

11. MOROCCO

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Major Changes

- The Moroccan air force is upgrading its aged Mirage F-1 combat aircraft. Meanwhile the Moroccan air force ordered 24 F-16 which are scheduled to be delivered during 2012. The air force also received its first C-27 transport aircraft – out of an order of 4 such aircraft, and its first 12 T-6C training aircraft out of an order of 24.
 - The Moroccan navy's first of three Sigma type frigates is undergoing sea worthiness tests in the Netherlands and will be commissioned in the near future.
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General Data

Official Name of the State: Kingdom of Morocco

Head of State: King Mohammed VI

Prime Minister: Abbas al-Fassi

Secretary General of National Defense Administration: Abdel Rahaman Sbai

Commander-in-Chief of the Armed Forces: King Mohammed VI

Inspector General of the Armed Forces: Major Gen. Abdul Aziz Ben-Ani

Commander of the Air Force: Major Gen. Ahmed Bou-Taleb

Commander of the Navy: Major Gen. Muhammad Barada

Area: 622,012 sq. km., including the former Spanish Sahara

Population: 32,300,000

Morocco

Demography

Ethnic groups		
• Arabs	19,251,000	59.6%
• Berbers	12,758,000	39.5%
• Europeans and others	291,000	0.9%
Religious groups		
• Sunni Muslims	31,880,000	98.7%
• Christians	355,000	1.1%
• Jews	65,000	0.2%

Economic Data

		2006	2007	2008	2009	2010
• GDP (current prices)	\$ bn	65.64	75.12	88.88	89.68	91.0
• GDP per capita	\$	2,124	2,408	2,813	2,802	2,814
• Real GDP growth	%	7.8	3.2	6.2	2.2	3.2
• Consumer price index	%	3.4	2.0	3.9	2.2	1.0
• External debt	\$ bn	17.75	19.32	19.82	19.86	21.2
Balance of payments						
• Exports fob	\$ bn	11.93	15.15	19.93	14.72	17.57
• Imports fob	\$ bn	-21.68	-29.32	-39.1	-30.1	-35.28
• Current account balance	\$ bn	1.32	-0.22	-5.55	-2.86	-17.71
Government expenditure						
• Public expenditure	%	28.9	27.2	29.1	26.3	29.8
• Defense expenditure	\$ bn	2.13	2.41	2.95	3.0	3.16
• Real change in defense expenditure	%	4.9	13.1	22.4	1.7	5.3
• Defense expenditure / GDP	%	3.2	3.2	3.3	3.3	3.5
Population	m	30.9	31.2	31.6	32.0	32.3
Official exchange rate	Dh: \$1	8.8	8.19	7.75	8.19	8.42

Sources: EIU Quarterly Report, EIU Country Profile, IMF International Financial Statistical Yearbook, SIPRI Yearbook

Foreign Military Cooperation

Type	Details
• Forces deployed abroad	Active Endeavor (NATO), Afghanistan (ISAF), Congo (MONUC), Kosovo (KFOR)
• Joint maneuvers	Algeria (2004), France (2004), NATO (2010), Spain (2004), UK (2003), US (2011)
• Security agreements	NATO (2008), Qatar (2010), Tunisia, US

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Arms Trade

Arms Procurement and Security Assistance Received

Country	Type	Details
Belgium	• Arms transfers	155mm M109 guns (2008), YPR-765 APCs (2009)
France	• Arms transfers	Upgrading of Mirage F1 aircraft (2010), Upgrading of Puma helicopters (2008), FERMM frigate (2008), Damocles targeting pods (2009), AASM guided bombs (2010)
Italy	• Arms transfers	C-27J Spartan aircraft (2011)
Netherlands	• Arms transfers	Sigma corvettes (2011)
Russia	• Arms transfers	Tunguska SAM (2008)
Spain	• Arms transfers	M60 MBTs (2009)
US	• Arms transfers	155mm M109A5 guns (2009), F-16 C/D aircraft (2010), T-6C trainer aircraft (2011), CH-47D helicopters (2009), AIM-120 AMRAAM (2009), AIM-9X Sidewinder (2011), AGM-65 Maverick (2009), AGM-88 HARM (2009), JDAM (2009), GBU-24 guided-bombs (2009), GBU-12 guided-bombs (2009), GBU-10 guided-bombs (2009), AAQ-33 SNIPER pods (2009), DB-110 reconnaissance pods (2009), G550 VIP aircraft (2009), ACES defensive-aids suite (2009), Hawk SAMs (2010)
	• Assistance	\$9 million military aid (2010)

