Place's recharging infrastructure at IDF bases." *Inside Climate News* reported that "In Israel, Better Place infrastructure would support future electric military jeeps, dune buggies and other vehicles."

*Globes* reports that "50 firms in Israel...plan to replace company cars with 35,000 electric cars." These firms include Israel's third largest war industry, Rafael. (See previous issue, pp.48-49.) Several other firms catering to the IDF and Israel's military industries, like Matix IT and Orbotech, a former Elron company, are also planning to convert their fleets, as are Pelephone (owned by Bezeq) and Partner Communications. (See previous issue, p.11, and this issue p.29.)

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Ithough it has military revenues totaling US\$2.9 billion, this US company was selected by the Ethisphere Institute to be one of the "World's Most Ethical Companies" in 2011. Rockwell Collins is also among the world's most successful war industry, ranking 27th largest by military revenues. The company promotes itself and its role in the production of various weapons systems with these words:

- "battle-proven communication, navigation, instrument landing systems" for fighter and bomber aircraft,
- electronics for "missiles and munitions" such as "critical guidance, navigation and controls needed to put a weapon on target," and
- "surveillance, targeting and communications" for aerial drones used "in some of the world's toughest battlespace."

Rockwell Collins sold US\$7.04 billion worth of such products and services to US military departments and agencies between 2000 and 2009. These contracts made up 99% of its business with the US federal government. The company was the US military's 33rd largest supplier in 2009

and ranked within the top-50 Pentagon contractors between 2004 and 2009.

Although Rockwell Collins has been among the world's top 35 war industries every year since 2002, its predecessor, Rockwell International, was America's number one military contractor in the 1980s. Rockwell International was, for instance, the prime contractor for GBU-15 bombs, which are still part of the Israel's arsenal. These unpowered, 2,000-pound "Guided Bomb Units" are dropped from Israel's US-made F-15 warplanes.

Data obtained by the Coalition to Oppose the Arms Trade from the "Government Contracts USA Defense Dep't" database show that between 1999 and 2009, Rockwell and its subsidiaries received 94 contracts worth US\$69.9 million for products and services related to AH-64 attack helicopters, and F-15 and F-16 fighter/bombers. The US has exported aircraft of all three types to Israel which used them, for example, in air strikes against Lebanon (2006) and Gaza (2008-2009). Rockwell Collin's contracts for these weapons systems included:

- US\$67.6 million for components in F-15s (including US\$23 million for weapons-related hardware such as "Gunnery Fire Control Components"),
- US\$1.8 million in technical repair services for F-16s, and
- US\$464,000 for the AH-64's "Gunnery Fire Control Components."



These 2,000-pound "Guided Bomb Units" dropped from Israel's US-made F-15 and F-16 warplanes, were made by Rockwell Collins' predecessor, Rockwell International.

> The Jewish Virtual Library reported in 2010, that Rockwell Collin's "Cedar Rapids offices have long been selling military and civilian products to Israel. Currently, for example, Israel's military is buying navigation and communications equipment. Rockwell also subcontracts some of its defense work to Israeli companies."

Rockwell Collin's 2010 annual report lists Israel among its "principal markets outside the U.S."

Defense Update, Oct. 11, 201



"We have the only combat-proven helmet mounted displays and developed the 'look and shoot' cueing system....

Defense Indusrty Daily, July 31, 2012

"Our systems provide the modern warfighter with an unsurpassed weapons engagement capability, thereby ensuring the highest levels of lethality."

Vision Systems International (VSI) (a joint venture of Rockwell Collins and Elbit Systems)



VSI makes Helmet Mounted Displays (HMD), such as the Joint Helmet-Mounted Cueing System (JHMCS) for pilots of Israel's warplanes, including its F-15s and F-16s. VSI is also producing HMDs for Lockheed Martin's F-35 stealth fighter/bomber.

Since 1996, Rockwell has had a joint venture called Vision Systems International (VSI), with the US subsidiary of Elbit Systems, Israel's largest weapons manufacturer. (See previous issue, pp.28-29.) VSI manufactures the world's most advanced Helmet Mounted Displays (HMDs) for fighter warplanes. HMDs use the pilot's eye as a pointing device to target weapons. They also display airspeed, altitude, target range, and other data on the pilot's visor. As VSI states:

"We have the only combat-proven helmet mounted displays and developed the 'look and shoot' cueing system.... Our systems provide the modern warfighter with an unsurpassed weapons engagement capability, thereby ensuring the highest levels of lethality."

VSI has developed the Joint Helmet Mounted Cueing System (JHMCS) for use by pilots aboard F/ A-18, F-15 and F-16 warplanes. The Israeli Air Force arsenal includes F-15s and F-16s. As VSI proudly proclaims:

"JHMCS enables the pilot to accurately direct (cue) onboard weapons and sensors against enemy targets while performing high-G aircraft maneuvers."

VSI has the contract to produce advanced Helmet Mounted Display technology for the F-35 "Joint Strike Fighter." Israel will be the first non-NATO country to receive F-35s from prime contractor Lockheed Martin. (See pp.15-16.)

Data on VSI from the "Government Contracts USA Defense Department" database, show that between 2007 and 2009, the company received

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A Rockwell Collins' subsidiary in Michigan, Kaiser Optical Systems, makes holographic "head-up" display systems for Israel's F-15I warplanes. Kaiser says it has "delivered thousands of holographic head-up display components for aircraft...such as the F-15 and F-18."

## Force\_Munitions

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