Germany

Europe
January 2017

Country Primer

Political System

The Federal Republic of Germany is a federal republic, with 16 lander (states). The bicameral legislature consists of the upper Bundesrat and the lower Bundestag. The election in September 2005 brought Angela Merkel of the CDU into power; the President is President Joachim Gauck since 23 March 2012.

Population

The population of Germany is about 81 million. The population is 95% German; the largest minority are Turks (2.3%). The country is primarily Protestant (45%) and Catholic (37%).

Military Posture

Threat Assessment

Germany had been the focus of attention during the Cold War, with NATO and the Warsaw Pact facing each other down along the West German and East German frontiers. With the fall of the Berlin Wall and the collapse of the USSR, Germany's strategic posture has radically changed. With the absorption of the former Democratic German Republic (DDR), and the withdrawal of the last Russian troops in 1994, Germany has returned to the world stage as a unified state.

German security policy is closely tied with NATO and the European Union. On the one hand, Germany retains strong ties to the US and NATO as a symbol of its rejection of its past; at the same time Germany has been an enthusiastic partner with France in promoting further unification of Europe as its future. Germany does not currently face any immediate strategic threat, as Russia is now separated from its eastern border by newly independent countries including Poland, Belarus and Ukraine. Nor does Germany face any significant internal security problems beyond lingering terrorist threats.

The lack of serious external threats and the enormous costs inherent in the absorption of the DDR has led Germany to cut back on its defense forces. In the past few years, the emphases in German defense policy have been to promote further integration with its European partners, and to begin to consider Germany's role in worldwide peacekeeping actions, mainly under the jurisdiction of the United Nations or European Union. Germany first began deploying troops abroad after a 1998 decision to take part in peace-keeping operations in the former Yugoslavia. In early 2006, Germany had 7,700 troops abroad; rising to 9,000 by year's end. Germany had over 5,000 troops in Afghanistan in 2011-2012.

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Defense Structure

Federal Ministry of Defense
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Germany
tel: (49) 228 561

Military Attaché in the USA
Embassy of the Federal Republic of Germany
4645 Reservoir Rd. NW
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Armed Forces Overview

The German armed forces (Bundeswehr) has an active strength of about 178,000. Cost-cutting measures proposed in 2010 could reduce this to 175,000. The conscription period was nine months but was suspended in July 2011 in favor of a program of "voluntary conscription". The Bundeswehr is now in the throes of major reorganization and downsizing.

Germany still has substantial numbers of foreign troops on its soil. Germany is still headquarters for the Allied Land Forces Central Europe (LANDCENT); Allied Air Forces Central Europe (AIRCENT); Allied Land Forces Jutland and Schleswig-Holstein (LANDJUT); and Allied Command Europe Mobile Force (AMF). NATO units deployed in Germany include Belgium, France, Netherlands, UK and USA. These forces have been steadily declining since 1991. Allied forces finally withdrew from Berlin in 1994, and the last Russian troops departed in 1994. In August 2004, the US government announced plans to substantially reduce the size of US forces stationed in Germany.

Army

The Bundesheer's main combat strength is in its Field Army, which in the early 1990s consisted of three Corps with 12 divisions (six panzer, four panzer grenadier, one mountain, and one paratrooper). These were reduced to six divisions in 1994 and more recently to five.

Army Equipment Inventory

Weapon System	*Quantity*	*Source*	*Notes*
Armored Vehicles			
Leopard 2A6	328	FRG	main battle tank; some 2A7 being acquired
Wiesel	133	FRG	light airborne armored vehicle
SPz-2 Luchs	190	FRG	armored car
Marder A1/A2	410	FRG	infantry combat vehicle being upgraded to Marder A3
TPz-1 Fuchs	324	FRG	wheeled APC; includes EW variant, NBC scout vehicle
M-113	1,287	USA	incl. artillery observation; SP Tampella 120mm mortars
M-577	223	USA	tracked command vehicles
Fennek	221	Germany	Scout vehicle

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Field Artillery			
155mm FH-70	100	FRG	towed howitzer
155mm M109A3G	511	USA	self-propelled howitzer
155mm PzHb 2000	181	FRG	self-propelled howitzer; on order
110mm LARS	50	FRG	truck-mounted multiple rocket launcher
M270 MLRS	132	USA	multiple rocket launcher
Battlefield Support Weapons			
Milan	1,519	FRG/France	manportable antitank missile
TOW	210	USA	antitank missile (exc. vehicle mounts)
Air Defense			
20mm Rh 202	1,155	FRG	towed air defense gun
Stinger		USA/FRG	manportable air defense missile
Roland	141	FRG/France	air defense missile system
Army Aviation			
Aérospatiale SE.313	1	France	
Airbus Helicopters BO 105P1	39	Germany	
Airbus Helicopters EC 135T1	14	Germany	
Airbus Helicopters Tiger UHT	44	Italy	
Dornier-Bell UH-1D	115	Germany	
NH Industries NH90 TTH	38	Europe	

Navy

The Bundesmarine is headquartered at Glucksburg, with other major bases at Wilhelmshaven, Kiel, Olpenitz and Wamemunde, Eckernforde, Flensburg, and Neustadt have only limited facilities to support the navy's ships. Emden on the North Sea is not a major base, but can be used for operations. The navy has about 27,000 personnel.

The Bundesmarine Fleet Command is organized into seven operational commands: Frigate; Patrol Boat; Mine-countermeasures vessels, Submarine Support Flotillas; Naval Air; Naval Communications-Electronics Command. As in the case of the Bundesheer, the Bundesmarine did not absorb much combat equipment from the former East German navy, preferring to retire it, or sell it off.

Aside from the major warships listed below, there are numerous mine warfare and support vessels.

The Bundesmarine operates a variety of support aviation units.

Navy Equipment Inventory

Weapon System	*Quantity*	*Source*	*Notes*
Warships			
Type 212	6	FRG	diesel attack submarine
Sachsen Type 124	3	FRG	missile frigate
Type 130	5	FRG	missile frigate
Brandenburg Type 123	4	FRG	missile frigate
Bremen Type 122A	8	FRG	frigate
Gepard T-143A	10	FRG	missile patrol boat armed with Exocet
Naval Aviation			
Lockheed Martin P-3C CUP	8	USA	acquired from Dutch navy
RUAG Do 228-212NG	2	Switzerland	
Westland Lynx 88	6	UK	

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Westland Sea King Mk 41	21	UK

Air Force

The Luftwaffe has about 45,000 personnel. The Tactical Command controls three tactical air divisions and two air defense divisions; there are separate Transport and Training Commands. The Luftwaffe is responsible for strategic national air defense, and deploys two air defense divisions. Besides the major aircraft listed below, the Luftwaffe also operates a variety of transport, VIP, and liaison aircraft.

Air Force Equipment Inventory

Weapon System	*Quantity*	*Source*	*Notes*
Aircraft			
Airbus A310-304	1	Europe	
Airbus A310-304 MRTT	4	Europe	tankers
Airbus Military A400M	6	Europe	40 now planned; 13 ordered a/c up for sale
Eurofighter EF2000 Typhoon	123	Europe	
Grob G120	7	Germany	
Panavia Tornado ECR	28	Europe	
Panavia Tornado IDS	87	Europe	
Panavia Tornado IDS(T)	7	Europe	trainers
Sikorsky CH-53G/GS	81	USA	
Transall C.160D	67	France	
Air Defense			
MIM-104 Patriot	200		air defense missile system
MIM-23 I-Hawk	216		air defense missile system
Roland	95		air defense missile system
S-200 (SA-5)			air defense missile system

Special Forces Equipment Inventory

Weapon System	*Quantity*	*Source*	*Notes*
Aircraft			
Airbus Helicopters EC 145	1	Europe	

Paramilitary Forces

The Federal Border Guards of the Ministry of Interior have 24,800 personnel organized into five regional commands. They have armored personnel carriers as well as an aviation force of about 50 helicopters. The German Coast Guard has 11 inshore patrol craft, one inshore tug, and various boats.