Arms Sales and Security Assistance Extended

Country	Type	Details
US	• Facilities	Use of Sidi Slimane, Marrakech and Casablanca airfields in emergency; permission for space shuttle to land at Marrakech AFB; use of communications center at Kenitra; storage and use of naval facilities at Mohammedia, Tantan

Defense Production

	M	P	A
Army equipment			
• Small arms ammunition	√		
• Assembly of trucks			√

Note: M - manufacture (indigenously developed)
P - production under license
A - assembly

Morocco

Strategic Assets

NBC Capabilities

Nuclear capability

No nuclear capability. Party to the NPT.

Request for small scale nuclear research reactor approved by US government.

Chemical weapons and protective equipment

No known CW activity. Party to the CWC.

Biological weapons

No known BW activities. Signed but not ratified the BWC.

Armed Forces

Order-of-Battle

Year	2007	2008	2009	2010	2011
General data					
• Personnel (regular)	198,500	198,500	198,500	198,500	198,500
Ground Forces					
• Number of brigades	6	6	6	6	6
• Tanks	285 (640)	285 (640)	345 (640)*	345 (640)	345 (640)
• APCs/AFVs	1,089 (1,139)	1,089 (1,139)	1,450 (1,500)*	1,450 (1,500)	1,450 (1,500)
• Artillery (including MRLs)	1,100	1,100	1,142	1,142	1,142
Air Force					
• Combat aircraft	58 (72)	58 (72)	58 (72)	58 (72)	58 (72)
• Transport aircraft	41 (43)	41 (43)	41 (43)	42 (44)	43 (45)
• Helicopters	123 (133)	123 (133)	120 (130)	120 (130)	120 (130)
Air Defense Forces					
• Light SAM launchers	40	49	49	49	49
Navy					
• Combat vessels	15	15	15	15	15
• Patrol craft	55	55	62	62	62

* Due to change in estimate.

Morocco

Personnel

	Regular	Reserves	Total
Ground Forces	175,000	150,000	325,000
Air Force	13,500		13,500
Navy and Marines	10,000		7,000
Total	198,500	150,000	348,500
Paramilitary			
• Gendarmerie Royale	20,000		10,000
• Force Auxiliere	25,000		25,000
• Mobile Intervention Corps	5,000		5,000

Ground Forces

Formations

	Independent brigades / groups	Independent battalions
Armored		10
Mechanized	3	19
Infantry		35
Light Security	1	
Camel Corps		5
Paratroops	2	
Airborne/ Commando		2+4
Artillery		12
Air Defense		1
Total	6	88

Tanks

Model	Quantity	In service	Since	Notes
MBTs				
High quality				
• T-72	100	40	2000	
Medium and low quality				
• M60 A1/A3	250	250	1981/ 93	
• M48 A5	185	0	1974	
Subtotal	435	250		
Light tanks				
• SK-105 (Kürassier)	105	45	1985	
Total	640	345		

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APCs/AFVs					
Model	Quantity	In service	Since	Notes	
APCs					
• M113 A1/A2	625	625	1979	Including 23 M901 Also listed under Anti-Tank Weapons	
• UR-416	55	55	1977	Also listed under Anti-Tank Weapons	
Subtotal	680	680			
IFVs					
• YPR-765	120	120	2009	Including 19 also listed under Anti- Tank Weapons	
• Ratel 20/90	60	60	1981		
• VAB -VCI/VTT	290	290	1979		
Subtotal	470	470			
Reconnaissance					
• AMX-10 R/CM	110	110	1981		
• BRDM-2	50	0	1992	Including 36 listed under Anti-Tank Weapons	
• EBR-75	16	16	1970		
• AML-90/AML-60	175	175	1966		
Subtotal	350	300			
Total	1,500	1,450			

