



Market Research

Prepared for Participants of the VEDP Program

Virginia Leaders in Export Trade (VALET)

December 2009

Research Topic: International Defense Markets

Research Objective: Provide information on size and scope of foreign militaries and defense-related resources, data, events, and contacts.

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INTRODUCTION

This document is intended for Virginia companies that are pursuing export sales of defense- or military-related goods and services. The VEDP provides this compilation of resources with a brief description and analysis of its usefulness. Due to the fact that military-related subjects are complex and difficult to summarize, these research resources were chosen as an avenue of approach and topics for discussion. The material provided is not exhaustive and is only for informational purposes. Feedback from our readers is kindly requested concerning accuracy or additional resources.

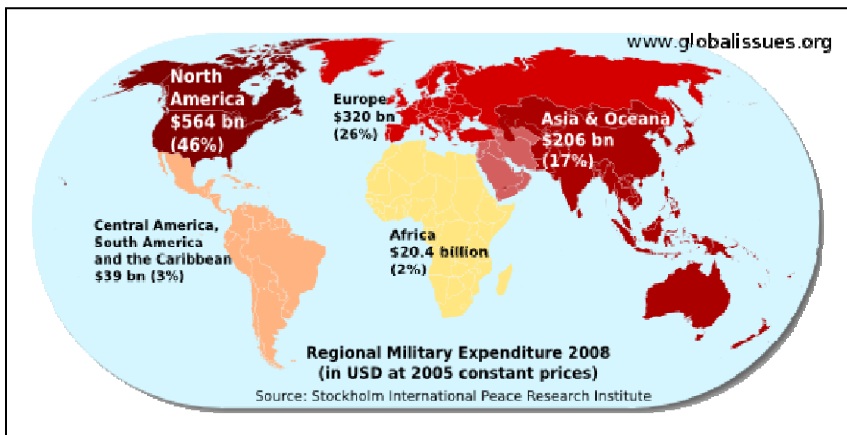
OVERVIEW

Global military expenditures were estimated at \$1.5 trillion in 2008 and continue to grow despite the global recession of the past 2 years. Since major weapons systems and other product developments are years in the making, it is the 5-10 year budget horizon that most defense contractors focus on. Many downstream companies are indirect beneficiaries of military sales and many people are the beneficiaries from the jobs, technology, and protection, provided by the defense industry. Through political maneuvering, military budgets absorbed large expenses that would normally be appropriated by other entities, such as the costs for foreign infrastructure projects, medical research and development, and even small business personnel training. During this time of geopolitical and financial uncertainty, it is difficult to maintain sales, let alone increase sales. Some companies are trying to find new sales in foreign markets and related industries. However, the success that has taken a decade or more with the U.S. Department of Defense (DoD) through hard work, close contacts, and a little luck, is more difficult to recreate in a foreign market, especially when there are local competitors that have an inside track. Fortunately, U.S. defense contractors have the expertise, experience, and esteem that frequently dominates the global market in many fields.

The international defense market is difficult to generalize without referring to specific markets due to the unique requirements, intricate processes, geopolitical situations, and diverse budgets. However, there are several trends which appear to cover the industry as outlined below:

- **Modernization:** Many countries are moving towards a professional armed force that is more technologically equipped. Investments are higher, but the long-term benefit means lower costs and operational effectiveness.
- **Homeland Security:** Transnational criminal activities, piracy, and terrorism have rubbed out national borders demanding creative methods for dealing with threats and the merging of budgets for national security.
- **Cost Sensitivity:** Historically, military budgets have been cushioned by potential threats from outside. In the future, internal pressures for domestic programs like medical schemes, social security, and environmental issues may exert more influence on national budgets. Ultimately, the military expense budget ratio may be reduced.
- **Procurement Reform:** Australia, Japan, and Korea are some of the countries transitioning to a more efficient contracting system for government purchasing, but the reforms are far from consistent globally.
- **Diversification:** Via mergers and acquisitions as well as the application of technologies, companies are moving towards greater diversification to maximize sales. This is partly due to the need for more nuanced products, i.e., hi-tech communications, better body-armor, less-than-lethal weapons.
- **Intense Competition:** There are 2 reasons why the playing field is rougher. More nations require the active participation of foreign firms in the procurement process in order to grow the domestic defense industry. Second, U.S. firms are pursuing foreign markets to a point where greater technology is required and major non-defense companies have entered the fray, so what was an easy sell is now more difficult.
- **Compliance Problems with Suppliers:** After sales service concerns arise when 2nd and 3rd tier suppliers are required to support foreign entities other than their U.S.-based defense customers. Some large defense companies provide guidance on export compliance, but all should be demanding evidence of registration with the State Department before doing business with their downstream suppliers and sub-contractors.

Global Military Expenditures (Charts and Tables)



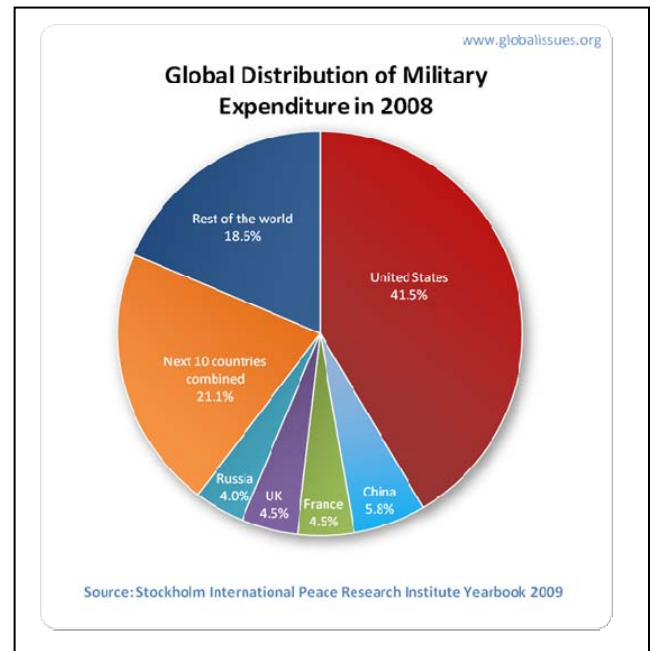
Based on various factors, the general expectation was that defense spending would be taking a downturn starting in 2009. However, defense spending is often used for economic stimulus which can avert the precipitous decline in defense procurement that is normally more severe than the budget rate reduction itself. Therefore, there has not been a significant drop off in government defense spending yet. Although acquisition spending may be conservative for complex weapons that are not pressing needs, personnel and maintenance expenses continue

to rise due to global contingency operations. Furthermore, there will be a shift in spending from armored tanks and jet fighters to remote-controlled drones and other surveillance systems to combat small terrorist forces. These systems require creative R&D and the companies that aggressively align their goals and roll out their offerings to the defense market will be the winners.

