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U.S. Foreign Aid to Israel

(name redacted)

Specialist in Middle Eastern Affairs

June 10, 2015

Congressional Research Service

7-....

www.crs.gov

RL33222

Summary

This report provides an overview of U.S. foreign assistance to Israel. It includes a review of past aid programs, data on annual assistance, and an analysis of current issues. For general information on Israel, see CRS Report RL33476, *Israel: Background and U.S. Relations*, by (name redacted)

Israel is the largest cumulative recipient of U.S. foreign assistance since World War II. To date, the United States has provided Israel \$124.3 billion (current, or non-inflation-adjusted, dollars) in bilateral assistance. Almost all U.S. bilateral aid to Israel is in the form of military assistance, although in the past Israel also received significant economic assistance. Strong congressional support for Israel has resulted in Israel receiving benefits not available to any other countries; for example, Israel can use some U.S. military assistance both for research and development in the United States and for military purchases from Israeli manufacturers. In addition, U.S. assistance earmarked for Israel is generally delivered in the first 30 days of the fiscal year, while most other recipients normally receive aid in installments, and Israel (as is also the case with Egypt) is permitted to use cash flow financing for its U.S. arms purchases. In addition to receiving U.S. State Department-administered foreign assistance, Israel also receives funds from annual defense appropriations bills for rocket and missile defense programs. Israel pursues some of those programs jointly with the United States.

In 2007, the Bush Administration and the Israeli government agreed to a 10-year, \$30 billion military aid package for the period from FY2009 to FY2018. During his March 2013 visit to Israel, President Obama pledged that the United States would continue to provide Israel with multi-year commitments of military aid subject to the approval of Congress.

For FY2016, the following legislation addresses U.S. foreign assistance to Israel:

- A draft House FY2016 Department of State, Foreign Operations, and Related Programs bill would provide Israel \$3.1 billion in FMF as requested.
- H.R. 1735, the House version of the National Defense Authorization bill for FY2016, would authorize up to \$475.195 million for all Israel Cooperative Programs including Iron Dome. The bill would authorize \$268.795 for David's Sling, Arrow II, and Arrow III, a \$166 million increase above MDA's 2016 request. It also includes \$41.4 million for Iron Dome, and \$165 million in co-production components for David's Sling (\$150 million) and Arrow III (\$15 million). S. 1376, the Senate version of the National Defense Authorization bill for FY2016, would authorize up to \$475.2 million for various U.S.-Israeli joint missile defense systems, including \$268.8 million for Israel Cooperative Programs, \$41.4 million for Iron Dome, and \$165 million in co-production of components for David's Sling (\$150 million) and Arrow III (\$15 million).
- A draft House FY2016 Defense Appropriations bill would provide \$487.595 million for U.S.-Israeli joint missile defense programs, of which \$55 million is for Iron Dome, \$286.526 million is for David's Sling, \$89.550 million is for Arrow 3, and \$56.519 million is for Arrow 2. S. 1558, the Senate's FY2016 Defense Appropriations bill, would provide a slightly lower total of \$473.995, of which \$41.4 million is for Iron Dome, \$286.526 is for David's Sling, \$89.550 for Arrow III, and \$56.519 for Arrow II.

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Overview

For decades, the United States and Israel have maintained strong bilateral relations based on a number of factors, including robust domestic U.S. support for Israel and its security; shared strategic goals in the Middle East; a mutual commitment to democratic values; and historical ties dating from U.S. support for the creation of Israel in 1948. U.S. foreign aid has been a major component in cementing and reinforcing these ties. Although successive Administrations have disapproved of some Israeli policies, including settlement construction in the West Bank, U.S. officials and many lawmakers have long considered Israel to be a vital partner in the region, and U.S. aid packages for Israel have reflected this calculation. Some observers, including opponents of U.S. aid to Israel, argue that U.S. assistance to Israel supports Israeli arms purchases without providing sufficient scrutiny of controversial Israeli military actions that—these observers assert—contravene various laws and international norms, particularly regarding treatment of Palestinians.

Though aid to Israel has detractors as well as supporters, overall U.S. public support for Israel remains strong. According to a February 2015 Gallup poll that measured Americans' sympathies toward the disputants in the Israeli-Palestinian conflict, 62% said their sympathies lie with the Israelis and 16% said their sympathies lie with the Palestinians.¹ According to a February 2015 Pew Research Center poll, "48% of respondents say that the level of U.S. support for Israel is about right; 29% say the U.S. is not supportive enough of Israel, while 18% say it is too supportive."² Neither of these surveys explicitly examined public opinion regarding U.S. aid to Israel.

Qualitative Military Edge (QME)

Almost all current U.S. aid to Israel is in the form of military assistance.³ U.S. military aid has helped transform Israel's armed forces into one of the most technologically sophisticated militaries in the world. U.S. military aid for Israel has been designed to maintain Israel's "qualitative military edge" (QME) over neighboring militaries. The rationale for QME is that Israel must rely on better equipment and training to compensate for being much smaller geographically and in terms of population than its potential adversaries. U.S. military aid, a portion of which may be spent on procurement from Israeli defense companies, also has helped Israel build a domestic defense industry, which ranks as one of the top 10 suppliers of arms worldwide.⁴

¹ "Seven in 10 Americans Continue to View Israel Favorably," *Gallup*, February 23, 2015.

² "More View Netanyahu Favorably Than Unfavorably; Many Unaware of Israeli Leader," *Pew Research Center*, February 27, 2015.

³ For many years, U.S. economic aid helped subsidize a lackluster Israeli economy, but since the rapid expansion of Israel's high-tech sector and overall economy in the 1990s (sparked partially by U.S.-Israeli scientific cooperation), Israel has been considered a fully industrialized nation. Consequently, Israel and the United States agreed to gradually phase out economic grant aid to Israel. In FY2008, Israel stopped receiving bilateral Economic Support Fund (ESF) grants. It had been a large-scale recipient of grant ESF assistance since 1971.

⁴ See, CRS Report R42678, *Conventional Arms Transfers to Developing Nations, 2004-2011*, by (name redacted) and (name redacted). Also, according to the Stockholm International Peace Research Institute (SIPRI), from 2010 to 2014, Israel was the 10th largest arms exporter worldwide, accounting for 2% of world deliveries. See, "Trends in International Arms Transfers, 2014," SIPRI Fact Sheet, March 2015.

Successive Administrations have routinely affirmed the U.S. commitment to strengthening Israel's QME. However, for years, no official or public U.S. definition of QME existed.⁵ In order to clarify U.S. policy on preserving Israel's QME, Congress has passed several pieces of legislation addressing the issue. For example, in 2008, Congress passed (P.L. 110-429, the Naval Vessel Transfer Act of 2008) that defined QME as:

the ability to counter and defeat any credible conventional military threat from any individual state or possible coalition of states or from non-state actors, while sustaining minimal damage and casualties, through the use of superior military means, possessed in sufficient quantity, including weapons, command, control, communication, intelligence, surveillance, and reconnaissance capabilities that in their technical characteristics are superior in capability to those of such other individual or possible coalition of states or non-state actors.

Section 201 of P.L. 110-429 required the President to carry out an "empirical and qualitative assessment on an ongoing basis of the extent to which Israel possesses a qualitative military edge over military threats to Israel." The 2008 law also amended Section 36 of the Arms Export Control Act to require certifications for proposed arms sales "to any country in the Middle East other than Israel" to include "a determination that the sale or export of the defense articles or defense services will not adversely affect Israel's qualitative military edge over military threats to Israel."

In the past few years, Congress has passed additional legislation addressing Israel's Qualitative Military Edge. In 2012, Congress passed the United States-Israel Enhanced Security Cooperation Act (P.L. 112-150), which, among other things, reiterated that it is the policy of the United States to "to help the Government of Israel preserve its qualitative military edge amid rapid and uncertain regional political transformation." In 2014, Congress passed The U.S.-Israel Strategic Partnership Act (P.L. 113-296), which expanded mandatory executive branch QME reporting requirements and amended Section 36 of the Arms Export Control Act requiring that the Administration explain, in cases of sales or exports of major U.S. defense equipment, what is "Israel's capacity to address the improved capabilities provided by such sale or export." The act also requires the Administration to:

- Evaluate: "how such sale or export alters the strategic and tactical balance in the region, including relative capabilities; and Israel's capacity to respond to the improved regional capabilities provided by such sale or export;"
- Include: "an identification of any specific new capacity, capabilities, or training that Israel may require to address the regional or country-specific capabilities provided by such sale or export; and a description of any additional United States security assurances to Israel made, or requested to be made, in connection with, or as a result of, such sale or export."

Finally, P.L. 113-296 amends Section 201(c) of the Naval Vessel Transfer Act of 2008 (22 U.S.C. 2776) by changing the frequency of Administration reporting on QME from a quadrennial to a biennial basis.⁶

⁵ William Wunderle and Andre Briere, *U.S. Foreign Policy and Israel's Qualitative Military Edge: The Need for a Common Vision*, Washington Institute for Near East Policy, Policy Focus #80, January 2008.

⁶ QME reports to Congress are reportedly classified.

QME and the Possible Nuclear Deal with Iran

As Iran and the “P5+1” powers (the United States, Britain, France, Russia, China, and Germany) continue to negotiate toward a comprehensive nuclear agreement, the Administration may consider providing Israel with additional military equipment should a deal be finalized.⁷ In order to deter Iran from breaking a nuclear agreement, some lawmakers have called on the Administration to provide Israel with GBU-57 30,000-pound bunker-buster bombs, known as Massive Ordnance Penetrators (MOPs), along with the aircraft⁸ to carry them.⁹ On May 19, 2015, the Defense Security Cooperation Agency published a notification of a proposed U.S. sale to Israel of \$1.879 billion worth of guided bomb kits, warheads, hellfire, and medium-range air-to-air missiles.¹⁰ The proposal noted that, among other things, Israel has requested 50 BLU-113 bombs, which are 5,000 pound warheads designed to penetrate deeply buried targets. The United States has previously provided these or similar types of bombs to Israel. An Israeli official has been cited as denying that the timing of the sale is connected to the Iran nuclear negotiations,¹¹ while some observers suspect a link. According to one Israeli national security expert, “These items are often sold to Israel in separate deals....There’s no doubt that packaging them all together in one sale, and announcing it now, is clearly linked to the Iran agreement.”¹² However, the same expert has stated, “In terms of countering Iran though, the discussion over U.S.-provided arms has centered on bigger items, such as the F-35 stealth fighter.”¹³

In previous decades, Israeli officials periodically expressed concern over U.S. sales of sophisticated weaponry, particularly aircraft, airborne radar systems, and precision-guided munitions, to Arab Gulf countries, notably Saudi Arabia. However, in recent years, as Israel and the Arab Gulf states have coalesced against a commonly perceived Iranian threat, Israel has not publicly objected to new U.S. arms sales to various Arab Gulf countries.¹⁴ In a 2013 interview in *Defense News*, then-Israeli Ambassador to the United States Michael Oren stated, “We don’t raise objections to the very large US arms deals to the Middle East. We understand that if America doesn’t sell these weapons, others will. We also understand the fact that each of these sales contributes to hundreds or thousands of American jobs.”¹⁵ According to Anthony H. Cordesman of the Center for Strategic and International Studies, “When you look at it, Israel’s strategic calculation is a simple one. [The gulf countries] “do not represent a meaningful threat” [to Israel]. They do represent a meaningful counterbalance to Iran.”¹⁶ As the United States has been one of the principal suppliers of defense equipment and training to both Israel and Saudi Arabia, U.S. policymakers and defense officials have sought to carefully navigate commitments to the two

⁷ According to one recent article, “The United States is likely to provide Israel with, among other things, more F-35 combat aircraft and another battery of a missile interception system.” See, “Washington, Jerusalem Discussing Massive Compensation for Iranian Nuclear Deal,” *Ha’aretz*, May 20, 2015.

⁸ “To Curb Iran, should we give Israel Bunker Busters?” *Washington Post*, April 8, 2014.

⁹ “It’s Time to give Israel the Means to take out Iranian Nukes,” *New York Post*, May 17, 2015.

¹⁰ DSCA Transmittal 15-36, May 19, 2015. Available online at: [<http://www.dsca.mil/major-arms-sales/israel-joint-direct-attack-munition-tail-kits-and-munitions>].

¹¹ “Pentagon Approves Massive \$1.9 billion Arms Sale to Israel,” *Times of Israel*, May 20, 2015.