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Defense Industry

Weapons Development

Ministry of Defense Armament Department
Rustungshauptabteilung
PO Box 1328
W-5300 Bonn 1, Germany
tel: (49) 228 121

Germany does not have a large RDT&E establishment compared to other major European powers like France or Britain. It's development efforts are on a smaller scale, and frequently are part of multi-national European ventures with the main efforts being undertaken by multi-national firms or by German private companies. Some of the basic research is undertaken by BMVg institutes as well as by the Wehrtechnische Dienststelle (Test Establishments).

Weapons Production

Bundesamt fur Wehrtechnik und Beschaffung (BWB)
Konrad Adenauer Ufer 2-6
PO Box 7360
W-5400 Koblenz, Germany
tel: (49) 261 4001

Germany does not follow the usual practice of major European powers in attempting to develop and manufacture a full range of weapons. In the past, it has relied on the US and multi-national programs for most of its aircraft and missiles. It has been generally self-sufficient in ground equipment and ships, although naval subsystems and weapons have often come from other countries. These procurement practices are gradually evolving with Germany favoring either domestic production, or participation with other European countries. In recent years, Germans weapon exports have significantly exceeded arms imports. Some of the major German defense firms are as follows:

- Airbus Group—EADS-Germany controlled many of Germany's aerospace firms. DASA (Deutsche Aerospace) was a consortia based around MBB and aimed at making German aerospace more competitive in the European and world market. Eurocopter was a joint venture between Aérospatiale and MBB aimed at satisfying European helicopter requirements including the Tiger armed helicopter program. Eurofighter Jagdflugzeug GmbH was a joint venture between DASA, BAe, Alenia and CASA aimed at producing the new Eurofighter 2000, now part of EADS. The 2014 re-branding of EADS as the Airbus Group will lead to name changes in the German portions of the industry. Airbus Group consists of three main divisions: Airbus (commercial aircraft), Airbus Defense and Space (military aircraft, missiles and space) and Airbus Helicopters (civil and military helicopters).
- Atlas Elektronik GmbH—This is one of Germany's major military electronics firms, involved in sonar, fire control and other electronic systems.
- Blohm + Voss—This is one of Germany's main naval shipbuilding firms, producing a wide range of warships and support vessels.
- Bodenseewerk Geratetechnik GmbH—BGT is Germany's main air-to-air missile firm, working on German versions of the Sidewinder as well as other missile programs. It is now part of Diehl.
- Diehl GmbH—Diehl is one of Germany's main ordnance firms, developing weapons, munitions, missile components and explosive devices, including advanced electronic subsystems for PGMs.
- Eltro GmbH—Eltro is one of Germany's main electro-optics firms, manufacturing night vision equipment.
- Faun GmbH—Faun manufactures heavy-duty equipment, especially large trucks and construction equipment.
- Heckler & Koch GmbH—H&K is one of the world's premier small arms developers and manufacturers and supplies a large percentage of German army requirements.
- Howaldtswerke Deutsche Werft AG—HDW is one of Germany's largest naval shipyards, manufacturing submarines and other warships. It was purchased in 2004 by One Equity Partners, and then repurchased by Thyssen-Krupp.

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- IVECO Magirus—Magirus is one of Germany's main manufacturers of trucks and other special purpose vehicles.
- Alfred Karcher GmbH—Karcher build field kitchens, NBC protective systems and other military support equipment.
- Krauss-Maffei-Wegmann (KMW)—Krauss Maffei is Germany's main manufacturer of tanks and also builds other armored vehicles and recently merged with Wegmann which produces ordnance systems including tank and armored vehicle turrets. In 2015, plans were announced to merge KMW with Nexter.
- Lurssen Werft—This shipyard is best known for its widely exported missile boats and patrol craft.
- MBDA—EADS (now Airbus Group) controls two separate missile ventures, MBDA formed from BAE Dynamics, Matra Defense and Alenia, and DASA-LFK which combines former German missile firms such as MBB.
- RAM System GmbH—This is the joint venture with BGT, Diehl, MBB and Telefunken, now part of MBDA, develop and manufacture the RAM naval air defense missile.
- Rheinmetall Defence—This is one of Germany's largest defense firms, once known for its ordnance products, but now more broadly diversified including automotive (MAN) and electronics.
- Siemens Defense Electronics—Siemens is Germany's largest defense electronics firm, producing a wide range of electronic products including radars, computers, radio and communication equipment, C3I and other systems.
- Thyssen Henschel—Thyssen is one of Germany's main producers of light armored vehicles including the Marder.
- Thyssen Nordseewerke—Thyssen is a major naval shipyard, and among its current programs are the Type 212 submarines.
- Carl Zeiss—Zeiss is a world famous optics manufacturer and produces optical devices and electro-optics for the German armed forces.

Defense Budget

Government Budget Overview

Currency:	euro ($ = .93)
Military budget as % of GNP:	1.2%
Avg. annual GNP growth:	~1.5%
Avg. annual inflation rate	<1%
Average Defense RDT&E (budget %)	3.7%
Average Defense procurement (budget %)	16.4%

($ billions, current $)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Defense Budget	43.3	43.5	42.3	44.5	40.4	44.2	43.1	36.7	34.8	39.3
Gross National Product	3650.0	3340.0	3280.0	3,610.0	3,400.0	3,640.0	3,870.0	3,370.0	n/a	n/a
Foreign Military Sales (FMS) Transactions with USA ($ Millions)										
FMS Agreements	166.7	535.2	90.0	228.4	386.0	133.2	175.2	340.8	n/a	n/a
FMS Deliveries	173.2	161.9	295.6	159.5	141.8	150.3	163.6	139.3	n/a	n/a

Defense Budget Breakdown by Category

(€ Billions)	2004	2005	2006	2007	2008	2009	2010	2012	2014	2015
Personnel	12.6	12.4	12.1	12.1	16.7	17.2	17.4	17.3	18.7	18.2
O&M	6.08	6.47	6.5	6.37	7.52	8.0	8.4	10.3	6.1	11.3
Proc. (Army)	0.55	0.66	0.71	0.797	1.37	0.972	0.942	1.0	1.0	1.1
Proc. (Navy)	0.51	0.49	0.44	0.485	0.59	0.51	0.47	0.51	0.66	0.151
Proc. (AF)	1.84	1.72	1.75	1.78	2.11	2.19	2.12	2.4	2.2	1.567
Proc. (Other)	1.34	1.23	1.26	1.27	1.7	1.6	1.66	1.3	1.1	1.2
Construction	0.73	0.72	0.79	0.89	0.97	1.04	1.1	0.79	3.5	0.82
R&D	0.99	1.0	1.02	1.2	1.2	1.07	1.1	0.88	0.85	0.895
Total	**24.71**	**24.7**	**24.6**	**24.7**	**31.2**	**32.6**	**33.2**	**34.5**	**34.4**	**35.4**

