

## AIR-TO-SURFACE MISSILES

Name	Type	M'fact'r	Length (m)	Diam (mm)	Span (m)	Weight (kg)	Warhead	Fuze	Guidance	Propellant	Range	Platform	Miscellaneous
<b>INTERNATIONAL</b>													
AS 37 Martel	anti-radar	BAe/Matra	4.2	400	1.2535		high explosive 150kg fragmentation	radar	radar seeker passive radar seeker	solid	55km	Buccaneer, Jaguar, Mirage III, Atlantic	Obsolete
<b>ITALY</b>													
Marte - 2B	—	OTO Melara	3.2	315	1	260	high explosive fragmentation	N/K	passive radar seeker	solid	60km	MB-339, AMX	—
<b>RUSSIA</b>													
Kh-28 (AS-9 Kyle)	—	N/K	6	430	1.4	715	high explosive 150kg	N/K	passive radar seeker	liquid	90km	MiG-27, Su-17/-24	Obsolete
Kh-25MP (AS-12 Kegler)	anti-radar	Zvezda	4.35	270	0.75	310	high explosive 90kg fragmentation	N/K	inertial/ passive radar seeker	solid	60km	MiG-27, Su-17/24/25	—
Kh-31 17 Krypton)	—	Zvezda	4.7 5.2*	360	1.15	600	high explosive fragmentation	N/K	inertial/ passive radar seeker	solid booster/ ramjet sustainer	150km	Su-24/25, MiG-29M	Requires multiple, rather than (AS- unitary seeker head. *Modified
<b>UK</b>													
Alarm	anti-radar	BAe	4.3	225	0.72	270	high explosive fragmentation	laser	passive radar seeker	solid	45km	Tornado	—
<b>USA</b>													
AGM-45 Shrike	anti-radar	Texas Instruments	3	205	1	177	high explosive 65kg fragmentation	N/K	passive radar seeker	solid	12km	A-4/6, F-16	Obsolete. Multiple seeker head assemblies
AGM-88 Harm	anti-radar	Texas Instruments	4.2	255	1.1	360	high explosive 65kg fragmentation	laser	passive-radar seeker	solid	25km	F-16, F/A-18, EA-6B	Production ended 1993
AGM-136 Tacit Rainbow	anti-radar	Texas Instruments	2.55	685	1.55	225	high-explosive 18kg blast fragmentation	N/K	passive radar	turbofan	90km	B-52, F-11, A-6 Intruder	Programme terminated in 1990

## MEDIUM-RANGE ANTI-SHIP MISSILES

### CHINA

C-601	anti-tank	CPMIEC	7.3	5760	2.5	2,440	high-explosive semi-armour piercing 515kg blast fragmentation	RF	autopilot + active radar terminal	liquid	110km	—	Entered service in 1987. Believed to have been exported to Iran
YJ-1	—	CPMIEC	4.65	360	1.65	655	high explosive 65kg semi-armour piercing	N/K	inertial + active radar	solid	40km	—	Surface-launched version entered service in 1987. Air- launched version not yet in service
C101	—	CPMIEC	7.5	540	1.61	500	high explosive 300kg semi-armour piecing	N/K	inertial + active radar	ramjet + solid boost	45km	—	Believed to be still under devel- opment and awaiting export customers

### FRANCE

AS-15TT	—	Aerospatiale/ Thomson-CSF	2.3	180	0.55	96	high explosive 30kg	N/K	radar	solid	15km	Dauphin, Agrion 15	AS-15 entered service in 1985
AM-39 Exocet	—	Aerospatiale/ Dassault Electronique	4.7	350	1.1	670	high explosive 165kg shaped charge fragmentation	active radar/ impact	inertial/ active radar	solid	50km	Super Entendard, AMX, Mirage F-1, Jaguar, Mirage 5, 2000, Super Puma, Sea King F-104G Starfighter, Tornado	Entered service in 1979
AS-34 Kormoran 1	—	DASA/ Thomson-CSF	4.5	345	1	600	semi-armour piercing fragmentation 165kg	impact + delay	inertial/ active radar	solid	30km	—	Production ceased in 1983
Kormoran 2	—	DASA/ Thomson-CSF	4.5	345	1	600	semi-armour piercing fragmentation 165kg	impact + delay	inertial/ active radar	solid	30km	—	Development began in 1983 Production began in 1993

### INTERNATIONAL

AJ-168	—	BAe	3.9	400	1.2	520	high explosive semi-armour piercing fragmentation 165kg	radar	TV	solid	20km	—	Production ceased in the mid- 1970s. No known exports
ANS	—	Aerospatiale/ DASA	5.83	60	0.9	900	N/K	N/K	inertial/ active radar	solid + ramjet	180km	Mirage 2000, Rafale, Atlantique	Pprogramme has been superseded by ANF, with an entry-into-service date of around 2002

### ISRAEL

Gabriel 3AS	—	IAI	3.85	340	1.1	560	high explosive semi-armour	impact	inertial + update/command	solid	35km	A-4 Skyhawk, Kfir, F-4 Phantom, Sea Scan	Entered service around 1985. May still be in production
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