands to be the greatest beneficiary of the \$110 billion arms package announced between the US and Saudi Arabia in May 2017, with an [estimated \\$29.1 billion in sales](#). In addition to the four Littoral Combat ships, the Saudis are buying seven of Lockheed's Terminal High Altitude Area Defense (THAAD) missile defense systems at a cost of \$13.5 billion, to detect, track and intercept incoming short and medium range missiles. The Saudis are paying another \$5.8 billion for three KC-130J in-air refueling planes and twenty 130J military transports. Saudi Arabia is also buying more Lockheed military helicopters: 14 MH-60R Seahawk helicopters (the naval version of the Blackhawk) for \$2 billion and 30 UH-60 light helicopters for \$1.8 billion.

With billions in revenues at stake in Saudi Arabia, Lockheed Martin has even [joined the propaganda campaign](#) to whitewash the coalition's systematic war crimes and the worsening humanitarian crisis.

In a 2015 panel discussion in Washington, sponsored by the Saudis, their allies and U.S. oil and weapons companies, Lockheed Martin executive Ronald Perrilloux Jr., a former U.S. military attache to Saudi Arabia, called "hostile media reports" on the war in Yemen "patently false." He claimed that Saudi Arabia's human rights violations were being unfairly judged compared with China's. He argued that Saudi Arabia and the Gulf states were "better partners to us than some of our NATO allies," and that the U.S. should "help them finish the job" in Yemen. Three years later, the catastrophic bombing campaign is still going.

Dealings with Israel

Lockheed Martin has an extensive business relationship with Israel, as a main supplier of Israel's combat aircraft, helicopters, missiles and munitions. Lockheed Martin has sold Israel 224 F-16 fighters, its main offensive aircraft, and has already delivered the first 12 of 50 new F-35s on order. Lockheed has also sold Israel thousands of Hellfire missiles, which it has used to kill and terrorize civilians during its invasions of Lebanon and its attacks on Gaza and the other Occupied Palestinian Territories.

British journalist Robert Fisk has lived in Lebanon for much of his life, reporting for *The Times* and then *The Independent*, and trying to understand the connection "between the respectable weapons manufacturers and the innocents whom their weapons kill."

[Fisk investigated an attack](#) in which a Hellfire missile fired by an Israeli helicopter pilot hit an ambulance packed with women and children fleeing the Israeli assault on the village of Mansouri in Lebanon on April 13, 1996. The exploding missile killed two women and four children and wounded many more. The driver, Abbas Jiha, who lost his wife, Mona, and three of his children, described his two-month-old daughter, Mariam: "All her body had holes through it. Her head

was full of metal.” His oldest daughter, 13-year-old Manar, who was covered in blood, told a journalist at the scene, “My sister’s head has exploded.”

Inches from the body of Abbas’s 5-year-old daughter Hanin, a Swedish officer from the UN peacekeeping force in Lebanon found a fragment of the missile with a manufacturer’s number, a stock number and a lot number.

With the help of a French missile technician and some U.S. Marine officers in Washington DC, Fisk identified the missile as one made by either Lockheed Martin or Boeing (then a secondary manufacturer of Hellfire missiles) and sold to the U.S. Marine Corps. It was part of a shipload of unused weapons officially sent back from Kuwait to the U.S. after the First Gulf War that were in fact covertly dropped off in Haifa by a U.S. warship as a “thank you gift” to Israel for its cooperation in the war.

Fisk confronted both Boeing and Lockheed Martin executives with the evidence he had collected, but neither would accept any responsibility. A Boeing executive, afraid for his job and his career, told him, “Whatever you do, I don’t want you to quote me as saying anything critical of Israel’s policies.”

Fisk’s conversation with Al Khami, Lockheed’s Director of Communications, took an even stranger turn. “Well, frankly, the missile has nothing to do with the manufacturer,” Khami told him. “I wasn’t the one pulling the trigger. Lockheed Martin was not the one that was there, firing the missile.”

Israel had admitted within hours of the attack that it had deliberately targeted the ambulance with this very accurate missile, and its only defense was to claim that the ambulance belonged to a member of Hezbollah and that a Hezbollah fighter was killed along with the civilians - neither of which was true according to UN peacekeepers and a journalist, who all witnessed the attack at first hand.

Robert Fisk concluded, “If an American missile was fired into an ambulance, those who made it would fiercely deny any blame. It was for Israel to explain. And when it did - agreeing that against all the rules of war, the Hellfire had been deliberately fired into an ambulance - America was silent. The equation was complete. Israel, it seemed, could do what it wanted. And Lockheed had no intention of cooperating with our inquiry - not least, I suspect, because Lockheed was now a joint partner in missile development with the Israeli aeronautics company Raphael.”

So this atrocity led to no interruption in Lockheed Martin’s lucrative trade in these highly accurate, very deadly weapons. More recently, in partnership with Northrop Grumman, Lockheed Martin has sold Israel [Longbow missile technology](#) for its Apache helicopters and

their Hellfire missiles, to make them more lethal under low visibility conditions or in poor weather, to track over 200 targets at once, and to automatically lock onto a target before and after a missile is fired.

[Israel bought the AH-64D helicopters](#) with their Longbow technology between 2000 and 2004. It now has a fleet of 48 Apache helicopters: 22 AH-64Ds, the newer model with the Longbow technology, as well as 26 AH-64As, the older model without it. Israel has [made its own upgrades](#) on the older helicopters, after reportedly deciding that the Longbow technology, which was designed to track and target tanks and other military targets on a legitimate battlefield, is not useful in the kind of attacks on civilian areas its forces now conduct in Gaza and elsewhere.

Israel used its Lockheed Martin warplanes and missiles in the Gaza assault of December 27, 2008 to January 18, 2009. During this 3-week assault on Gaza, Israel killed roughly 1,400 Palestinians, including 300 children. Israeli forces bombed a UN refugee compound, hospitals, vital food production and storage facilities, schools, and civilian homes. In an extensive investigation, Amnesty International found that Israeli forces failed to distinguish between civilians and combatants and in some cases deliberately targeted civilians and civilian infrastructure.

Israel also used a tactic called “roof knocking,” in which a non-explosive “teaser missile” was dropped onto a roof to scare inhabitants into leaving their homes. Moments later they would bomb the building, usually with a Lockheed F-16 fighter.

[A UN fact-finding mission](#) found that Israeli forces launched many attacks on civilians and civilian infrastructure, and that these “were the result of deliberate policy and planning decisions.” The UN mission called on Israel to hold those responsible criminally accountable for war crimes, and on other nations to exercise universal jurisdiction to hold them accountable if Israel failed to do so.

Israel also used Lockheed Martin weapons extensively in the 2014 Gaza War. This was a 50-day Israeli assault that killed about 2,300 Palestinians, of whom at least 70% were civilians and over 500 were children. Airstrikes hit schools, medical facilities, water and sanitation networks, farms, businesses, and people’s homes. They left 100,000 people homeless and destroyed much of Gaza’s critical civilian infrastructure.

[A study by Defense for Children International](#) determined that Israeli airstrikes killed at least 225 children inside their own homes or in other houses where they went for shelter, as they ate meals with their families, played or slept.

An independent [medical fact-finding mission](#) organized by the Israeli branch of Physicians for Human Rights interviewed 68 hospitalized patients wounded during the 2014 Gaza War and documented numerous incidents in which F-16 warplanes dropped bombs or missiles on civilian homes when it was known families would be gathering for meals or other daily activities, often killing or injuring entire families. The report also documented the bombing of a hospital and a medical clinic, and a pattern of secondary attacks to kill medical staff, rescuers and fleeing residents after initial attacks.

