

# ARMS CONTROL ASSOCIATION

## Fact Sheet

# Worldwide Ballistic Missile Inventories

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The Bush administration frequently cites ballistic missiles as one of the leading threats to U.S. security and as a primary rationale for building missile defenses. The following chart lists 32 countries, including the United States and its allies that currently possess or are about to take delivery of ballistic missiles. For each country, the chart details the type of missile, its operational status, and the best-known estimates of the missiles' range and payload. The source of the missiles—whether

domestically produced, imported, or a combination of the two—is also provided. Only eight (shaded) of the 32 states below (the United States, United Kingdom, Russia, China, France, India, Pakistan, and Israel) are known to possess nuclear weapons; and only these eight states, Iran, and North Korea have produced or flight-tested missiles with ranges over 1,000 kilometers. China and Russia are the only two potential U.S. adversaries that currently deploy missiles that can target and reach U.S. cities.

### MISSILE RANGES

<b>SRBM</b>	Short-range ballistic missile (<1,000 km)	<b>IRBM</b>	Intermediate-range ballistic missile (3,000-5,500 km)
<b>MRBM</b>	Medium-range ballistic missile (1,000-3,000 km)	<b>ICBM</b>	Intercontinental ballistic missile (5,500+ km)

COUNTRY	SYSTEM <sup>1</sup>	STATUS	RANGE/PAYLOAD <sup>2</sup>	SOURCE <sup>3</sup>
<b>Afghanistan<sup>4</sup></b>	Scud-B	Unknown	300 km/1,000 kg	USSR
<b>Armenia<sup>5</sup></b>	Scud-B	Operational	300 km/1,000 kg	Russia
<b>Bahrain</b>	ATACMS	To Be Delivered 6/2002	165 km/560 kg	USA
<b>Belarus</b>	SS-21	Operational	120 km/480 kg	USSR
	Scud-B	Operational	300 km/1,000 kg	USSR
<b>Bulgaria<sup>6</sup></b>	Scud-B	Operational	300 km/1,000 kg	USSR
	SS-23	Operational	500 km/ 450 kg	USSR
<b>China</b>	M-7 (CSS-8)	Operational	150 km/190 kg	Domestic Production
	DF-11 (CSS-X-7)	Operational	300 km/800 kg	Domestic Production
	DF-15 (CSS-6)	Operational	600 km/500 kg	Domestic Production
	DF-21A (CSS-5, Mod 2)	Operational	1,800 km/2,000 kg	Domestic Production
	DF-21 (CSS-5, Mod 1)	Operational	2,500 km/600 kg	Domestic Production
	DF-3A (CSS-2)	Operational	2,800 km/2,150 kg	Domestic/Russia
	DF-4 (CSS-3)	Operational	5,500 km/2,200 kg	Domestic Production
	DF-31	Tested/Development	8,000 km/700 kg	Domestic Production
	DF-41	Program Cancelled?	12,000 km/800 kg	Domestic Production
	DF-5A (CSS-4)	Operational	13,000 km/3,200 kg	Domestic Production
Julang 1 (SLBM)	Operational	1,000 km/600 kg	Domestic Production	
Julang 2 (SLBM)	Tested/Development	8,000 km/ 700 kg	Domestic Production	
<b>Egypt</b>	Scud-B	Operational	300 km/1,000 kg	USSR
	Project-T	Operational	450 km/985 kg	Domestic/North Korea
	Scud-C	Operational	550 km/600 kg	North Korea
	Vector	Development	685 km/450 kg	Domestic/North Korea
<b>France</b>	M4A/B (SLBM)	Operational	6,000 km/1,200 kg	Domestic Production
	M45 (SLBM)	Operational	6,000 km/? kg	Domestic Production
<b>Georgia</b>	Scud-B	Operational	300 km/1,000 kg	USSR
<b>Greece</b>	ATACMS	Operational	165 km/560 kg	USA
<b>India<sup>7</sup></b>	Prithvi-1	Operational	150 km/1,000 kg	Domestic Production
	Prithvi-2	Operational	250 km/500 kg	Domestic Production
	Dhanush/Prithvi-3	Tested/Development	350 km/1,000 kg	Domestic Production
	Agni-1 <i>variant</i>	Tested/Development	725 km/~1,000 kg	Domestic Production
	Agni-1	Tested/Prototype Only	1,500 km/1,000 kg	Domestic Production
	Agni-2	Serial Production?	2,000 km/1,000 kg	Domestic Production
	Agni-3	Development	3,000-5,500 km/? kg	Domestic Production
	Surya	Development	5,500+ km/2,000 kg	Domestic/Russia
Sagarika (SLBM)	Development	350 km/500 kg	Domestic/Russia	