¹² “U.S. in \$1.9 Billion Arms Sale to Israel Amid Iran Deal Concerns,” *Bloomberg*, May 21, 2015.

¹³ Ibid. For more information, see Amos Harel, “Washington, Jerusalem discussing massive compensation for Iranian nuclear deal,” *haaretz.com*, May 20, 2015; and Leslie Susser, “The Challenge: Getting the US Back in Israel’s Corner,” *Jerusalem Report*, May 18, 2015.

¹⁴ In his recently published memoirs, Former Secretary of Defense Robert M. Gates details a 2010 series of exchanges in which he claims that the Israeli government agreed not to publicly object to the sale of upgraded F-15s to Saudi Arabia in exchange for more military equipment, including the sale of an additional 20 F-35s to Israel. See, Robert M. Gates, *Duty: Memoirs of a Secretary at War*, Knopf; First Edition, January 14, 2014. In the fall of 2010, news reports indicated that the Administration may have offered the Israeli government an additional 20 F-35s as part of its effort to extend an Israeli settlement freeze. Amos Harel, “Obama has made Netanyahu an Offer he can’t Refuse,” *Ha’aretz*, November 15, 2010.

¹⁵ “Michael Oren,” *Defense News*, September 2, 2013.

¹⁶ “Sale of U.S. Arms Fuels the Wars of Arab States,” *New York Times*, April 18, 2015.

countries, while following the legal requirement to maintain Israel's QME. In June 2015, Chairman of the Joint Chiefs of Staff General Martin E. Dempsey traveled to Israel where he assured Israeli officials of the U.S. commitment to maintaining Israel's QME stating, "I reminded my counterparts that they are on the path to have the joint strike fighter [F-35] where others in the region are not."¹⁷

Israel and the United States formally review QME policy in working groups that convene periodically, such as the Defense Policy Advisory Group (DPAG) and the U.S.-Israeli Joint Political Military Group (JPMG).¹⁸ These formal exchanges provide both sides an opportunity to discuss potential QME concerns and/or future cooperation.

U.S. Bilateral Military Aid to Israel

The 10-Year Military Aid Agreement

In 2007, the Bush Administration and the Israeli government agreed to a 10-year, \$30 billion military aid package for the 10-year period from FY2009 to FY2018. Under the terms of the agreement, Israel was permitted to continue spending up to 26.3% of U.S. assistance on Israeli-manufactured equipment (known as Off-Shore Procurement or OSP)—a provision initially codified in U.S. legislation for FY1988 (as discussed below). The agreement states that "Both sides acknowledge that these funding levels assume continuation of adequate levels for U.S. foreign assistance overall, and are subject to the appropriation and availability of funds for these purposes."¹⁹ According to former Under Secretary of State for Political Affairs Nicholas Burns, who signed the agreement (entitled the Memorandum of Understanding on U.S. Military Assistance):

We consider this 30 billion dollars in assistance to Israel to be an investment in peace - in long-term peace. Peace will not be made without strength. Peace will not be made without Israel being strong in the future. Of course, our objective as a country and our specific objective as a government is to contribute to that peace, a peace between Israel and the Palestinian people, the creation of an independent Palestinian state willing to live side by side in peace with Israel, and a general peace in the region that has eluded the Israeli people for 59 years but which is, we hope, the destiny of the Israeli people as well as the Arab peoples of the region. Our policy in this entire region is dedicated to that final objective.²⁰

At times, there have been reports indicating U.S.-Israeli discussions over a possible future ten-year aid deal beyond FY2018.²¹ Israeli media sources have said that the United States and Israel have held "preliminary" discussions over future military assistance with Israel seeking between \$4.2 billion and \$4.5 billion in annual FMF.²² One unnamed U.S. source recently told *Reuters* that

¹⁷ "Top U.S. Military Official Seeks to Assure Israel on Security," *New York Times*, June 9, 2015.

¹⁸ The goals of the JPMG are outlined in "U.S.-Israel Memorandum of Agreement," April 1988.

¹⁹ United States-Israel Memorandum of Understanding, Signed by then U.S. Under Secretary of State R. Nicholas Burns and Israeli Ministry of Foreign Affairs Director General Aaron Abramovich, August 16, 2007.

²⁰ R. Nicholas Burns, Under Secretary of State for Political Affairs, "Remarks and Press Availability at Signing Ceremony for Memorandum of Understanding on U.S. Military Assistance," Released by the American Embassy Tel Aviv—Press Section, August 16, 2007.

²¹ During his March 2013 visit to Israel, President Obama pledged that the United States would continue to provide Israel with multi-year commitments of military aid subject to the approval of Congress.

²² "Israel Seeks Surge in US Security Support," *Defense News*, May 24, 2015.

“negotiators were close to a new deal that would bring annual payouts to \$3.6-\$3.7 billion on average,” while an unnamed Israeli source cited in the same article said that a future MOU might be between \$3.5 billion and \$4 billion annually.²³

Foreign Military Financing (FMF) and Arms Sales

Israel is the largest recipient of U.S. Foreign Military Financing. For FY2016, the President’s request for Israel would encompass approximately 53% of total requested FMF funding worldwide. Annual FMF grants to Israel represent 20% of the overall Israeli defense budget.²⁴ Israel has the highest percentage in the world of defense expenditure as a percentage of Gross Domestic Product (5.6%).²⁵

Cash Flow Financing²⁶

Section 23 of the Arms Export Control Act (22 U.S.C. §276351) authorizes the President to finance the “procurement of defense articles, defense services, and design and construction services by friendly foreign countries and international organizations, on such terms and conditions as he may determine consistent with the requirements of this section.” Successive Administrations have used this authority to permit Israel (and, until 2018 under current plans Egypt) to finance multi-year purchases through installment payments, rather than having to pay the full amount of such purchases up front. Known as “cash flow financing,” this benefit enables Israel to negotiate major arms purchases with U.S. defense suppliers and acquire defense systems with payments scheduled over a longer time horizon.²⁷

Early Transfer and Interest Bearing Account

Since FY1991 (P.L. 101-513), Congress has mandated that Israel receive its FMF aid in a lump sum during the first month of the fiscal year.²⁸ The FY2015 Consolidated Appropriations Act (P.L. 113-235) states that “the funds appropriated under this heading for assistance for Israel shall be disbursed within 30 days of enactment of this Act.” Once disbursed, Israel’s military aid is transferred to an interest bearing account with the U.S. Federal Reserve Bank.²⁹ Israel has used

²³ “U.S. Defense Aid to Israel to Rise over Iran Deal Fears: Sources,” *Reuters*, May 28, 2015.

²⁴ The Israeli Ministry of Defense provides funding figures for its domestic defense budget but excludes some procurement spending and spending on civil defense. The estimate referenced above is based on figures published by *Jane’s Defence Budgets, Israel*, IHS Global Insight, April 22, 2015.

²⁵ Shmuel Even, “The Debate over Israel’s Defense Budget,” *Strategic Assessment*, Institute for National Security Studies, March-April 2015.

²⁶ For more background, see CRS Report R44060, *Ending Cash Flow Financing to Egypt: Issues for Congress*, by (name redacted) .

²⁷ Cash flow financing is defined in Section 25(d) of the Arms Export Control Act and Section 503(a)(3) of the Foreign Assistance Act.

²⁸ In instances when government operations are funded by a continuing appropriations resolution, Congress may at times include provisions in such resolutions that would prevent the early transfer of FMF to Israel (presumably until a final year appropriations bill is passed). For example, see Section 109 of P.L. 113-46, the Continuing Appropriations Act, 2014.

²⁹ According to the Defense Security Cooperation Agency, “Some countries may establish an account with the federal reserve bank (FRB), New York, for their FMS [Foreign Military Sales] deposits. An agreement between the FMS purchaser’s defense organization, the purchaser’s central bank, FRB New York and DSCA identifies the terms, conditions, and mechanics of the account’s operation. Countries receiving FMFP funds must maintain their interest bearing account in the FRB.” See, Defense Institute of Security Assistance Management (DISAM), “The Management of Security Cooperation (Green Book),” 34th Edition, April 2015.

interest collected on its military aid to pay down its bilateral debt (non-guaranteed) to U.S. government agencies, which, according to the U.S. Department of the Treasury, stood at \$318 million as of October 2013.³⁰ Israel cannot use accrued interest for defense procurement inside Israel.

FMF for In-Country Purchase

Israel's ability to use a significant portion of its annual military aid for procurement in Israel is a unique aspect of its assistance package; no other recipient of U.S. military assistance has been granted this benefit.³¹ Since FY1988, the FMF procurement earmark for purchases within Israel has been incorporated into annual foreign assistance legislation. Currently, approximately 26.3% of Israel's FMF funds may be used for domestic defense purchases (\$815.3 million in FY2015). Since the earmark is linked to a percentage and not a specific dollar amount, the amount set aside for defense purchases in Israel has increased as U.S. military aid to Israel has increased.

Successive Administrations and many lawmakers have routinely asserted that a strong domestic Israeli defense industry is crucial to maintaining Israel's technological edge over its neighbors. The proceeds to Israeli defense firms³² from purchases with U.S. funds have allowed the Israeli defense industry to achieve economies of scale and produce highly sophisticated equipment for niche markets. Defense experts note that high annual amounts of U.S. military assistance incentivize private and semi-private Israeli defense companies to place a greater business emphasis on exports, since a large portion of Israeli government weapons procurement funding is spent on American equipment.

The Israeli defense industry has thus become a major exporter, including to the U.S. military. In 2007, a U.S. government source stated that Israeli manufacturers must export as much as 75% of their output to stay profitable—a far higher share than U.S. military contractors.³³ Some supporters of continued U.S. assistance to Israel suggest that Israel is now exporting more equipment to the U.S. military than in the past and that many Israeli-origin systems are now in use by U.S. forces.³⁴

Some weapons systems that were originally designed in Israel using Off-Shore Procurement (OSP) FMF funds are now being manufactured in the United States. Those who assert that U.S.-Israeli military ties are and should remain strong cite this as evidence that OSP is mutually beneficial. According to one report, Israeli defense planners “point to a considerable increase in

³⁰ CRS correspondence with the U.S. Department of the Treasury.

³¹ Israel was first granted FMF for use in Israel in 1977, when it asked for and received permission to use \$107 million in FY1977 FMF funds to develop the Merkava tank (prototype completed in 1975 and added to Israeli arsenal in 1979). Several years later, Israel asked for a similar waiver to develop the Lavi ground-attack aircraft, and Congress responded with legislation allowing Israel to spend \$250 million of FMF in Israel to develop the Lavi. It was estimated that the United States provided between \$1.3 and \$1.8 billion in Lavi development costs before the United States and Israel agreed to terminate the project in 1988. In order to defray the cancellation costs of the Lavi program, the United States agreed to raise the annual FMF earmark for procurement in Israel to \$400 million. For background on the cancellation of the Lavi fighter, see Dan Raviv and Yossi Melman, *Friends in Deed: Inside the U.S.-Israeli Alliance*, New York: Hyperion, 1994, pp. 263-268.

³² The primary state-owned and private Israeli defense contractors are Israel Aerospace Industries Ltd (IAI), Elbit Systems Ltd, Rafael Ltd (Rafael Advanced Defence Systems Ltd), Elisra Group, and Israel Military Industries (IMI).

³³ “Pentagon says Israel Improves Arms-Export Controls,” *Reuters*, September 5, 2007.

³⁴ See Table 1 “Select Israeli-Origin Systems in Recent Use by the U.S. Military,” p. 18, in Michael Eisenstadt and David Pollock, *Asset Test: How the United States Benefits from its Alliance with Israel*, Washington Institute for Near East Policy, Strategic Report 7, September 2012.

funding earmarked for local development of sensors, munitions and unmanned systems that can later be transitioned to FMF-funded U.S.-based production.”³⁵

F-35 Joint Strike Fighter

After years of negotiations, the United States and Israel announced in 2010 that Israel will purchase 19 F-35As at a cost of \$2.75 billion. The F-35 is a fifth-generation stealth aircraft considered to be the most technologically advanced fighter jet ever made. Israel will pay for the F-35s entirely using FMF grants.³⁶ In February 2015, Israel signed a contract to purchase a partial second squadron of 14 F-35As for \$2.82 billion, bringing the total number of planes on order to 33.³⁷ Israel has received U.S. approval to purchase up to 75 aircraft—potentially leading to as much as \$15.2 billion in purchases if all options are exercised. As part of the F-35 deal, the United States agreed to make reciprocal purchases of equipment from Israeli defense companies estimated at \$4 billion for these companies’ participation in the F-35’s manufacture.³⁸ In the fall of 2013, Israeli defense manufacturer Elbit Systems and its American corporate partner Rockwell Collins were awarded a contract to construct the helmet for all F-35 pilots.