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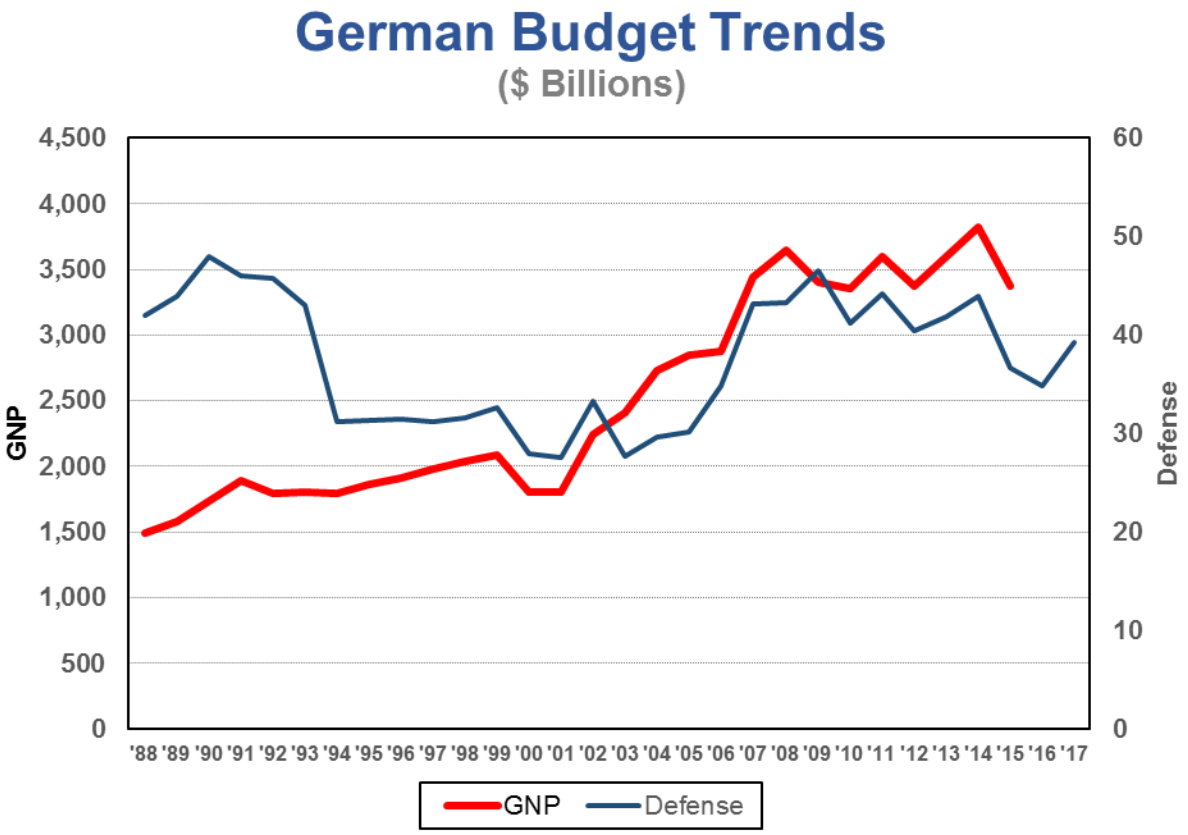
Defense Procurement by Category

(€ Billions)	2004	2005	2006	2007	2008	2009	2010	2012	2014	2015
Aircraft	2.24	2.04	2.04	1.9	2.5	2.6	2.55	2.5	1.9	2.07
Missiles	0.132	0.146	0.172	0.178	0.171	0.168	0.164	0.171	0.016	0
Warships	0.687	0.6	0.485	0.529	0.448	0.572	0.572	0.706	0.51	0.045
AFVs	0.119	0.144	0.247	0.223	0.296	0.3	0.32	0.456	0.315	0.474
Artillery & Ordnance	0.304	0.324	0.37	0.081	0.451	0.43	0.4	0.35	0.331	0.301
Mil. Electronics	0.296	0.336	0.437	0.349	0.371	0.497	0.38	0.27	1.0	0.185



FMS Contracts

Below is a listing of all US Foreign Military Sales contracting actions that have been announced since the beginning of FY13 (10/1/12). These actions include the award of, or modification to, prime contracts with a base value of $7 million or more.

Date	Contract Number	Obligation	Details
BAE Systems, Information & Electronic Systems Integration			
11/04/2013	N00039-10-D-0060	$48,000,000	modification to a CPIF, ID/IQ contract action issued by the SPAWAR (US Navy/Marine Corps) for systems engineering and integration of the Multi-functional Information Distribution System Low Volume Terminals (MIDS-LVTs). The contract is scheduled to be completed by 3/31/2017. Program involvement: MIDS-LVT. RDT&E involvement: 0204163N.
12/30/2013	N00019-12-C-2020	$12,835,546	modification to a previously awarded FFP contract action issued by the NAVAIR (US Navy/Marine Corps) for supplies and services required for the delivery, installation, and testing of 6 French E-2C compatible

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			AN/APX-122A Mode 5/S Interrogator units. Work will be performed in Greenlawn, NY (80%); Nashua, NH (15%); Melbourne, FL (3%); and 2 other locations (2%). The contract is scheduled to be completed by 12/31/2018. Program involvement: E-2, AN/APX-122.
Boeing, Defense, Space & Security - Military Aircraft			
04/19/2013	F19628-01-D-0016	$11,418,173	FFP, ID/IQ, CPFF contract action issued by the AFLCMC (US Air Force) for re-baseline of French mid-life upgrade delivery order 67 schedule due to impacts of the partial stop work order issued June 19, 2012. The contract is scheduled to be completed by 12/31/2015.
06/30/2014	FA8102-14-D-0001	$11,150,000	FFP, T&M and cost-reimbursable contract action issued by the AFLCMC (US Air Force) for E-3 Engineering Services. The contract is scheduled to be completed by 5/31/2017. Program involvement: E-3.
07/31/2014	F19628-01-D-0016	$17,858,824	FFP, incentive-firm modification contract action issued by the AFLCMC (US Air Force) for the full Mode 5 and Mode S-FAA radar capabilities for incorporation into the French Air Force mission and ground system suite. The contract is scheduled to be completed by 6/30/2017. Program involvement: E-3.
Entwistle			
04/28/2016	SPRPA1-16-C-Z049	$8,842,250	firm-fixed-price contract action issued by the Defense Logistics Agency Aviation (Defense Agencies) for trough covers. The contract is scheduled to be completed by 12/31/2017.
General Atomics, Aeronautical Systems			
09/30/2013	FA8620-10-G-3038	$49,813,377	NTE undefinitized contract action issued by the AFLCMC (US Air Force) for France's MQ-9 Reaper urgent request program. The contract is scheduled to be completed by 7/15/2015. Program involvement: RQ-1, MQ-9.
11/01/2013	FA8620-10-G-3038	$27,607,349	NTE undefinitized contract action issued by the AFLCMC (US Air Force) for France's MQ-9 UAS Contractor Logistics Support Phase I program. The contract is scheduled to be completed by 10/31/2014. Program involvement: RQ-1, MQ-9.
10/30/2014	FA8620-10-G-3038	$16,064,628	modification to exercise an option on a delivery order for an existing BOA contract action issued by the WPAFB (US Air Force) for France's MQ-9 Contractor Logistics Support (CLS) Phase 2. Work will be performed in Poway, CA; and Niger. The contract is scheduled to be completed by 10/31/2015. Program involvement: RQ-1, MQ-9.
10/26/2015	FA8620-10-G-3038	$19,070,219	delivery order 0113 of the basic ordering agreement contract action issued by the WRIGHT (US Air Force) for MQ-9 contractor logistics support (CLS) Phase 3. Work will be performed in Poway, CA; and Niamey, Niger. The contract is scheduled to be completed by 12/31/2016. Program involvement: RQ-1, MQ-9.
01/19/2016	FA8620-15-G-4040	$43,740,596	undefinitized contract action issued by the AFLCMC (US Air Force) for France's MQ-9 second system. The contract is scheduled to be completed by 10/31/2017. Program involvement: MQ-9, RQ-1.
12/09/2016	FA8620-15-G-4040	$16,825,033	increment as part of a $17,143,626 contract (0039) on a previously awarded basic ordering agreement contract action issued by the Air Force Life Cycle Management Center (US Air Force) for MQ-9 Block 5 Exportability acquisition. Contractor will develop an MQ-9 Block 5 configuration for future foreign military sales customers. The contract is scheduled to be completed by 1/31/2019. Program involvement: MQ-9, RQ-1.
01/05/2017	FA8620-15-G-4040	$23,969,228	delivery order (0026) to a previously awarded contract action issued by the Air Force Life Cycle Management Center (US Air Force) for MQ-9 contractor logistics support services phase 1. The contract is scheduled to be completed by 12/31/2017. Program involvement: MQ-9, RQ-1.
General Dynamics, Ordinance & Tactical Systems			
08/30/2016	W52P1J-13-D-0050	$39,258,206	modification (P0004) to a foreign military sales contract action issued by the Army Contracting Command (US Army) for MK82-1 bomb bodies (162); MK82-6 bomb bodies (7,245); and MK84-10 bomb bodies (9,664), being bought in support of Air Force and Navy requirements. The contract is scheduled to be completed by 12/31/2017. Program involvement: MK 82.