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COUNTRY	SYSTEM <sup>1</sup>	STATUS	RANGE/PAYLOAD <sup>2</sup>	SOURCE <sup>3</sup>
<b>Iran</b>	Mushak-120	Operational	130 km/150 kg	Domestic Production
	M-7 (CSS-8)	Operational	150 km/190 kg	China
	Mushak-160	Operational	160 km/~500 kg	Domestic Production
	Scud-B	Operational	300 km/1,000 kg	Libya/North Korea
	Scud-C	Operational	550 km/600 kg	North Korea
	Shahab-3	Tested/Development	1,300 km/700 kg	Domestic/N. Korea/Russia
	Shahab-4	Development	2,000 km/1,000 kg	Domestic/N. Korea/Russia
	Shahab-5	Concept Stage	3,000-5,500 km/1,000 kg	Domestic/Russia
<b>Iraq<sup>8</sup></b>	Ababil-100	Development	100-150 km/300 kg	Domestic Production
	Al Samoud	Tested/Development	150 km/300 kg	Domestic Production
	Scud-B	Destroyed	300 km/1,000 kg	USSR
	Al Hussein	Destroyed	600-650 km/500 kg	Domestic/USSR
	Al Abbas	Destroyed	900 km/300 kg	Domestic/USSR
<b>Israel</b>	Lance	Operational	130 km/450 kg	USA
	Jericho-1	Operational	500 km/500 kg	Domestic/France
	Jericho-2	Operational	1,500 km/1,000 kg	Domestic/France
	Jericho-3	Development	2,500 km/1,000 kg	Domestic
<b>Kazakhstan</b>	Tochka-U (SS-21)	Operational	120 km/480 kg	USSR
<b>Libya</b>	Al Fatah	Tested/Development	200 km/500 kg	Domestic Production
	Scud-B	Operational	300 km/1,000 kg	USSR
	Scud-C	Potential Acquisition	550 km/600 kg	North Korea
	Nodong-1	Potential Acquisition	1,300 km/750 kg	North Korea
<b>North Korea</b>	Scud-B	Operational	300 km/1,000 kg	Domestic Production
	Scud-C <i>variant</i>	Operational	550 km/700 kg	Domestic Production
	Nodong-1	Operational	1,300 km/750 kg	Domestic Production
	Nodong-2	Development	1,500 km/770 kg	Domestic Production
	Taepo Dong-1	Tested/Development	2,000 km/1,000 kg	Domestic Production
	Taepo Dong-2	Development	5,000-6,000 km/1,000 kg	Domestic Production
<b>Pakistan</b>	Hatf-1	Operational	80-100 km/500 kg	Domestic Production
	Hatf-2	Tested/Development	190 km/500 kg	Domestic/China
	Hatf-3 (Ghaznavi)	Tested/Development	280 km/500 kg	Domestic/China
	Tarmuk	Development	300 km/800 kg	Domestic/China
	Haider-1	Development	350 km/? kg	Domestic Production
	Shaheen-1	Tested/Development	750 km/500 kg	Domestic/China
	Ghauri-1 (Nodong-1)	Tested/Development	1,300+ km/700 kg	Domestic/North Korea
	Ghauri-2	Tested/Development	2,300 km/700 kg	Domestic/North Korea
	Shaheen-2	Development	2,500 km/1,000 kg	Domestic/China
	Ghauri-3	Engine Tested/Development	3,000 km/? kg	Domestic/North Korea
<b>Russia</b>	SS-21	Operational	120 km/480 kg	Domestic Production
	SS-1c Mod 2	Operational	240 km/950 kg	Domestic Production
	Iskander-E	Development	270 km/480 kg	Domestic Production
	Scud-B <sup>9</sup>	Operational <sup>9</sup>	300 km/1,000 kg	Domestic Production
	SS-X-26	Tested/Development	300 km/? kg	Domestic Production
	SS-27 (Topol)	Operational	10,000 km/1,000 kg	Domestic Production
	SS-19	Operational	10,000 km/4,350 kg	Domestic Production
	SS-24	Operational	10,000 km/4,050 kg	Domestic Production
	SS-18 <sup>10</sup>	Operational	10,000 km/8,800 kg	Domestic Production
	SS-25 (Topol-M)	Operational	11,200 km/1,200 kg	Domestic Production
	SS-N-18 (SLBM)	Operational	5,600 km/1,650 kg	Domestic Production
	SS-N-8 (SLBM)	Operational	8,000 km/1,100 kg	Domestic Production
	SS-N-23 (SLBM)	Operational	8,000 km/2,800 kg	Domestic Production
	SS-N-20 (SLBM)	Operational	8,800 km/2,550 kg	Domestic Production
<b>Saudi Arabia</b>	DF-3A	Operational	2,800 km/2,150 kg	China
<b>Slovakia</b>	SS-21	Operational	120 km/480 kg	USSR
	Scud-B	Operational	300 km/1,000 kg	USSR
<b>South Korea</b>	ATACMS	Operational	165 km/560 kg	USA
	NHK-1	Operational	180 km/500 kg	Domestic/USA
	NHK-2	Operational	260 km/450 kg	Domestic/USA
	ATACMS Block 1A	To Be Delivered 4/2004	300 km/560 kg	USA

