Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
LAND BALLISTIC MISSILES БАЛЛИСТИЧЕСКИЕ РАКЕТЫ НАЗЕМНОГО БАЗИРОВАНИЯ							
UNITED STATES							
ICBM МЕЖКОНТИНЕНТАЛЬНЫЕ БАЛЛИСТИЧЕСКИЕ РАКЕТЫ							
LGM-30G	Minuteman III					13,000	
	MK-12A	200	1979	MIRV, Single	3 x 335		600
	MK-21 SERV	200	2006	Single	1 x 300		200
TOTAL 18(SIPRI) 18(BULL)		400					800
SRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ МАЛОГО РАДИУСА ДЕЙСТВИЯ							
ATACMS Block I		Some	1991	Single	1 x 560kg payload	165	Some
ATACMS Block IA		Some	1998	Single	1 x 160kg payload	300	Some
ATACMS Block II		Some	2002	Single	1 x 270kg payload	140	Some
TOTAL 08(WIKI)		Some					Some
RUSSIA							
ICBM МЕЖКОНТИНЕНТАЛЬНЫЕ БАЛЛИСТИЧЕСКИЕ РАКЕТЫ							
SS-18 M6	RS-20V	46	1992	MIRV	10 x 500-800	11,000-	460

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
Satan						15,000	
SS-19 M3 Stiletto	RS-18 (UR-100NUTTH)	20	1980	MIRV	6 x 400	10,000	120
SS-25 Sickle	RS-12M (Topol)	72	1985	Single	1 x 800	10,500	72
SS-27 Mod. 1 (mobile)	RS-12M1 (Topol-M)	18	2006	Single	1 x (800)?	10,500	18
SS-27 Mod. 1 (silo)	RS-12M2 (Topol-M)	60	1997	Single	1 x 800	10,500	60
SS-27 Mod. 2 (mobile)	RS-24 (Yars)	90	2010	MIRV	4 x (100)?	10,500	360
SS-27 Mod. 2 (silo)	RS-24 (Yars)	12	2014	MIRV	4 x (100)?	10,500	48
SS-27 Mod. 3 (mobile)	RS-26 (Yars-M)	-	(2018)	MIRV	3 x (100)?	5,500+	-
“heavy” ICBM 2 (silo)	Sarmat	-	(2020)	MIRV	10 x (100)?	10,000+	-
TOTAL 18(SIPRI) 18(BULL)		318					1,138
IRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ СРЕДНЕГО РАДИУСА ДЕЙСТВИЯ							
9M729	SSC-8	16	2016		1 x ..	(2,500)	16
TOTAL 18(SIPRI) 18(BULL)		16					16

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
SRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ МАЛОГО РАДИУСА ДЕЙСТВИЯ							
SS-1c Mod 1	Scud-B	Some	1964	Single	1 x 1,000kg payload	300	Some
SS-1c Mod 2	Scud-B	Some	1964	Single	1 x 950kg payload	240	Some
SS-21 Scarab	Tochka	12	1981	Single	(1 x 10-100)	120	12
SS-26 Stone	Iskander-M	120	2005	Single	(1 x 10-100)	350	120
TOTAL 18(SIPRI) 18(BULL) 08(WIKI)		132					132
CHINA							
ICBM МЕЖКОНТИНЕНТАЛЬНЫЕ БАЛЛИСТИЧЕСКИЕ РАКЕТЫ							
CSS-4 Mod 2	DF-5A	10	1981	Single	1 x 4,000-5,000	12,000	10
CSS-4 Mod 3	DF-5B	10	2015	MIRV	3 x 200-300	12,000	30
CSS-10 Mod 1	DF-31	8	2006			>7,000	8
				Single	1 x 200-300		
				MIRV	3 x 50-100		
CSS-10 Mod 2	DF-31A	32	2007			>11,200	32
				Single	1 x 200-300		
				MIRV	3-5 x 20-150		
CSS-10 Mod…	DF-31AG	…	(2018)	…	…	…	…
	DF-41	…	(2018)	MIRV		(12,000)	…
TOTAL		60					80