The DoD is the largest consumer of defense materials and services with a \$651 billion budget in 2009, roughly half of the global market. Military expenditures in Europe, including Russia, were a distant second, at \$320 billion, a 26% share. China is the largest spender in Asia with a reported 2009 budget of \$70.3 billion which is growing rapidly.

While the DoD budget itself continues to metastasize, there are still defense-related expenses that are surprisingly not part of its budget as shown below.

- Veterans Affairs = \$91.9 billion
- Military Pensions (Treasury Department) = \$48.7 billion
- Homeland Security = \$44.3 billion
- FBI Counter-Terrorism = \$2.4 - \$6.2 billion
- International Affairs = \$5.3 - \$38 billion
- Nuclear Weapons (Energy Department) = \$18.2 billion
- NASA Satellites= \$3.5 - \$8.8 billion



Military budgets in Europe were essentially flat in 2008 although some recent NATO members have increased their expenses to shore up their new commitments. Despite serious economic troubles, Russia will continue to increase its military budget. Asia's overall budget grows with expansion in most countries, especially China, Taiwan, South Korea, and India. The Middle East experienced some reduction in 2008 to its overall budget, but this will be temporary as most countries are planning major arms purchases. Other than South Africa, the rest of the continent offers nothing but small budgets and an uncertain analysis. In South America, Brazil is the only major spender and plans to increase spending to increase its status in the region and boost security for the 2016 Olympics.

Factors in Targeting Markets for Military Sales

The national defense budget is only one factor in determining a target market for defense-related goods and services. Another factor includes its percentage of GDP which suggests the nation's willingness to field a robust military. Globally, the percentage is approximately 2% overall with the U.S. at 4% of what is the world's largest GDP as well. However, the U.S. defense budget contains projects that appear to be unrelated which are tacked onto the DoD's expense account. On the other hand, many nations under-declare their military budget. In the worst case, nations (possibly North Korea and China) are purposely under-stating their actual military budget for secrecy, but in most cases, some have accounting discrepancies due to currency valuations or because the federal budget does not include regional funding for reserve forces or local militias.

The number of active troops is another important factor because it determines the number of uniforms, guns, and other equipment needed to field its army. The incremental cost of boots-on-the-ground is the largest portion of operations and maintenance, even more than aircraft spares and maintenance. Therefore, many nations have auxiliary forces even larger than their active forces because they do not need to be sustained year round. In many cases, there is no concentrated national procurement system so each organization must be solicited individually by U.S. exporters. Another factor in targeting a country is foreign military sales of major weapon systems and related products. As shown in the table on the next page, there were nine countries that imported hundreds of millions of dollars worth of defense goods in 2008 alone. While Congress must approve sales of aircraft, vessels, missiles, and the like, the Departments of State, Commerce, Energy, and others regulate trade through online licensing mechanisms (SNAP-R). Often, defense-related exports are purchased by the U.S. government and donated to foreign governments for various reasons. For example, the Merida Initiative involves gifts of helicopters and radar equipment to Mexico for protecting the U.S.-Mexican border against drug runners. This includes spare parts and training for Mexican troops along the border and forensics equipment for the State Police. These relationships between governments extend to private businesses and increase trade of a myriad of goods and services beyond defense. It is important for a company to develop a dialogue and register with the specific foreign government agencies that would procure defense items. Normally a foreign agent is required to actually sell to the government, so it is advisable to find a local partner that already has deep ties in the defense market.