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L-3 Communications

02/11/2014	FA8620-13-G-4051	$17,919,946	FFP and cost-reimbursable contract action issued by the AFLCMC (US Air Force) for supply of SATCOM Terminals, Test and Monitor Sub-Systems, Satellite Earth Terminal Sub-Systems Site Monitor and Radomes. The contract is scheduled to be completed by 2/11/2016. Program involvement: SATCOM.

L-3 Communications, d/b/a Randtron Antenna Systems

03/19/2013	N00383-11-G-004N	$6,741,252	delivery order #7003 under previously awarded Basic Ordering Agreement contract action issued by the NAVSUP (US Navy/Marine Corps) for the repair of the TRAC Antenna-A Rotodome Antenna Overhaul and IFF Mode 5/S upgrade on four of the French Navy's E-2C OE-335 A/A TRAC-A antennas. The contract is scheduled to be completed by 3/31/2015. Program involvement: E-2, TRAC Antenna.

Leidos

12/08/2016	FA8730-17-F-0053	$9,392,996	increment as part of a $350,000,000 indefinite-delivery/indefinite-quantity contract action issued by the Air Force Life Cycle Management Center (US Air Force) for Joint Mission Planning System (JMPS) engineering integration. Contractor will provide delivery of the JMPS Mission Planning Environment and JMPS Integrated Build Environments. Work will be performed in Reston, VA; and Orlando, FL. The contract is scheduled to be completed by 12/7/2027. Program involvement: Joint Mission Planning System. RDT&E involvement: 0208006.

Lockheed Martin, Aeronautics

06/16/2016	FA8625-11-C-6597	$20,431,791	modification (P00579) to a previously awarded contract action issued by the Air Force Life Cycle Management Center (US Air Force) for C-130J long lead items. Contractor will provide long-lead spares and support equipment in preparation for the procurement of four France C-130J aircraft. The contract is scheduled to be completed by 5/31/2019. Program involvement: C-130.
09/07/2016	FA8625-11-C-6597	$132,600,829	modification (P00577) to a previously awarded contract action issued by the Air Force Life Cycle Management Center (US Air Force) for two US government-configured KC-130J aircraft. The contract is scheduled to be completed by 4/30/2020. Program involvement: KC-130.
12/01/2016	FA8625-11-C-6597	$133,434,778	modification (P00658) to a previously awarded contract action issued by the Air Force Life Cycle Management Center (US Air Force) for aircraft. Contractor will provide two U.S. government-configured C-130J-30 aircraft. The contract is scheduled to be completed by 8/30/2020. Program involvement: C-130.

Lockheed Martin, Rotary & Mission Systems

02/03/2016		$0	increment as part of a $52,453,589 performance-based logistics, firm-fixed-economic price adjustment, indefinite-delivery requirements-type contract action issued by the NAVSUP (US Navy/Marine Corps) for supply chain management of aviation tires supporting the following aircraft: P-3C, E-2C/D, C2, AV-8B, CH-46E, F-18A/B/C/D/E/F, EA 18-G, MH-60S/R, SH60B/F, S-3, EA-6B, CH-53/E, V-22, and F-35. The contractor is responsible for requirements forecasting, inventory management, retrograde management, storage, transportation, and meeting critical supply response time availability metrics. This contract involves a combined effort between the Navy (85%); and the countries of Australia, Bahrain, Brazil, Egypt, France, Greece, Italy, Korea, Spain, Taiwan, Turkey Japan, and the United Kingdom (15%) under the Foreign Military Sales program. The contract is scheduled to be completed by 1/31/2019. Program involvement: P-3C, E-2 C2, AV-8B, CH-46, F/A-18, EA-18-G, MH-60, SH-60, S-3, EA-6B, CH-53, V-22, F-35.

Northrop Grumman

01/18/2013	N00383-13-D-036G	$13,172,882	five-year performance based logistics FFP requirements contract action issued by the NAVSUP (US Navy/Marine Corps) for the AN/ASN-139 Carrier Aircraft Inertial Navigation System (CAINS II) used in support of the C-2A, E-2C, F/A-18 B/C/D/E/F, S-3 and TAV-8B aircraft. Work will be per-

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			formed in Woodland Hills, CA (75%); and Salt Lake, UT (25%). The contract is scheduled to be completed by 1/25/2018. Program involvement: CAINS II.
Northrop Grumman, Aerospace Systems			
08/28/2013	N00019-13-C-2023	$34,558,999	CPFF, FFP contract action issued by the NAVAIR (US Navy/Marine Corps) for the delivery, installation, and testing of four French E-2C Identification Friend or Foe Mode 5/Mode S interrogator and transponder units. Work will be performed in Bethpage, NY (57%); Beaver Creek, OH (33%); France (3.4%); and two other locations (6.6%). The contract is scheduled to be completed by 12/31/2018. Program involvement: E-2.
08/21/2014	N00019-10-G-0004	$47,596,436	CPFF delivery order against a previously issued Basic Ordering Agreement contract action issued by the NAVAIR (US Navy/Marine Corps) for non-recurring engineering and development of five French E-2C compatible AN/ALQ-217 electronic support measures units. Work will be performed in Owego, NY (43%); Melbourne, FL (40%); Dayton, OH (4%); and 4 other locations (13%). The contract is scheduled to be completed by 12/31/2018. Program involvement: E-2, AN/ALQ-217.
Odyssey Systems Consulting Group			
01/13/2017	FA8721-13-D-0002	$12,184,292	cost-plus-fixed-fee, cost reimbursable and firm-fixed-price modification contract action issued by the Air Force Lifecycle Management Center (US Air Force) for professional acquisition support services. Contractor will provide program management, financial management, administrative and other related support utilizing established government, contractor, and industry practices for the foreign military sales division, and the Airborne Early Warning and Control Systems International Branch. Work will be performed in Hanscom AFB, MA. The contract is scheduled to be completed by 1/17/2018.
PE Systems			
04/17/2014	FA8721-13-C-0029	$7,280,498	modification to a CPFF, cost reimbursable contract action issued by the AFLCMC (US Air Force) for professional acquisition support services. Work will be performed in Hanscom AFB, MA; Langley AFB, VA; Washington, DC; and Wright-Patterson AFB, OH. The contract is scheduled to be completed by 10/17/2014.
Quantech Services			
04/17/2014	FA8721-13-C-0016	$14,402,703	modification to a CPFF, cost reimbursable contract action issued by the AFLCMC (US Air Force) for professional acquisition support services. Work will be performed in Hanscom AFB, MA; and Langley AFB, VA. The contract is scheduled to be completed by 1/17/2015.
Raytheon, Integrated Defense Systems			
04/24/2015	FA8620-11-G-4050	$11,699,316	modification to a previously awarded contract action issued by the AFLCMC (US Air Force) to provide nine multi-spectral targeting systems B turret units, HD electronic units, and associated containers. The contract is scheduled to be completed by 12/31/2016.
Raytheon, Missile Systems			
08/28/2014	N00019-14-D-0022	$36,553,657	ID/IQ contract action issued by the NAVAIR (US Navy/Marine Corps) for the repair and maintenance of the SM-1 standard missile. Work will be performed in Tucson, AZ (60%); Camden, AR (28%); McAlester, OK (2%); and various locations (10%). The contract is scheduled to be completed by 8/31/2019. Program involvement: SM-1, RIM-67.
Raytheon/Lockheed Martin Javelin, (joint venture)			
02/12/2015	W31P4Q-14-C-0127	$25,368,524	modification contract action issued by the ACC (US Army) for life cycle contractor support and repairs for Army, Marines, Army National Guard and FMS customers. The contract is scheduled to be completed by 2/28/2016. Program involvement: FGM-148 Javelin.
08/31/2016	W31P4Q-16-C-0133	$48,259,165	firm-fixed-price, foreign military sales contract action issued by the Army Contracting Command (US Army) for life cycle support repair and support the Javelin hardware. The contract is scheduled to be completed by 2/28/2018. Program involvement: FGM-148 Javelin.