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
18(SIPRI) 18(BULL)							
IRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ СРЕДНЕГО РАДИУСА ДЕЙСТВИЯ							
CSS-3	DF-4	5	1980	Single	1 x 3,300	5,500	10
CSS-5 Mod 1/2	DF-21, DF-21A	<50	1991	Single	1 x 200-300	2,100	80
CSS-5 Mod 6	DF-21	…	2016	Single	1 x 200-300	2,100	…
CSS-…	DF-26	16	(2018)	Single	1 x 200-300	>4,000	16
TOTAL 18(SIPRI) 18(BULL)		71					106
SRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ МАЛОГО РАДИУСА ДЕЙСТВИЯ							
CSS-6	DF-15/M-9	~100	1994	Single	1 x 50-350	600	Some
CSS-7	DF-11/M-11	32	1999	Single	1 x 0.5	300	Some
CSS-8	DF-7	30	?	Single	1 x 500kg payload	150	?
TOTAL 18(SIPRI) 18(BULL) 04(IISS)		~162					Some
INDIA							
IRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ СРЕДНЕГО РАДИУСА ДЕЙСТВИЯ							
Agni II		8	2011	Single	1 x 12	>2,000	8
Agni III		8	2014	Single	1 x 12	>3,200	8

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
Agni IV		0	(2018)		1 x 12	>3,500	0
Agni V		0	(2020)	Single	1 x 12	>5,200	0
TOTAL 18(SIPRI) 18(BULL) 12(JDW) 11(WIKI)		16					16
SRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ МАЛОГО РАДИУСА ДЕЙСТВИЯ							
Agni I		20	2007	Single	1 x 12	>700	20
Prithvi II		24	2003	Single	1 x 12	250	24
TOTAL 18(SIPRI) 18(BULL)		~44					~44
PAKISTAN							
IRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ СРЕДНЕГО РАДИУСА ДЕЙСТВИЯ							
Ghauri-1	Hatf 5	24	2003	Single	1 x 10-40	1,250	24
Shaheen-2	Hatf 6	12	2014	Single	1 x 10-40	1,500	12
Shaheen-3	Hatf 6	0	(2018)	Single	1 x 10-40	2,750	0
Ababeel	Hatf…	0	…	MIRV	…	2,200	…
TOTAL 18(SIPRI) 18(BULL) 15(WIKI)		~36					~36
SRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ МАЛОГО РАДИУСА ДЕЙСТВИЯ							
	Hatf 1	Some	1989	Single	1 x 500kg payload	70	Some
	Hatf 1A	Some	1995	Single	1 x 500kg	100	Some

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
					payload		
	Hatf 1B	Some	2001	Single	1 x 500kg payload	100	Some
Abdali	Hatf 2	10	(2015)	Single	1 x 12	200	10
Ghaznavi	Hatf 3	16	2004	Single	1 x 12	290	16
Shaheen-1	Hatf 4	16	2003	Single	1 x 12	750	16
Shaheen-1A	Hatf4	0	(2017)	Single	1 x 12	900	0
Nasr	Hatf 9	24	(2013)	Single	1 x 12	60	24
Babur GLCM	Hatf-7	12	2014	Single	1 x 12	350	12
Babur-2 GLCM	Hatf-…	…	…	Single	1 x 12	700	…
TOTAL 18(SIPRI) 18(BULL) 15(WIKI)		~78					~78
ISRAEL							
ICBM МЕЖКОНТИНЕНТАЛЬНЫЕ БАЛЛИСТИЧЕСКИЕ РАКЕТЫ							
Jericho 3		25	2008				25
				Single	1 x 1,000-1,300	11,500	
				MIRV	6 x 100	11,500	
TOTAL 18(SIPRI) 14(BULL) 12(JDW) 11(WIKI) Note [1], [2], [3], [4], [5]		25					25
IRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ СРЕДНЕГО РАДИУСА ДЕЙСТВИЯ							