Military Expenditures, Active Troops, and U.S. Exports

Country	Military expenditures (Millions USD)	FY Year	% of GDP	Number of Active Troops	2008 U.S. Exports (Millions USD)
World Total	\$ 1.47 trillion	2008	2.0%		
United States	\$ 663,700	2010	4.0%	1,473,900	n/a
People's Republic of China	\$ 70,394	2009	1.7%	2,255,000	\$ 0.39
United Kingdom	\$ 65,219	2009	2.4%	208,000	\$ 463.50
France	\$ 63,759	2010	2.6%	259,050	\$ 37.06
Japan	\$ 53,061	2008	0.8%	239,900	\$ 468.40
Germany	\$ 43,350	2008	1.5%	284,500	\$ 169.50
Russian Federation	\$ 35,000	2010	3.9%	1,037,000	\$ 0.91
Italy	\$ 31,113	2008	1.8%	230,350	\$ 42.50
Saudi Arabia	\$ 31,050	2008	10.0%	199,500	\$ 94.80
India	\$ 30,197	2009-10	2.5%	1,414,000	\$ 3.40
South Korea	\$ 28,500	2008	2.7%	687,000	\$ 233.80
Brazil	\$ 23,973	2009	2.6%	1,600,000	\$ 5.30
Australia	\$ 23,041	2009-10	2.4%	53,572	\$ 173.30
Turkey	\$ 21,000	2009	5.3%	514,000	\$ 35.90
Canada	\$ 19,038	2009-10	1.1%	35,056	\$ 285.10
Spain	\$ 18,974	2008	1.2%	177,950	\$ 23.80
Israel	\$ 13,300	2009	7.3%	176,500	\$ 385.30
Netherlands	\$ 12,000	2008	1.6%	53,130	\$ 229.30
Poland	\$ 11,791	2009	1.7%	163,000	\$ 88.01
Greece	\$ 7,934	2007	4.3%	177,600	\$ 19.60
Singapore	\$ 7,860	2009	4.9%	60,500	\$ 19.80
Colombia	\$ 7,820	2009	3.5%	-	\$ 17.80
Iran	\$ 7,310	2007	2.6%	545,000	n/a
Sweden	\$ 6,309	2007	1.5%	33,900	\$ 29.10
Mexico	\$ 6,070	2006	0.5%	192,770	\$ 19.40
North Korea	\$ 5,500	2005	n/a	1,106,000	n/a
Chile	\$ 5,193	2007	2.7%	50,000	\$ 4.70
Thailand	\$ 5,108	2009	1.8%		\$ 33.30
Peru	\$ 4,870	2009-10	1.5%	110,000	\$ 0.98
South Africa	\$ 4,068	2008-09	1.7%	55,750	\$ 6.50
Belgium	\$ 4,000	2007	1.3%	100,500	\$ 41.80
Finland	\$ 3,700	2009	2.0%	31,850	\$ 2.50
Egypt	\$ 3,300	2003	3.4%	450,000	\$ 251.70
Vietnam	\$ 3,200	2005	2.5%	484,000	n/a
Austria	\$ 2,978	2008	0.9%	34,600	\$ 2.70
Romania	\$ 2,900	2007	1.9%	97,200	\$ 0.51
Czech Republic	\$ 2,840	2008	1.5%	-	\$ 1.70
Azerbaijan	\$ 2,460	2009	2.6%	72,100	n/a
Ukraine	\$ 2,067	2008	1.4%	148,000	\$ 0.73
Ecuador	\$ 1,692	2008	3.4%	59,500	\$ 1.96
Sri Lanka	\$ 1,610	2009	2.6%	266,700	\$ 3.10
Bulgaria	\$ 1,339	2008	2.6%	303,000	\$ 9.30
Armenia	\$ 495	2009		60,000	\$ 0.51
Ethiopia	\$ 400	2008-09	3.0%	182,500	\$ 0.27
Iceland	\$ 26	2008	0.0%	-	\$ 0.22

TRADE PATTERN ANALYSIS

It is valuable to know the type, volume, and destination of exported goods in order to identify where trade in-roads have been made and which auxiliary goods and services may also be in demand. The following chart shows U.S. exports from 2005-08 representing goods used primarily by the military and possibly law enforcement. However, there are numerous other electronic, mechanical, and intangible items which may not be represented here, such as aircraft, night vision goggles, and software, that are on the U.S. Munitions List (USML) as provided in the RESOURCES section on page 9.

U.S. Exports of Defense-Related Products 2005-08 (Table)

U.S. Exports of Defense-Related Products					
(Millions of USD)					
HTS	Description	2005	2006	2007	2008
	Total	\$ 3,202.47	\$ 3,891.00	\$ 3,866.54	\$ 3,822.02
9306-90	Bomb Mines; Other Ammo	\$ 1,289.89	\$ 1,851.50	\$ 1,804.78	\$ 1,830.61
8710-00	Motor Armored War Vehicle	\$ 920.34	\$ 845.65	\$ 1,031.68	\$ 926.07
9803-20	Exp Unidentified Military Equip	\$ 636.71	\$ 662.74	\$ 593.11	\$ 501.14
9306-30	Other Cartridges + Parts	\$ 149.62	\$ 248.12	\$ 225.06	\$ 299.22
9301-90	Military Weapons - Not Revolvers	\$ 84.98	\$ 149.16	\$ 83.38	\$ 109.21
9301-20	Rocket Launchers, Flamethrowers, & Simulators	\$ 50.28	\$ 80.12	\$ 31.16	\$ 73.60
9803-10	Exp All Military Apparel	\$ 31.88	\$ 30.38	\$ 61.41	\$ 39.57
9306-21	Shotgun Cartridges	\$ 16.11	\$ 16.16	\$ 22.39	\$ 27.86
9306-29	Air Gun Pellet; Other Parts	\$ 22.66	\$ 7.17	\$ 13.58	\$ 14.75

Although export volumes fluctuate greatly according to major purchases of large ticket items, many relationships are long-term because of the need for service and support by U.S. defense firms. Not only does the manufacturer benefit from the foreign sale, but the logistics and distribution systems within country improve and pave the way for other ventures to follow.

Top Destinations for U.S. Exports of Defense-Related Products					
(Millions of USD)					
Rank	Destination	2005	2006	2007	2008
	Total	\$ 3,202.47	\$ 3,891.00	\$ 3,866.54	\$ 3,822.02
1	Japan	\$ 473.64	\$ 621.55	\$ 360.38	\$ 468.42
2	United Kingdom	\$ 325.19	\$ 408.48	\$ 495.62	\$ 463.52
3	Israel	\$ 294.53	\$ 433.41	\$ 484.05	\$ 385.26
4	Canada	\$ 138.43	\$ 196.66	\$ 283.97	\$ 285.14
5	Egypt	\$ 317.15	\$ 340.15	\$ 370.31	\$ 251.71
6	Korean Republic	\$ 173.01	\$ 258.68	\$ 204.67	\$ 233.83
7	Netherlands	\$ 56.26	\$ 78.14	\$ 22.88	\$ 229.28
8	Australia	\$ 228.31	\$ 251.34	\$ 294.16	\$ 173.25
9	Germany	\$ 188.80	\$ 150.91	\$ 123.05	\$ 169.54
10	Pakistan	\$ 2.04	\$ 62.58	\$ 64.66	\$ 131.41
11	Saudi Arabia	\$ 78.11	\$ 47.64	\$ 105.18	\$ 94.78
12	Poland	\$ 12.65	\$ 67.59	\$ 205.23	\$ 88.01
13	United Arab Emirates	\$ 52.12	\$ 82.33	\$ 21.71	\$ 60.24
14	Taiwan	\$ 216.51	\$ 184.17	\$ 140.28	\$ 57.05
15	Norway	\$ 19.69	\$ 49.90	\$ 67.40	\$ 50.63