In April 2014, shortly before the 2014 Gaza War, Lockheed Martin [opened a new office](#) in Be'er Sheva in the Negev desert region, managed by a retired Israeli fighter pilot and air force general. Lockheed CEO Marillyn Hewson opened the office in person, saying that it demonstrated the company's support for the Israeli military and for Israel's plan to establish Be'er Sheva as a new technology hub.

Israel is a major partner in Lockheed's F-35 Lightning II Joint Strike Fighter program, a legacy of the Cold War that has been in development since 1992, but which has survived a transformed military environment, endless technical flaws and ever-exploding cost overruns to become the most expensive weapons program in history.

Lockheed's partners on the F-35 include the Israeli Elbit Systems, Israel Aerospace Industries, and Elbit's subsidiaries, Cyclone and Tadiran. Lockheed Martin has spent over \$1 billion on parts and services from these Israeli subcontractors since 2010.

On May 4, 2017, Lockheed's Vice President for customer requirements said Israeli content in the F-35 program can be expected to [exceed \\$4 billion](#) over the project's lifetime. Israel was the first country outside the US to receive the new F-35, and it is set to receive six to seven F-35s per year until its order for 50 planes is complete.

Dealings with Egypt

Lockheed Martin has supplied Egypt with 218 F-16 fighter jets, its main combat aircraft, as well as precision targeting systems, munitions, and surveillance and reconnaissance equipment. In 2009, the US State Department approved [an arms deal with Egypt](#) worth an estimated \$3.2 billion, with Lockheed Martin as the prime contractor. The sale included 24 new F-16C/D fighters, spare parts, cannons, targeting systems, fuel tanks, and more.

Lockheed also supplies munitions to Egypt, including a \$57 million sale of [356 AGM-114L/R3 Hellfire II missiles](#) in April 2015. U.S. weapons sales to Egypt were suspended in October 2013 after the military coup by General al-Sisi, who then became Egypt's president. The weapons ban was lifted by the Obama administration on March 31, 2015, shortly after Egypt announced it

would join the Saudi-led coalition against the Houthi government in Yemen. It was unclear if the new Hellfire missile sale was directly related to Egypt's role in Yemen, but Saudi news outlets quoted US Deputy Secretary of State Antony Blinken [saying](#) the US would speed up weapons deliveries to countries involved in the war in Yemen.

Lockheed Martin has also supplied Egypt with [M26 MLRS rockets](#), fragments of which were found at the site of rocket strikes that killed civilians in Yemen. In November 2001, Lockheed Martin was awarded a \$36 million contract to produce [485 extended range MLRS rockets](#) for Egypt. Each M26 rocket contains 646 M77 submunitions, designed to explode over a large area and spray shrapnel in all directions.

Unexploded submunitions can keep killing and maiming unsuspecting civilians for many years. The U.S. military has claimed “dud” rates of 16% for the M77 submunitions in its M26 rockets, but [a study by the U.S. General Accounting Office reported](#) actual rates as high as 23%, or 148 unexploded, still deadly submunitions from each M26 rocket.

Remnants of Lockheed M26 rockets were found at the site of two rocket strikes in northwestern Yemen that killed at least 13 people, including three children, and injured 25 people, including three people wounded later by previously unexploded submunitions.

Egypt has not confirmed that it fired these M26 rockets, but Egypt, Bahrain and the UAE are the only coalition members that have bought these cluster munitions. Regardless of which country used these cluster munitions to kill and injure civilians in Yemen, there is no doubt about who manufactured them: [Lockheed Martin](#).

The human rights situation and the rule of law in Egypt have deteriorated since the military coup in 2013. The post-coup government [massacred 1,000-2,600 protesters](#) in Rabaa Square in Cairo in August 2013, and has violently suppressed all civil unrest, demonstrations and political dissent. Some 40,000 Egyptians have been detained, including human rights defenders, journalists and protesters, sentencing many to death or to long prison terms. The Egyptian military is also engaged in a vicious conflict in the northern Sinai against an Islamic State affiliate that calls itself Sinai Province. In this conflict, the Egyptian government has committed arbitrary arrests, extrajudicial killings, enforced disappearances and torture.

On April 26, 2016, a [US Government Accountability Office \(GAO\) report](#) found that the US Departments of State and Defense do not have an adequately functioning system in place to perform proper human rights vetting or monitor the use of US military equipment purchased by Egypt. In spite of the abysmal state of human rights in Egypt, Lockheed Martin remains a major supplier for the Egyptian military, and is currently in negotiations with Egypt to [upgrade its 30 F-16/ B Block-15 fighter jets](#).

Boeing

Company Profile

According to the Stockholm International Peace Research Institute (SIPRI), Boeing was the [second largest arms producer](#) in the world in 2015 and 2016. Boeing designs, manufactures, sells and provides services in the commercial air, aerospace, and defense industries, with arms sales comprising 31% of the company's total sales in 2016. The company had \$29.5 billion in arms sales in 2016, out of total sales of \$94.6 billion. In 2015 Boeing was the [90th largest economic entity](#) in the world.

Boeing is headquartered in Chicago, Illinois. The company employs over 140,000 people worldwide, and operates in over 150 countries. Boeing's annual reports do not provide a breakdown between U.S. and foreign sales, but its 2017 annual report notes that 40% of the order backlog in its Defense, Space and Security division is from foreign sales.

Dealings With Saudi Arabia

Boeing has a longstanding military partnership with Saudi Arabia and is deeply embedded in its military operations. While Lockheed Martin is the biggest winner from the \$110 billion arms deals signed by the U.S. and Saudi Arabia in May 2017, Boeing received [a \\$6.25 billion contract](#) to maintain Saudi Arabia's 150 F-15 fighters, which make up more than half its fighter aircraft. As well as F-15s, Saudi Arabia has 22 Boeing Apache AH-64 attack helicopters, with another 29 more on order, and 48 Boeing Chinook military transport helicopters.

Boeing began selling aircraft to Saudi Arabia in the 1980s under the Reagan and Bush Senior administrations. In January 2012, the U.S. and Saudi Arabia finalized negotiations on what was, at the time, [the largest foreign arms sale](#) in U.S. history, now eclipsed by the \$110 billion arms sale in 2017. The 2012 deal included the sale of 84 new F-15 jets, upgrades to 70 older ones and accompanying weapons systems worth \$29.5 billion.

On March 15, 2017 the US Department of Defense announced Boeing had won a [\\$3.28 billion contract](#) to sell Saudi Arabia more Apache helicopters. On the very next day, [a helicopter attacked](#) a boat filled with Somali refugees and migrants fleeing the violence in Yemen, leaving 32 dead, 27 injured, and 10 missing. Calling the attack a "likely war crime," Human Rights Watch observed that, "Reckless disregard for the lives of civilians has reached a new level of depravity." No member of the Saudi coalition accepted responsibility for this atrocity, but its members (including the U.S.) are the only countries with military helicopters in that area.

Two months later, as Saudi Arabia failed to take the smallest step toward ending its war crimes in Yemen, President Trump visited the country to sign an even larger \$110 billion weapons deal with America's repressive, absolute monarchist ally, although many of the weapons sales from that deal had already been negotiated by the Obama administration.