Artillery					
Model	Quantity	In service	Since	Notes	
Self-propelled guns and howitzers					
• 203mm M110 A2	60	60	1996		
• 155mm Mk F-3 (AMX)	100	100	1980		
• 155mm M109 A1	123	123	2004		
• 105mm Mk 61	5	5	1963		
Subtotal	288	288			
Towed guns and howitzers					
• 155mm FH-70	30	30	1993		
• 155mm M114	20	20	1976		
• 155mm M198	35	35			
• 130mm M-46	18	18	1981		
• 105mm L-118	30	30	1980	To be upgraded	

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Model	Quantity	In service	Since	Notes
• 105mm M-1950	35	35	1972	
• 105mm M101	18	18	1970	
Subtotal	186	186		
Mortars, under 160mm				
• 120mm	600	600	1972	20 SP mounted on VAB
• 107mm M30 SP	32	32	2000	Mounted on M106
Subtotal	632	632		
MRLs				
• 122mm BM-21	36	36	1980	
Total	1,142	1,142		
Future procurement				
• 155mm M109A5	60			Under negotiation
• 105mm L-118	6			

Ground Radars

Model	Quantity	In service	Since	Notes
Artillery/mortar locating radars				
• RATAC	12	12	1980	Mounted on VTT chassis

Logistics and Engineering Equipment

M578 recovery vehicles (60), SK-105 ARVs (10), M728 ENG (6)

Anti-Tank Missiles

Model	Quantity	In service	Since	Notes
• BGM-71A TOW	150	150	1978	
• M901 ITV	23	23	1999	Also listed under APCs
• AT-3 (Sagger) SP	36	0	1992	Mounted on BRDM-2
• Cobra SP	42	42	1979	Mounted on UR-416
• M47 Dragon	480	480	1978	
• MILAN	100	100	1982	Including 19 mounted on YPR-765 chassis
Total	830	795		

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Air Force

Order-of-Battle

Category	Quantity	In service	Notes
Combat	72	58	
Transport	45	43	
Helicopters	130	120	

Combat Aircraft

Model	Quantity	In service	Since	Notes
Advanced Multi-role				
• Mirage MF2000	3	3	2010	Being delivered
Multi-role				
• F-5E/F	22	15	1981	Upgraded
• Mirage F1	31	24	1979	Being upgraded
Subtotal	53	39		
Ground attack				
• OV-10 Bronco	3	3	1981	
Obsolete				
• F-5A/B	13	13	1967	
Total	72	58		
Future procurement				
• F-16 C/D	24			Delivery in 2012
• Mirage MF2000	27			Upgrade of Mirage F1

Transport Aircraft

Model	Quantity	In service	Since	Notes
• Beechcraft King Air 100	5	5	1975	
• Beechcraft Super King Air 200	5	5	1983	
• Beechcraft Super King Air 300	1	1	1991	
• Boeing 707	2	2	1982	
• C-27J Spartan	2	2	2010	Being delivered
• C-130H Hercules	15	15	1974	Including 2 employed in electronic surveillance and 2 tankers
• CN-235	7	7	1990	
• Dornier DO-28 D-2	3	2	1981	
• Gulfstream II/III	2	1	1976	

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Model	Quantity	In service	Since	Notes
• Mystère-Falcon 50	1	1	1980	
• Mystère- Falcon 20	2	2	1968	Electronic countermeasures
Total	45	43		
Future procurement				
• Gulfstream G550	1			VIP aircraft
• C-27J Spartan	4			Being delivered