16	Italy	\$ 46.02	\$ 25.28	\$ 24.83	\$ 42.49
17	Belgium	\$ 33.04	\$ 17.49	\$ 30.52	\$ 41.85
18	France	\$ 5.27	\$ 7.55	\$ 13.61	\$ 37.06
19	Turkey	\$ 34.67	\$ 68.25	\$ 28.09	\$ 35.92
20	Iraq	\$ 64.55	\$ 26.66	\$ 28.88	\$ 34.80
21	Thailand	\$ 4.64	\$ 3.80	\$ 4.37	\$ 33.31
22	Oman	\$ 7.77	\$ 8.16	\$ 66.90	\$ 32.04
23	Malaysia	\$ 0.68	\$ 2.35	\$ 4.20	\$ 30.30
24	Sweden	\$ 23.78	\$ 17.66	\$ 11.88	\$ 29.09
25	Georgia	\$ 0.35	\$ 1.21	\$ 0.95	\$ 28.20
26	Kuwait	\$ 116.73	\$ 76.60	\$ 30.45	\$ 23.99
27	Spain	\$ 37.58	\$ 19.82	\$ 29.48	\$ 23.85
28	Singapore	\$ 42.24	\$ 18.18	\$ 22.14	\$ 19.79
29	Greece	\$ 30.57	\$ 123.34	\$ 36.59	\$ 19.63
30	Mexico	\$ 11.95	\$ 8.94	\$ 11.83	\$ 19.43
31	Colombia	\$ 15.83	\$ 21.59	\$ 15.44	\$ 17.84
32	Jordan	\$ 7.95	\$ 6.00	\$ 12.67	\$ 16.57
33	Qatar	\$ 7.03	\$ 9.99	\$ 24.53	\$ 15.55
34	Luxembourg	\$ 8.76	\$ 8.01	\$ 14.64	\$ 13.30
35	Dominican Republic	\$ 1.82	\$ 0.92	\$ 1.30	\$ 10.81
36	Switzerland	\$ 3.64	\$ 3.65	\$ 22.55	\$ 10.57
37	Denmark	\$ 36.17	\$ 15.51	\$ 14.74	\$ 10.08
38	Bulgaria	\$ 5.07	\$ 0.09	\$ 0.65	\$ 9.31
39	Venezuela	\$ 0.83	\$ 3.12	\$ 2.61	\$ 6.97
40	Bahrain	\$ 7.66	\$ 28.47	\$ 7.63	\$ 6.77

RESOURCES

DoD Publications: <http://www.dtic.mil/whs/directives/corres/pub1.html>

DoD Forms: <http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm>

DoD Registered Links: <http://www.defense.gov/RegisteredSites/RegisteredSites.aspx>

Acquisition, Contracting, and Logistics

Defense Acquisition Portal: <https://dap.dau.mil/Pages/Default.aspx>

DLA Bid Board System (DIBBS): <https://www.dibbs.bsm.dla.mil/>

Central Contractor Registration (CCR): <https://www.bpn.gov/ccr/default.aspx>

Federal Business Opportunities (Fed Biz Opps): <https://www.fbo.gov/index?cck=1&au=&ck=>

Business Partner Network: <http://www.bpn.gov/>

SBA Sub-net (subcontracting opportunities):

<http://web.sba.gov/subnet/search/index.cfm?CFID=10330634&CFTOKEN=3dd05cb41199270-FD8B472E-9AB3-0462-780A91C557F56714&jsessionid=90305a643b2ea2450d8e275b4a6b124267e2>

Defense Logistics Agency: <http://www.dla.mil/>

Defense Contract Management Agency: <http://www.dcma.mil/>

Defense Acquisitions Regulations System: <http://www.acq.osd.mil/dpap/dars/index.html>

Defense Department Government Contracts Won: <http://www.governmentcontractswon.com/>

Berry Amendment: <https://acc.dau.mil/CommunityBrowser.aspx?id=271801&lang=en-US>

Buy American Act: <https://acc.dau.mil/CommunityBrowser.aspx?id=271823&lang=en-US>

Offsets in Defense Trade: http://en.wikipedia.org/wiki/Offset_agreement#List_of_Countries_Offset_Policies

Iraq Business Opportunities: http://www.trade.gov/iraq/doc_iraq_marketops.asp

Afghanistan Investment and Reconstruction: <http://www.trade.gov/afghanistan/>

U.S. Export Controls

It is vital for a company to consider the risks, costs, and time frames involved in trading military or dual-use items and to start the process as early as possible. It is equally important to know who your customers are and the end-use(r) of your product. Frequently, defense projects require components that are not on the USML but may require export licensing because of the dual-use (both civilian and military) nature of the application. Often, prime contractors will advise their suppliers of export controls but it is the responsibility of the manufacture to make a reasonable investigation into the ultimate destination/user of their equipment/materials. During this preliminary process, it may be advisable to initiate a Technical Assistance Agreement (TAA), or amend one already in place with the principal parties. A licensed TAA allows the open discussion and transfer of technology needed to develop sophisticated applications with foreign parties. Even before the TAA, it is advisable for a company to develop an in-house Technology Transfer Control Plan (TTCP) to maintain appropriate export controls for their products and technology. The TTCP: a) addresses training of personnel, b) outlines the controlled items and to where/whom, and c) details the technology transfer itself to mitigate risk. The following resources cover many subjects and processes on U.S. export controls. Some foreign entities provide useful information on how to navigate U.S. export controls as well.