In the spring of 2015, Vice President Joseph Biden, Jr. announced that “Next year we will deliver to Israel the F-35 Joint Strike Fighter, our finest.” If the planes are delivered on schedule, Israel would be the first country outside of the United States to receive the F-35. All F-35s currently under contract are expected to be delivered to Israel by 2021.

U.S.-Israeli Co-Production

Since 2011, Israel has used FMF to finance the acquisition of Namer armored personnel carriers (APCs) that are co-produced in the United States (by General Dynamics Land System) and in Israel (by the Israel Ordnance Corps).³⁹ Under this partnership, the Namer’s frame is manufactured in the United States and then shipped to Israel where the APCs are assembled. In 2015, Israel signed a \$310 million contract with General Dynamics Land Systems for additional Namer APCs, which will be equipped with Israel’s anti-tank projectile system called Trophy. Israel also signed a \$250 million contract with L3 Communications Propulsion Systems to produce Namer engines.

Excess Defense Articles

The Excess Defense Articles (EDA) program provides one means by which the United States can advance foreign policy objectives—assisting friendly and allied nations through provision of equipment in excess of the requirements of its own defense forces. The Defense Security Cooperation Agency (DSCA) manages the EDA program, which enables the United States to reduce its inventory of outdated equipment by providing friendly countries with necessary

³⁵ “Israel Leverages Local R&D for Overseas Buys,” *Defense News*, November 12, 2012.

³⁶ In 2010, during extensive Obama Administration negotiations with the Israeli government over Israeli settlement activity in the West Bank, the Administration reportedly offered Israel, among other things, 20 additional F-35s in exchange for a 90-day extension of a partial moratorium on settlement construction. Israel did not accept the offer. Harel, op. cit.

³⁷ Under the terms of its second contract with Lockheed Martin, Israel has the option to purchase an additional 17 F-35s to bring its total fleet to 50, but due to budgetary constraints, it has yet to move ahead with additional purchases.

³⁸ “Israel set to Build Wings for some 800 F-35s,” *Reuters*, August 30, 2010.

³⁹ “US Financing Backs Israeli Restoration of Namer Production,” *Defense News*, September 29, 2014.

supplies at either reduced rates or no charge.⁴⁰ As a designated “major non-NATO ally,”⁴¹ Israel is eligible to receive EDA under Section 516 of the Foreign Assistance Act and Section 23(a) of the Arms Export Control Act. In one notable FY2013 transfer, the U.S. Army transferred 236 excess Heavy Expanded Mobility Tactical Trucks (HEMTT) to Israel valued at \$7.6 million.

Defense Budget Appropriations for U.S.-Israeli Missile Defense Programs

Congress and successive Administrations have demonstrated strong support for joint U.S.-Israeli missile defense projects designed to thwart a diverse range of threats, from short-range missiles and rockets fired by non-state actors, such as Hamas and Hezbollah, to mid- and longer-range ballistic missiles in Syria’s and Iran’s arsenals. Congress provides regular U.S. funding for Israeli and U.S.-Israeli missile defense programs in defense authorization and appropriations bills. Such efforts are not formally considered to constitute direct bilateral aid, but many U.S. and Israeli officials and observers consider them to be a vital component of the bilateral strategic relationship. Israel and the United States each financially contribute to several weapons systems and engage in co-development, coproduction, and/or technology sharing in connection with them.

Multi-Tiered Missile and Rocket Defense

In addition to the supply of U.S.-origin Hawk and Patriot missile batteries to Israel, U.S.-Israeli missile defense cooperation has evolved in the past several years to include the co-development of several systems. Israel also has developed its own missile defense programs without U.S. collaboration.

Iron Dome

Iron Dome is a short-range anti-rocket system developed by Israel's Rafael Advanced Defense Systems and originally produced in Israel. Iron Dome's targeting system and radar are designed to fire its Tamir interceptors only at incoming projectiles that pose threats to the area being protected (generally, strategically important sites, including population centers); it is not configured to fire on rockets headed toward unprotected areas. Iron Dome batteries can be moved to respond to changes in Israeli areas subject to threat.

⁴⁰ To access DSCA’s Excess Defense Articles database, see <http://www.dsca.mil/programs/eda>.

⁴¹ On November 4, 1986, the President signed into law P.L. 99-661, the National Defense Authorization Act for FY1987. In Section 1105 of that Act, Congress called for greater defense cooperation between the United States and countries that the Secretary of Defense could designate as a “major non-NATO ally” (MNNA). Such cooperation could entail U.S. funding for joint research and development and production of U.S. defense equipment. In February 1987, the United States granted Israel MNNA status along with several other countries (Egypt, Japan, South Korea, and Australia). According to press reports at the time, in the absence of a U.S.-Israeli mutual defense agreement, supporters of Israel had been advocating for Israel to receive “equal treatment” with regard to certain special military benefits (such as the ability to bid on U.S. defense contracts) that NATO allies received from the United States. See, “Israel seeks to obtain the kind of Financial Aid that NATO Members get from U.S. Government,” *Wall Street Journal*, February 3, 1987. Nearly a decade later, Congress passed additional legislation that further solidified Israel’s major non-NATO ally status. In 1996, Section 517 of P.L. 104-106 amended the Foreign Assistance Act of 1961 by requiring the President to notify Congress 30 days before designating a country as a major non-NATO ally. According to the Act, Israel, along with several other countries, “shall be deemed to have been so designated by the President as of the effective date of this section, and the President is not required to notify the Congress of such designation of those countries.”

Iron Dome was declared operational in early 2011. Its first major test came in November 2012 during a weeklong Israel-Hamas conflict (termed Operation Pillar of Cloud/Defense by Israel). Israeli officials claim that Iron Dome intercepted 85% of the more than 400 rockets fired by Gaza-based militants that were selectively targeted based on the criteria discussed above. (A total of about 1,500 rockets were fired during the conflict.) During the 2012 conflict, four Israeli civilians were killed due to rocket fire. Between 2012 and 2014, Israel upgraded Iron Dome's various tracking and firing mechanisms and expanded the number of batteries deployed from five to nine. During the 2014 conflict, media reports generally based on Israeli claims would seem to indicate that Iron Dome's performance had a successful interception rate close to 90%.

Because Iron Dome was developed by Israel alone, Israel initially retained proprietary technology rights to it. The United States and Israel have had a decades-long partnership in the development and coproduction of other missile defense systems (such as the Arrow) and, as the United States began financially supporting Israel's development of Iron Dome in FY2011, U.S. interest in ultimately becoming a partner in its coproduction grew. Congress then called for Iron Dome technology sharing and coproduction with the United States.⁴²

In March 2014, the United States and Israeli governments signed a coproduction agreement to enable components of the Iron Dome system to be manufactured in the United States, while also providing the U.S. Missile Defense Agency (MDA) with full access to what had been proprietary Iron Dome technology. U.S.-based Raytheon will be Rafael's U.S. partner in the coproduction of Iron Dome, and Raytheon's facility in Tucson, AZ, may be one of several U.S. sites where production takes place. On September 30, 2014, Raytheon received a \$149 million contract from Rafael to provide parts for the Tamir interceptor. The FY2014 Emergency Supplemental Appropriations Resolution, P.L. 113-145, exempted \$225 million in Iron Dome funding—requested by Israel on an expedited basis during the summer 2014 Israel-Gaza conflict—from the coproduction requirements agreed upon in March 2014.

To date, the United States has provided over \$1.280 billion to Israel for Iron Dome batteries, interceptors, co-production costs, and general maintenance. P.L. 113-235, the FY2015 Consolidated and Further Continuing Appropriations Act, included \$350.972 million for Iron Dome. Lawmakers have required information documenting progress on U.S.-Israeli Iron Dome coproduction efforts and information-sharing before funding may proceed. According to the Explanatory Statement accompanying P.L. 113-235, not more than \$175.972 million may be obligated for Iron Dome in FY2015 until the Israeli Missile Defense Organization “provides additional justification and documentation” to the U.S. Missile Defense Agency including, among other things, a timeline for the expenditure of Iron Dome funds and delivery schedule for items funded FY2015 and prior year funds.

⁴² In conference report language accompanying P.L. 112-239, the National Defense Authorization Act for FY2013, conferees agreed: “The Department of Defense needs to obtain appropriate data rights to Iron Dome technology to ensure us the ability to use that data for U.S. defense purposes and to explore potential coproduction opportunities. The conferees support this policy and expect the Department to keep the congressional defense committees informed of developments and progress on this issue.” The following year, Section 234 of P.L. 113-66, the National Defense Authorization Act, FY2014, expressed a sense of Congress that: “second-source production of parts and components of the Iron Dome short-range rocket defense program that is based in the United States is in the national security interest of both Israel and the United States”; and “the move towards such a second-source capacity in the United States for integration and assembly of all-up rounds of the Iron Dome short-range rocket defense program will further enhance the security of Israel by ensuring added production capability of such a vital program.” The act also authorized up to \$15 million for nonrecurring engineering costs in connection with the establishment of a capacity for coproduction in the United States for Iron Dome. In addition, it required the Administration to report on the progress of U.S.-Israeli coproduction of Iron Dome.

For FY2016, the Missile Defense Agency is requesting \$55 million for the Iron Dome co-production program. A draft House FY2016 Defense Appropriations bill would provide \$55 million for Iron Dome.

Section 1669 of H.R. 1735, the House version of the National Defense Authorization bill for FY2016, would authorize \$41.4 million for Iron Dome components. It also would condition those funds subject to the terms of the March 2014 “Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the State of Israel Concerning Iron Dome Defense System Procurement,” which is to be updated annually to reflect progress on coproduction and technology sharing. According to the bill, not less than 30 days prior to the initial obligation of funds, U.S. defense officials must certify to Congress that the annual agreement is being implemented. S. 1376, the Senate version of the National Defense Authorization bill, also would authorize \$41.4 million for Iron Dome.

David’s Sling

In August 2008, Israel and the United States officially signed a “project agreement” to co-develop the David’s Sling system. David’s Sling (aka Magic Wand) is a short/medium-range system designed to counter long-range rockets and slower-flying cruise missiles fired at ranges from 40 km to 300 km, such as those possessed by Hezbollah in Lebanon, as well as by Syria. David’s Sling is designed to intercept missiles with ranges and trajectories for which Israel’s Arrow ballistic missile interceptor is not optimally configured. It is being developed jointly by Rafael Advanced Defense Systems and Raytheon. David’s Sling uses Raytheon’s Stunner missile for interception, and each launcher can hold up to 16 missiles.

In late March 2015, Israel and the United States announced that David’s Sling had successfully completed a third series of tests. According to one executive at Rafael, “Two David’s Sling batteries will cover the whole of Israel.”⁴³ It is expected to enter the production stage in 2015 and may be operational by 2016.

H.R. 1915, the David’s Sling Authorization Act for FY2016, would authorize \$286.9 million in U.S. defense appropriations for David’s Sling.⁴⁴ It also includes a sense of Congress that, among other things, recommends that “the United States and the Government of Israel should enter into a production agreement that specifies the terms of coproduction, program schedule, and an itemization of costs with respect to the David’s Sling weapons program production activities.”

Since FY2006, the United States has contributed over \$840 million to the development of David’s Sling. For FY2016, the Missile Defense Agency is seeking \$37 million for David’s Sling. A draft House FY2016 Defense Appropriations bill would provide \$249.8 million for David’s Sling.

H.R. 1735, the National Defense Authorization bill for FY2016, would authorize \$150 million for the joint development and co-production of David’s Sling and another \$99.8 million for its procurement. The bill also conditions the release of funding for David’s Sling until U.S. defense officials certify that, among other things, the United States and the Government of Israel have entered into a bilateral agreement that establishes the terms of co-production of parts and components for David’s Sling.

⁴³ “David’s Sling Missile can Intercept Warheads over Enemy Territory, Rafael official tells ‘Post’.” *Jerusalem Post*, December 23, 2014.

⁴⁴S. 1376, the Senate version of the National Defense Authorization bill also would authorize increased funding for David’s Sling.