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
Jericho 2		25	1990				25
				Single	1 x 750-1,000kg payload	1,500-1,800	
TOTAL 18(SIPRI) 16(IISS) 14(BULL) 11(WIKI)		50					50
NORTH KOREA							
ICBM МЕЖКОНТИНЕНТАЛЬНЫЕ БАЛЛИСТИЧЕСКИЕ РАКЕТЫ							
Hwasong-13	KN-08	Some				>,5,500	Some
Hwasong-14	KN-20	…	2017	Single	1 x 500-1,000kg payload	6,700-10,400	Some
Hwasong-15	KN-22	…	2017	Single	1 x 1,000-1,500kg payload	8,500-13,000	Some
Taepodong-2	…	…	…	Single	…	12,000	…
TOTAL 18(SIPRI) 18(BULL)		Some					Some
IRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ СРЕДНЕГО РАДИУСА ДЕЙСТВИЯ							
Hwasong-7	Nodong	Some	1990	Single	1 x 1,000-1,250kg payload	1,250	Some
Bukkeuseong-2	KN-15	Some	2017	Single			Some
Hwasong-10	BM-25, Musudan	Some			1 x 1,000kg payload	>3,000	Some

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
Hwasong-12	KN-17				1 x 1,000kg payload	3,300-4,500	Some
TOTAL 18(SIPRI) 18(BULL) 15(IISS) 05(BULL) 11(WIKI)		0(6)					Up to 20
SRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ МАЛОГО РАДИУСА ДЕЙСТВИЯ							
Hwasong-9	Scud-ER (extended range)	Some		Single	1 x 500kg payload	1,000	Some
TOTAL 18(SIPRI) 18(BULL)		Some					Some
SLBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ, БАЗИРУЮЩИЕСЯ НА ПОДВОДНЫХ ЛОДКАХ							
UNITED STATES							
UGM-133	Trident II D-5	264					
	MK-4		1992	MIRV	4 x 100	12,000	216
	MK-4A		2008	MIRV	4 x 100	>7,400	1,320
	MK-5		1990	MIRV	4 x 475	12,000	384
TOTAL 18(SIPRI) 18(BULL)		264					1,920
UNITED KINGDOM							

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
UGM-135	Trident II D-5	48	1994	MIRV	1-3 x 100	12,000	215
TOTAL 18(SIPRI) 11(BULL)		48					215
RUSSIA							
SS-N-18 M1 Stingray	RSM-50	2/32	1978	MIRV	3 x 50	6,500	96
SS-N-23 M1	RSM-54 (Sineva)	6/96	2007	MIRV	4 x 100	9,000	384
SS-N-32	RSM-56 (Bulava)	3/48	2014	MIRV	6 x 100	>8,050	288
TOTAL 18(SIPRI) 18(BULL)		11/176					768
FRANCE							
M-51.1		32	2010	MIRV	4-6 x 100	8,000-10,000	160
M-51.2		16	2016	MIRV	4-6 x TNO	>6,000	80
M-51.3		0	(2025)	MIRV	(6 x 150)	(>6,000)	0
TOTAL 18(SIPRI) 08(BULL)		48					240
CHINA							
CSS-NX-14	JL-2	48	(2016)			>7,000	48
				Single	1 x 200-300		
				MIRV	3-4 x 90		

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
TOTAL 18(SIPRI) 18(BULL)		48					48
INDIA							
	K-4	(4)	?	Single	1 x 1,000kg payload	3,500	0
Sagarika / Arihant	K-15	(12)	(2018)	Single	1 x 12	700	(12)
Dhanush	NA	2	(2013)	Single	1 x 12	400	4
TOTAL 18(SIPRI) 18(BULL)		(18)					(16)
AIRCRAFT БОМБАРДИРОВЩИКИ							
UNITED STATES							
STRATEGIC СТРАТЕГИЧЕСКИЕ							
B-52H	Stratofortress	87/44	1961	ALCM	5-150	16,000	528
				ACM	5-150		
B-2A	Spirit	20/16	1994	Bombs B61-7, -11, B83-1	ACM 5-150	11,000	282
TOTAL 18(SIPRI) 18(BULL)		107/60					880
SUB-STRATEGIC ПОЛУСТРАТЕГИЧЕСКИЕ							
F-15E	Strike Eagle	Some	1988	Bomb B61-3, B61-4, B61-10	5 x 0.3-170	3,840	70