Training and Liaison Aircraft

Model	Quantity	In service	Since	Notes
Jet trainers				
• Cessna 318 (T-37)	14	14	1996	
• Alpha jet	22	22	1979	
• Beechcraft T-34C	12	10	1977	
• CM-170 Fouga Magister	22	22	1964	
Subtotal	70	68		
Piston/Turbo-prop				
• T-6C Texan	12	12	2011	Being delivered
• AS-202/18A Bravo	10	10	1978	
• CAP 10/232	9	9	1983	Aerobatic team
Subtotal	31	31		
Total	101	99		
Future procurement				
• T-6C Texan	24			Being delivered

Helicopters

Model	Quantity	In service	Since	Notes
Attack helicopters				
• SA-342 Gazelle	22	22	1976	Of which 6 with gendarmerie
Heavy transport				
• CH-47C Chinook	8	8	1979	
Medium transport				
• SA-330 Puma	25	25	1976	To be upgraded
• AB-205	31	31	1969	
• AB-212	5	5	1973	
• AS-365 Dauphin II	2	2	1983	With gendarmerie
Subtotal	63	63		
Light transport				
• Alouette II / III	5	5	1981	With gendarmerie

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Model	Quantity	In service	Since	Notes
• Bell 206 JetRanger	26	16	1975	
• SA-315B Lama	3	3		With gendarmerie
Subtotal	34	24		
Naval Attack				
• AS-565MB Panther	3	3	2003	
Total	130	120		
Future procurement				
• CH-47D Chinook	3			
• SA-330 Puma	25			To be upgraded

Miscellaneous Aircraft

Model	Quantity	In service	Since	Notes
Reconnaissance				
• RF-5	2	1	1981	Also listed under Combat Aircraft
• C-130H	2	2	1974	Also listed under Transport Aircraft
Tanker				
• KC-130	2	2	1974	Also listed under Transport Aircraft
Electronic warfare				
• Mystère 20F	2	2	1968	Also listed under Transport Aircraft
Maritime surveillance				
• BN-2T Defender	7	7	1993	Possibly in fishery protection role
UAVs and mini-UAVs				
• Skyeye R4E-50	+	+	1990	

Morocco

Advanced Armament

Air-to-air-missiles

AIM-9J/M Sidewinder (350), R-530, R-550 Magic (300), Super 530D

Air-to-ground-missiles

AGM-65 Maverick (380), HOT

Future procurement

AIM-120 AMRAAM (30), AIM-9X Sidewinder (20), AGM-88 HARM (20), JDAM (50), GBU-24 guided-bombs (20), GBU-12 guided-bombs (150), GBU-10 guided-bombs (50), AAQ-33 SNIPER pods (6), DB-110 reconnaissance pods (4), AGM-65D Maverick (28), AGM-65H Maverick (45), Enhanced GBU-12 (120), Damocles targeting pods, AASM guided-bombs

Note: Number in parentheses refers to the quantity of missiles purchased, not to current inventory levels.

Air Force Infrastructure

Military airfields **10**

Agadir, Casablanca (Nouasseur), Fez, Kenitra, Larache, L'Ayoune, Marrakech, Meknes, Rabat, Sidi Slimane

Air Defense Forces

Surface-to-Air Missiles

Model	Batteries	Launchers	Since	Notes
Light missiles				
• Tunguska-M1 (SA-19)		12	2008	
• MIM-72A Chaparral		37	1977	
Total		49		
Shoulder-launched missiles				
• SA-7 (Grail)		70	1978	
Future procurement				
• MIM-23B Hawk	9			From US drawdown

Other Air Defense Systems

Model	Quantity	In service	Since	Notes
Short-range guns				
• 37mm M-1939	100	14	1972	
• 23mm ZU 23x2	90	30	1986	
• 20mm M163 Vulcan SP	115	115	1983	
• 20mm M167 SP	40	40	1993	

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Model	Quantity	In service	Since	Notes
Total	345	199		
Radars				
• AN/TPS-43	8	8		
• AN/TPS-63	8	8		Upgraded