The Arrow and Arrow II

Since 1988, Israel and the United States have been jointly developing the Arrow Anti-Missile System.⁴⁵ The Arrow is designed to counter short-range ballistic missiles. The United States has funded just under half of the annual costs of the development of the Arrow Weapon System, with Israel supplying the remainder. The Arrow II program (officially referred to as the Arrow System Improvement Program or ASIP), a joint effort of Boeing and Israel Aerospace Industries (IAI), is designed to defeat longer-range ballistic missiles. One Arrow II battery is designed to protect large swaths of Israeli territory.

Table I. U.S. Contributions to the Arrow Program (Arrow, Arrow II, and Arrow III)

\$s in millions

Fiscal Year	Total	Fiscal Year	Total
1990	52.000	2004	144.803
1991	42.000	2005	155.290
1992	54.400	2006	122.866
1993	57.776	2007	117.494
1994	56.424	2008	118.572
1995	47.400	2009	104.342
1996	59.352	2010	122.342
1997	35.000	2011	125.393
1998	98.874	2012	125.175
1999	46.924	2013	115.500
2000	81.650	2014	119.070
2001	95.214	2015	130.908
2002	131.700		
2003	135.749	Total	2,496.218

Source: U.S. Missile Defense Agency.

Under the 1986 agreement (see footnote 45) allowing Israel to participate in the Strategic Defense Initiative (SDI), the United States and Israel have co-developed different versions of the Arrow anti-ballistic missile. The total U.S. financial contribution exceeds \$2.4 billion. The system became operational in 2000 in Israel and has been tested successfully. Since 2001, Israel and the United States have conducted a joint biennial exercise, called Juniper Cobra, to work on integrating their weapons, radars, and other systems.

⁴⁵ Shortly after the start of the Strategic Defense Initiative (SDI) in 1985, the Reagan Administration sought allied political support through various cooperative technology agreements on ballistic missile defense (BMD). Israeli interest in BMD was strengthened by the missile war between Iran and Iraq in the later 1980s, and the experience of being attacked by Scud missiles from Iraq during Operation Desert Storm in 1991. A memorandum of understanding was signed with Israel on May 6, 1986, to jointly develop an indigenous Israeli capability to defend against ballistic missiles. Subsequently, a number of additional agreements were signed, including, for example, an April 1989 Memorandum of Agreement (MOA) to develop an Israeli computer facility as part of the Arrow BMD program, a June 1991 agreement to develop a second generation Arrow BMD capability, and a September 2008 agreement to develop a short-range BMD system to defend against very short-range missiles and rockets.

High Altitude Missile Defense System (Arrow III)

Fearing a potential nuclear threat from Iran, Israel has sought a missile interceptor that operates at a higher altitude and greater range than the Arrow. In October 2007, the United States and Israel agreed to establish a committee to evaluate Israel's proposed "Arrow III," an upper-tier system designed to intercept medium-range ballistic missiles. The Arrow III will be a more advanced version—in terms of speed, range and altitude—of the current Arrow II interceptor. According to various industry sources, Arrow III interceptors also will be smaller and cheaper than their predecessors. In the spring and summer of 2008, Israel decided to begin production of the Arrow III and the United States agreed to co-fund its development despite an initial proposal by Lockheed Martin and the Department of Defense (DOD) urging Israel to purchase the Terminal High-Altitude Area Defense (THAAD) missile defense system instead. The Arrow III, made (like the Arrow II) by Israel Aerospace Industries (IAI) and Boeing, is expected to be deployed by 2015. In July 2010, the United States and Israel signed a bilateral agreement to extend their cooperation in developing and producing the Arrow III. In January 2014, Israel successfully tested Arrow III for the second time, as an interceptor flew through space at speeds faster than the Arrow II. The Arrow III's interceptor also can maneuver in space.

X-Band Radar

One of the most significant gestures of U.S. support for Israel's missile defense architecture has been the deployment of the AN/TPY-2 X-Band radar system (built by Raytheon) to Israel in late 2008. Not only is the X-Band system reportedly far more capable of detecting incoming missiles than Israel's natively produced radar system,⁴⁶ but the United States also has linked the X-Band to its global network of satellites in the U.S. Defense Support Program (DSP) and to the global U.S. Ballistic Missile Defense System (BMDS). The DSP is the principal component of the U.S. Satellite Early Warning System to detect missile launches.⁴⁷ According to various media reports, the X-Band system is now operational. It will remain U.S.-owned and is operated by U.S. troops and defense contractors—the first indefinite U.S. military presence to be established on Israeli soil. Reportedly, the system has been deployed to a classified location in the southern Negev desert.⁴⁸

⁴⁶ The X-Band system can detect incoming missiles from 500-600 miles. Currently, Israel's early warning system is only able to detect missiles from 100 miles out.

⁴⁷ Israel was first given access to DSP in 2001 but only on a per-request, rather than constant, basis.

⁴⁸ P.L. 110-417, the Duncan Hunter National Defense Authorization Act for FY2009, authorized up to \$89 million for the activation and deployment of the AN/TPY-2 forward-based X-band radar to a "classified location." In report language (H.Rept. 110-652) accompanying H.R. 5658, the House-passed FY2009 Defense Authorization bill, Members stated that "The State of Israel faces a real and growing threat from short- and medium-range ballistic missiles from states such as the Syrian Arab Republic and the Islamic Republic of Iran. The committee believes that the deployment of a U.S. Army-Navy/Transportable-2 (AN/TPY-2) missile defense discrimination radar to Israel would greatly increase the capabilities of both Israel and U.S. forces deployed in support of Israel to defend against ballistic missile threats. Therefore, the committee urges the Department of Defense to begin discussions with Israel about the possibility of deploying an AN/TPY-2 radar on its territory at the earliest feasible date." The Senate version, S. 3001, included an amendment making funds available for the deployment of the AN/TPY-2 forward-based X-band radar.

**Table 2. Defense Budget Appropriations for U.S.-Israeli Missile Defense:
FY2006-FY2016 Request**
(Current \$ in millions)

Fiscal Year	Arrow II	Arrow III (High Altitude)	David's Sling (Short-Range)	Iron Dome	Total
FY2006	122.866	—	10.0	—	132.866
FY2007	117.494	—	20.4	—	137.894
FY2008	98.572	20.0	37.0	—	155.572
FY2009	74.342	30.0	72.895	—	177.237
FY2010	72.306	50.036	80.092	—	202.434
FY2011	66.427	58.966	84.722	205.0	415.115
FY2012	58.955	66.220	110.525	70.0 ^a	305.700
FY2013 After Sequestration	40.800	74.700	137.500	194.0	447.000
FY2014	44.363	74.707	149.712	460.309 (includes supp)	729.091
FY2015	56.201	74.707	137.934	350.972	619.814
FY2016 Request	11.000	55.100	36.700	55.000	157.800^b

- a. These funds were not appropriated by Congress but reprogrammed by the Obama Administration from other Department of Defense accounts.
- b. The Missile Defense Agency's (MDA) FY2016 request totals \$157.8 million. For FY2015, it requested \$96.803 million for all three Israeli Cooperative Programs (Arrow II, Arrow III, and David's Sling) and \$175.9 million for Iron Dome. For FY2014, it requested \$95.78 million for all three Israeli Cooperative Programs and \$220.3 million for Iron Dome. The MDA forecasts Israeli Cooperative spending over several fiscal years in advance. Congress has appropriated funding for joint U.S.-Israeli missile defense cooperation exceeding MDA's request over the past several fiscal years. MDA requests for Israeli Cooperative programs (not including Iron Dome) from FY2010 to FY2013 have been \$119.6 million (FY2010), \$122 million (FY2011), \$106.1 million (FY2012), and \$99.83 million (FY2013).

Emergency U.S. Stockpile in Israel

In the early 1980s, Israeli leaders sought to expand what they called their “strategic collaboration” with the United States military by inviting U.S. arms and equipment to be stockpiled at Israeli bases for use in wartime.⁴⁹ In 1989,⁵⁰ the United States agreed to establish munitions stockpiles in Israel for use by the United States and, with U.S. permission, for use by Israel in emergency situations. Section 514 of the Foreign Assistance Act of 1961 (22 U.S.C. 2321h) enables U.S. defense articles stored in war reserve stocks to be transferred to a foreign government through Foreign Military Sales or through grant military assistance, such as FMF.

⁴⁹ “U.S.- Israel Strategic Link: Both Sides Take Stock,” *New York Times*, October 2, 1981.

⁵⁰ In October 1989, the United States and Israel agreed to pre-position \$100 million worth of dual-use defense equipment in Israel.

Summer 2014 Controversy Over Stockpile and Arms Sales to Israel

During Israel's military operations in Gaza in the summer of 2014, the *Wall Street Journal* reported that high-level U.S. policymakers had been unaware of Israeli requests to access the munitions stockpile and, in a separate non-stockpile deal, purchase Hellfire missiles.⁵¹ The report further noted that once these officials were made aware of these Israeli requests and the transfer of some stockpile munitions, the White House immediately delayed the Hellfire transfers and directed executive branch agencies to inform top officials of even the most routine Israeli requests for stockpile munitions. Although the Pentagon approved and transferred the Hellfire missiles in September 2014, prior to the transfer, U.S. State Department spokesperson Marie Harf remarked that "Well, we generally don't talk about specific deliveries after they're requested.... we're taking a little bit of additional care now given the situation, and if there were requests for such missiles, that would fall under that."⁵² Although the Administration provided no official explanation for any alleged review of Israeli requests for stockpile munitions or weapons sales, some observers asserted that the Administration sought greater centralization of control over arms transfer decisions at a time when Israeli strikes in Gaza during the summer 2014 conflict caused a number of civilian casualties.⁵³ Moreover, the review policy had come at a tense time in overall U.S.-Israeli relations related to disagreements over achieving a ceasefire between Israel and Hamas.

The United States European Command (EUCOM) manages the War Reserves Stock Allies-Israel (WRSA-I) program. The United States stores missiles, armored vehicles, and artillery ammunition in Israel.⁵⁴ According to one Israeli officer, "Officially, all of this equipment belongs to the US military. . . . If however, there is a conflict, the IDF [Israel Defense Forces] can ask for permission to use some of the equipment."⁵⁵ According to David Schenker of the Washington Institute, "WRSA-I is a strategic boon to Israel. The process is streamlined: No 60-day congressional notification is required, and there's no waiting on delivery."⁵⁶ During the 2006 war against Hezbollah in Lebanon, the United States granted Israel access to the stockpile. In July 2014, during Israeli military operations against Hamas in the Gaza Strip, the Defense Department permitted Israel to draw from the stockpile, paid with FMF, to replenish 120 mm tank rounds and 40 mm illumination rounds fired from grenade launchers (see text box below).⁵⁷

At times, Congress has passed legislation that has authorized EUCOM to increase the value of materiel stored in Israel. If EUCOM contributed the maximum amount legally permitted in a given fiscal year, then the non-inflation adjusted value of materiel stored in Israel would currently stand at \$1.8 billion. The following legislation authorized increases in value to the stockpile:

- FY1991: P.L. 101-513, the Foreign Operations, Export Financing, and Related Programs Appropriations Act for FY1991, authorized additions to defense articles in Israel up to \$200 million in value for FY1991.
- FY1993: P.L. 102-391, the Foreign Operations, Export Financing, and Related Programs Appropriations Act for FY1993, authorized additions to defense articles in Israel up to \$100 million in value for FY1993.

⁵¹ "In Depth: Israel Outflanks White House," *Wall Street Journal*, August 15, 2014.

⁵² U.S. State Department, Daily Press Briefing, August 18, 2014.

⁵³ "U.S./Israel Relations at Low Ebb: Hellfire Missile Supplies Halted," *Newsweek*, August 14, 2014; "In Depth: Israel Outflanks White House," op. cit.

⁵⁴ The government of Israel, using both its national funds and FMF, pays for the construction, maintenance and refurbishment costs of WRSA ammunition storage facilities. It also pays for the packaging, crating, handling and transportation of armaments to and from the stockpile.

⁵⁵ "US may give Israel Iraq Ammo," *Jerusalem Post*, February 11, 2010.

⁵⁶ "Best Friends Don't Have to Ask," *Politico Magazine*, August 14, 2014.

⁵⁷ "U.S. Defends Supplying Israel Ammunition during Gaza Conflict," Reuters, July 31, 2014.