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
F-16C/D	Fighting Falcon	Some	1987	Bomb B61-3, B61-4, B61-10	2 x 0.3-170	3,200	70
F-16MLU	Fighting Falcon	Some	1985	Bomb B61-3, B61-4, B61-10	2 x 0.3-170	3,200	30
PA-200	Tornado	Some	1983	Bomb B61-3, B61-4, B61-10	2 x 0.3-170	2,400	30
TOTAL 18(SIPRI) 18(BULL) 09(WIKI) 04(IISS)		Some					200
RUSSIA							
STRATEGIC СТРАТЕГИЧЕСКИЕ							
Bear H6	Tu-95 MS6	14/25	1981	ALCM, Bombs	6 x AS-15A ALCMs, bombs	6,500-10,500	84
Bear H16	Tu-95 MS16	25/30	1981	ALCM, Bombs	16 x AS-15A ALCMs, bombs	6,500-10,500	400
Blackjack	Tu-160	11/13	1987	ALCM, SRAM, bombs	12 x AS-15B ALCMs or AS-16 SRAMs, bombs	10,500-13,200	132
TOTAL 18(SIPRI) 18(BULL)		50/68					616
SUB-STRATEGIC ПОЛУСТРАТЕГИЧЕСКИЕ							

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
Land-based bombers Бомбардировщики наземного базирования							
Tu-22M-3	Backfire-C	100	1974	ASM, bombs	3 x ASM, bombs	4,800-7,000	250
Su-24M/M2	Fencer-D	150	1974	Bombs	2 x bombs	2,100-3,000	150
Su-34	Fullback	98	2006	Bombs	2 x bombs		98
MiG-31K	Foxhound	10	1973		1 x ASM		
TOTAL 18(SIPRI) 18(BULL)		358					498
Naval bombers, submarines, surface ships Военно-морские бомбардировщики, подводные лодки, надводные корабли							
TOTAL 18(SIPRI) 18(BULL)		Some					810
FRANCE							
LAND-BASED НАЗЕМНОГО БАЗИРОВАНИЯ							
Mirage 2000N		20	1988	ASMP	1 x 300	2,750	20
Rafale F3		20	2010-2011	ASMP	1 x 300	2,000	20
TOTAL 18(SIPRI) 08(BULL)		~40					~40
CARRIER-BASED БАЗИРУЮЩИЕСЯ НА АВИАНОСЦАХ							
Rafale MK3		10	2010-2011	ASMP	1 x 300	2,000	10
TOTAL		10					10

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
18(SIPRI) 08(BULL)							
CHINA							
STRATEGIC СТРАТЕГИЧЕСКИЕ							
H-6	B-6	(20)	1965	Bomb	1 x 3,000kg payload	3,100	(20)
Fighters		?	1972-	Bomb	1 x bomb		?
TOTAL 18(SIPRI) 18(BULL)		>~20					>~20
ISRAEL							
SUB-STRATEGIC ПОЛУСТРАТЕГИЧЕСКИЕ							
F-4E-2000	Kurnass	Some	1989	Bomb	1 x 8,480kg payload	2,200	Some
F-16A Fighting Falcon	Netz/Hawk	88	1980	Bomb	1 x 5,400kg payload	2,500	Some
F-16B Fighting Falcon	Netz/Hawk	16		Bomb	1 x 5,400kg payload	2,500	Some
F-16C Fighting Falcon	Barak / Lightning	75		Bomb	1 x 5,400kg payload	2,500	Some
F-16D Fighting falcon	Barak / Thunderbolt	46		Bomb	1 x 5,400kg payload	2,500	Some
F-16I Fighting Falcon	Sufa / Storm	101		Bomb	1 x 5,400kg payload	2,500	Some
F-15I Strike Eagle	Ra'am / Thunder	25	1997	Bomb	1 x 10,400kg payload	2,500	Some