In addition to the F-15 contract, [Boeing plans to sell Saudi Arabia](#) 48 new Chinook helicopters worth \$3.5 billion, guided missiles, P-8 surveillance aircraft, and 16 widebody civilian airliners. Boeing has also formed a joint venture with the Saudis to provide maintenance services for much of their military equipment, and a separate partnership with Alsalam Aerospace Industries and Saudi Aerospace Engineering industries to service Saudi military and commercial helicopters in a new jointly-owned facility.

On May 23, 2017, Boeing announced [the completion of major upgrades](#) to Saudi Arabia's five E-3A Airborne Warning and Control System (AWACS) aircraft, which it originally supplied between June 1986 and September 1987. The new Radar System Improvement Program (RSIP) improves and expands the range of the planes' tracking and targeting, and was a collaboration between Boeing and Northrop Grumman.

Boeing also produces GPS-based [Joint Direct Attack Munition \(JDAM\) systems](#) that are attached to the tail sections of conventional bombs to convert them to precision-guided "smart weapons." Saudi Arabia purchased [900 JDAM precision-guided bomb kits](#) for \$123 million in 2008. In December 2015, Boeing received [a new \\$358 million contract](#) to supply JDAM systems for the US and foreign governments, including Saudi Arabia.

On March 15, 2016, [several U.S.-made bombs](#) killed 107 civilians, including 25 children, in a crowded market in the village of Mastaba, near the Yemeni capital Sana'a. Fragments of a GBU-31 bomb, an MK-84 2,000-pound bomb with a Boeing JDAM guidance kit attached, were found in the debris.

A Saudi military spokesperson admitted that the coalition's military planners knew the location was a marketplace where the likelihood of civilian casualties was high, but claimed the strike was justified because it also killed 10 Houthi soldiers. Human Rights Watch concluded that the attack caused indiscriminate and foreseeably disproportionate civilian deaths, in violation of the laws of war, and called for a suspension of all arms sales to Saudi Arabia.

Boeing is supplying, arming and servicing Saudi Arabia's warplanes as they conduct unlawful airstrikes that are devastating Yemen, and killing and maiming thousands of civilians. The UN has identified airstrikes as the "single largest cause of civilian casualties" throughout the war in

Yemen. Boeing-made Saudi F-15s conduct most of these airstrikes, making the company complicit in the killing of thousands of innocent people.

A 2016 survey of 8,600 air attacks between March 2015 and August 2016 conducted by the [Yemen Data Project](#) found that one in three Saudi air raids in Yemen hit civilian sites. Data collected by the group documented repeat attacks on many civilian targets, including a school that was hit nine times and a market that was struck 24 times.

[This pattern of attacks on civilians](#) and civilian targets is a flagrant and systematic violation of the laws of war, as Amnesty International and other human rights groups have documented since the very beginning of the war.

Dealings with Israel

Boeing serves as a major supplier of military aircraft, munitions and weapons to the Israeli government. Boeing has provided Israel with two of its main combat aircraft, its 48 AH-64 Apache helicopters and 81 F-15 Eagle fighters (second in number to its 224 F-16s). Israel has used aircraft and munitions produced by Boeing in all its invasions, occupations and bombardments of Lebanon and Palestine.

“[The Apache is not just equipment.](#) For Palestinians it’s a symbol of indiscriminate military violence. From a young age, every Palestinian child learns to distinguish the Apache’s sound and associate it with assassinations, destruction, and blood in the street.”—Shawan Jabarin, Director of the Palestinian human rights group al-Haq.

Israel used Apache helicopters extensively in its 2006 invasion of Lebanon, which left [about 2,000 people dead](#), including at least 1,100 Lebanese civilians, and displaced over 1 million people. [An extensive report](#) by Human Rights Watch found that Israeli forces systematically failed to distinguish legitimate military targets from civilians, as required by the laws of war. Over 60% of the civilian casualties identified by HRW were women and children. Israel conducted about 7,000 airstrikes in Lebanon, and shelled it with artillery and naval guns.

Boeing’s Apache helicopters have also played a major role in Israel’s illegal military operations against Palestinian civilians and civilian infrastructure over the past decade, including the Gaza Massacre of 2008-9. In that operation, Israel killed 1,400 Palestinians, including 300 children, using airstrikes, naval gunfire and ground forces.

Israeli forces used Apache helicopters and Hellfire missiles to attack a United Nations relief agency office and warehouse, hospitals, vital food production and storage facilities, schools, and civilian homes.

[A UN fact-finding mission](#) found that Israeli forces launched many attacks on civilians and civilian infrastructure, and that these “were the result of deliberate policy and planning decisions.” The UN mission called on Israel to hold those responsible criminally accountable for their war crimes, and called on other nations to exercise universal jurisdiction to hold them accountable if Israel failed to do so.

Boeing also makes a [Small Diameter Bomb \(SDB\)](#), a precision-guided glide bomb that can carry tungsten-based DIME (Dense Inert Metal Explosive) munitions. Israel bought 1,000 of Boeing’s GBU-39 Small Diameter Bombs in September 2008 and [received its first shipments](#) before its attacked Gaza. Though Israel denied using DIME munitions, both foreign and Palestinian doctors treating victims in Gaza reported treating wounds compatible with the [impact of DIME munitions](#).

Israel also used Boeing warplanes and munitions in its 2014 Gaza War. From July 8, 2014 to August 26, 2014, [Israeli forces killed 1,523 civilians](#), including 519 children, out of a total of 2,192 Palestinians killed. Another 108,000 people were left homeless by Israel’s mass destruction of residential areas. During the 50-day siege Israel carried out [more than 6,000 airstrikes](#) in Gaza. Israeli warplanes, drones, and helicopters targeted vehicles, ambulances, and civilians in the streets, as well as homes, shelters, hospitals, and critical civilian infrastructure.

Israeli forces used precision-guided weapons in these attacks, and would specifically target residential areas in the evening or at dawn when families were gathered for iftar and suhoor, the Ramadan meals, or at night, when families were sleeping. There were [additional reports from doctors](#) during the 2014 conflict that civilians displayed wounds consistent with those caused by DIME munitions.

The [UN Independent Commission of Inquiry](#) found that many of the attacks that killed and wounded civilians were *prima facie* war crimes because they lacked any military justification or resulted in excessive loss of civilian life. And yet, only three months after the 2014 Gaza War, Boeing signed an \$82 million contract [to resupply Israel](#) with JDAM bomb guidance systems.

One of the most brutal phases of the 2014 Gaza War was the four-day siege of Rafah, the southernmost city in Gaza. The siege began on August 1, 2014, known as Black Friday, after a confrontation between a small group of Israeli soldiers and Hamas fighters left two Israeli soldiers and one Palestinian fighter dead. Palestinian forces captured an Israeli soldier, whom they reportedly held inside a tunnel. This became the pretext for the Black Friday assault.

Israel unleashed a brutal bombing campaign under the Hannibal Directive, a policy under which Israel responds to the capture of Israeli soldiers with massive firepower and collective

punishment, regardless of the harm to civilians or the danger to the captured soldier. In this case, Israel fired thousands of bombs, missiles, and shells into Rafah, targeting even hospitals and medical teams.

Black Friday came on the heels of a public announcement of a 72-hour ceasefire, so that thousands of Palestinians who had sought refuge in shelters or elsewhere had begun to return to their homes in Rafah, believing there would be a break in the violence.

Remnants of two Boeing GBU-31 bombs, MK-84 bombs with JDAM technology, were found at the scene of [the deadliest attack](#), in the eastern neighborhood of al-Tannur. The two bombs hit an empty building, but 18 people were killed out in the street fleeing the barrage. One victim was a 55-day-old baby.