Directorate of Defense Trade Controls (DDTC): www.pmddtc.state.gov/

International Traffic in Arms Regulation (ITAR): http://www.pmddtc.state.gov/regulations_laws/itar_official.html

Bureau of Industry and Security (BIS): <http://www.bis.doc.gov/>

SNAP-R Online Export License System: <http://www.bis.doc.gov/snap/index.htm>

U.K. MOD Defence Toolkit: <http://www.aof.mod.uk/aofcontent/tactical/toolkit/content/topics/usaproc.htm>

Bad Guy Lists to Check: <http://www.bis.doc.gov/complianceand enforcement/liststocheck.htm>

Embargoed Countries: http://www.pmddtc.state.gov/embargoed_countries/index.html

The U.S. Munitions List (USML) has 20 categories which generally covers items that are specifically designed or modified for military applications and must be consulted for export control reasons:

1. Firearms, Close Assault Weapons and Combat Shotguns
2. Guns and Armament
3. Ammunition/Ordnance
4. Launch Vehicles, Guided Missiles, Ballistic Missiles, Rockets, Torpedoes, Bombs, and Mines
5. Explosives and Energetic Materials, Propellants, Incendiary Agents, and their Constituents
6. Vessels of War and Special Naval Equipment
7. Tanks and Military Vehicles
8. Aircraft and Associated Equipment
9. Military Training Equipment
10. Protective Personnel Equipment
11. Military Electronics
12. Fire Control, Range Finder, Optical and Guidance and Control Equipment
13. Auxiliary Military Equipment
14. Toxicological Agents, Including Chemical Agents, Biological Agents, and Associated Equipment
15. Spacecraft Systems and Associated Equipment
16. Nuclear Weapons, Design and Testing Related Items
17. Classified Articles, Technical Data and Defense Services Not Otherwise Enumerated
18. Directed Energy Weapons
19. [Reserved]
20. Submersible Vessels, Oceanographic and Associated Equipment
21. Miscellaneous Articles

Armed Forces by Country and Branch (Table)

Armed Forces by Country and Branch			
Country	Army	Navy	Air Force
Argentina	www.ejercito.mil.ar	www.ara.mil.ar/	www.faa.mil.ar
Austria	www.bmlv.gv.at	none	www.bmlv.gv.at
Australia	www.army.gov.au	www.navy.gov.au	http://www.airforce.gov.au
Bangladesh	http://www.army.mil.bd	none	none
Belgium	www.mil.be/def	www.mil.be/navy	www.mil.be/aircomp
Brazil	www.eme.eb.mil.br	www.mar.mil.br	www.aer.mil.br
Canada	www.army.forces.gc.ca	www.navy.forces.gc.ca	www.airforce.forces.gc.ca
Chile	www.ejercito.cl	www.armada.cl	www.ejercito.cl
Colombia	www.ejercito.mil.co	www.armada.mil.co	www.fac.mil.co
Czech Republic	www.army.cz	none	www.army.cz
Denmark	http://forsvaret.dk/fko/	www.svn.dk	http://forsvaret.dk/ftk
France	www.defense.gouv.fr/terre	www.defense.gouv.fr/marine	www.defense.gouv.fr/air
Germany	www.deutschesheer.de	www.marine.de	www.luftwaffe.de
Hungary	www.honvedelem.hu		
India	http://indianarmy.nic.in/	http://indiannavy.nic.in/	http://indianairforce.nic.in/
Ireland	www.military.ie/army	www.military.ie/naval	www.military.ie/aircorps
Italy	www.esercito.difesa.it	www.marina.difesa.it	www.aeronautica.difesa.it
Japan	www.mod.go.jp/gsdf	www.mod.go.jp/msdf	www.mod.go.jp/asdf/
Korea, South	www.army.mil.kr	www.navy.mil.kr	www.airforce.mil.kr
Mexico	www.sedena.gob.mx	www.semar.gob.mx	www.sedena.gob.mx
Netherlands	www.mindef.nl	www.defensie.nl/marine	www.defensie.nl/luchtmacht
New Zealand	www.army.mil.nz	www.navy.mil.nz	www.airforce.mil.nz
Norway	www.mil.no/haren	www.mil.no/sjo	www.mil.no/luft
Peru	www.mindef.gob.pe	www.marina.mil.pe	www.fap.mil.pe
Philippines	www.army.mil.ph	www.navy.mil.ph	www.paf.mil.ph
Poland	www.army.mil.pl	www.mw.mil.pl	www.sp.mil.pl
Portugal	www.exercito.pt	www.marinha.pt	www.emfa.pt
Russia	http://mil.ru/		
Saudi Arabia	www.bariah.gov.sa		www.moda.gov.sa
South Africa	www.army.mil.za	www.navy.mil.za	www.af.mil.za
Spain	www.ejercito.mde.es	www.armada.mde.es	www.ejercitodelaire.mde.es
Sweden	www.mil.se	www.mil.se	www.mil.se
Switzerland	www.vtg.admin.ch	none	www.lw.admin.ch
Thailand	www.rta.mi.th	www.navy.mi.th	www.rtaf.mi.th
Turkey	www.tsk.mil.tr	www.dzkk.tsk.tr	www.hvkk.tsk.tr
United Kingdom	www.army.mod.uk	www.royalnavy.mod.uk	www.raf.mod.uk
U.S.A.	www.army.mil	www.navy.mil	www.af.mil

Military Attaches Based in Washington, D.C.

Foreign military attaches currently posted in Washington, D.C. can be found on the Department of State list of foreign diplomats at <<http://www.state.gov/s/cpr/rls/dpl/index.htm>> which is updated semi-annually.