- FY1994: P.L. 103-87, the Foreign Operations, Export Financing, and Related Programs Appropriations Act for FY1994, authorized additions to defense articles in Israel up to \$200 million in value for FY1994.
- FY1995: P.L. 103-306, the Foreign Operations, Export Financing, and Related Programs Appropriations Act for FY1995, authorized additions to defense articles in Israel up to \$100 million for FY1995.
- FY2007-FY2008: Section 13(a)(2)(A)(i) of the Department of State Authorities Act of 2006 (P.L. 109-472) amended Section 514 of the Foreign Assistance Act of 1961, as amended (P.L. 87-195; 22 U.S.C. 2321h) to authorize additions to defense articles in Israel of up to \$200 million in value for each of FY2007 and FY2008.⁵⁸
- FY2011-FY2012: P.L. 111-266, the Security Cooperation Act of 2010, authorized additions to defense articles in Israel up to \$200 million in value for each of FY2011 and FY2012.
- FY2014-FY2015: P.L. 113-296, the United States-Israel Strategic Partnership Act of 2014, authorized additions to defense articles in Israel up to \$200 million in value for each of FY2014 and FY2015.

Defense Budget Appropriations/Authorization for Anti-Tunnel Defense

For FY2016, lawmakers have proposed legislation authorizing the President to assist Israel in preventing Palestinian terrorist groups such as Hamas from using underground tunnels to attack Israeli soldiers and smuggle weapons into the Gaza Strip. H.R. 1735, the National Defense Authorization Act for FY2016, includes Section 1267, which, among other things, authorizes the President to “carry out research, development, and test activities on a joint basis with Israel to establish an anti-tunneling defense system to detect, map, and neutralize underground tunnels into and directed at the territory of Israel.” Section 1267 authorizes the President to “provide assistance to Israel for the procurement, maintenance, and sustainment of an anti-tunneling system,” if the executive branch and Israel formalize planned joint efforts—including cost-sharing and other key details—in a memorandum of understanding. S. 1376, the Senate version of the National Defense Authorization Act for FY2016, only mandates that the Secretary of Defense submit a report to Congress on the “feasibility and advisability of the entry by the United States and Israel into a bilateral agreement through which the governments of the two countries carry out research, development, and test activities on a joint basis to establish an anti-tunneling defense system.”

Aid Restrictions and Possible Violations

Although U.S. assistance to Israel has remained high for several decades, the United States has sometimes restricted aid or rebuked Israel for possible improper use of U.S.-supplied military equipment. The 1952 Mutual Defense Assistance Agreement and subsequent arms agreements

⁵⁸ This increase for each fiscal year is based on legislative language contained in Section 12002 of P.L. 108-287, the Department of Defense Appropriations Act, 2005.

between Israel and the United States limit Israel's use of U.S. military equipment to defensive purposes.⁵⁹ The Arms Export Control Act states that the United States may stop aid to countries which use U.S. military assistance for purposes other than "legitimate self-defense."⁶⁰ The Foreign Assistance Act of 1961, as amended, also contains general provisions on the use of U.S.-supplied military equipment.⁶¹ Some U.S. citizens and interest groups periodically call upon Congress to ensure that U.S. military assistance to Israel is conditioned on the Israeli government's "compliance with applicable U.S. laws and policies."⁶²

In some instances, U.S. assistance to Israel may only be used in areas subject to the administration of Israel prior to June 1967. For example, U.S. State Department-provided Migration and Refugee (MRA) assistance (see below), per agreement between the State Department and United Israel Appeal, may only be used for absorption centers, *ulpanim* (intensive Hebrew-language schools with particular focus on immigrants to Israel), or youth *aliyah* (relocation to Israel) institutions located within Israel's pre-June 1967 area of control.⁶³ In addition, according to agreements between the U.S. and Israeli governments, programs funded by certain U.S.-Israeli binational foundations, such as the U.S.-Israel Binational Science Foundation (see below), "may not be conducted in geographic areas which came under the administration of the Government of Israel after June 5, 1967 and may not relate to subjects primarily pertinent to such areas."⁶⁴

Israeli Arms Transfers to Third Parties

As previously mentioned, Israel has become a global leader in arms exports⁶⁵ and, over the last two decades, the United States and Israel have periodically disagreed over Israeli sales of sensitive U.S. and Israeli technologies to third party countries, most notably China.⁶⁶ In 2005, the United States suspended Israel from participating in the development of the Joint Strike Fighter (JSF) and imposed other restrictions in defense ties because of Israeli plans to upgrade Chinese Harpy Killer drone aircraft. Israel ultimately canceled the sale.

⁵⁹ See, CRS Report R42385, *U.S. Defense Articles and Services Supplied to Foreign Recipients: Restrictions on Their Use*, by (name redacted) .

⁶⁰ 22 U.S.C. §2754.

⁶¹ For example, see (among other sections), Section 502B, Human Rights (22 U.S.C. 2304), Section 505, Conditions of Eligibility (22 U.S.C. §2314), and Section 511, Considerations in Furnishing Military Assistance (22 U.S.C. §2321d).

⁶² One example from October 2012 featured representatives of Baptist, Lutheran, Catholic, Presbyterian, Methodist, Orthodox, Quaker and other Christian groups. Available online at <http://www.pcusa.org/news/2012/10/5/religious-leaders-ask-congress-condition-israel-mi/>.

⁶³ This stipulation is found in grant agreements between the U.S. State Department's Bureau of Population, Refugees, and Migration (PRM) and United Israel Appeal (clause 8. F. 2 – Use in Territories Subject to the Administration of the State of Israel Prior to June 1967). The FY2013 agreement (S-PRMCO-13-GR-1041 – March 13, 2013) is for \$15 million. CRS Correspondence with U.S. State Department, March 2014.

⁶⁴ <http://www.bsf.org.il/BSFPublic/DefaultPage1.aspx?PageId=221&innerTextID=221>.

⁶⁵ Israel's customers include Germany, Spain, France, Canada, Australia, Turkey, Azerbaijan, Singapore, South Korea, Brazil, India, Italy, the Netherlands, Poland and Romania. After the United States, Israel is considered one of the leading global exporters of cyber-related technologies and services. Israel also is the world's leading exporter of unmanned aerial vehicles. See, "The Numbers behind the Worldwide Trade in Drones," *The Guardian* (UK), March 16, 2015.

⁶⁶ According to one former State Department intelligence analyst, "We started having a problem with Israel in the 1990s, especially after the 1996 Chinese missile threats against Taiwan when we got the feeling that China's ballistic missile technology was modernizing way too fast." See, "U.S.-Israeli Defense Technology Teamwork Began With Confrontation," *Washington Times*, May 24, 2011.

U.S. restrictions effectively have curtailed almost all Israeli arms sales to China.⁶⁷ According to one unnamed Israeli official, “Our policy remains the same today.... We do not sell them anything that is defense related and that would jeopardize our ties with the US.”⁶⁸ In recent years, Israeli and Chinese military officials have exchanged visits, in what some observers believe has been an attempt by both countries to slowly expand bilateral relations.⁶⁹ China has already become one of Israel’s primary economic (non-military) trading partners, serving as Israel’s second or third largest export market.⁷⁰ According to one analyst, “Militarily, China is interested not only in original technologies but also in broader knowledge, and Israel, with its vast operational experience, is viewed by China as an authoritative source.... As for the transmission of military technologies, China with its political experience and patience may assume that current export limitations could one day be lifted, and may therefore continue to raise the issue on different occasions.”⁷¹

In order to create a more transparent arms transfer process, then-U.S. Defense Secretary Donald Rumsfeld and then-Israeli Defense Minister Shaul Mofaz signed a 2005 bilateral agreement mandating Israeli consultation with the U.S. government on sensitive arms transfers to third parties. The Israeli government also has established its own arms export controls agency to supervise military sales. On August 17, 2005, DOD and the Israeli Ministry of Defense issued a joint press statement reporting that they had signed an understanding “designed to remedy problems of the past that seriously affected the technology security relationship and to restore confidence in the technology security area.” Sources have reported that this understanding has given the United States de facto veto power over Israeli third-party arms sales that the United States deems harmful to its national security interests.⁷² In June 2005, the Israeli newspaper *Ha’aretz* reported that Israel would voluntarily adhere to the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, without actually being a party to it.⁷³

⁶⁷ According to one report, since U.S. restrictions on Israeli sales to China were put in place, “Washington has approved only a few, non-offensive, homeland security-related sales to China.” See, “Israel-China Revive Military Ties, But Not Defense Trade,” *Defense News*, August 17, 2011.

⁶⁸ “The Chinese Connection,” *Jerusalem Post*, July 6, 2012.

⁶⁹ In June 2011, Israeli Defense Minister Ehud Barak visited China, following a May 2011 visit from Chinese Admiral Wu Shengli. According to one Israeli defense official, “We are trying to explain to the Chinese the severity of the Iranian nuclear threat and to get better co-operation.” Then in August 2011, General Chen Bingde, chief of General Staff of the People’s Liberation Army, visited Israel for consultations with Israeli officials. See, Yoram Evron, “The Chinese Chief of Staff Visits Israel: Renewing Military Relations?” *INSS Insight*, No. 275, August 17, 2011.

⁷⁰ “China now Israel’s third-largest destination for exports,” *Jerusalem Post*, November 24, 2011. According to one report, bilateral trade reached a record high of \$7.5 billion in the January-November period of 2011, surpassing the \$6.8b. recorded for the full year of 2010. See, “Israel and China - Toward the next 20 years,” *Jerusalem Post*, January 24, 2012.

⁷¹ “Israel seeks rapport with China over Iran,” *Jane’s Defence Weekly*, June 16, 2011.

⁷² “U.S. OKs Israel-China Spy Sat Deal,” *Defense News*, October 12, 2007. This article quotes a U.S. official as saying, “We don’t officially acknowledge our supervisory role or our de facto veto right over their exports.... It’s a matter of courtesy to our Israeli friends, who are very serious about their sovereignty and in guarding their reputation on the world market.”

⁷³ Ze’ev Schiff et al., “Bowling to U.S. pressure, Israel to curb arms deals,” *Ha’aretz*, June 26, 2005. The participants to the Wassenaar Arrangement have agreed to (1) maintain national export controls on certain conventional arms and dual-use goods and technologies, (2) report on transfers and denials of specified controlled items to destinations outside the Arrangement, and (3) exchange information on sensitive dual-use goods and technologies. Participants include the United States and 40 other countries (including Russia, Japan, South Korea, Australia, New Zealand, South Africa, Canada, and most European countries). More information is available at <http://www.wassenaar.org/>.

On July 17, 2007, the Israeli Knesset passed a Law on Control of Defense Exports that established a new authority in the Defense Ministry to oversee defense exports—involving the Foreign Ministry in the process for the first time. As a result, the United States agreed to establish a High Technology Forum to institutionalize senior-level U.S.-Israel dialogue to address bilateral high technology trade, investment, and related issues.

In December 2013, Meir Shalit, then head of Israel’s Defense Export Control Agency (DECA), resigned after a joint US-Israeli investigation concluded that an Israeli miniature cooling system that can be used for missiles, and that had been licensed for sale to a French company, had been retransferred to China.⁷⁴ In the months prior to this development, the Israeli state comptroller had reportedly published a report indicating that DECA was inadequately enforcing proper defense export controls.⁷⁵

Other Ongoing Assistance and Cooperative Programs

Migration & Refugee Assistance

Since 1973, Israel has received grants from the State Department’s Migration and Refugee Assistance account (MRA)⁷⁶ to assist in the resettlement of migrants to Israel. Funds are paid to the United Israel Appeal, a private philanthropic organization in the United States, which in turn transfers the funds to the Jewish Agency for Israel.⁷⁷ Between 1973 and 1991, the United States gave about \$460 million for resettling Jewish refugees in Israel. Annual amounts have varied from a low of \$12 million to a high of \$80 million, based at least partly on the number of Jews leaving the former Soviet Union and other areas for Israel.

Table 3. Migration and Refugee Assistance Funding Levels

FY2000-FY2012	\$519.3 million total
FY2013	\$15 million
FY2014	\$15 million
FY2015	\$10 million
FY2016 Request	\$10 million

Source: U.S. State Department.

