



The World Military Connector Market

Bishop and Associates has just released a new 13 chapter research report covering The World Military Connector Market. This report is an extensive and comprehensive analysis of the current state and future of U.S. military and the applications that drive connector consumption. This new report is designed to help those involved in the military connector business to understand the new direction of the U.S. military and its sub-segments, and to analyze trends and forecasts. The report identifies subsystems poised for high growth and also benchmarks connector market size by category and type for 2005 and 2006, including five-year CAGRs projections to 2011.

With a military budget that is approximately equal to the sum of all the rest on the nations in the world, the U.S. is by far the largest single market for military connectors. However, the fastest growing defense budget is that of China. With economic growth bolstering the overall economy, China is busy adding to its military capabilities.

The connector industry will see a trend toward increasing numbers of commercial products being used in building-block design approaches. This shift is being fueled by the 1994 Department of Defense (DOD) Commercial off-the-Shelf directive that is now well underway. COTS has allowed the military to move away from the traditional ten-year programs of past decades and embrace the advanced technologies of the commercial sector. Gone are the days of application-specific designs that resulted in the military lagging behind the commercial sector by five to ten years. Although no new military specifications will be issued for connector designs, traditional mil-spec connectors will continue provide military applications with interconnect solutions for decades to come.

World Military Connector Market by Sector

Market Sectors	2005	2006	Percent Change	2011	2006/2011 CAGR
Aircraft (Manufacturing and upgrades, Aerospace products and parts, Missile Systems, Other)	\$567.2	\$580.7	2.4%	\$824.9	7.8%
Ground Forces (Armored Vehicles, Blue Force, Other)	\$1,042.0	\$1,128.2	8.3%	\$1,371.8	5.7%
Sea Based (Ships, Network Centric Warfare, Phased Array Radar, Warning and Defense Systems, Stealth Systems, Landing Systems, Fire Control, Other)	\$840.7	\$983.7	17.0%	\$1,273.1	8.7%
Total Military	\$2,449.9	\$2,692.7	9.9%	\$3,469.9	7.2%

\$ Millions

Circular connectors do a significant business on cables routed through bulkheads and connected to the system I/O. Some benign environments have allowed the use of commercial connectors, but in the field, the mil-spec connector is still required.

World Circular Military Connector Market

Product Line	2005	2006	Percent Change
Standard Circular (Mil-C-5015 Type, including Bayonet)	\$152.3	\$167.4	9.9%
Miniature Circular (Mil-C-26482, 83723, 26500 Type)	\$201.5	\$221.4	9.9%
Subminiature Circular (DTL-38999 Type)	\$273.2	\$302.6	10.8%
Heavy Duty Circular (Mil-C22992, 28840, 28876 Type)	\$46.2	\$50.8	9.9%
Military Audio (Mil-C-10544, 55116, 55181, 55243 Type)	\$23.6	\$25.8	9.4%
Metal Shell Push-Pull Type	\$45.0	\$49.4	10.0%
Military Circular Contacts & Accessories (Mil-C-39029, 85049, etc)	\$174.9	\$192.6	10.1%
Circular	\$916.7	\$1,010.0	10.2%

\$ Millions

The conversion to data buses, from conventional wiring harnesses, combined with environmentally controlled electronics bays in aircraft, ships and ground fighting vehicles, allows commercially available (non mil-spec) connectors of various materials to be used in applications that traditionally were reserved for only full mil-spec designs. This was made possible by the DOD's cancellation of many defense standards in the 1990s. In their place, the DOD issued performance specifications that described the desired features and encouraged the use of industry standards, such as ISO 9000 for quality assurance, or IEEE standards.

The United States is by far the global leader in military spending. It alone accounts for 47 percent of the world's total military spending. The U.S. and its allies, the NATO countries, Japan, South Korea and Australia spend a combined \$950 billion on militaries, 70 percent of the world total. In the ensuing years following the end Cold War, the traditional military market experienced steep declines. Then, the attacks on our country from within by terrorists groups in September 2001 launched the U.S. into an aggressive Global War on Terrorism. New threats from nations that harbor and support terrorists and jeopardize not only our country, but the entire western world with weapons of mass destruction and the threats of cyber warfare demand that our military transform itself into a 21st Century urban warfighter. The military is emerging into a more complex and comprehensive structure. Military spending reached record levels in 2005. Much of the funding in the 2006 budget reflects real-world experience from the war in Iraq, and worldwide counter-terrorism operations. Although advanced weapons systems are an element of transformation, new operational concepts and over-arching command, control, communications, and computers – together with better intelligence, will also leverage dramatic improvements in combat power. Part of the challenge in transforming the military is making difficult tradeoffs between programs. Most new programs are costly and will be available to military forces, in some instances, decades in the future. Before the department decides to buy a new system, it must ensure that the system both has a mission linked to the overall national security strategy and is affordable. The 2004 Budget reflects many areas where the Administration reduced or modified programs because prior plans were not consistent with the new strategy, or because growing costs became indefensible.