[A joint investigation](#) into Black Friday by Amnesty International and Forensic Architecture found compelling evidence showing “that some attacks that killed civilians and destroyed homes and property were intentionally carried out and motivated by a desire for revenge - to teach a lesson to, or punish, the population of Rafah for the capture of Lieutenant Goldin.” The investigation found that Israeli authorities failed to take adequate precautions to prevent civilian casualties or excessive damage to civilian structures, and that these indiscriminate and disproportionate attacks amounted to war crimes.

In May 2015, Israel placed [orders for new weapons](#) worth \$1.9 billion from the U.S. The Defense Security Cooperation Agency announced the requested sale on May 19, 2015, and Congress immediately approved it. The sale included orders from Boeing for 14,500 JDAM tail kits to fit General Dynamics’ conventional bombs, as well as 4,100 GBU-39 Small Diameter Bombs. The U.S. announcement completely failed to mention that the sale was to replenish Israel’s weapons stocks after Israeli forces expended an estimated 100 tons of munitions on Gaza during the 2014 Gaza War.

The Israeli air force also uses nine [Boeing B707-300 tankers](#) for in-air refueling, and Boeing has partnerships with the Israeli arms industry to develop drones and other new weapons.

These include a joint venture with Israel Aerospace Industries to develop the Arrow anti-ballistic missile system. Since 1998, the two companies have worked together to develop surveillance and satellite communication systems and to upgrade Israeli and American warplanes. Boeing also has an extensive partnership with Israeli defense industry giant Elbit Systems, one of Israel’s leading drone makers and exporters, under which Boeing markets Elbit’s [Hermes 450 and 900 drones](#) in the United States.

Boeing is also helping Israel to develop a complex system of radars called [David's Sling](#). This is a missile defense system designed to respond to simultaneous attacks from different types of missiles by prioritizing which missiles to target as it tracks their trajectories. Like David in the Bible, many Palestinians have only slingshots to defend themselves from advanced U.S. and Israeli weapons, so perhaps a more fitting name for this system would be “Goliath’s Shield.”

Dealings with Egypt

Boeing has long supplied Egypt with weapons and military and commercial aircraft. Between 1984 and 2011, Boeing delivered 201 Harpoon anti-ship missiles to Egypt for its air and naval forces. Boeing also sold Egypt Avenger missile launchers, with associated equipment, parts and services, between 2000 and 2004.

Boeing also supplies the Egyptian Air Force with Apache AH-64 attack helicopters. Egypt received its early model AH-64A Apaches in the mid-1990s, and granted Boeing a contract to upgrade them to AH-64Ds in 2000. These remanufactured AH-64D Apaches are equipped with Longbow radar technology and Longbow Hellfire missiles to enhance their targeting and destructive power.

In 2009, Egypt awarded Boeing a contract for [CH-47 Chinook military transport helicopters](#), with associated ground equipment and logistics support, for an estimated \$308 million. In May 2009, the U.S. Defense Security Cooperation Agency announced the proposed sale of [12 new AH-64D Apache helicopters](#) (with Longbow technology) for \$820 million, including associated equipment, parts, training, and support. Congress did not block the sale, and Boeing reported that Egypt received the new AH-64D Apaches in 2010, shortly before the Arab Spring revolution in 2011.

[Boeing has continued](#) to supply and strengthen Egypt’s military forces, despite their appalling human rights record over the past decade. Since the Arab Spring uprising overthrew the corrupt and repressive Mubarak regime in 2011, new governments continue to suppress freedom of assembly and to prosecute and jail political opponents, human rights activists and journalists.

In August 2013, soon after the July military coup by General al-Sisi, the military government massacred 1,000-2,600 people in Rabaa Square in Cairo, in the most deadly and deliberate assault on peaceful protesters anywhere since China’s massacre in Tiananmen Square in 1989. In addition, some 22,000 people were arrested for political crimes. Detainees report increasing use of torture and incommunicado detention, as well as unfair trials resulting in death penalty convictions. The government is violently suppressing freedom of association by banning opposition organizations and political parties.

Raytheon

Company Profile

Raytheon was the [third largest arms producer](#) in the world in 2016. The company made \$22.9 billion in arms sales in 2016, with arms sales comprising 95% of the company's total sales of \$24.1 billion. Raytheon's main businesses are weapons and military electronics. The company, which is headquartered in Waltham, Massachusetts, employs 63,000 people worldwide and sells products and services to customers in 80 nations.

The introduction to Raytheon's 2017 Annual Report trumpets the company's ever-increasing foreign arms sales, and highlights its new wholly-owned subsidiaries in Saudi Arabia and the United Arab Emirates. Raytheon's foreign sales grew by 6.2% in 2017 to a record \$8 billion, or 32% of total sales, continuing an unbroken record of increasing its export sales year-over-year for the past 14 years.

Dealings with Saudi Arabia

[Raytheon is a major arms supplier](#) to Saudi Arabia, delivering weapons worth \$2.5 billion to Saudi Arabia between 2009 and 2015. Raytheon weapons play a major role in the Saudi-led war on Yemen, which has inflicted tens of thousands of civilian casualties and unleashed a humanitarian disaster.

Saudi and allied airstrikes have struck schools, a UNESCO world heritage site, markets, medical clinics and residential areas where no military targets were present. Raytheon weapons have not only been used throughout the war, but Saudi stocks have been replenished well after the start of the conflict, even after the UN, Human Rights Watch and others had documented the lawlessness and brutality with which Saudi Arabia was using them.

Fragments of Raytheon weapons have repeatedly been found at the sites of unlawful airstrikes by the Saudi-led coalition. Fragments of a Raytheon [laser-guided Paveway III bomb](#) were found among the debris after an October 26th 2015 attack that destroyed two homes and injured a woman and her 3-year-old son in Thabwa, a southern suburb of Sanaa. The attack was apparently aiming for the nearby home of a former military commander where Houthi personnel were reported to be present.

Paveway IV bombs produced by Raytheon in the UK were used in a series of coalition [airstrikes on food warehouses](#). One of the warehouses contained rice, sugar, canned tuna, canned tomato

paste and other food supplies. Human Rights Watch called the attack unlawful, as there was no evidence the warehouses were being used for any military purpose.

On March 15, 2016, an [airstrike](#) hit a crowded market in the village of Mastaba in Sanaa, killing 107 civilians, including 35 children. Among the debris were the remnants of an MK-84 bomb with a Paveway laser guidance kit. Raytheon manufactures Paveway kits to [upgrade conventional bombs](#) with laser and GPS guidance.

Remnants of two Raytheon GBU-12 Paveway II laser-guided bombs were found at the site of a September 10, 2016 attack in Arhab near Sana'a that struck a well drilling site. The markings on one bomb showed that it was made by Raytheon in October 2015, well after the war began. The drill at the site was paid for by members of the local community, and the attack occurred on the very day when it had finally struck water.

In July 2015, the US government finalized [arms deals with Saudi Arabia](#) worth \$5.4 billion, including a contract with Raytheon for up to 600 Patriot missiles and associated equipment, parts and logistical support.

In December 2016, the Obama administration blocked a \$390 million sale of Raytheon weapons to Saudi Arabia in response to the Saudi bombing of a Yemeni funeral in October that killed 155 people. But [Raytheon's dealings with Saudi Arabia](#) are expanding under the Trump administration, including a Raytheon Arabia business unit to develop the company's lucrative Saudi market after new US-Saudi arms deals. These include enhancements to Saudi Arabia's Patriot missile system, and [the whole package](#) comes to \$6.65 billion, including 50,000 GBU-12 bombs worth \$1.67 billion and 9,000 GBU-10 bombs worth \$370 million.