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
F-35I Lightning II		(20)+(55)	(2015)-(2030)	Bomb	5,895kg payload	2,200	(Some)
TOTAL 18(SIPRI) 14(BULL) 15(WIKI) 12(JDW)		351+(20)+(55)					30
INDIA							
SUB-STRATEGIC ПОЛУСТРАТЕГИЧЕСКИЕ							
Jaguar IS/IB	Shamsher	16	1981	Bomb	1 x bomb	1,600	16
Mirage 2000H	Vajra	32	1985	Bomb	1 x bomb	1,850	32
TOTAL 18(SIPRI) 18(BULL)		~48					~48
PAKISTAN							
SUB-STRATEGIC ПОЛУСТРАТЕГИЧЕСКИЕ							
F-16A/B	Fighting Falcon	24	1998	Bomb/Babur LACM	1 x bomb	1,600	24
Mirage III/V		12	1998	Bomb or Ra'ad ALCM	1 x 4,000kg payload	2,100	12
TOTAL 18(SIPRI) 18(BULL)		~36					~36
NORTH KOREA							
SUB-STRATEGIC ПОЛУСТРАТЕГИЧЕСКИЕ							
H-5	Il-28	(80)	1950	Bomb	1 x 3,000kg	2,100	Some

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
					payload		
TOTAL 18(SIPRI) 18(BULL)		(80)					Some
SLCM КРЫЛАТЫЕ РАКЕТЫ, ЗАПУСКАЕМЫЕ С ПОДВОДНЫХ ЛОДОК							
UNITED STATES							
Tomahawk	TLAM-N	325	1984	Single	1 x 5-150	2,500	(0)
TOTAL 18(SIPRI) 18(BULL)		325					(0)
RUSSIA							
SS-N-9	Siren	Some	1972	Single	1 x 200	110	Some
SS-N-12	Sandbox	Some	1959-1960	Single	1 x 350	550	Some
SS-N-19	Shipwreck	Some	1980	Single	1 x 500	550	Some
SS-N-21	Sampson	Some	1984	Single	1 x 200	2,400	Some
SS-N-22	Sunburn	Some	1980	Single	1 x 320kg payload	120	Some
SS-N-30	Kalibr	Some	2012	Single	1 x 450kg payload	2,500	Some
TOTAL 15(WIKI) 15(JDW) 11(SIPRI) 10(BULL)		Some					~280
ISRAEL							

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
Turbo-Popeye 3		Some	2000	Single	1 x 200kg payload	1,500	Some
TOTAL 18(SIPRI) 14(BULL) 04(IISS)		Some					Some
PAKISTAN							
Babur-3 SLCM	Hatf-…			Single	1 x 12	450	…
TOTAL 18(SIPRI) 18(BULL)							
ALCM КРЫЛАТЫЕ РАКЕТЫ, ЗАПУСКАЕМЫЕ С САМОЛЕТОВ							
UNITED STATES							
AGM-868		1,140	1982/1991	Single	1 x 900-1,400kg payload	2,500	Some
AGM-129		460	1990	Single	1 x 5-200	3,500	Some
TOTAL 11(SIPRI) 08(BULL)		1,600					Some
RUSSIA							
AS-4	Kh-24 Kitchen	Some	1964	Single	1 x 1,000	310	Some
AS-15A	Kh-55 Kent	Some	1971	Single	1 x 200-250	2,500	Some
AS-15B	Kh-55SM Kent	Some	1986	Single	1 x 200-250	3,000	Some