Congress has changed the earmark language since the first refugee resettlement funds were appropriated in 1973. At first, the congressional language said the funds were for “resettlement in Israel of refugees from the Union of Soviet Socialist Republics and from Communist countries in Eastern Europe.” But starting in 1985, the language was simplified to “refugees resettling in Israel” to ensure that Ethiopian Jews would be covered by the funding. Technically, the legislative language designates funds for refugee resettlement, but in Israel little differentiation is made

⁷⁴ “Israel Replaces Export Control Chief After Tech Transfer to China,” *Defense News*, January 3, 2014.

⁷⁵ “Report finds failings in Defense Export Supervision,” *Jerusalem Post*, July 18, 2013.

⁷⁶ The MRA account is authorized as part of the State Department’s institutional budget but is appropriated through the Foreign Operations Appropriations bill.

⁷⁷ The Jewish Agency for Israel’s website is available at <http://www.jafi.org.il/>.

between Jewish “refugees” and other immigrants, and the funds are used to support the absorption of all immigrants.

Loan Guarantees

Overview

Since 1972, the United States has extended loan guarantees to Israel to assist with housing shortages, Israel’s absorption of new immigrants from the former Soviet Union and Ethiopia, and its economic recovery following the 2000-2003 recession, which was probably partly caused by Israeli-Palestinian conflict known as the second intifada. Loan guarantees are a form of indirect U.S. assistance to Israel, since they enable Israel to borrow from commercial sources at lower rates. Congress directs that subsidies be set aside in a U.S. Treasury account for possible default. These subsidies, which are a percentage of the total loan (based in part on the credit rating of the borrowing country; in the case of the loan guarantees in the 1990s, the subsidy amount was 4.1%), have come from the U.S. or the Israeli government. Israel has never defaulted on a U.S.-backed loan guarantee.

Loan Guarantees for Economic Recovery

In 2003, then-Prime Minister Ariel Sharon requested an additional \$8 billion in loan guarantees to help Israel’s ailing economy. The loan guarantee request accompanied a request for an additional \$4 billion in military grants to help Israel prepare for possible attacks during an anticipated U.S. war with Iraq. P.L. 108-11, the FY2003 Emergency Wartime Supplemental Appropriations Act, authorized \$9 billion in loan guarantees over three years for Israel’s economic recovery and \$1 billion in military grants. P.L. 108-11 stated that the proceeds from the loan guarantees could be used only within Israel’s pre-June 5, 1967, area of control; that the annual loan guarantees could be reduced by an amount equal to the amount Israel spends on settlements in the occupied territories; that Israel would pay all fees and subsidies; and that the President would consider Israel’s economic reforms when determining terms and conditions for the loan guarantees.⁷⁸ On November 26, 2003, the Department of State announced that the \$3 billion in loan guarantees for FY2003 were reduced by \$289.5 million because Israel continued to build settlements in the occupied territories and continued construction of the security barrier separating Israelis and Palestinians. In FY2005, the U.S. government reduced the amount available for Israel to borrow by an additional \$795.8 million. Since then, Israel has not borrowed any funds.

According to the U.S. Department of the Treasury, Israel is legally obligated to use the proceeds of guaranteed loans for refinancing its government debt and also has agreed that proceeds shall not be used for military purposes or to support activities in areas outside its pre-June 5, 1967, areas of control (the West Bank—including East Jerusalem—and Gaza and the Golan Heights). However, U.S. officials note that since Israel’s national budget is fungible, proceeds from the

⁷⁸ According to P.L. 108-11, “[Loan] guarantees may be issued under this section only to support activities in the geographic areas which were subject to the administration of the Government of Israel before June 5, 1967: Provided further, That the amount of guarantees that may be issued shall be reduced by an amount equal to the amount extended or estimated to have been extended by the Government of Israel during the period from March 1, 2003, to the date of issue of the guarantee, for activities which the President determines are inconsistent with the objectives and understandings reached between the United States and the Government of Israel regarding the implementation of the loan guarantee program: Provided further, That the President shall submit a report to Congress no later than September 30 of each fiscal year during the pendency of the program specifying the amount calculated under the preceding proviso and that will be deducted from the amount of guarantees authorized to be issued in the next fiscal year.”

issuance of U.S.-guaranteed debt that are used to refinance Israeli government debt free up domestic Israeli funds for other uses.⁷⁹

As of 2015, Israel is still authorized to issue up to \$3.8 billion in U.S.-backed bonds. In the summer of 2012, Congress passed and the President signed into law P.L. 112-150, the United States-Israel Enhanced Security Cooperation Act of 2012. Section 5(b) of the law extends⁸⁰ the loan guarantee authority until September 30, 2015.⁸¹ In general, Israel may view U.S. loan guarantees as a “last resort” option, which its treasury could use if unguaranteed local and international bond issuances become too expensive. According to one Israeli official, “We consider the loan guarantees as preparation for a rainy day.... This is a safety net for war, natural disaster and economic crisis, which allows Israel to maintain economic stability in unstable surroundings.”⁸² Israeli officials may believe that although they have not needed to use the loan guarantees in the last ten years, maintaining the program boosts the country’s fiscal standing among international creditors in capital markets.

In the winter of 2015, several media reports suggested that, amidst Administration tensions with Prime Minister Benjamin Netanyahu over a range of issues, the White House was considering a possible reduction in loan guarantees to Israel “in a planned report to Congress” (see footnote 76).⁸³ As previously stated, Israel has not used U.S. loan guarantees since FY2005 and should it continue not to do so, any planned future deductions would most likely be perceived as symbolically punitive rather than financially consequential.

Table 4. U.S. Loan Guarantees to Israel: FY2003-FY2015

(current \$ in millions)

Fiscal Year	Deductions for Settlement Activity	Amount Borrowed by Israel	Amount Available for Israel to Borrow
FY2003	289.5	1,600.0	1,110.5
FY2004	—	2,500.0	1,610.5
FY2005	795.8	—	1,814.7
FY2006	—	—	2,148.0
FY2007	—	—	2,481.4
FY2008	—	—	2,814.7
FY2009	—	—	3,148.0

⁷⁹ CRS correspondence with the U.S. Department of the Treasury’s Office of International Affairs, October 2009.

⁸⁰ P.L. 108-447, the FY2005 Consolidated Appropriations Act, first extended the authority of the loan guarantees from FY2005 to FY2007. P.L. 109-472, the 2006 Department of State Authorities Act, extended the authority to provide loan guarantees through FY2011. Under that legislation, the loan guarantee program had a stated end of September 30, 2011; however, there was also a “carryover” provision in the statute under which Israel could draw on unused U.S. guarantees until September 30, 2012.

⁸¹ A 2011 internal report by the State Department’s Office of Inspector General reportedly recommended that the loan guarantee program be terminated. According to a purported excerpt of the report published by *Ha’aretz*, “Planning should begin now for [the loan-guarantee program’s] orderly termination.... Israel has been admitted to the Organization for Economic Cooperation and Development, an indication that it is now a modern, self-sufficient economy capable of supporting its citizens as an industrialized country. The OIG team found a broad consensus that the loan guarantee program can prudently be terminated in accordance with the sunset clause in the original legislation, which provided that it would end by 2011.” See, “U.S. Report Recommends Ending Loan Guarantees to Israel at end of 2011,” *Ha’aretz*, July 28, 2011.

⁸² “U.S. to Grant Three-year Extension of Loan Guarantees to Israel,” *Ha’aretz*, January 24, 2012.

⁸³ “White House Considers opening Breach in U.S.-Israel Relationship,” *Washington Post*, March 19, 2015.

Fiscal Year	Deductions for Settlement Activity	Amount Borrowed by Israel	Amount Available for Israel to Borrow
FY2010	—	—	3,481.0
FY2011	—	—	3,814.0
FY2012	—	—	3,814.0
FY2013	—	—	3,814.0
FY2014	—	—	3,814.0
FY2015	—	—	3,814.0

Source: U.S. Department of the Treasury and U.S. State Department.

American Schools and Hospitals Abroad Program (ASHA)⁸⁴

Through Foreign Operations appropriations legislation, Congress has funded the ASHA program as part of the overall Development Assistance (DA) appropriation to the United States Agency for International Development (USAID). According to USAID, ASHA is designed to strengthen self-sustaining schools, libraries, and medical centers that best demonstrate American ideals and practices abroad. ASHA has been providing support to institutions in the Middle East since 1957, and a number of Israeli universities and hospitals have been recipients of ASHA grants. In FY2014, ASHA grant recipients in Israel include: Shaare Zedek Medical Center in Jerusalem, The Feinberg Graduate School of the Weizmann Institute of Science, The Hebrew University of Jerusalem, and the Hadassah Medical Organization. According to USAID, institutions based in Israel have received the most program funding in the Middle East region.

Table 5. ASHA Program Grants from Israel Account, FY2000-FY2014

Fiscal year	Amount
FY2000	\$2.75 million
FY2001	\$2.25 million
FY2002	\$2.65 million
FY2003	\$3.05 million
FY2004	\$3.15 million
FY2005	\$2.95 million
FY2006	\$3.35 million
FY2007	\$2.95 million
FY2008	\$3.90 million
FY2009	\$3.90 million
FY2010	\$3.80 million
FY2011	\$4.225 million

⁸⁴ According to USAID, recipients of ASHA grants on behalf of overseas institutions must be private U.S. organizations, headquartered in the United States, and tax-exempt. The U.S. organization must also serve as the founder and/or sponsor of the overseas institution. Schools must be for secondary or higher education and hospital centers must conduct medical education and research outside the United States. Grants are made to U.S. sponsors for the exclusive benefit of institutions abroad. See http://www.usaid.gov/our_work/cross-cutting_programs/asha/.

Fiscal year	Amount
FY2012	\$3.00 million
FY2013	\$3.800 million
FY2014	\$3.052 million
Total	\$41.925 million

Source: USAID.

U.S.-Israeli Scientific & Business Cooperation

In the early 1970s, Israeli academics and businessmen began looking for ways to expand investment in Israel's high technology sector. At the time, Israel's nascent technology sector, which would later become the driving force in the country's economy, was in need of private capital for research and development. The United States and Israel launched several programs to stimulate Israeli industrial and scientific research, and Congress has on several occasions authorized and appropriated⁸⁵ funds for the following organizations:

- **The BIRD Foundation** (Israel-U.S. Binational Research & Development Foundation).⁸⁶ BIRD, which was established in 1977, provides matchmaking services between Israeli and American companies in research and development with the goal of expanding cooperation between U.S. and Israeli private high tech industries. The mission of the Foundation is "to stimulate, promote and support joint (non-defense) industrial R&D of mutual benefit to..." the two countries.⁸⁷ Projects are supported in the areas of homeland security, communications, electronics, electro-optics, software, life sciences, and renewable and alternative energy, among others.⁸⁸ According to the Foundation, \$319 million in grants have been awarded to almost a thousand projects. Awards typically range from \$700,000 to \$900,000. The award size varies based on total project budget and other considerations. The recipients must provide at least 50% of the total project budget. While support for military projects are not a part of the program, several of the completed ventures have yielded products that might be useful in a military setting, including the Aircraft Enhanced Vision System (EVS) camera, "which is designed to provide day/night improved orientation during taxiing or flying. It allows visual landing in reduced visibility conditions, such as fog, haze, dust, smog etc." The Foundation also funded the creation of a Through-Wall Location and Sensing System that is portable and "detects whether people are present behind walls, how many, and where they are situated."⁸⁹

⁸⁵ With the exception of recent funding for U.S.-Israeli energy cooperation (see "U.S.-Israeli Energy Cooperation" section below), Congress has not appropriated funding for binational foundations since the mid-1980s. At this point, the foundations are able to sustain grant making with interest earned from their respective endowments and fees collected from companies who successfully profited after receiving research support from the foundations.

⁸⁶ See <http://www.birdf.com/default.asp>. Congress helped establish BIRD's endowment with appropriations of \$30 million and \$15 million in 1977 and 1985, respectively. These grants were matched by the Israeli government for a total endowment of \$90 million.

⁸⁷ Eitan Ydilevich, "Building U.S.-Israel Economic Partnerships, The BIRD Model," Washington, DC. June 10, 2010, p. 2.

⁸⁸ BIRD Foundation, What is BIRD?, available at <http://www.birdf.com/Index.asp?CategoryID=22&ArticleID=79>.

⁸⁹ Information from the BIRD Foundation website, <http://www.birdf.com>.