Dealings with Israel

Raytheon has extensive ties with Israel, and is a leading supplier of missile systems and munitions for Israeli forces. Raytheon weapons and technology have played a vital role in Israeli military operations in Lebanon and Gaza that have killed thousands of civilians and devastated critical civilian infrastructure, including the destruction of civilian homes that have left hundreds of thousands of people homeless.

The United Nations and prominent human rights groups, such as Human Rights Watch and Amnesty International, have documented that attacks by Israeli forces in both Lebanon and Gaza have systematically targeted civilians. They have found that many Israeli military operations lack military justification or are disproportionate and indiscriminate, and therefore constitute war crimes and illegal collective punishment.

Raytheon manufactures the U.S. “bunker buster” GBU- 28, a 5,000-pound bomb designed to penetrate hardened targets or targets deep underground. Israel has used Raytheon’s GBU-28 bombs in many attacks that the international human rights community has condemned as unlawful.

The United Nations Commission of Inquiry on the 2006 Israeli invasion of Lebanon reported finding [substantial evidence](#) that Israel used GBU-28 munitions during its 33-day invasion, which left 1,900 people dead, 4,409 injured, and caused over 900,000 people to flee their homes. Some victims reported feeling the ground swell and then drop from underneath them, effects consistent with the impact of a “bunker buster” bomb.

The Commission found that Israel used these and other bombs to attack civilians and civilian objects, and that, throughout the conflict in Lebanon, Israel failed in its obligation to distinguish civilians from combatants and civilian objects from military targets.

Raytheon has also provided the Israeli Air Force with electronic systems and radars for its fleet of F-15 and F-16 aircraft. In April 2001 [Raytheon won two contracts](#) worth a total of \$60.5 million to provide electronics for the Israeli Air Force’s new F-16I warplanes. One contract was for infrared sensors to warn of incoming missiles, and the second was for high powered radio frequency amplifiers.

Israel’s F-16s were its primary weapon in [the bombing of Gaza](#) from December 27, 2008 to January 1, 2009. Israeli forces killed 1,400 Palestinians, including 300 children, and left thousands homeless by destroying huge swaths of Gaza. Israel used F-16 aircraft equipped with Raytheon technology to bomb schools, playgrounds, hospitals, and thousands of people’s homes.

Amnesty International’s researchers in Gaza found several [fragments of Raytheon weapons](#), including remnants of a 500 lb MK-82 fin-guided bomb with Raytheon markings. Researchers also found fragments of US-made white phosphorus artillery shells, prompting Amnesty to call for [the suspension of US arms sales](#) to Israel. Amnesty International determined that these brazen attacks on civilians and civilian areas violated international humanitarian law, constituted collective punishment, and were indiscriminate and disproportionate.

The [United Nations Fact-Finding Mission](#) on the Gaza Conflict agreed that the Israeli war on Gaza in 2008-9 included violations of international human rights and humanitarian law, war crimes and crimes against humanity. But Raytheon’s business with Israel continued uninterrupted.

In 2011, President Obama delivered 55 Raytheon “bunker-buster,” GBU-28 Hard Target Penetrator bombs to Israel, a sale that the Bush administration had approved but then postponed, based on warnings that Israel might use them to start a war with Iran.

Raytheon products were also integral to Israel’s 2014 Gaza War, a deadly 50-day military offensive from July 8, 2014 to August 26, 2014. Israeli airstrikes devastated Palestinian communities and killed entire families, leaving 2,300 Palestinians dead, including over 1,500 civilians and 500 children, and 108,000 people homeless. Israel [reportedly used its GBU-28 bombs, Raytheon’s laser-guided Paveway II bombs](#) and other U.S.-made munitions to devastate large parts of Gaza, including in attacks on hospitals, schools and even UN facilities. Once again, the UN and human rights groups found that systematic Israeli attacks on civilians and civilian targets amounted to war crimes.

In October 2014, shortly after the end of Operation Protective Edge, Raytheon won a \$149.3 million contract to [supply Israel with Tamir missiles](#), the projectiles used in Israel’s Iron Dome missile defense system. Raytheon also collaborates with the Israeli weapons company Rafael Advanced Defense Systems to produce the Stunner Missile Interceptor, a key part of Israel’s David’s Sling missile defense system. Raytheon received [two contracts from Rafael](#) for work on David’s Sling worth \$100 million in October 2009, and [another contract worth \\$30.2 million](#) in January 2012.

More recently, Raytheon won a \$23 million contract for its [Patriot Field Surveillance](#) program from Israel, Qatar, Kuwait, Japan, Korea, Republic of Taiwan, United Arab Emirates, Luxembourg, and Saudi Arabia. The contract covers missile assessments, testing, recertification, and repairs. In addition, on May 16, 2017, Raytheon was awarded a contract worth nearly \$12 million for [engineering services](#) for Israel’s Patriot weapon system.

Dealings with Egypt

Between July 2013 and August 2015, the Egyptian military carried out [mass home demolitions](#), razed hundreds of hectares of farmland, and forcibly evicted about 3,200 families from their homes in the Sinai Peninsula, on the pretext of eliminating tunnels between Sinai and Gaza. In violation of numerous international human rights laws, the Egyptian government gave little to no warning of evictions, offered no temporary housing, provided wholly inadequate compensation, and offered no effective access to justice as it cleared this “buffer zone” along its border with Gaza.

Israel had long been pressuring Egypt to destroy tunnels under the border, which are the only way the people of Gaza can import many vital supplies. As evictions and demolitions began in July 2013, the US Department of Defense awarded Raytheon a \$9.9 million contract to research and develop technology to detect tunnels between Sinai and Gaza. Raytheon calls this their

“Seismic and Acoustic Vibration Imaging program”, which uses lasers to detect vibrations in the ground to reveal the location of tunnels.

On March 30, 2017, Raytheon was awarded a \$26.6 million contract to provide engineering and management services to resolve problems with the [Homing All the Way Killer \(HAWK\)](#) missile system in Japan, Egypt, Spain, Singapore, Bahrain, Turkey, Jordan, and United Arab Emirates. The work is expected to be carried out by September 2022.

Northrop Grumman

Company Profile

As of 2016, Northrop Grumman was [the fifth largest global arms producer](#). Arms sales of \$21.4 billion made up 87% of the company's total sales of \$24.5 billion in 2016. Northrop Grumman primarily manufactures military aircraft, precision missile systems, and military drones. The company is headquartered in West Falls Church, Virginia, and has over 60,000 employees worldwide.

Dealings with Saudi Arabia

Northrop Grumman has a long-running relationship with Saudi Arabia. Through a joint venture with Lockheed Martin, Northrop Grumman co-produces the Longbow system, a weapons equipment package for Apache AH-64D helicopters and Hellfire missiles. In June 2013, the Longbow Group received a \$90.6 million contract to provide Saudi Arabia with [Longbow Fire Control Radars](#) for its Apache helicopters.

The Longbow group upgraded the weapons systems of Saudi Arabia's Apache attack helicopters shortly before it launched its war on Yemen, and it maintains these systems despite repeated reports by the UN and human rights groups that it is using them to commit atrocities. The UN has identified airstrikes by warplanes and helicopters as the [“single largest cause of civilian casualties”](#) in the war.