Defense Procurement Offices by Select Countries (Table)

Defense Procurement Offices by Select Countries		
Country	Procurement Office	Website
Australia	AusTender	https://www.tenders.gov.au/
Canada	ADM Materiel Group (ADMMAT)	http://www.forces.gc.ca/admmat-smamat/home-accueil-eng.asp
European Union	European Defence Agency (EBB)	www.eda.europa.eu/ebbweb/
India	Tenders India	http://tenders.gov.in/
Japan	Equipment Procurement & Construction Office (EPCO)	www.epco.mod.go.jp/en
Korea	Defense Procurement Agency	www.d2b.go.kr/English/jsp/index.jsp
Mexico	Defense Acquisitions	www.sedena.gob.mx/index.php?id=832
NATO	NAMSA	https://www.natolog.com/eProcurement/default.aspx?lng=en
United Kingdom	U.K. Defense Procurement Office (UKDPO)	http://ukinusa.fco.gov.uk/en/defence/defence-materiel/defence-equipment/commercial

Procurement Technical Assistance Centers in Virginia

Contacts updated at: http://www.aptac-us.org/new/Govt_Contracting/find.php?what=search&State=VA

Defense Supply Center Richmond (DSCR/DU)

8000 Jeff Davis Highway, Richmond, VA 23297-5124

Contact: Judy Sayers (PCR) - SBA Representative E-mail: jsayers@dscr.dla.mil Tel: (804)279-3690

<http://www.dscr.dla.mil/ProcurementInformation.asp>

NASA Langley Research Center, Bldg. 1209, Rm. 100, MS446, Hampton, VA 23681-2199

Contact: Octavia Turner (PRC) - SBA Procurement Center Representative

E-mail: Octavia.Turner@nasa.gov Tel: (757) 864-6859 Fax: (757) 864-8096

George Mason University - Entrepreneurship Center

4400 University Dr., Fairfax, VA 22030

Contact: Dan McGwire E-mail: ptap@gmu.edu Phone: (703) 277-7750

Website: <http://www.vaptap.org>

Southwest Virginia Community College—Economic Development Division

US Route 19, PO Box SVCC, Richlands, VA 24641

Contact: Glenda D. Calver E-mail: glenda.calver@sw.edu

Phone: (276) 964 - 7334 Website: www.sw.edu/pac.html

MEDIA AND EVENTS

Online Periodicals

Armed Forces Journal: <http://www.armedforcesjournal.com/>
Army Technology: <http://www.army-technology.com>
Defense Daily Network: <http://www.defensedaily.com/>
Defence Guide: <http://www.defence-guide.com/>
Defense Industry Daily: <http://www.defenseindustrydaily.com/>
Defence Journal: <http://www.defencejournal.com>
Defence Manufacturers Association: <http://www.the-dma.org.uk/home>
Defense News Daily: <http://www.defensenews.com>
Defense News TV: <http://www.defensenewstv.com/>
Defense Procurement News: <http://www.defenseprocurementnews.com>
Defense Talk: <http://www.defencetalk.com/>
Defense Technology International: http://www.aviationweek.com/aw/generic/channel_dti.jsp?channel=dti
Defense World: www.defenseworld.net
European Defence: <http://www.european-defence.co.uk/>
Inside Defense: <http://www.insidedefense.com/>
Military Times: <http://www.militarytimes.com/>
Training & Simulation Journal: <http://www.tsjonline.com/>
U.S. Department of Defense News: <http://www.defenselink.mil/>

Tradeshows and Exhibitions 2010

Attending the following tradeshows and conferences offers an opportunity to learn about the market and identify potential competitors or partners. If the show appears to be worthwhile, it may be profitable to exhibit there in the future. Many of these websites have lists of exhibitors which should be perused to evaluate the attractiveness of the show. These lists also provide a pool of potential partners to research and contact even if you do not attend the show. U.S. companies might consider using an in-country proxy to walk the show, identify contacts, set-up meetings, and provide a summary on the show's potential usefulness.

Asia Pacific China Police: <http://www.cpexhibition.com/police/index.htm>

Beijing, China, April 21-24, 2010

International exhibition on police technology and equipment.

General Police Equipment GPEC: <https://ssl-id.de/gpec.de/index.php?id=2272>

Leipzig, Germany, May 4-6, 2010

International exhibition and conference on police and special equipment.

ACPO-APA: <http://www.acpo-apa.co.uk/page.cfm/Link=33/t=m/goSection=3>

Manchester, U.K., May 11-13, 2010

International policing exhibition.

Electronic Warfare: <http://www.shephard.co.uk/events/50/electronic-warfare-2010/>

Berlin, Germany, May 11-12, 2010

International technology conference on electronic warfare.

Soldier Technology: <http://www.wbresearch.com/soldiertechologyeuropa/>

London, U.K., May 18-21, 2010

Soldier modernization on technical innovations in clothing, power, and optronics.

ITEC: <http://www.itec.co.uk/page.cfm/action=ExhibList/ListID=1/t=m>

London, U.K., May 18-20, 2010

Conference and exhibition on defense training, education, and simulation.

International Defence Logistics: <http://www.wbresearch.com/internationaldefencelogistics/home.aspx>

Brussels, Belgium, June 2010

International defence logistics conference.

UDT Europe: <http://www.udt-europe.com/>

Hamburg, Germany, June 8-10, 2010

Undersea defense technology exhibition and conference.

Eurosatory: www.Eurosatory.com

Paris, France, June 14-18, 2010

International Defence Week: Land + Airland + Homeland

ISF Expo: <http://www.isfexpo.org/exhibit.html>

Kuala Lumpur, Malaysia, June 15-18, 2010

International Security & Safety Expo & Forum

Expo Aero Brasil: <http://www.expoaerobrasil.com.br/expo/expoe.asp?menu=expo>

São José dos Campos, Brasil, June 17-20, 2010

International aeronautical & defense fair.

IDELF: <http://translate.google.com/translate?hl=ru&ie=UTF8&langpair=ru%7Cen&u=http://www.idelf.ru/>

Moscow, Russia, June 29 – July 2, 2010

International defense exhibition for land forces.

Farnborough Air Show: <http://www.farnborough.com/Site/Content/Farnborough2010/Exhibitors/2008-Exhibitor-List.aspx>

Farnborough, U.K., July 19-25, 2010

International aerospace industry show for aircraft, equipment, and technologies.

INDESEC Expo: <http://www.indesec-expo.com/exhibitor-list.html>

New Delhi, India, September 6-8, 2010

Homeland security exhibition and conference.

MSPO: http://www.targikielce.pl/index.html?k=mspo_en&s=ogolne

Kielce, Poland, September 6-9, 2010

International defense industry exhibition.