COUNTRY	SYSTEM <sup>1</sup>	STATUS	RANGE/PAYLOAD <sup>2</sup>	SOURCE <sup>3</sup>
Syria	SS-21	Operational	120 km/480 kg	USSR
	Scud-B	Operational	300 km/1,000 kg	Domestic/USSR
	Scud-C	Operational	500 km/600 kg	Domestic/North Korea
	Scud-D	Tested/Development	750 km/200 kg	Domestic/North Korea
Taiwan	Ching Feng	Operational	130 km/270 kg	Domestic/USA
	Tien Chi	Development	300 km/500 kg	Domestic Production
Turkey	ATACMS	Operational	165 km/560 kg	USA
Turkmenistan	Scud-B	Operational	300 km/1,000 kg	USSR
Ukraine	SS-21	Operational	120 km/480 kg	USSR
	Scud-B	Operational	300 km/1,000 kg	USSR
United Arab Emirates	Scud-B	Operational	300 km/1,000 kg	USSR
United Kingdom	D-5 Trident II (SLBM)	Operational	7,400 km/2,800 kg	USA
United States	MX/Peacekeeper	Operational	11,000 km/3,950 kg	Domestic Production
	Minuteman III	Operational	13,000 km/1,150 kg	Domestic Production
	C-4 Trident I (SLBM)	Operational	7,400 km/1,500 kg	Domestic Production
	D-5 Trident II (SLBM)	Operational	7,400 km/2,800 kg	Domestic Production
Vietnam	Scud-B	Operational	300 km/1,000 kg	USSR
Yemen	Scud-B	Operational	300 km/1,000 kg	USSR

NOTES

1. All missiles are surface-to-surface missile systems, unless otherwise noted. SLBM is an acronym for a Submarine-Launched Ballistic Missile.

2. The ranges and payloads, given in kilometers (km) and kilograms (kg), respectively, are estimates based on unclassified sources. However, these numbers do not reflect either the missiles' maximum range or their heaviest possible payload. Equipping a missile with a lighter payload would increase its range, and likewise, a heavier payload would decrease it.