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06/11/2013	FA8105-13-C-0001	$44,500,000	FFP contract action issued by the AFLCMC (US Air Force) to install the KC-135 Global Air Traffic Management Block 40 Upgrade into three KC-135R French Air Force aircraft. The contract is scheduled to be completed by 11/10/2015. Program involvement: KC-135.

Rolls-Royce

09/20/2016	FA8553-15-C-0016	$20,737,346	firm-fixed-price supply contract action issued by the Air Force Life Cycle Management Center (US Air Force) for spare C-130J AE2100D3 engines. The contract is scheduled to be completed by 12/31/2017. Program involvement: C-130, AE2100.

Science Applications International

01/09/2015	W31P4Q-05-A-0031	$7,179,527	modification to a multi-year FMS contract action issued by the ACC (US Army) for systems and computer resources support. Work will be performed in Redstone Arsenal, AL. The contract is scheduled to be completed by 2/20/2017.
04/01/2015	W31P4Q-05-A-0031	$18,196,585	modification to a FMS contract action issued by the ACC (US Army) for systems and computer resources support for the Aviation and Missile, Development and Engineering Center Software Engineering Directorate. Work will be performed in Redstone Arsenal, AL. The contract is scheduled to be completed by 2/20/2017. RDT&E involvement: 0605601A.
04/09/2015	W31P4Q-05-A-0031	$7,769,196	modification contract action issued by the ACC (US Army) for Systems and Computer Resources Support for the Aviation and Missile, Development and Engineering Center. The contract is scheduled to be completed by 2/20/2017. RDT&E involvement: 0605801A.
04/20/2015	W31P4Q-05-A-0031	$16,691,136	modification to a FMS contract action issued by the ACC (US Army) for systems and computer resources support for the AMRDEC, Software Engineering Directorate and RDECOM. The contract is scheduled to be completed by 2/20/2017. RDT&E involvement: 0601104A.
05/19/2015	W31P4Q-05-A-0031	$17,407,069	modification to a FMS contract action issued by the ACC (US Army) for systems and computer support for the Aviation and Missile Research, Development and Engineering Center. Work will be performed in Redstone Arsenal, AL. The contract is scheduled to be completed by 2/20/2017. RDT&E involvement: 0604759A.
07/24/2015	W31P4Q-05-A-0031	$45,210,663	modification to a FMS contract action issued by the ACC (US Army) for systems and computer resources support for the Army Research, Development, and Engineering Command. Work will be performed in Redstone Arsenal, AL. The contract is scheduled to be completed by 2/20/2017.

Tukuh Technologies

09/01/2016	FA3002-16-D-0016	$22,000,000	indefinite-delivery/indefinite-quantity contract action issued by the 338th Specialized Contracting Squadron (US Air Force) for manpower support. Contractor will provide Air Force Security Assistance Training Squadron contracted manpower support for administrative, project management, assistant training program manager, and mission training program manager. Work will be performed in Joint Base San Antonio (JBSA)-Randolph, TX. The contract is scheduled to be completed by 8/31/2021.

Procurement Programs

Aircraft

Eurofighter Typhoon

Germany is one of the main partners in the Eurofighter program. The program is already well over budget, with the initial planned budget of DM5.76 billion escalating to DM9 billion by 2000. The procurement objective fell from 250 to 180, with enough aircraft for four squadrons plus an attrition pool. Germany finally committed itself to procurement in the summer of 1997, although Britain awarded its first production contracts in October 1996. Initial procurement funding was in the 1998 budget. The first service aircraft was delivered in 2002 and the last is scheduled for 2014. Germany has 44 Tranche 1, 70 Tranche 2 and 68 Tranche 3 aircraft planned. The Tranche 2 production contract was scheduled to be signed in July 2004

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but this was delayed. Senior executives at Franco-German EADS corporation blamed the UK for holding up the Tranche 2 contract, adding that if no deal was signed before the end of July, the delay could add up to €2 billion in costs. The German parliament approved the Tranche 2 purchase in July 2004.

The first Taifun were deployed with the 73rd Fighter Squadron for training and the first combat aircraft to the 74th Fighter Squadron in mid-2006. Deliveries in 2006 were 12 aircraft and in 2007 were 6.

In late 2009, the government announced plans to accept the last Tranche 3B totaling 37 aircraft, but made clear that it plans to export them. All 31 aircraft under Tranche 3A will be deployed with the Luftwaffe. There are some plans to incorporate the Austrian order into the German figures which could reduce the number of Typhoons actually exported. The 2010 defense review recommended dropping the planned Tranche 3B acquisition, and the 2011 defense review left the acquisition objective at only 140 aircraft with no Tranche B aircraft.

NH-90 Helicopter Program

Germany has been one of the main participants in the NH-90 transport helicopter program. Its original procurement objectives were stated to be 264 helicopters (30 TFH-90s for the Bundesmarine, 114 TTH-90s for the Luftwaffe and 120 TTH-90s for the Bundesheer). The Bundeswehr planned to order 118 NH 90s between 2003 and 2009 and a total of about 60 naval MH 90s. Funding for procurement began in 1996. The contract for the NH-90 program signed in July 2000 included 134 army and air force NH-90 helicopters for Germany. The eventual procurement objective was 215 helicopters. The initial army portion of the order 50, followed by another 30 after exercising a contract option in 2007, bringing the total to 80. The 2006 air force requirement was pegged at 42 NH90 and the navy has a requirement for 30 MH90 which have not been ordered to date. The Luftwaffe had planned to allot 12 of its NH-90 to the SAR role, but attempts to integrate suitable systems to the airframe were unsuccessful and there have been discussions of acquiring these separately. In March 2013, Germany trimmed its army acquisition objective from 122 to 82 aircraft. However, the Bundesmarine added an order of 18 NFH90, so the final total of Germany dropped to 100. Delivery has been badly behind schedule with only 33 in operation in early 2015. An audit of the program has led to calls for a possible drop in the objective to 80 with 18 of these the naval "Sea Lion" version. First delivery of the Sea Lion is expected in 2018.