- **The BSF Foundation** (U.S.-Israel Binational Science Foundation).⁹⁰ BSF, which was started in 1972, promotes cooperation in scientific and technological research.
- **The BARD Foundation** (Binational Agriculture and Research and Development Fund). BARD was created in 1978 and supports U.S.-Israeli cooperation in agricultural research.⁹¹
- In 1995, the United States and Israel established **The U.S.-Israel Science and Technology Foundation (USISTF)** to fund and administer projects mandated by the U.S.-Israel Science and Technology Commission (USISTC),⁹² a bilateral entity jointly established by the United States Department of Commerce and the Israel Ministry of Industry, Trade, and Labor in 1994 to foster scientific, technological, and economic cooperation between the two countries.

U.S.-Israeli Energy Cooperation

In 2005, Congress began to consider legislation to expand U.S.-Israeli scientific cooperation in the field of renewable energy. Lawmakers reviewed legislation in the House and the Senate entitled, “The United States-Israel Energy Cooperation Act.” Various forms of the bill would have authorized the Department of Energy to establish a joint U.S.-Israeli grant program to fund research in solar, biomass, and wind energy, among other directives. Section 917 of P.L. 110-140, the Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007, contains the original language of the U.S.-Israel Energy Cooperation Act (H.R. 1838). Although it did not appropriate any funds for joint research and development, it did establish a grant program to support research, development, and commercialization of renewable energy or energy efficiency. The law also authorized the Secretary of Energy to provide funds for the grant program as needed. Congress authorized the program for seven years from the time of enactment, which was on December 19, 2007. Then, in December 2014, the President signed into law P.L. 113-296, the United States-Israel Strategic Partnership Act of 2014, which reauthorized the U.S.-Israeli Energy Cooperation program for an additional ten years until September 30, 2024.

To date, Congress and the Administration have provided a total of **\$9.7 million** for the grant program, known as BIRD Energy.

⁹⁰ See <http://www.bsf.org.il/Gateway4/>. Congress helped establish BSF’s endowment with appropriations of \$30 million and \$20 million in 1972 and 1984 respectively. These grants were matched by Israel for a total endowment of \$100 million. According to the treaty establishing the Foundation, the Foundation shall use the interest, as well as any funds derived from its activities, for the operations of the Foundation.

⁹¹ See <http://www.bard-isus.com/>. Congress helped establish BARD’s endowment with appropriations of \$40 million and \$15 million in 1979 and 1985 respectively. These grants were matched by the State of Israel for a total endowment of \$110 million. In recent years, Congress has provided funds for BARD in annual Agriculture Appropriations legislation at approximately \$500,000 a year.

⁹² The U.S.-Israel Science and Technology Commission (USISTC) was established in 1993 to facilitate cooperative ventures between high tech industries in the two countries. The goal of the program is to “to maximize the contribution of technology to economic growth.” While the collaborative work may be somewhat similar to that supported by the BIRD Foundation, “the Science and Technology Commission assists in the commercialization of new technologies with longer lead times to market. These projects involve higher risk and require substantial capital commitments.” The ventures are funded and administered by the U.S.-Israel Science and Technology Foundation. The U.S. and Israeli governments each committed \$15 million to the effort over three years for a total of \$30 million.

- In FY2009, Congress provided **\$2 million** for the program in P.L. 111-8, the Omnibus Appropriations Act, 2009.⁹³
- In FY2010, Congress provided an additional **\$2 million** in P.L. 111-85, the Energy and Water Development and Related Agencies Appropriations Act, 2010.
- In FY2011, the Department of Energy allocated **\$300,000** in discretionary spending for BIRD Energy.
- For FY2012, Congress provided an additional **\$2 million** in funding. In report language (H.Rept. 112-331) accompanying P.L. 112-74, the Consolidated Appropriations Act 2012, lawmakers directed the Department of Energy “to only fund activities within the International Program that directly benefit domestic industry, increase American energy self-sufficiency, further United States research efforts, or reduce domestic pollution. Within available funds, the conference agreement includes \$2,000,000 for the U.S.-Israel energy cooperative agreement.”
- For FY2013, the Department of Energy allocated **\$1.4 million** in discretionary spending for BIRD Energy.
- For FY2014, Congress directed in the Joint Explanatory Statement accompanying the FY2014 Consolidated Appropriations Act (P.L. 113-76) that the Department of Energy allocate **\$2 million** toward BIRD Energy out of the \$23.55 million Energy Efficiency and Renewable Energy Strategic Programs account.
- For FY2015, the Department of Energy plans to allocate **\$2 million** in discretionary spending for BIRD Energy.⁹⁴
- For FY2016, the Department of Energy plans on continuing its “support of bilateral clean energy research and development with Israel.”⁹⁵ In S.Rept. 114-54 accompanying H.R. 2028, the Energy and Water Development Appropriations bill for FY2016, lawmakers recommend **\$2 million** for BIRD and direct the Administration to report on the implementation of U.S.-Israeli cooperation in the research and development of natural gas energy technologies, as specified in Section 12 of P.L. 113-296, the United States-Israel Strategic Partnership Act of 2014. The House version of the bill also specifies \$2 million for BIRD in FY2016.

⁹³ P.L. 111-8 did not specify an amount for the program but adopted the House version of the energy and water appropriations bill that recommended \$2 million to fund the U.S.-Israeli cooperative agreement. The Senate version had recommended \$5 million for FY2009.

⁹⁴ In H.Rept. 113-486 accompanying H.R. 4923, the Energy and Water Development and Related Agencies Appropriations Act 2015, lawmakers specified \$2 million in funding for BIRD. Although this specific directive was not included in the FY2015 Omnibus Appropriations Act, the Department of Energy intends to follow the intent of House appropriators and provide \$2 million to BIRD for FY2015.

⁹⁵ See, Department of Energy, FY2016 Congressional Budget Request.

Appendix A. Historical Background

1948-1970

U.S. government assistance to Israel began in 1949 with a \$100 million Export-Import Bank Loan.⁹⁶ For the next two decades, U.S. aid to Israel was modest and was far less than in later years.⁹⁷ Although the United States provided moderate amounts of economic aid (mostly loans), Israel's main early patron was France, which provided Israel with advanced military equipment and technology.⁹⁸ In 1962, Israel purchased its first advanced weapons system from the United States (Hawk anti-aircraft missiles).⁹⁹ In 1968, a year after Israel's victory in the Six Day War, the Johnson Administration, with strong support from Congress, approved the sale of Phantom aircraft to Israel, establishing the precedent for U.S. support for what later came to be referred to as Israel's qualitative military edge over its neighbors.¹⁰⁰

1970-Present

Large-scale U.S. assistance for Israel increased considerably after several consecutive Arab-Israeli wars in the late 1960s and early 1970s created an apparent sense among many Americans that Israel was continually under siege.¹⁰¹ Consequently, Congress, supported by broad U.S. public opinion, committed to strengthening Israel's military and economy through large increases in foreign aid. From 1966 through 1970, average aid per year increased to about \$102 million and military loans increased to about 47% of the total. In 1971, the United States provided Israel with military loans of \$545 million, up from \$30 million in 1970. Also in 1971, Congress first designated a specific amount of aid for Israel in legislation (an "earmark"). Economic assistance changed from project aid, such as support for agricultural development work, to a Commodity Import Program (CIP) for the purchase of U.S. goods.¹⁰² In effect, the United States stepped in to fill the role that France had relinquished when French President Charles de Gaulle refused to supply Israel with military hardware to protest its preemptive launch of the Six Day War in June 1967. Israel became the largest recipient of U.S. foreign assistance in 1974, and has only been superseded at various times by Iraq and Afghanistan in the past decade because of short-term U.S. aid aimed at building those countries' indigenous security capabilities. From 1971 to the present,

⁹⁶ In 1948, President Harry Truman, who sympathized with the plight of Israel in its early days and recognized its statehood over the objections of some of his top advisors, placed an arms embargo on Israel and its Arab neighbors in order to keep the United States neutral in the ongoing Arab-Israeli conflict. The Tripartite Declaration of 1950 reaffirmed U.S., British, and French opposition to the development of Arab-Israeli arms races.

⁹⁷ From 1949 through 1965, U.S. aid to Israel averaged about \$63 million per year, over 95% of which was economic development assistance and food aid. A modest military loan program began in 1959.

⁹⁸ France supplied Israel with military equipment mainly to counter Egypt. In the 1950s and early 1960s, Egypt antagonized France by providing arms and training for Algeria's war for independence against France.

⁹⁹ "America's Staunchest Mideast Ally," *Christian Science Monitor*, August 21, 2003.

¹⁰⁰ Section 303 of P.L. 90-554, *Foreign Assistance Act of 1968*, expressed the sense of Congress to see the United States negotiate the sale of supersonic aircraft to Israel.

¹⁰¹ Between 1967 and 1973, Israel and its Arab neighbors fought the June 1967 War, the ensuing War of Attrition (1969), and the October 1973 War. Israel also was engaged in low level guerrilla warfare with the Palestinian Liberation Organization and other groups, which had bases in Jordan and later in Lebanon. The 1974 emergency aid for Israel, following the 1973 war, included the first U.S. military grant aid to Israel.

¹⁰² The Commodity Import Program for Israel ended in 1979 and was replaced with direct, largely unconditional cash transfers.

U.S. aid to Israel has averaged over \$2.6 billion per year, two-thirds of which has been military assistance.

The 1979 Israeli-Egyptian Peace Treaty

The 1979 peace treaty between Israel and Egypt ushered in the current era of U.S. financial support for peace between Israel and its Arab neighbors. To facilitate a full and formal cessation of hostilities and Israel's return of the Sinai Peninsula to Egypt, the United States provided a total of \$7.5 billion to both parties in 1979. The "Special International Security Assistance Act of 1979" (P.L. 96-35) provided military and economic grants to Israel and Egypt at a ratio of 3:2, respectively.¹⁰³

Emergency Aid

U.S. assistance also has been used to help ease financial pressures on the Israeli treasury during recession.¹⁰⁴ In 1985, the United States significantly increased U.S. assistance to Israel, with Congress passing a special economic assistance package of \$1.5 billion in order to help the Israeli economy cope with soaring inflation and economic stagnation.¹⁰⁵ As part of the assistance agreement, the United States and Israel formed the U.S.-Israel Joint Economic Development Group (JEDG) to support Israeli economic reforms.¹⁰⁶ In addition, U.S. economic aid was converted to a cash grant transfer in 1981, and all U.S. military aid to Israel was converted from loans into grants in 1985.¹⁰⁷

During difficult times for Israel, U.S. aid to Israel has increased. In 1991, Congress provided Israel \$650 million in emergency grants to pay for damage and other costs from Operation Desert Storm, as well as Patriot missiles to defend against Iraqi Scud missile attacks. After the 1991 collapse of the Soviet Union and the ensuing increase in migration of Russian and other Eastern bloc Jews to Israel, Congress approved \$10 billion in loan guarantees for Israel to help it absorb immigrants and provide them with adequate social services. Finally, in the aftermath of the 2003 Iraq invasion and during a time of Israeli-Palestinian conflict (the second Palestinian intifada), Congress passed the FY2003 Emergency Supplemental Appropriations Act (P.L. 108-11), which included \$9 billion in loan guarantees over three years for Israel's economic recovery and \$1 billion in military grants.

¹⁰³ This ratio is not found in the text of the 1978 Camp David Accords and or the 1979 Israel-Egypt treaty. U.S. officials have not formally recognized the ratio. Egyptian officials often assert that, since Egypt took political risks in making peace with Israel, the United States should be even-handed in its assistance policy to the region. The Egyptian government claims that a 3:2 ratio between Israel and Egypt was established during the negotiations.

¹⁰⁴ Beginning in the mid-1970s, Israel could no longer meet its balance of payments and government deficits with imported capital (gifts from overseas Jews, West German reparations, regular U.S. aid) and began to rely more on borrowed capital. Growing debt servicing costs, mounting government social services expenditures, perennial high defense spending, and a stagnant domestic economy combined with worldwide inflation and shrinking foreign markets for Israeli goods to push the Israeli economy into a near crisis situation in the mid-1980s.

¹⁰⁵ See Title I, Chapter V of P.L. 99-88, Economic Support Fund Assistance for Israel, Egypt, and Jordan. In 1985, the United States and Israel also concluded a Free Trade Agreement, which dramatically boosted Israeli exports to the United States.

¹⁰⁶ The JEDG meets on an annual basis to discuss financial sector and labor market reforms, trade liberalization, and privatization. The JEDG also monitors the disbursement of U.S. loan guarantees to Israel.