The following table of contents shows the detail provided in this new report.

Table of Contents

Chapter 1

Understanding The Military Market
1.1 Military Budgets of the United States and other Parts of the World
U.S. Military Spending vs. Selected Nations
1.2 Military Budget Breakdown – Determining the True Available Market Value
1.3 Using Real World Experience in the Budget
1.4 The President's Proposal
1.5 The Department of Defense's (DOD's) Greatest Challenge
1.6 2006 Year-end Summary
1.7 Significant Events of 2006 and 2007 that Affect Everyone Involved in the Military Marketplace
1.8 Forward-looking Trends
2006 World Connector Market - Share By Equipment Sector
2011 World Connector Market - Share By Equipment Sector
World Military Aerospace Connector Market by Region - 5-Year Forecast

Chapter 2

The Defense Budget Of The United States
2.1 Understanding the President's 2007 Budget
2.1.1 Stimulating Strong Economic Growth and Deficit Reduction
2.1.2 Defense
2.1.3 Transformation
2.1.4 Tools to Support Our Troops
2.1.5 Quality of Troop Life
2.1.6 Homeland Security
2.1.7 The President's Budget also includes
2.1.8 Improving Aviation Security
2.1.9 Preparing the Nation

Chapter 3

U.S. Military Market's Macro Drivers
3.1 Instability in the Middle East and North Korea
3.1.1 Iraq
3.1.2 Iran
3.1.3 Pakistan
3.1.4 Lebanon, Hezbollah and the World's Most Dangerous Men
3.1.5 North Korea

Chapter 4

U.S. Military Market's Micro-Drivers
4.1 Political Events of 2006
4.2 U.S. Defense Forecast

Chapter 5

Military Applications
5.1 Aircraft
5.1.1 Fighter Aircraft
5.1.1.1 F/A-18 Hornet (C & D) and Super Hornet (E & F)
5.1.1.2 F/A-22 Raptor
5.1.1.3 F-35 Lightning II, Joint Strike Fighter (JSF)
5.1.2 F-15 and F-16 Upgrades
5.2 Missiles
5.2.1 Anti-Tank Missiles
5.2.2 Cruise (Anti-ship) Missiles
5.2.3 Cruise (Land) Missiles
5.2.4 Air-to-Air Missiles

5.2.4 Long-range Missiles
5.2.5 Surface-to-Air Missiles
5.2.5 High-altitude Missiles
5.2.6 Intercontinental Ballistic Missiles
5.3 Unmanned Aerial Vehicles
5.3.1 Predator
5.3.2 Global Hawk
5.4 New Technologies of War
5.4.1 Ground Forces
5.4.1.1 Blue Force Tracking
5.4.1.2 The Stryker
5.4.1.3 The Mobile Counter Fire System
5.4.1.4 Advanced Mine Detection
5.4.1.5 Night Vision
5.4.1.6 Flexible Display Technology