Uhu/Tiger Armed Helicopter

Airbus Helicopter (formerly EADS, Eurocopter) is currently manufacturing the Tiger armed helicopter for French and German requirements. German plans originally were pegged at 122 helicopters, which they now call Uhu (Owl) and these were ordered in 2001-09. Due to the cutbacks in the 1997 defense budget, defense minister Volker Ruhe ordered a postponement in the decision on the procurement of the U-Tiger until 1998. France and Germany signed the original production contract for 80 Tigers in June 1999. As of mid-2002, the procurement objective was pegged at 110 helicopters but since then has been trimmed back to 80 and the 2010 defense review recommended trimming it to 40. The first production helicopter was delivered in March 2002. Plans called for having 50 in service by 2006 which has slipped; there were only five on service as of mid-2007. Deliveries in 2006 were only one Tiger and three in 2007, with total deliveries of only 11 by early 2013. In March 2013, the German government trimmed the order from 80 to 57, with plans to put 40 in operation and use the remainder for spares.

Heavy-lift Helicopter

The German and French governments began discussions with Boeing in the summer of 2001 over their requirements for a heavy lift helicopter, potentially based around the CH-47F design. Eurocopter has proposed developing a new Heavy Transport Helicopter, but discussions have also been undertaken with the US about possible co-production of an upgraded CH-53 or follow-on. Recently, Germany has decided to embark on a CH-53 modernization program to extend its service life to 2025.

Light Helicopter

The German MoD released a White Paper in January 2016 outlining future acquisition plans. One of the few new-starts in the plan is a light utility helicopter, with preference for an off-the-shelf acquisition.

A400M Grizzly Transport

Germany had been one of the supporters of European efforts to develop a C-130 Hercules equivalent. The 1992 defense plan included provision for the Future Large Aircraft beginning in 1999 with DM 1.2 billion. Due to the cutbacks in the 1997 defense budget, development of the Future Transport Aircraft/FLA was not covered in the medium term (1997-2000) budgets. In June 2000, Germany formally announced plans to participate in the A400M venture with a requirement for 178 aircraft. This objective was trimmed back in more recent defense budget projections to 73 aircraft at a cost of DM 12 billion, but the recent budgets contain funding for only 40 aircraft. The German parliament did not agree to fund the 40 aircraft until March 2002, and put off signing up for the additional 33 aircraft until after the September 2002 elections. Germany committed to 60 aircraft at an expected cost of €8.3 billion with deliveries starting in August 2010 and continuing to 2016. The problems plaguing the A-400M program have led to some doubts

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whether the program will proceed, and if it does proceed, whether the signatory countries will acquire the total number of aircraft originally planned. One compromise suggested in 2009 was that the countries would maintain their funding obligations but receive a smaller number of aircraft than planned. As of the 2011 defense deliberations, the objective was cut from 53 to 40 aircraft. Germany plans to sell off the surplus 13 aircraft. Deliveries through June 2016 were 3 aircraft.

Missiles

MEADS

In 2011, Germany and the US decided to end the air defense missile program once RDT&E is complete and not to proceed to the procurement phase. However, in 2015, Germany revived the program with plans to award a procurement contract in 2017.

TriGAT Antitank Missile

The Third-Generation Antitank Missile, or TriGAT, is a new family of anti-armor missiles being developed by France, Germany, and the United Kingdom for deployment in the mid- to late-1990s. The program is being managed by Euromissile Dynamics Group (EDMG), an international consortium. TriGAT is to be produced in two versions: a short/medium-range manportable system, called the TriGAT-MR (aka PARS-3 MR in German) and a long-range variant, the TriGAT-LR (aka PARS-3 LR in German). The -MR completed development and is to enter series production in 1998, while the -LR version was scheduled to be operational around 1999. The UK pulled out of the TriGAT program in 2000, raising serious questions of its viability. Some German firms have begun marketing a locally produced version of the Israeli NT Spike ATGM, and the US Javelin is another likely candidate. Germany is already acquiring the Spike NT for some requirements.

Due to the cutbacks in the 1997 defense budget, defense minister Volker Ruhe ordered a postponement in the decision on the development of the TRIGAT 3 long range anti-tank missile. Several participants in the program have pulled out, including France, the UK and the Netherlands, though the Germans have insisted that they will stick with the program. The TriGAT-LR was recently listed as the armament for the Tiger helicopter, but the production requirement is so small that missile costs may prove to be excessive. Germany made a commitment to acquire about 200 of the missiles in June 2006 at a cost of €200 million.

Meteor AAM

The Luftwaffe acquired 328 AIM-120 AMRAAMs from the US to re-arm its F-4F Phantoms, down from original plans for 400. Germany has ordered 96 AMRAAMs and further procurement is in doubt. BAe was developing the S.225 with Sweden as an alternative to AMRAAM, but in 1994, DASA announced it was planning to develop its own contender, called the A3M. In 1996, DASA agreed to join a multinational effort called Meteor to develop an AMRAAM equivalent. In 2000, Britain selected the Meteor for its future requirement, tied to German assurances of participation in the program. It is likely that additional AMRAAMs could be acquired to provide interim capability on the Eurofighter. Germany was planning to acquire 480 Meteor starting in 2011 but the 2010 defense review recommended cutting this total.

IRIS-T Missile

IRIS-T (IR Imaging Sidewinder-replacement with Tail-control) is the first stage of a German effort to field a new short-range air-to-air missile to replace the AIM-9 Sidewinder. The IRIS seeker was originally developed as a possible AIM-9 upgrade, but in 1994, the Luftwaffe decided to opt for a whole new missile with a new engine and airframe. The program began the definition phase in 1996, and will transition to a 54-month engineering phase in 1997. Current plans are to field the new missile by 2002. Germany is currently trying to strike an agreement with Canada, Denmark, Greece, Italy, Norway, Portugal, and Sweden to co-develop the missile as a Sidewinder replacement. The prime German contractor is BGT. The German requirement was for 2,560 missiles with 912 to be ordered in 2002-2009, now reduced to 1,250 IRIS-T short range AAM at a cost of €550 million.

German UAV Programs

The Eurodrone Brevel/Tucan was a cooperative Franco-German effort to field a reconnaissance UAV for divisional surveillance and artillery spotting requirements by the end of the decade. The program has suffered from funding shortfalls and production was delayed with, France backing out of its commitment to the Brevel in the late 1990s. Germany has acquired six Tucan systems of 10 drones each. Germany is considering adopting at least two other versions of the system, the Taifun, an anti-radar drone, and the Mucke, a communications jammer version. Due to the cutbacks in the 1997 defense budget, defense minister Volker Ruhe ordered a postponement in the decision on the development of the army Taifun UAV. The army has also acquired a number of low-cost Luna UAVs which were used in Kosovo. Germany is also acquiring other mini-UAVs such as the Aladin.

Germany was also examining a ship-based UAV system under its SEAMOS program for the K-130 corvettes, but with the cancellation of SEAMOS will have to look at other options.

Germany has begun the acquisition of Global Hawk UAVs, called

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locally Euro Hawk, with a local sensor payload which will be used primarily in a SIGINT role. The program cost is expected to be about €650 million. The first aircraft was delivered in 2009, but the program was subsequently cancelled amidst considerable controversy. The program was revived in 2015 with plans to acquire the navalized MQ-4C Triton version.

Germany has been leasing Israeli Heron UAVs for operations in Afghanistan, and is expected to acquire an off-the-shelf MALE UAV, the heron TP, over the next few years.