Then, under a contract with Boeing, Northrop Grumman produced [the Radar System Improvement Program \(RSIP\)](#), an extensive radar upgrade for Saudi Arabia's AWACS planes, which was completed in May 2017. The upgrade went ahead even as the Saudi-led war on Yemen was causing a humanitarian crisis.

Northrop Grumman's subsidiary, [Vinnell Arabia](#), has an exclusive contract to train the Saudi National Guard. Vinnell has trained the National Guard since 1975, and was taken over by Northrop Grumman in 2002. The company received a [new contract worth \\$4 billion](#) in 2013. Since April 2015, the National Guard has been the [main Saudi ground force](#) in Yemen. Northrop Grumman's exclusive role in training the Saudi National Guard makes it uniquely culpable when its trainees commit war crimes in Yemen.

The company also provides security and surveillance services for Aramco, Saudi Arabia's national oil and gas company. In 2009, Aramco signed a \$1 billion contract with Northrop to design and install [a perimeter surveillance system](#) around Aramco facilities.

Dealings with Israel

Northrop Grumman has a close relationship with the Israeli military and profits from the violence of its occupation of Palestine, both as a supplier of weapons and munitions, and in joint ventures with Israeli arms companies.

Boeing's Apache is Israel's primary attack helicopter, and many of Israel's Apaches are equipped with Northrop Grumman's [Longbow missile technology](#), which it produces in a joint venture with Lockheed Martin. This makes them more lethal under low visibility conditions or in poor weather, and allows them to track over 200 targets at once and to automatically lock onto a target before and after a missile is fired.

[Israel bought the AH-64D helicopters](#) with their Longbow technology between 2000 and 2004. It now has a fleet of 48 Apache helicopters: 22 AH-64Ds, the newer model with the Longbow technology, as well as 26 AH-64As, the older model without it. Israel has [made its own upgrades](#) on the older helicopters, after reportedly deciding that the Longbow technology, which was designed to track and target tanks and other military targets on a legitimate battlefield, is not so useful in the illegal attacks on civilian areas its forces conduct in Gaza and elsewhere.

Northrop also provides Israel with radar engineering services and technical support for F-15 and F-16 warplanes, including the [Litening targeting system](#) for their missiles. In 2002, the company signed a 23-year, \$487 million deal to provide the US, Israel, and 15 other countries with F-16 [fire-control radar engineering services](#), replacement parts, and technical support.

In 2008, Northrop Grumman began [a formal partnership](#) with state-owned Israeli Aerospace Industry to outfit Israeli combat aircraft with radar and missile-firing systems, and to develop low-cost surveillance satellites. Northrop Grumman also has a long partnership with Elbit Systems, one of Israel's largest defense companies, to make [drones and surveillance technology](#) to monitor the Israeli separation wall in the occupied West Bank, and to develop radar systems for military transport planes to operate in low visibility conditions.

Israeli warplanes and Apache helicopters have used Northrop technology in illegal Israeli military operations that have killed and maimed thousands of innocent civilians and left many more homeless and displaced. Israeli forces used Apache helicopters extensively in their [2006 invasion of Lebanon](#), which killed 1,900 people, mostly civilians, and displaced over one million people.

Though Israel claimed to be fighting only Hezbollah, Israeli forces systematically failed to distinguish military forces from civilians, conducted air and artillery attacks that lacked military justification, and killed large numbers of civilians. Human Rights Watch and other NGOs found that Israel's systematic attacks on civilian targets violated international humanitarian law and amounted to war crimes.

During its invasion of Lebanon, Israel launched about 7,000 bomb and missile strikes as well as artillery and naval attacks, destroying many homes and even entire communities. Apache helicopters with Northrop's Longbow technology were used in many of these attacks.

Northrop weapons and military technology have also been used in unlawful killings of thousands of Palestinians. Israel has used Apache Longbow helicopters and F-16 warplanes with Longbow Hellfire missiles in its attacks on Gaza. Apache helicopters and F-16 warplanes were the main weapons it used in its [3-week massacre in Gaza](#) between December 27, 2008 and January 18, 2009.

F-16 warplanes and Apache helicopters, many equipped with Northrop technology, repeatedly struck civilian targets with no relation to military personnel or facilities. Amnesty International and other rights groups pointed out that the killing of so many children and other civilians with such precise weapons, whose radar-guided technology enables operators to see minute details in difficult conditions, revealed reckless disregard for civilian life and a deliberate failure to distinguish between military targets and civilians.

Among fragments of air-launched munitions found strewn across bombed out schoolyards, streets, medical facilities, and homes were remains of Hellfire missiles fired from F-16 jets and Apache helicopters using Northrop's radar systems. Northrop Grumman weapons and radar systems were systematically used in this atrocity that killed over 1,400 Palestinians, including 300 children, injured over 5,000, and destroyed the homes and property of countless families.

Northrop Grumman spun off its shipbuilding operations to form a separate company, Huntington Ingalls, in 2011, but in the 1990s it sold the Israeli navy its largest warships, three Sa'ar 5 corvettes, for \$260 million each. These ships play a critical role in Israel's blockade of the Gaza strip.

Since 2007, Israel's navy has blockaded the Gaza strip, strictly limiting and controlling the movement of people and goods into and out of Gaza. On May 31, 2010, a flotilla of ships carrying humanitarian activists taking goods to Palestine to break the blockade was [attacked by Israeli naval forces](#), who killed nine civilian activists and left many more wounded. Israel's Northrop Sa'ar 5 corvettes played a major role in this incident.

When Israeli soldiers were unable to board the activists' ships from zodiac boats, they used Apache helicopters to get close enough to throw down ropes and board their top decks. Israeli forces fired paintballs, plastic bullets and live ammunition. The activists were unarmed, but in some cases tried to disarm the Israeli soldiers and throw their weapons into the sea.

Israel also used Northrop Grumman's warships, weapons and military technology in its [2014 Gaza War](#). During a 50-day period from July 8 to August 26, Israeli air and artillery strikes and ground forces killed 2,300 Palestinians, including 1,500 civilians and 500 children. They destroyed or damaged so many homes that they left 108,000 people homeless.

Northrop Grumman builds the center fuselage and other parts for the new F-35 Joint Strike Fighter, which [Israel is buying](#) under a \$2.75 billion dollar agreement signed in October 2010. According to Northrop Grumman, the company "[plays a key role](#) in the development and production of the F-35 weapons system. In addition to producing the jet's center fuselage, the company produces key F-35 radar, electro-optical, avionics and communications subsystems. It also develops missions systems and mission-planning software; develops and maintains pilot and maintainer training systems courseware; and manages the team's use, support, and maintenance of low-observable technologies."

Dealings with Egypt

Northrop Grumman has produced radar technology for Egypt's F-16 warplanes, and serviced and updated other Egyptian warplanes. In 1999, Northrop Grumman signed a \$138 million contract to [upgrade Egypt's five E-2C Hawkeyes](#), its carrier-based airborne early warning and command and control aircraft. In June 2001, Egypt added the modification and upgrade of a sixth Egyptian E-2C, bringing the amount of the contract between Northrop Grumman and Egypt to \$163 million.

In September 2015, Northrop Grumman was awarded a \$10.4 million contract to provide various hardware components for the [V9 fire control radar](#) for the F-16 fleets of Iraq, Egypt, Oman, and Morocco.