Chapter 6

Military Market Sub-Segment Markets
6.1 Aircraft Markets
6.1.1 Aircraft Manufacturing Market
6.2 Command, Control, Communications, Computers and Intelligence (C4I) Markets
6.2.1 Force XXI Battle Command, Brigade and Below
6.3 Missile Systems Markets
6.3.1 Missile Manufacturing Market
6.3.2 Rocket Systems Launch Program (RSLP) Markets
6.3.3 Missile Defense Markets
6.3.4 Ground-based Midcourse Defense (GMD) Market
6.4 IR Imaging Focal Plane Array (FPA) Sensors and Systems Markets
6.5 Ruggedized Computer Markets
6.5.1 Military Display and Keypad Markets
6.6 Military Land-Based Surveillance Radar Market
6.7 Military Satellite Systems Market
6.8 Stealth Markets
6.9 TouchTable™ Markets
6.10 Ground Fighting Vehicle Markets
6.10.1 Ground Fighting Vehicle Retro-fit & Overall Market
6.11 Self-Protection Systems and Decoys Markets
6.12 Chemical and Biological Agent Detector Markets
6.13 Night Vision Device Market
6.14 Visual Simulation Market
6.15 Fire Control and Communications (FCC) Markets
6.16 Guardrail Common System Markets
6.17 Land-Based Air Defense Systems Market
6.18 Power Supplies for Military Application Markets
6.19 Ship Building Markets
6.19.1 Ship Upgrade and Modification Market
6.20 Smart Munitions Market
6.21 Test Equipment (ATE) Market
6.22 Weather Systems Markets
6.23 Unmanned Aerial Vehicles (UAV) Markets & UAV Systems Markets
6.24 Millimeter-Wave Radar Subsystems
6.24.1 Phased-Array Radar Systems
6.24.2 NATO's Air-To-Ground Surveillance (AGS) Market
6.24.3 Miniaturized Synthetic Aperture Radar with MIT Capability (MiSAR) "The Eye in the Sky"
6.25 Electronic Warfare Suites of Multi Role Superiority Aircraft Market
6.26 The 21st Century Soldier

Chapter 7

Mil-Specification Versus Commercial Off-The-Shelf (COTS)

- 7.1 MIL-STD or MIL-SPEC
- 7.2 Origins of Military Standards
- 7.3 Commercial Off-the-Shelf is Nothing New
- 7.4 The Rebirth of Commercial-Off-the Shelf (COTS)
- 7.5 Definition of COTS Solutions
- 7.6 Benefits of COTS
- 7.7 Pros and Cons of both Mil-Spec and COTS
- What's Next for COTS?

Chapter 8

Military Contractors And Electronics Manufacturers

- 8.1 Top 15 Aerospace & Defense Manufacturers
 - Lockheed Martin Corporation (NYSE: LMT)*
 - The Boeing Company (NYSE: BA)
 - Boeing Integrated Defense Systems
 - BAE SYSTEMS plc (Pink Sheets: BAESY [ADR])
 - Northrop Grumman Corporation (NYSE: NOC)
 - Raytheon Company (NYSE: RTN)
 - Raytheon Network Centric Systems
 - General Dynamics Corporation (NYSE: GD)
 - General Dynamics Information Technology
 - General Dynamics Land Systems Inc.
 - General Dynamics C4 Systems, Inc.
 - General Dynamics Aviation Services
 - General Dynamics Ordnance and Tactical Systems Scranton Operations
 - General Dynamics NASSCO
 - Electric Boat Corporation
 - General Dynamics United Kingdom Limited
 - European Aeronautic Defense and Space Company EADS N.V.
 - EADS North America, Inc.
 - EADS Test & Services (UK) Limited
 - EADS North America Defense Test and Services, Inc.
 - American Eurocopter LLC
 - L-3 Communications Holdings, Inc. (NYSE: LLL)
 - L-3 Communications Integrated Systems L.P.
 - Finmeccanica SpA
 - United Technologies Corporation (NYSE: UTX)
 - Thales
 - Science Applications International Corporation
 - General Electric Company (NYSE: GE)
 - Honeywell International Inc. (NYSE: HON)
- 8.2 Aerospace & Defense Electronics Manufacturers by Market Segments
 - 8.2.1 Military Airborne Communications Markets, including surveillance and warfare systems, air traffic control, command & control, weaponry and defense electronics upgrades
 - EDO Corporation (NYSE: EDO)
 - Harris Corporation (NYSE: HRS)
 - Elbit Systems Ltd. (NASDAQ (GS): ESLT)
 - ITT Defense Electronics & Services
 - Cobham plc
 - 8.2.2 Military Ground Fighting Vehicles
 - General Dynamics Land Systems Inc.
 - 8.2.3 Military Tactical Radios, Avionics, Overhaul Services and Flight Simulation
 - Rockwell Collins, Inc. (NYSE: COL)

Chapter 9

Military Connector Types

- 9.1 Mil-Spec Circular Types
 - 9.1.1 MIL-DTL-26482 (formerly MIL-C-26482) Series
 - 9.1.2 MIL-DTL-5015 (formerly MIL-C-5015) Series
 - 9.1.3 MIL-DTL-38999 (Formerly MIL-38999) Series
 - 9.1.4 MIL-C-83723 Series
 - 9.1.5 MIL-C-28840 Series
 - 9.1.6 VG 95234 Series