¹⁰⁷ The 1974 emergency aid for Israel, following the 1973 war, included the first U.S. military grant aid.

Using Aid to Support the Peace Process

During the 1990s, the United States provided aid to support the Israeli-Palestinian peace process. In late 1998, Israel requested \$1.2 billion in additional U.S. aid to fund the movement of troops and military installations out of areas of the West Bank as called for in the October 23, 1998, Wye Agreement.¹⁰⁸ The Clinton Administration requested this amount for Israel despite the fact that the Wye Agreement's implementation had stalled. President Clinton vetoed H.R. 2606, the FY2000 foreign operations appropriations bill, in part because it did not include the Wye funding. On November 29, 1999, the President signed the consolidated appropriations bill, H.R. 3194 (P.L. 106-113), which included in Division B passage of H.R. 3422, the Foreign Operations Appropriations bill. Title VI of H.R. 3422 included the \$1.2 billion Wye funding for Israel.

¹⁰⁸ The full text of the 1998 Wye River Memorandum, a U.S.-brokered Israeli-Palestinian security agreement, is available at <http://www.mfa.gov.il/NR/exeres/EE54A289-8F0A-4CDC-93C9-71BD631109AB.htm>.

Appendix B. Bilateral Aid to Israel

Table B-1 shows cumulative U.S. aid to Israel for FY1949 through FY1996, and U.S. aid to Israel for each fiscal year since. Detail for the years 1949-1996 is shown in **Table B-2** and **Table B-3**.

Table B-1. Recent U.S. Bilateral Aid to Israel
(millions of dollars)

Year	Total	Military Grant	Economic Grant	Immig. Grant	ASHA	All other
1949-1996	68,030.9	29,014.9	23,122.4	868.9	121.4	14,903.3
1997	3,132.1	1,800.0	1,200.0	80.0	2.1	50.0
1998	3,080.0	1,800.0	1,200.0	80.0	—	—
1999	3,010.0	1,860.0	1,080.0	70.0	—	—
2000	4,131.85	3,120.0	949.1	60.0	2.75	—
2001	2,876.05	1,975.6	838.2	60.0	2.25	—
2002	2,850.65	2,040.0	720.0	60.0	2.65	28.0
2003	3,745.15	3,086.4	596.1	59.6	3.05	—
2004	2,687.25	2,147.3	477.2	49.7	3.15	9.9
2005	2,612.15	2,202.2	357.0	50.0	2.95	—
2006	2,534.5	2,257.0	237.0	40.0	—	0.5
2007	2,503.15	2,340.0	120.0	40.0	2.95	0.2
2008	2,423.9	2,380.0	0	40.0	3.90	0
2009	2,583.9	2,550.0	0	30.0	3.90	0
2010	2,803.8	2,775.0	0	25.0	3.80	0
2011	3,029.22	3,000.0	0	25.0	4.225	0
2012	3,098.0	3,075.0	0	20.0	3.00	0
2013	2,943.234 (After Sequestration)	3,100.0	0	15.0	—	0
2014	3,115.0	3,100.0	0	15.0	—	0
FY2015	3,110.0	3,100.0	0	10.0	—	0
FY2016 Request	3,110.0	3,100.0	0	10.0	—	0
Total	124,300.804	70,523.4	30,897.0	1,673.2	162.075	14,991.9

Notes: ESF was earmarked for \$960 million for FY2000 but was reduced to meet a 0.38% rescission. FY2000 military grants include \$1.2 billion for the Wye agreement and \$1.92 billion in annual military aid. Final amounts for FY2003 are reduced by 0.65% mandated rescission, and final amounts for FY2004 are reduced by 0.59%.

The \$600 million in housing loan guarantees, \$5.5 billion in military debt reduction loan guarantees, \$9.2 billion in Soviet Jew resettlement loan guarantees, and \$9 billion in economic recovery loan guarantees are not included in the tables because the United States government did not transfer funds to Israel. The United States underwrote loans to Israel from commercial institutions.

Table B-2. U.S. Assistance to Israel, FY1949-FY1996
(millions of dollars)

Year	Total	Military Loan	Military Grant	Economic Loan	Economic Grant	FFP Loan	FFP Grant
1949	100.0	-	-	-	-	-	-
1950	-	-	-	-	-	-	-
1951	35.1	-	-	-	0.1	-	-
1952	86.4	-	-	-	63.7	-	22.7
1953	73.6	-	-	-	73.6	-	a
1954	74.7	-	-	-	54.0	-	20.7
1955	52.7	-	-	20.0	21.5	10.8	0.4
1956	50.8	-	-	10.0	14.0	25.2	1.6
1957	40.9	-	-	10.0	16.8	11.8	2.3
1958	85.4	-	-	15.0	9.0	34.9	2.3
1959	53.3	0.4	-	10.0	9.2	29.0	1.7
1960	56.2	0.5	-	15.0	8.9	26.8	4.5
1961	77.9	a	-	16.0	8.5	13.8	9.8
1962	93.4	13.2	-	45.0	0.4	18.5	6.8
1963	87.9	13.3	-	45.0	-	12.4	6.0
1964	37.0	-	-	20.0	-	12.2	4.8
1965	65.1	12.9	-	20.0	-	23.9	4.9
1966	126.8	90.0	-	10.0	-	25.9	0.9
1967	23.7	7.0	-	5.5	-	-	0.6
1968	106.5	25.0	-	-	-	51.3	0.5
1969	160.3	85.0	-	-	-	36.1	0.6
1970	93.6	30.0	-	-	-	40.7	0.4
1971	634.3	545.0	-	-	-	55.5	0.3
1972	430.9	300.0	-	-	50.0	53.8	0.4
1973	492.8	307.5	-	-	50.0	59.4	0.4
1974	2,621.3	982.7	1,500.0	-	50.0	-	1.5
1975	778.0	200.0	100.0	-	344.5	8.6	-
1976	2,337.7	750.0	750.0	225.0	475.0	14.4	a
TQ	292.5	100.0	100.0	25.0	50.0	3.6	-
1977	1,762.5	500.0	500.0	245.0	490.0	7.0	-
1978	1,822.6	500.0	500.0	260.0	525.0	6.8	-
1979	4,888.0	2,700.0	1,300.0	260.0	525.0	5.1	-
1980	2,121.0	500.0	500.0	260.0	525.0	1.0	-
1981	2,413.4	900.0	500.0	-	764.0	-	-
1982	2,250.5	850.0	550.0	-	806.0	-	-

Year	Total	Military Loan	Military Grant	Economic Loan	Economic Grant	FFP Loan	FFP Grant
1983	2,505.6	950.0	750.0	-	785.0	-	-
1984	2,631.6	850.0	850.0	-	910.0	-	-
1985	3,376.7	-	1,400.0	-	1,950.0	-	-
1986	3,663.5	-	1,722.6	-	1,898.4	-	-
1987	3,040.2	-	1,800.0	-	1,200.0	-	-
1988	3,043.4	-	1,800.0	-	1,200.0	-	-
1989	3,045.6	-	1,800.0	-	1,200.0	-	-
1990	3,034.9	-	1,792.3	-	1,194.8	-	-
1991	3,712.3	-	1,800.0	-	1,850.0	-	-
1992	3,100.0	-	1,800.0	-	1,200.0	-	-
1993	3,103.4	-	1,800.0	-	1,200.0	-	-
1994	3,097.2	-	1,800.0	-	1,200.0	-	-
1995	3,102.4	-	1,800.0	-	1,200.0	-	-
1996	3,144.0	-	1,800.0	-	1,200.0	-	-
Total	68,030.9	11,212.5	29,014.9	1,516.5	23,122.4	588.5	94.1

Notes: a = less than \$50,000

- = None

NA = Not Available

TQ = Transition Quarter, when the U.S. fiscal year changed from June to September.

FFP = Food for Peace

Cooperative Development Grant: Three programs are in the cooperative development category: Middle East Regional Cooperation (MERC) intended for projects that foster economic growth and economic cooperation between Israel and its neighbors; Cooperative Development Program (CDP); and the Cooperative Development Research (CDR), both of which fund Israel's foreign aid program. Israel received about one half of the \$94 million MERC, and all of the \$53 million CDP and \$39 million CDR.

"Other Loan" is a CCC loan. "Other Grants" are \$20 million in 1975 for a seawater desalting plant and \$50 million in 1996 for anti-terrorism.

Definition of Aid: Under the category of foreign aid, some people include other funds transferred to Israel, such as the \$180 million for research and development of the Arrow missile, or the \$7.9 billion in loan guarantees

Table B-3. U.S. Assistance to Israel, FY1949-FY1996

(millions of dollars)

Year	Ex-Im. Bank Loan	Jewish Refug. Resettle Grant	Amer. Schools & Hosp. Grant	Other Loan	Coop. Devel. Grant	Other Grant
1949	100.0	-	-	-	-	-
1950	-	-	-	-	-	-
1951	35.0	-	-	-	-	-
1952	-	-	-	-	-	-
1953	-	-	-	-	-	-
1954	-	-	-	-	-	-
1955	-	-	-	-	-	-
1956	-	-	-	-	-	-
1957	-	-	-	-	-	-
1958	24.2	-	-	-	-	-
1959	3.0	-	-	-	-	-
1960	0.5	-	-	-	-	-
1961	29.8	-	-	-	-	-
1962	9.5	-	-	-	-	-
1963	11.2	-	-	-	-	-
1964	-	-	-	-	-	-
1965	3.4	-	-	-	-	-
1966	-	-	-	-	-	-
1967	9.6	-	1.0	-	-	-
1968	23.7	-	6.0	-	-	-
1969	38.6	-	-	-	-	-
1970	10.0	-	12.5	-	-	-
1971	31.0	-	2.5	-	-	-
1972	21.1	-	5.6	-	-	-
1973	21.1	50.0	4.4	-	-	-
1974	47.3	36.5	3.3	-	-	-
1975	62.4	40.0	2.5	-	-	20.0
1976	104.7	15.0	3.6	-	-	-
TQ	12.6	-	1.3	-	-	-
1977	0.9	15.0	4.6	-	-	-
1978	5.4	20.0	5.4	-	-	-
1979	68.7	25.0	4.2	-	-	-
1980	305.9	25.0	4.1	-	-	-
1981	217.4	25.0	2.0	-	5.0	-
1982	6.5	12.5	3.0	17.5	5.0	-

Year	Ex-Im. Bank Loan	Jewish Refug. Resettle Grant	Amer. Schools & Hosp. Grant	Other Loan	Coop. Devel. Grant	Other Grant
1983	-	12.5	3.1	-	5.0	-
1984	-	12.5	4.1	-	5.0	-
1985	-	15.0	4.7	-	7.0	-
1986	15.0	12.0	5.5	-	10.0	-
1987	-	25.0	5.2	-	10.0	-
1988	-	25.0	4.9	-	13.5	-
1989	-	28.0	6.9	-	10.7	-
1990	-	29.9	3.5	-	14.4	-
1991	-	45.0	2.6	-	14.7	-
1992	-	80.0	3.5	-	16.5	-
1993	-	80.0	2.5	-	20.9	-
1994	-	80.0	2.7	-	14.5	-
1995	-	80.0	2.9	-	19.5	-
1996	-	80.0	3.3	-	14.0	50.0
Total	1218.5	868.9	121.4	17.5	185.7	70.0

Notes: a = less than \$50,000

- = None

NA = Not Available

TQ = Transition Quarter, when the U.S. fiscal year changed from June to September.

FFP = Food for Peace

Cooperative Development Grant: Three programs are in the cooperative development category: Middle East Regional Cooperation (MERC) intended for projects that foster economic growth and economic cooperation between Israel and its neighbors; Cooperative Development Program (CDP); and the Cooperative Development Research (CDR), both of which fund Israel's foreign aid program. Israel received about one half of the \$94 million MERC, and all of the \$53 million CDP and \$39 million CDR.

"Other Loan" is a CCC loan. "Other Grants" are \$20 million in 1975 for a seawater desalting plant and \$50 million in 1996 for anti-terrorism.

Definition of Aid: Under the category of foreign aid, some people include other funds transferred to Israel, such as the \$180 million for research and development of the Arrow missile, or the \$7.9 billion in loan guarantees for housing or settling Soviet Jews in Israel. None of these funds is included in this table.

Author Contact Information

(name redacted)

Specialist in Middle Eastern Affairs

[redacted]@crs.loc.gov...

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