As part of its conflict in North Sinai with an Islamic State affiliate that calls itself Sinai Province, the Egyptian government has committed a pattern of arbitrary arrests, extrajudicial killings, enforced disappearances, and torture since 2013. This campaign has coincided with a violent suppression of journalism and civil society throughout Egypt.

In an April 2016 report, the [US Government Accountability Office \(GAO\)](#) found that the US Department of State and Defense did not have an adequately functioning system in place to

perform proper human rights vetting or monitor the use of US military equipment purchased by Egypt. Nevertheless, companies such as Northrop Grumman continue to engage in unrestrained weapons sales to the Egyptian government, with little to no regard for its human rights abuses.

Additional Human Rights Concerns

Northrop Grumman is one of several companies seeking to develop fully autonomous weapons. The U.S. Navy commissioned [Northrop Grumman's X-47B](#), a drone that can take-off, land, and fly by itself, which the navy intends to eventually use in combat. Human Rights Watch and Harvard Law School's International Human Rights Clinic believe such weapons would not be consistent with international humanitarian law and would increase the risk of death or injury to civilians during armed conflicts. There is therefore an international campaign to ban the kinds of autonomous weapons that Northrop Grumman is trying to develop.

General Dynamics

Company Profile

As of 2016, General Dynamics was [the sixth largest arms producer](#) in the world. The company earned [\\$19.6 billion in arms sales in 2017](#), which is 63% of its total revenues of \$31 billion. The company employs almost 100,000 people worldwide and has offices in 46 countries. It is headquartered in West Falls Church, Virginia.

General Dynamics operates in four divisions: Information Systems and Technology; Marine Systems; Combat Systems; and Aerospace.

In 2017, the Information Systems and Technology division earned \$8.9 billion. It sold complete IT systems to the U.S. Defense Logistics Agency and NATO, and other IT services to the US military, intelligence agencies and DHS. In 2018 General Dynamics acquired IT services giant CSRA, making it the largest IT contractor to the U.S. government.

The company's Marine Systems earned \$8 billion, including \$5.2 billion in sales of nuclear submarines, thanks to Obama's decision to expand production of Virginia-class submarines from one per year to two per year, and over \$2 billion for other warship sales and services to the U.S. Navy.

Its Combat Systems division earned \$5.9 billion, including \$3.7 billion for tanks and armored vehicles and \$1.6 billion for weapons and munitions. These include many types of small arms and a "[munitions portfolio](#)" that "covers the full breadth of naval, air and ground forces applications across all calibers and weapons platforms for the U.S. government and its allies."

The Aerospace section earned \$8.1 billion, mostly from selling and servicing Gulfstream airplanes, General Dynamics' only major civilian product line.

Dealings with Saudi Arabia

General Dynamics has been a major supplier of armored vehicles and bombs to Saudi Arabia, both before and during the Saudi-led war on Yemen. During the 1990s and 2000s, the Canadian division sold hundreds of light armored vehicles (LAVs) to the Saudi National Guard. The primary role of the Saudi National Guard is to ensure the continued dominance of the Saudi royal family. In 2011, those [tanks were used](#) to crush the democratic uprising in neighboring Bahrain.

Saudi Arabia has purchased [442 General Dynamics M1 Abrams tanks](#), some of which it has used in combat on the Saudi-Yemeni border. It ordered another 153 M1's in 2016, and General Dynamics is upgrading all Saudi Arabia's M1 tanks to its latest model, the M1A2S. The 2016 Abrams tank sale included 20 of General Dynamics' M88A I/A2 Heavy Equipment Recovery Combat Utility Lift Evacuation System (HERCULES) Armored Recovery Vehicles to recover damaged tanks.

In 2011, the US State Department approved the sale of an array of General Dynamics' ["Stryker" Light Armored Vehicles \(LAV\)](#) to Saudi Arabia for \$263 million. Then, in 2014, General Dynamics won a 14-year contract worth up to \$13 billion for its Canadian division to [supply 982 more of its "Stryker" LAVs](#) to Saudi Arabia.

General Dynamics' announcement of the 2016 LAV sale made no mention of the [ongoing war in Yemen](#). Three years of airstrikes have destroyed most of Yemen's sewage systems and water pumping stations, and airstrikes on hospitals and health facilities have forced 600 health facilities to close, causing the near collapse of the health system.

With this damage to Yemen's civilian infrastructure, [at least 2,300 people have died of cholera](#), out of over a million people infected. By the time General Dynamics' August 2016 LAV sale was negotiated, human rights groups such as [Amnesty International](#) had long condemned unlawful Saudi airstrikes on civilians, and called for the suspension of foreign arms sales to Saudi Arabia.

General Dynamics also produces free-fall conventional bombs of various weights, including the MK-84, a 2,000 pound general purpose bomb, and the 500 pound MK-82. These free-fall bombs are often paired with precision guidance systems like Raytheon and Lockheed's Paveway laser technology or Boeing's Joint Direct Attack Munition (JDAM) kits to increase the chance they will hit and destroy what they are aiming at, whether that is a tank, a school bus or a hospital.

In 2010 Congress was notified of [an arms deal](#) that included the sale of 1,000 MK 82 bombs, 2,000 MK-84 bombs and thousands of accompanying JDAM guidance kits to Saudi Arabia. When this sale was finalized in January 2016, it became the largest arms deal in U.S. history up to that time, worth about \$29.5 billion, and included aircraft, navigation systems, training, equipment, munitions, and more.

Fragments of General Dynamics' MK-84 bombs have been found at the site of many coalition airstrikes in Yemen that human rights groups have identified as causing indiscriminate and foreseeably disproportionate loss of civilian life, and therefore to constitute violations of the laws of war.

MK-84 bomb fragments were found at the site of a March 15, 2016 [attack that killed at least 97 civilians](#), including 25 children. Investigators found remnants of both a GBU-31 bomb, a MK-84 bomb mated with a JDAM satellite guidance kit, and another MK-84 with a Paveway laser guidance kit. These two bombs hit a crowded market in the village of Mastaba in northwestern Yemen. The first bomb landed directly in front of a some shops and a restaurant. The second struck at the entrance to the market, where it killed and wounded people trying to escape or to help the wounded. The attack prompted Human Rights Watch to call for a thorough investigation into these *prima facie* war crimes and for a suspension of weapons sales to coalition countries.

Instead of halting the flow of weapons to the Saudi-led coalition, the US struck new arms deals with Saudi Arabia to replenish its munitions stocks. On August 30, 2016, the U.S. Department of Defense approved [a \\$39.3 million contract](#) for General Dynamics Ordnance and Tactical Systems to deliver another 9,664 MK-84 bomb bodies and related munitions to Saudi Arabia and its allies.

In August 2018, with unflagging U.S. support, Saudi Arabia dropped what was probably a General Dynamics MK-82 500 pound bomb on a school bus in a market in Yemen, killing 40 children, mostly between the ages of 10 and 14, and eleven other people. The UN has called for an independent investigation of this flagrant war crime. The U.S. instead dispatched a general to Riyadh to assist the Saudis in their cover-up of the crime under the guise of investigating it themselves - in the now well-established pattern of similar U.S. investigations of its own war crimes in Iraq and Afghanistan.

No atrocities seem to be horrific or criminal enough to diminish General Dynamics' [ever-growing engagement with Saudi Arabia](#). As part of the \$110 billion package of arms deals between the United States and Saudi Arabia in May 2017, General Dynamics agreed to “localize design, engineering, manufacturing, and support of armored combat vehicles” for the Saudis, although the exact value of that deal remains unclear.