Navy

Combat Vessels

Type	Quantity	Length (m.)/ displacement (t.)	Notes/armament
Missile frigates			
• Floreal	2	93.5/2,950	1 AS-565 Panther helicopter 2xMM38 Exocet SSMs 2x2 Simbad SAMs 1x76mm gun 2x20mm guns
• Descubierta	1	88.8/1,233	4xMM38 Exocet SSMs 1x8 Aspide SAMs 6x324mm torpedoes 1xSR 375 ASW mortar 1x76mm gun 1x40mm gun
Subtotal	3		
MFPBs			
• Lazaga	4	58.1/524	4xMM38 Exocet SSMs 1x76mm gun 1x40mm gun 2x20mm guns
Gunboats			
• Okba class (PR-72)	2	57.5/375	1x76mm gun 1x40mm gun
• Cormoran class (P-200D Vigilance)	6	58.1/425	1x40mm gun 2x20mm guns
Subtotal	8		
Total	15		
Future procurement			
• FREMM frigate	1	142/5,800	MM40 Exocet SSMs Aster 15 SAMs 76mm Guns MU90 torpedoes
• Sigma corvette	3	98/2,100	MM40 Exocet SSMs VL-MICA SAMs 76mm Guns

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Type	Quantity	Length (m.)/ displacement (t.)	Notes/armament
MU90 torpedoes			

Patrol Craft

Type	Quantity	Length (m.)/ displacement (t.)	Notes/armament
• Rais Bargech (OPV 64)	5	64/580	1x40mm gun 1x20mm gun 4x14.5mm MGs
• Osprey mk II	4	54.8/475	2x20mm guns
• Al Wacil/Erraid (P-32)	10	32/74	6 Al wacil class, 4 Erraid class 4 with customs/ Coast Guard 1x20mm gun
• VCSM (RPB 20)	10	20/40	RIHB launch
• Arcor 53	15	16/17	With customs/Coast Guard 1x12.7mm MG
• Arcor 46	18	14.5/15	With customs/Coast Guard 2x12.7mm MGs
Total	62		

Landing Craft

Type	Quantity	Length (m.)/ displacement (t.)	Notes/armament
• Batral LSM	3	80/750	140 troops, 12 vehicles Helicopter pod 2x81mm mortars 4x40mm guns
• CTM (LCM)	1	23.8/59	200 troops
• Newport class LST	1	159.2/8,450	400 troops, 500-ton vehicles 4xLCVP/LCPL boats 1x20mm Phalanx gun
Total	6		

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Auxiliary Vessels

Type	Quantity	Length (m.)/ displacement (t.)	Notes/armament
• al-Aigh support ship	1	77/1,500	2x14.5mm MGs
• Agor survey ship (Robert D. Conrad)	1	67.3/1,370	
• Divers support ship	1		
• Dakhla support ship	1	69/2,160	
• SAR craft	4	19.4/40	With Coast Guard/ ministry of fishing
• SAR craft	2	20.7/70	With Coast Guard/ ministry of fishing
• SAR craft	2	15.75/ 68	With Coast Guard/ ministry of fishing

Naval Infrastructure

Naval bases **9**
 Agadir, Casablanca, Dakhla, al-Hoceima, Ksar Sghir, Kenitra, Safi, Tangier, Tantan
Ship maintenance and repair facilities
 156-meter dry-dock at Casablanca, repair ships of up to 10,000 dwt; facility for minor repairs at Agadir

Major Non-Governmental Paramilitary Forces

Personnel

	Regular	Reserves	Total
SPLA	5,000	5,000	10,000

Morocco

Equipment				
Organization	Category	System	Quantity	Notes
SPLA	Tanks	• T-62	20	
		• T-55	50	
		• SK-105	4	
		Total	74	
	APCs	• AML-60/90	8	
		• BMP-1	60	
		• EE-9	20	
		• Panhard M3	5	
		Total	93	
	Artillery	• 122mm D-30	12	
	MRLs	• 122mm BM-21	10	
	MORs	• 160mm	40	
		• 120mm	60	
ATGMs	• 9K111 (AT-3)	40		
AD	• Strela-2M	100		