Africa Aerospace & Defence: http://www.aadexpo.co.za/aad2010_exhibitors.php

Cape Town, South Africa, September 21-25, 2010

Aerospace & defense exhibition.

Protection Technologies: <http://www.iec-expo.com.ua/index.php?id=301&L=2>

Arms & Security: <http://www.iec-expo.com.ua/index.php?id=294&L=2>

Kiev, Ukraine, September 29 – October 2, 2010

Emergency safety facilities & fire protection systems & technologies, international arms & security trade

MSI – Maritime Security: <http://www.msi-exhibition.com/>

India, October 2010

The only large maritime and naval security event in India.

Milipol Qatar: <http://public-prod.milipol.timfair.com/Qatar2008/welcome.php?page=exhibitor-list-2008&menu=exhibitors&showframe>

Doha, Qatar, October 25-27, 2010

International exhibition of internal state & industrial site security, police equipment, & civil defense.

MAST Military Systems & Technology: <http://www.mastconfex.com/exhibitors.asp>

Rome, Italy, November 9-11, 2010

Global conference & tradeshow for maritime security and defense leaders.

Indo Defence Expo & Forum:

http://www.indodefence.com/index.php?option=com_content&view=article&id=12&Itemid=18

Indo Aerospace Expo & Forum: <http://www.indoaerospace.com/>

Jakarta, Indonesia, November 9 -13, 2010

International event for defense, security, aviation, aerospace equipment and technology.

ExpoNaval: <http://www.exponaval.cl/d.php?d=142&b=ok&idi=1>

Valparaiso, Chile, November 30 – December 3, 2010

International maritime defense exhibition & conference.

COMPANY INFORMATION

There are many databases available by subscription that can provide a list of companies by location or activity. The VEDP subscribes to Hoovers, Orbis, and Kompass International, and many others that are free but may require registration. Unfortunately, these databases have information that is self-reported and may be incomplete, inaccurate, or out-dated. However, the leads found in these databases provide some idea as to the volume and complexity of players within a particular market. The databases offered below may be useful for finding potential partners.

Major Prime DoD Contractors (Data listed by U.S. state): http://www.acq.osd.mil/osbp/doing_business/index.htm

Army Technology – Database of Contractors: <http://www.army-technology.com/contractors/indexAtoZ.html>

Top 100 Arms-Producing Companies in 2007 (Table)

The following 100 companies plus 18 subsidiaries (S) represent the top arms-producing entities worldwide. Many of these companies are multi-nationals operating in a variety of sectors. Frequently, defense contracts are limited to a few prime contractors and the obligatory or ancillary products and services are subcontracted. In fact, one of the core competencies of a defense contractor is its ability to work with complicated government systems. Therefore, it is essential to develop a relationship with the companies listed below.

Top 100 Arms-Producing Companies in 2007 (Millions of USD)					
Rank	Company	Country	Total Sales	Arms Sales % of Total	Sector (See page 16)
1	Boeing	USA	\$663,870	46%	Ac El Mi Sp
2	BAE Systems	U.K.	\$31,426	95%	A Ac El MV Mi SA/A Sh
3	Lockheed Martin	USA	\$41,862	70%	Ac El Mi Sp
4	Northrop Grumman	USA	\$32,018	77%	Ac El Mi Sh Sp Ser
5	General Dynamics	USA	\$27,240	79%	A El MV Sh
6	Raytheon	USA	\$21,301	92%	El Mi
S	BAE Systems Inc. (U.K.)	USA	\$14,908	100%	A El MV SA/A
7	EADS	W. Europe	\$53,534	24%	Ac El Mi Sp
8	L-3 Communications	USA	\$13,961	81%	Ser El

9	Finmeccanica	Italy	\$18,376	54%	A Ac El MV Mi
10	Thales	France	\$16,825	56%	El Mi SA/A
11	United Technologies	USA	\$54,759	16%	Ac El Eng
12	SAIC	USA	\$8,935	70%	Ser
13	Computer Sciences Corp.	USA	\$1,650	33%	Ser
14	SAFRAN	France	\$16,424	32%	El
15	Honeywell	USA	\$34,589	15%	El
16	KBR	USA	\$8,745	57%	Ser
17	Rolls-Royce	U.K.	\$14,873	31%	Eng
S	MBDA (BAE Systems, EADS, Finmeccanica)	W. Europe	\$4,105	100%	Mi
18	DCNS	France	\$3,860	100%	Sh
19	ITT Corp.	USA	\$9,003	43%	El
S	Pratt & Whitney (United Technologies)	USA	\$12,129	30%	Eng
20	General Electric	USA	\$172,738	2%	Eng El
21	DRS Technologies	USA	\$3,295	98%	El
S	Eurocopter (EADS)	France	\$5,709	49%	Ac
22	Mitsubishi Heavy Industries	Japan	\$27,201	10%	Ac MV Mi Sh
23	Almaz-Antei	Russia	\$3,122	89%	Mi
24	Saab	Sweden	\$3,406	81%	Ac El Mi
S	Sikorsky (United Technologies)	USA	\$4,783	58%	Ac
25	AM General	USA	n/a	n/a	MV
26	EDS	USA	\$22,134	11%	Ser
27	Textron	USA	\$13,225	19%	Ac El Eng MV
28	Alliant Techsystems	USA	\$4,172	59%	SA/A
29	Rheinmetall	Germany	\$5,480	44%	A El MV SA/A
30	Groupe Dassault	France	\$5,590	43%	Ac
31	URS Corp.	USA	\$9,023	25%	El
32	Rockwell Collins	USA	\$4,415	51%	El
33	QinetiQ	U.K.	\$2,733	79%	Ser
S	MBDA France (MBDA, W. Europe)	France	\$2,050	100%	Mi
34	Israel Aerospace Industries	Israel	\$3,316	59%	Ac El Mi
35	Babcock International Group	U.K.	\$3,332	58%	Ser
36	Elbit Systems	Israel	\$2,068	92%	El
37	VT Group	U.K.	\$2,402	78%	Sh Ser
S	Alenia Aeronautica (Finmeccanica)	Italy	\$2,287	78%	Ac
38	CEA	France	\$4,652	38%	Oth
39	ThyssenKrupp	Germany	\$70,776	2%	Sh
40	Harris	USA	\$4,243	41%	El
41	Sukhoi (UAC)	Russia	\$1,855	92%	Ac
S	EADS Astrium (EADS, W. Europe)	France	\$4,858	35%	Sp
42	Krauss-Maffei Wegmann	Germany	\$1,779	95%	MV
43	Hindustan Aeronautics	India	\$2,086	80%	Ac Mi
44	Goodrich	USA	\$6,392	25%	Comp (Ac)
45	Oshkosh Corp.	USA	\$6,307	25%	MV
46	Serco	U.K.	\$5,623	26%	Ser
47	Navantia	Spain	\$1,734	80%	Sh
48	CACI International	USA	\$1,938	72%	Ser
49	ManTech International Corp.	USA	\$1,448	93%	Ser
50	Indian Ordnance Factories	India	n/a	n/a	A SA/A
51	Cobham	U.K.	\$2,123	58%	Comp (Ac El)
S	EADS CASA (EADS, W. Europe)	Spain	\$1,436	80%	Ac