Taurus Stand Off Missile Requirement

In June 1992, Germany selected APACHE Anti-Piste to arm its Tornado aircraft under the MAW (Modular Abstand Waffe) requirement. Germany had a requirement for approximately 545 Apache-MAW with initial delivery in 1997, followed by a second batch of 655 after 2009. Due to the cutbacks in the 1997 defense budget, procurement of the (MAW/ Apache) 1.1 (anti-runway) and 1.2 (area denial) were cancelled in the medium term (1997-2000) budgets, and Germany instead turned to the TADS/Taurus venture with Sweden. The German government provided the consortium with a development contract for the Taurus version in April 1998. The first powered flight test was conducted in October 1999. The German parliament approved production in 2002, and a €570 million production contract was awarded in August 2002 for 600 missiles with production beginning in November 2004. A total of 219 missiles were delivered in 2006 and 120 in 2007.

Armored Vehicles

MRAV Boxer Wheeled IFV

The MRAV (Multi-Role Armored Vehicle) was developed by a new international consortium called ARTEC which consists of KMW (Krauss-Maffei-Wegmann), MAK Systems, Alvis and Stork. It was at one time envisioned as a multinational design to satisfy German, British, and French requirements. The MRAV began as a French and German requirement for a future generation of armored infantry transporters. Although France pulled out in favor of a GIAT program, in April 1997, the Netherlands announced plans to join the MRAV program, based in part on the success of German/Dutch cooperation on the Fennek scout vehicle. The first MRAV demonstrator was completed at GKN in the UK in mid-June 1998. In early 2001, the UK began to study plans to reorient its future AFV requirements under the new title FRES (Future Rapid Effects System) with a requirement for 1,500 vehicles. This could combine the MRAV with other requirements such as the Tracer reconnaissance vehicle test-bed effort being undertaken with the US. In May 2003, Britain announced it would withdraw from the MRAV program, although it has continued to fund development.

In early 2006, the German government received assurances from the ARTEC consortium that costs would be kept down, so plans have shifted to an initial tranche of 272 vehicles in three baseline versions: 135 APC, 65 command and 72 ambulances. In December 2006, the German parliament confirmed the purchase. Initial deliveries were made to the Bundeswehr in 2009. In late 2011, the German army decided to acquire all Boxer in the so-called "Afghan" configuration which has a variety of upgrades including an IED jammer, improved protection against IEDs and a remote-control weapon station. This was introduced from vehicle No. 41 and on, and was retrofitted to earlier vehicles. In December 2015, Germany ordered a further 131 Boxers on top of the 272 previously ordered. These are in the APC configuration are intended to replace the earlier Fuchs vehicles.

Puma Infantry vehicle

Germany had a long term requirement for a future infantry vehicle to replace the Armored Vehicle 2000 program that was cancelled. Originally dubbed NGP (New Gun Platform), and then Schutzenpanzer 3 Panther, the program was again killed in July 2002 as being “too national” and too costly. In the meantime, the Bundesheer was considering updates to the Marder IFV as an interim solution. An upgraded Marder called Marder 3 was displayed in 2000, and a new IFV program was dubbed Igel. The program has been reconfigured again, now called Puma with a prototype delivered from a consortium of Rheinmetall and Krauss-Maffei in December 2005. The army has a requirement for 410 of the vehicles. On 8 November 2007, the German parliament approved a procurement program for 405 Puma by the Projekt System Management GmbH consisting of the Krauss-Maffei Wegmann and Rheinmetall Landsystem team. A contract was awarded to the team on 6 July 2009 at a cost of €3.1 billion ($4.3 billion). Initial delivery of the first of nine battalions is expected in 2014. In July 2012, the procurement objective for Puma was cut from 405 to 350 vehicles. The first production Puma was delivered in June 2015.

Leopard 2 Upgrades

The Bundesheer currently operates the Leopard 2A6 after having retired earlier variants. In April 2015, plans were announced to increase the size of the force from 225 to 328. Germany received the first 20 Leopard 2A7 in December 2014 and may upgrade the rest of the fleet. Initial work on a successor began in 2015.

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Dingo Protected Vehicle

Germany has selected the Krauss-Maffei-Wegmann Dingo for its requirement for a lightly protected vehicle for peacekeeping operations. The baseline vehicles are built on a Unimog U1550L 4x4 chassis but there are plans to field a Dingo 2 on the Unimog U5000 chassis which is available either in a 3.25 m wheelbase configuration like the Dingo 1, or on an extended 3.85m wheelbase which is more suitable as a troop carrier. Germany planned to order the first batch of 52 in 2004, followed by options for up to 1,600 more vehicles. The German government subsequently ordered three batches of the follow-on Dingo 2 (52+149+43) and most recently in March 2010, the German BWB awarded KMW another contract for 41 Dingo 2 APVs and in April 2010 for 44 Dingo 2 APVs configured for battlefield recovery; this brings orders to date for the Dingo 2 to 340 vehicles in all configurations.

Germany's future requirements are called GFF (Geschutze Fuhrungs und Funktionsfahrzeuge: Fire Control and Operations Vehicle). This comes in four weight/protection classes, the GFF 1 through GFF 4. The Bundeswehr has already selected the Swiss MOWAG Eagle IV for an initial tranche of 160 vehicles with an eventual objective of 486 vehicles. In July 2008, the Bundeswehr ordered 20 Mowag Eagle IV protected vehicles based on an immediate requirement and followed this up in November 2008 with an additional order for 173 vehicles. In January 2011, the government placed an order for an additional 195 Eagle IVs and an additional 76 Eagle Vs in March 2014.

A team of Rheinmetall and Krauss-Maffei-Wegmann was trying to interest the Bundeswehr in a domestic design, the AMPV (Armored Multi-Purpose Vehicle) with a mock-up being shown at Eurosatory 08 and a more refined version at Eurosatory 10. The plan is to build it in two configurations, Type 1 and Type 2, roughly corresponding to the GFF 1 and GFF 2 requirements. Another contender on display was the ACS (Armored Car Systems) LAPV II/Enok II which is an armored version of the Mercedes Benz G-model light truck. GDELS has responded by offering its Next Generation Eagle which debuted at Eurosatory 10, armed with the Bofors Lemur remote control weapon station. This is similar in size and appearance to the current Eagle IV, but has higher gross-weight, greater internal volume and greater protection. It is also being offered in a 6x6 configuration and with a variety of protection and weapons packages.

Rheinmetall unveiled its GEFAS (Geschutztes Fahrzeug Systeme) at Eurosatory 2006 in mock-up form, and the actual prototype was on display in 2008. This is basically a light AFV a bit larger than a HMMWV intended to protect troops against IEDs. However, it is quite heavy, coming in at 17.5 tonnes. The vehicle is designed to fit within standard transport aircraft such as the C-130 and A-400. Krauss-Maffei-Wegmann displayed a pilot/technology demonstrator of a similar armored light truck called the F2. The design like GEFAS is modular with various configurations weighing 15 to 24 metric tons.

In 2013, Germany decided to acquire 100 Eagle V vehicles for the remainder of the GFF Class 2 requirement.

Artillery Modernization

KMW's Panzerhaubitze 2000 self-propelled 155mm gun is the centerpiece of German artillery modernization. Plans called for procuring 185 guns in 1998-2004 with a long term objective of 594 systems. An initial production contract was awarded to Wegmann in early 1996. The official hand-over of the first service vehicles was on 1 July 1998. Through June 2000, about 80 had been delivered and by 2008, 180 were in service. Italy was the first export customer for the gun. Germany plans to retain about 300 M109A3G, which will be upgraded.

Ordnance

German Army Equipment Requirements

The recent shift in emphasis away from heavy mechanized forces and towards light mobile units is expected to be reflected in future procurement programs. There are currently plans underway to completely revamp the German uniform including a new light Kevlar helmet, Goretex camouflage clothing, improved protective vests, and new small arms in NATO 5.56mm caliber are being procured. Rapid-response forces will be the first to receive the new equipment and other units will be equipped after the year 2000.