3. Eight states formerly part of or allied with the Soviet Union retain Soviet SS-21 and Scud-B missiles. Additionally, according to the CIA, continued Russian, Chinese, and North Korean technological and material support remains critical to further development of Iranian and Pakistani missile programs. A February 2001 CIA report noted that "despite overall improvements" in curtailing missile assistance, Russian entities also continue to "supply a variety of ballistic missile-related goods and technical know-how to countries, such as Iran, India, China, and Libya." A new CIA report in January 2002 noted that "Iran's earlier success in gaining technology and materials from Russian entities has helped to accelerate Iranian development of the *Shahab-3* MRBM, and continuing Russian assistance likely supports Iranian efforts to develop new missiles and increase Tehran's self-sufficiency in missile production." Although China has pledged—most recently in November 2000—not to transfer either complete missile systems or missile technology capable of delivering a weapon of mass destruction, the CIA contends in its biannual reports that Beijing's assistance to Pakistan continues and is critical to both Islamabad's rapid movement toward serial production of solid-propellant short-range ballistic missiles and development of the two-stage *Shaheen-2* medium-range ballistic missile. The CIA also contends that North Korea is a major missile and missile technology proliferator, emphasizing the prominent sales of complete missile systems and key components to both Pakistan and Iran.

4. A January 15, 2001 report by the UN Monitoring Group on Afghanistan concluded that prior to the October 2001 U.S.-led offensive in Afghanistan there were approximately 100 Scud-B missiles and at least four Scud mobile launchers in Afghanistan. Although the current distribution and operational capability of the missiles is unknown, the report states that the Northern Alliance—now a faction of the interim Afghan government—is thought to possess approximately 25-30 of these missiles.

5. According to a 1997 report by Lev Rokhlin, then-Chairman of the Russian State Duma's Committee on Defense, Russia transferred eight Scud-B ballistic missiles and 24 Scud launchers, along with other military hardware, to Armenia between 1993-1996. Responding to the publication of the report in the Russian newspaper *Nezavisimaya Gazeta*, and to formal requests by the government of Azerbaijan, Russian President

Boris Yeltsin ordered an investigation into the claims, which were subsequently confirmed in April 1997 by Aman Tuleyev, then-Russian Minister for Relations with the Commonwealth of Independent States.

6. Bulgaria is believed to retain eight SS-23 intermediate-range missiles. Ambassador Steven Steiner, U.S. representative to the 1987 Intermediate Range Nuclear Forces (INF) Treaty's Special Verification Commission told the Arms Control Association in a May 2001 interview that the U.S. government has determined that the Soviet Union "negotiated in bad faith" by failing to notify the United States of the transfer of the missiles to Bulgaria, East Germany, and Czechoslovakia at the time of the treaty's negotiation. As a result, those missiles were not accounted for in the treaty's prohibitions. Germany and the Czech Republic have already destroyed their SS-23 missile stockpiles, while Bulgaria has formally agreed to destroy all of its SS-23 missiles. As of February 2002, Washington and Sophia are currently engaged in discussions on how to carry out the SS-23's destruction.

7. India's *Agni-1* has been characterized by Indian officials purely as a "technology demonstrator program." It was last tested in 1994, and before January 2002, the *Agni-1* was believed to be shelved in favor of the longer range *Agni-2*. However, the January 25, 2002 test of a shorter-ranger *Agni-1* variant has focused attention on the potential capabilities of the *Agni-1*.

8. Iraqi missiles with ranges in excess of 150 kilometers, as well as Iraq's capability to develop and produce them, were to be destroyed as part of the settlement that ended the 1991 Persian Gulf War. In December 1992, the UN Special Commission on Iraq (UNSCOM) claimed to have destroyed all of Iraq's proscribed ballistic missiles as well as items related to their production and development. However, in October 1996, UNSCOM admitted that "in the missile area, Iraq has still not fully accounted for all proscribed weapons, items, and capabilities." In a 2001 report, the Department of Defense noted, "Iraq likely retains a limited number of launchers and Scud-variant SRBMs...as well as the components and manufacturing means to assemble and produce others [in anticipation of] the reestablishment of a long-range ballistic missile force."

9. According to a September 2000 report from the U.S. National Air Intelligence Center, Russia has withdrawn the Scud-B from operational status, but some Scud launchers and missiles have been reactivated and used in the Russian conflict in Chechnya during 1999 and 2000.

10. Under START II, which has not entered into force, and the 1997 START II extension protocol, all Russian SS-18s, as multiple warhead-capable missiles, are to be destroyed by December 31, 2007. However, now that the Bush administration has essentially opted to abandon the START process in favor of unilateral reductions, it appears that there will be no treaty requirement for Russia to destroy its inventory of 166 SS-18s.

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