Dealings with Israel

General Dynamics also has an extensive business relationship with Israel, which has used its products and equipment in repeated attacks on Gaza and other parts of Palestine that have killed thousands of civilians, displaced hundreds of thousands of people and caused mass destruction. General Dynamics has long supplied Israel with conventional bombs, including MK-84 2,000-pound bombs and MK-82 500-pound bombs.

In April 2007, Israel bought [3,500 MK-84 2,000 pound bombs](#) for an estimated \$65 million. Then, in December 2012, [General Dynamics was the main contractor](#) in an arms deal worth an estimated \$647 million for the sale of 3,450 MK-84 bombs and 1,725 MK-82 bombs. In 2015 the

US State Department approved [yet another sale to Israel](#) worth \$1.8 billion, including 3,500 MK-82 bombs and over 10,000 JDAM kits for MK-84s.

Israel used many of its General Dynamics bombs in its Gaza War, from June 13 to August 26 2014. The [United Nations Independent Commission of Inquiry](#) on the 2014 Gaza Conflict investigated numerous incidents involving MK-84 bombs. Engineers and weapons designers described the [effects of such powerful bombs](#) on human victims:

“The pressure from the explosion of a device such as the Mark-84 JDAM can rupture lungs, burst sinus cavities and tear off limbs hundreds of feet from the blast site, according to trauma physicians. When it hits, the JDAM generates an 8,500-degree fireball, gouges a 20-foot crater as it displaces 10,000 pounds of dirt and rock and generates enough wind to knock down walls blocks away and hurl metal fragments a mile or more. There is a very great concussive effect. Damage to any human beings in the vicinity would be pretty nasty.”

[As detailed by the UN Commission](#), Israeli forces attacked the Al-Hajj family’s home with one of General Dynamics’ bombs at 2 a.m. on July 10, 2014. The bomb killed all 8 members of the sleeping family, including two children and three women. The bomb appeared to be an MK-82 500-pound bomb fitted with JDAM technology. The blast completely destroyed the Al Hajj home and damaged twenty neighboring homes, injuring 20 other people, including 7 women and 4 children. The home was in a residential area and was not used in any military activity.

The UN Commission observed that the blast radius of even the smaller 500-lb MK bombs make it impossible to isolate military targets in densely populated areas, and concluded that attacks involving such weapons during the Gaza War were systematic violations of the legal prohibition against indiscriminate attacks. It is worth noting that the same observations and conclusions would apply to the U.S. use of these same weapons in urban areas in Iraq, Afghanistan and Syria.

General Dynamics Land Systems is currently working with Israel’s Ministry of Defense to produce major components and kits for [Namer military personnel carriers](#). Much of the production of the Namer vehicles takes place at General Dynamics locations in the US, and final assembly is performed at the Tank Production Office at Israel’s Tel Hashomer military compound. [This \\$310 million contract](#) was signed in May 2015 after GDLS completed a previous Namer vehicle contract worth \$250 million.

General Dynamics has also formed business partnerships with various Israeli defense firms. In May 2009, General Dynamics formed [a joint venture with Elbit Systems](#) named UAS Dynamics LLC to build versions of the Israeli company’s Hermes and Skylark drones for the U.S. military and Department of Homeland Security.

Elbit Systems is one of Israel's largest weapons companies, specializing in military electronics, surveillance systems and drones. Israel's hostile military occupation of the Palestinian territories since 1967 have created the background for the rise of an Israeli military-industrial complex that amounts to another version of the confluence of military and industrial interests that Eisenhower warned Americans against in 1961.

Dealings with Egypt

General Dynamics' business with Egypt includes the manufacture and servicing of Abrams tanks. Since 1992, General Dynamics Land Systems has partnered with Egypt to [coproduce M1A1 Abrams main battle tanks](#). General Dynamics ships tank "production kits" to a factory near Cairo, where the tanks are assembled for the Egyptian army.

In 2011, General Dynamics was awarded its 11th contract in this program, a \$395 million contract to build [another 125 M1A1 tanks](#), bringing the total number of tanks co-produced with Egypt to 1,130.

Production was halted in 2013 after the military coup that overthrew Egypt's first post-Arab Spring government under Mohamed Morsi. Massive popular protests against the coup spread across Egypt's public squares and streets, and in July and August of 2013, the Muslim Brotherhood organized two major sit-ins and many smaller protests across the country to condemn the military coup and demand that Morsi be returned to power.

The police and army [opened fire on protesters](#), killing up to 2,600 people in Rabaa Square and unknown numbers in four other incidents. Human Rights Watch condemned these serious violations of international human rights law and concluded that, due to their widespread, systematic, and deliberate nature, they amounted to crimes against humanity.

Egypt's post-coup military government declared a "war on terror" and designated the Muslim Brotherhood a terrorist group. The government's repression has continued, not least in its campaign in the Sinai peninsula. In response to the rise of an insurgent group that calls itself Sinai Province, Egypt has demolished homes and forcibly evicted thousands of families, on the pretext of destroying smuggling tunnels. Egypt's M1A1 tanks have played a major role in demolitions and ground combat.

Human Rights Watch found that [Egypt's actions in the Sinai peninsula](#) violated human rights laws that are spelled out in United Nations and African conventions to which Egypt is a party, as well as violating the laws of war.

Conclusion

As these five companies rake in hundreds of billions of dollars from arms sales to repressive regimes, their CEOs all rank among the highest paid executives in the United States.

Lockheed Martin's CEO Marillyn Hewson was paid \$20.2 million in 2017, even as the company's weapons killed tens of thousands of civilians in Iraq, Syria, Afghanistan and Yemen. Raytheon's CEO Thomas Kennedy made \$24.8 million, as [millions of people became refugees](#), fleeing the carnage caused by its weapons. Boeing's CEO Dennis A Muilenburg made \$18.5 million, as even the World Bank noted that [90% of the people killed](#) in today's wars are civilians, mostly women and children.

It is a moral outrage that the leaders of these companies and their stockholders continue to amass fortunes from selling products that, when used for their intended purposes, kill, maim and displace millions of people. If U.S. leaders or their Saudi, Israeli and Egyptian allies are ever held criminally accountable for their war crimes, these executives deserve to stand in the dock with them, like German weapons maker [Alfried Krupp](#), who was sentenced to 12 years in prison and stripped of his wealth by the Nuremberg war crimes tribunal. (Like other convicted German war criminals, Krupp was released after three years and his fortune restored on the orders of U.S. High Commissioner [John McCloy](#).)

The current growth in U.S. weapons exports should be no cause for celebration, as it reflects above all the destabilizing effects of U.S. wars and threats of war around the world, the normalization of violence as a way to settle international differences, and the resulting insecurity of people and governments everywhere.

The business model of these companies is one that feeds on war, chaos, political instability, human rights violations, disregard for international law, and the triumph of militarism and brinkmanship over diplomacy. Real diplomacy to bring peace and disarmament to our war-torn, militarized world is in fact the most serious threat to the cynical business model of these merchants of death and destruction.

It is time for this insidious marriage between war and commerce to end. If it is not ended by a willing government, then it is up to Eisenhower's "alert and knowledgeable citizenry" to act where our elected representatives have failed us. The American people have never voted to funnel the largest share of our taxes into endless war, massacres of innocent civilians and ever-rising profits for arms dealers. But if this is not what we want, then we, the American people, must act decisively to end it.

Medea Benjamin is cofounder of [CODEPINK](#), and author of several books, including [Kingdom of the Unjust: Behind the US-Saudi Connection](#).

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