9.2 COTS Types (Often referred to as Non-Mil-Spec)

- 9.2.1 Rack and Panel Type
 - 9.2.1.1 ARINC 404 & 600 Series
 - 9.2.1.2. ARINC 650 & 810
- 9.2.2. IEEE Specification
 - 9.2.2.1 FireWire (IEEE 1394)
- 9.2.3 Rectangular & PCB Connectors
 - 9.2.3.1 MIL-C-24308 D-Subminiature Series
 - 9.2.3.2 MIL-C-55302 Series PCB Connectors
- 9.2.4 Micro-miniature Series
 - 9.2.3.1 MIL-STD-83513 Series
 - 9.2.5 MIL-DTL-M32139A Nano-miniature Series
- 9.2.6 LIF / ZIF Rectangular Connectors
- 9.2.7 Heavy Duty, Space and Underwater Connectors
 - 9.2.7.1 NASA / Goddard Space Flight Center Qualified Connectors
 - 9.2.7.2 WetSeal Series™
- 9.2.8 Umbilical Release and Staging Connectors
 - 9.2.8.1 MIL-STD-1760 Series
- 9.2.9 Filtered Connectors
 - 9.2.9.1 D-Subminiature EMI / RFI Filtered
 - 9.2.9.2 MIL-DTL-83723
 - 9.2.9.3 MIL-DTL-83513 Micro D
 - 9.2.9.3 ARINC 600
- 9.2.10 Hermetically-sealed Connectors
- 9.2.11 High-frequency RF Connectors
 - 9.2.11.1 Standard RF Types:
 - 9.2.11.2 Miniature RF Types:
 - 9.2.11.3 Sub-miniature RF Types
 - 9.2.11.4 APC Series RF Connectors
- 9.2.12 Tactical Fiber Optic Connectors
 - 9.2.12.1 MIL-PRF-29504
 - 9.2.12.2 MIL-PRF-28876
 - 9.2.12.3 Expanded Beam Fiber Optic Connectors
 - 9.2.12.4 GFOCA Style Fiber Optic Hermaphroditic Connections
 - 9.2.12.5 Next Generation (NGCON) Fiber Optic Connections
- 9.2.13 Custom Sockets
 - 9.2.13.1 Ball Grid Array (BGA) Sockets
 - 9.2.13.2 Land Grid Array (LGA) Sockets
 - 9.2.13.3 Pin Grid Array (PGA) Sockets

Chapter 10

Military Connector Manufacturers

- 10.1 Top Military Connector Manufacturers
 - Glenair Inc.
 - Deutsch Connectors, Defense/Aerospace Operations
 - Hi-Rel Connectors, Inc.
 - Radiall AEP, Inc.
 - Smiths Interconnect
 - Souriau SAS
 - Souriau USA
 - Amphenol Interconnect Products
 - ITT Electronic Components
 - Corning Gilbert, Inc.
 - HUBER+SUHNER, Inc.
 - CINCH CONNECTORS Ltd
 - Telegartner Inc.
 - ABB Entrelec
 - 3M Interconnect Solutions
 - Delphi Connection Systems
 - Tyco Electronics Ltd.
 - JST. Corporation

Chapter 11

Military Connector Market By Region And End-Use Equipment Sectors

- Market by Region and End-Use Equipment Sectors
- North American Military Connector Market By Equipment Sector
- European Military Connector Market By Equipment Sector
- Japan Military Connector Market By Equipment Sector
- Chinese Military Connector Market By Equipment Sector

Asia Pacific Military Connector Market By Equipment Sector
ROW Military Connector Market By Equipment Sector
Total Military Connector Market By Equipment Sector

Chapter 12

Military Connector Market By Region And Product Category
12.1 Market by Region and Major Product Category
North American Military Connector Market By Product Category
European Military Connector Market By Product Category
Japanese Military Connector Market By Product Category
Chinese Military Connector Market By Product Category
Asia Pacific Military Connector Market By Product Category
ROW Military Connector Market By Product Category
Total World Military Connector Market By Product Category

12.2 Market by Region and Significant Product Lines
North American Military Connector Market By Significant Product Line
European Military Connector Market By Significant Product Line
Japanese Military Connector Market By Significant Product Line
Chinese Military Connector Market By Significant Product Line
Asia Pacific Military Connector Market By Significant Product Line
ROW Military Connector Market By Significant Product Line
Total Military Connector Market By Significant Product Line

Chapter 13

Conclusions
13.1 How The Military Connector Market Has Transformed