Future Soldier System

The Bundeswehr has embarked on a future infantry program originally called "Der Infanterist der Zukunft" (IdZ). The program was initiated in 1999 when the Bundeswehr realized it was falling behind other NATO armies. The program took place in three phases: an immediate procurement effort to acquire needed systems on an ad hoc basis for urgent requirements; an intermediate package deploying elements of the system in 2004; and an optimal package to be ready around 2008 including elements with higher technological risk or more advanced technology. The basic elements of the program were approved on 10 July 2001. An initial contract for 100 IdS-BS (Basic System) was awarded to EADS with the first 50 systems being delivered to the ISAF contingent in November 2004, and the remainder in 2006-2007. A contract for 1,000 "Gladius" IdZ-ES (Erweites System-Extended System) was ordered from Rheinmetall defense Electronics in August 2006 for delivery in 2009-

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2015. The Bundesheer is expected to consider extending acquisition after 2015 once an evaluation is made of the effectiveness of the system in use in Afghanistan. In 2015, the Bundesheer announced plans to retire the G36 assault rifle in favor of a new design.

Naval Systems

Type 125 Baden-Wurttemberg Frigate

The Bundesmarine sought parliamentary approval for the new F125 frigate class in the 2006 budget with an aim towards commissioning four of them starting in 2012 at two year intervals with final delivery in 2019. The new frigate will be designed primarily for "stabilization" missions, that is, overseas peace-keeping operations and maritime interdiction. The initial batch of four frigates are expected to cost €2.2 billion. A €2 billion contract was awarded to ARGE F125 consortium headed by Thyssen Krupp Marine Systems in late 2007 for the construction of the four frigates. Delivery of the lead ship, the Baden-Wurttemberg, is scheduled in 2017, and the next two ships of the class in 2019 and 2020.

Type 130 Braunschweig Corvettes

The German navy has a stated requirement to replace its Type 143 and Type 143A missile boats with the new Type 130 with initial deliveries in 2007. A total of 15 in three batches was planned and these would replace the entire inventory of fast missile boats now in service, but this was trimmed back to only five in 2000. In July 2000, the defense ministry selected Blohm+Voss for the project, awarding the firm a contract for DM1.9 billion ($925 million) for the five lead ships. The five were to be delivered in 2007-2008 but this was delayed with two being delivered in 2007 and the last in 2013. There have been associated funding problems with the missile systems for the ship and delays in ordering the associated RBS-15 missile from Sweden.

In October 2016, plans were announced to purchase five more K130 corvettes to make up for the shortfall caused by delays in the MKS 180 program. Plans are to deliver two ships in 2019 and the remaining three by 2023

Type 131 (Multi-Purpose Combat Ship 180)

The Bundesmarine has begun design studies for the K131 Medium Surface Combatant with a plan to eventually acquire four of this new class, now called MPCS 180, down from the original plan for six. There was a two-year tendering phase from 2015 to 2017 between three competitors. In October 2016, the government announced that another six months was needed to select the final design. Current plans expect to award a construction contract in 2017 but does not anticipate first delivery until 2023. The slow pace of the program prompted the Bundesmarine to order additional K130 corvettes.

Type 212 Submarines

The Bundesmarine is currently procuring the Type 212A class submarine to replace its earlier Type 206 and 205 classes. They are being built by the Howaldswerke in Kiel and Thyssen in Emden. A total of 12 had been planned, with the first entering service in 1997, however, the first production tranche was only four boats. The unit cost was placed at DM650 million and the fourth submarine entered service in 2007. A second tranche was ordered in September 2006 with delivery in 2012-13.

There have been some discussions about the Bundesmarine acquiring a Type 214 boat ordered by Greece which the Greek navy has refused to accept.

Berlin Combat Support Ship

In December 2008, the Bundestag approved acquisition of a third Berlin class combat support ship at a cost of €330 million ($425 million) which would enter service in 2013.

Space Systems

Surveillance Program

Germany's SARLupe radar imaging satellite was put into orbit on 19 December 2006 by a Russian Cosmos-3M from Plesetsk; the second and third were launched in July and November 2007 and the fifth and last was orbited on 22 July 2008. The core sensor was developed by Alcatel Alenia Space and the prime contractor for the network is OHB System in Bremen. The system offered limited capability by December 2007 and was declared fully operational on 1 October 2008. In 2015, plans were announced to develop a follow-on system, currently called SARah. Germany has an agreement with France and Italy over shared imagery, with Germany receiving access to the French Helios 2 optical imagery satellite.

Germany is a partner in the future MUSIS (Multinational space based imaging system) with France, Belgium, Spain, and Greece with France responsible for the optics portion. Italy and Germany are responsible for the radar portion. The plan calls for the launch of three satellites in 2015-2018.

Military SATCOM Program

Germany selected a team led by EADS as the preferred bidder for its new SATCOM BW Stage 2 program in April 2005. The team includes ND Satcom and Alcatel Alenia Space.

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The program is pegged at €940 million.

Teal Group Analysis

The Merkel administration has not made any major shifts in defense policy, though the absence of the Greens from the government has made it easier to push through many of the planned defense programs. Germany has been slow to reorient its force structure to accommodate new global realities, and in spite of its avowed desire to play a greater role in international peacekeeping since the 1999 policy change. It has been hamstrung from doing so by budget limitations and the constraints of its legacy forces. The CDU planned some increases in defense spending, but the budget over the past few years has been flat except for plus-ups needed for the Afghanistan mission. In 2016, the government announced plans for a fifteen-year procurement effort cost €150 billion. This would be a significant increase since the procurement budgets over the past decade have averaged less than €650 million.

German future procurement programs are still weighted towards legacy missions in Europe. Eurofighter Typhoon/Taifun has little immediate role in overseas commitments as it is a dedicated interceptor with no ground attack capabilities until the third production batch. Had it been available for the Kosovo crisis in the past decade, it would have played little significant role and it is hard to foresee what role it will play in missions such as Germany's recent role in Afghanistan. The same applies to other weapons systems developed for Cold War needs such as the Tiger attack helicopter, the U-212 submarine, and the Puma IFV. The government has still not signed a contract for the MEADS, with the decision being pushed back repeatedly and currently scheduled for some time in 2017. Mobility enhancements such as the A-400M are still several years away, and Germany has been forced to adopt hasty improvisations such as the Dingo/Eagle protected vehicle program to permit its limited overseas deployment. The slow pace of procurement reorientation has been forced on the government by the recognition that an abrupt change in these programs would have significant economic consequences in the defense and aerospace industry that have already been hard hit over the past decade by the massive cuts in the wake of the Cold War.

The forecast below is based on the presumption that the Euro will fall to near parity with the dollar.

Forecast

Defense Budget Forecast

($ Billions)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
R&D	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9
Procurement	6.7	6.7	6.8	6.9	7.0	7.2	7.3	7.5	7.6	7.8
Other*	31.8	32.2	32.5	32.8	33.5	34.1	34.8	35.5	36.2	36.9
Total	**39.3**	**39.7**	**40.1**	**40.5**	**41.3**	**42.1**	**43.0**	**43.8**	**44.7**	**45.6**

**Includes O&M, Construction, Personnel, etc.*

Domestic Production Forecast

(units)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Aircraft										
A400M Transport	6	6	6	6	6	6	—	—	—	—
Armored Vehicles										
Puma Troop Carrier	35	35	35	35	35	35	—	—	—	—
Boxer Troop Carrier	45	20	20	20	20	—	—	—	—	—
Warships										
Type 125 Frigate	1	1	1	—	—	—	—	—	—	—
Type 130 Corvette	—	—	1	1	1	1	1	—	—	—
Type 180 MPCS	—	—	—	—	—	—	1	1	1	1

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