52	Rafael	Israel	\$1,200	95%	Ac Mi SA/A Oth
53	ST Engineering (Temasek)	Singapore	\$3,352	33%	Ac El MV SA/A Sh
54	EDO Corp. (ITT Corp.)	USA	\$1,150	92%	El
55	TRV Corp.	Russia	\$1,110	95%	Mi
56	Samsung	Korea	\$106,007	1%	A El MV Sh
57	GKN	U.K.	\$7,740	12%	Comp (Ac)
S	Devonport Management Ltd (Babcock)	U.K.	\$994	94%	Comp (Sh)
58	Diehl	Germany	\$3,106	29%	Mi SA/A
59	Irkut Corp. (UAC)	Russia	\$1,023	88%	Ac
60	DynCorp International	USA	\$2,140	42%	Ser
61	Force Protection	USA	\$891	100%	MV
S	SELEX Communications (Finmeccanica)	Italy	\$1,077	83%	Comp (El Oth)
62	Indra	Spain	\$2,966	29%	El
63	Bharat Electronics	India	\$995	84%	El
64	Mitsubishi Electric	Japan	\$34,392	2%	El Mi
65	Nexter	France	\$803	100%	A MV SA/A
S	Samsung Techwin (Samsung)	Korea	\$3,490	22%	A El Eng MV
66	Aerospace Corp.	USA	\$790	89%	Ser
67	Vertolety Rossii (OPK Oboronprom)	Russia	\$695	100%	Ac
68	LIG Nex1	Korea	\$697	99%	El
69	MTU Aero Engines	Germany	\$3,525	19%	Eng
70	Meggitt	U.K.	\$1,757	38%	Comp (Ac)
S	Galileo Avionica (Finmeccanica)	Italy	\$753	88%	El
71	Fincantieri	Italy	\$3,658	18%	Sh
72	Alion Science and Technology	USA	\$738	89%	Ser
73	Korea Aerospace Industries	Korea	\$861	75%	Ac
74	Patria	Finland	\$741	86%	Ac MV SA/A
75	Cubic Corp.	USA	\$890	72%	Ser
S	Thales Australia (Thales, France)	Australia	\$737	86%	A El MV Mi SA/A Sh
76	Ultra Electronics	U.K.	\$826	75%	El
77	Navistar	USA	\$12,295	5%	MV
78	Teledyne Technologies	USA	\$1,622	38%	El
S	Santa Bárbara Sistemas (General Dynamics)	Spain	\$617	100%	A MV SA/A
79	NEC	Japan	\$39,210	2%	El
80	Curtiss-Wright Corp.	USA	\$1,592	38%	Comp (Ac Sh)
81	SRA International	USA	\$1,269	48%	El
82	Ufimskoe MPO	Russia	\$619	95%	Eng
83	MITRE	USA	\$1,113	53%	Ser
84	Moog	USA	\$1,558	38%	Comp (El Mi)
85	Kawasaki Heavy Industries	Japan	\$12,748	5%	Ac Eng Mi Sh
86	RUAG	Switzerland	\$1,174	49%	A Ac Eng SA/A
87	GenCorp	USA	\$745	78%	El Eng
88	CAE	Canada	\$1,325	43%	El
89	Avio (Cinven, UK)	Italy	\$2,126	27%	Eng
S	MBDA Italia (MBDA, W. Europe)	Italy	\$568	100%	Mi
90	Ceradyne	USA	\$757	74%	Comp (Oth)
91	Chugach Alaska Corp.	USA	n/a	n/a	Ser
92	Fiat	Italy	\$80,089	1%	Eng MV
93	ARINC (Carlyle Group)	USA	\$1,180	46%	Ser
S	Iveco (Fiat)	Italy	\$15,320	4%	MV
94	Tenix Group	Australia	n/a	n/a	El SA/A Sh

95	Kongsberg Gruppen	Norway	\$1,417	38%	El Mi SA/A
96	VSE Corp.	USA	\$653	82%	Ser
97	Vought Aircraft Industries (Carlyle Group)	USA	\$1,626	33%	Ac
98	Aerokosmicheskoe Oborudovanie	Russia	\$820	63%	El
99	Jacobs Engineering Groupee	USA	\$8,474	6%	Ser
S	Samsung Thales	Korea	\$517	100%	El
100	Hyundai Heavy Industries	Korea	\$16,716	3%	Sh

Abbreviations

S = Subsidiary

A = Artillery

Ac = Aircraft

El = Electronics

Eng = Engines

Mi = Missiles

MV = Military Vehicles

SA/A = Small Arms/Ammunition

Ser = Services

Sh = Ships

Sp = Space

Oth = Other

Comp () = Components, Services, or anything less than final systems in the sectors in the parenthesis.