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
AS-16	Kh-15 Kickback	Some	1980	Single	1 x 350	150	Some
TOTAL 11(SIPRI) 08(BULL)		Some					Some
FRANCE							
ASMP		Some	1985	Single	1 x 300	250	Some
TOTAL 11(SIPRI) 08(BULL)		Some					Some
CHINA							
DH-10	CJ-10	150-350	2007	Single	1 x ?	>1,500	Some
DH-20?	CJ-20	?	(2014)	?	1 x ?	>1,500	Some
TOTAL 16(SIPRI) 16(BULL)		150-350					Some
PAKISTAN							
Ra'ad	Hatf-8	0	(2017)	Single	1 x 12	350	0
Ra'ad-2	Hatf-…	0	(2018)	Single	1 x 12	>350	0
TOTAL 18(SIPRI) 18(BULL) 15(WIKI)		0					0
GLCM КРЫЛАТЫЕ РАКЕТЫ НАЗЕМНОГО БАЗИРОВАНИЯ							
INDIA							
Nirbhay		?	?	Single	1 x 250-450kg	>700	?

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
					payload		
18(SIPRI) 18(BULL)							
MISSILE AND AIR DEFENSE SYSTEMS СИСТЕМЫ ПРОТИВОРАКЕТНОЙ И ПРОТИВОВОЗДУШНОЙ ОБОРОНЫ							
RUSSIA							
STRATEGIC DEFENSIVE SYSTEMS СИСТЕМЫ СТРАТЕГИЧЕСКОЙ ОБОРОНЫ							
53T6	SH-08 Gazelle	68	1986	Single	1 x 10	30	68
S-300 and S-400	SA-10/20 Grumble, and SA-21 Growler	800	1980 and 1992	Single	1 x low yield	5-150	290
3M-55 Yakhont	SS-N-26	20	(2014)	Single	1 x (…)	400+	10
SSC-1B Sepal	Redut	10	1973	Single	1 x 350	500	5
TOTAL 18(SIPRI) 18(BULL)		900					373
UNITED STATES							
STRATEGIC DEFENSIVE SYSTEMS СИСТЕМЫ СТРАТЕГИЧЕСКОЙ ОБОРОНЫ							
LAND-BASED НАЗЕМНОГО БАЗИРОВАНИЯ							
Fort Greely		26	2004				0

Table 2.9 - Operational Nuclear Delivery Systems, 2017-2018

Таблица 2.9 – Действующие системы доставки ядерного оружия, 2017-2018

NAME/DESIGNATION НАЗВАНИЕ	AKA ТАКЖЕ ИЗВЕСТНО КАК	NUMBER OF SYSTEMS Active+Spares ЧИСЛО СИСТЕМ Действующие+Запасные	YEAR FIRST DEPLOYED ГОД ВСТУПЛЕНИЯ НА ВООРУЖЕНИЕ	WARHEAD TYPE ТИП БОЕГОЛОВКИ	NUMBER OF WARHEADS x YIELD (kilotons) ЧИСЛО БОЕГОЛОВОК x МОЩНОСТЬ ЗАРЯДА (килотонн)	RANGE (km) ДАЛЬНОСТЬ (км)	TOTAL NUMBER OF WARHEADS Active+Spares ОБЩЕЕ ЧИСЛО БОЕГОЛОВОК Действующих+Запасных
(Alaska)							
Fort Greely (Alaska)		(14)	(2017)				(0)
Vandenburg (California)		4	2004				0
TOTAL ground-based interceptors		30+(14)					0
SEA-BASED МОРСКОГО БАЗИРОВАНИЯ							
Aegis BMD cruisers		5					0
Aegis BMD destroyers		25					0
TOTAL Aegis BMD ships		30(80-97)					0
15(IISS) 14(WIKI) 08(SIPRI)							
SUB-STRATEGIC DEFENSIVE SYSTEMS СИСТЕМЫ ПОЛУСТРАТЕГИЧЕСКОЙ ОБОРОНЫ							
PAC-3 missiles		546					0
TOTAL 08(SIPRI)		546					0

ACM advanced cruise missile
AKA also known as
ALCM air-launched cruise missile

ASM air-to-surface missile
MIRV multiple independently targetable re-entry vehicles
ICBM intercontinental ballistic missile
IRBM intermediate-range ballistic missile
SRBM short-range ballistic missile
SLBM submarine-launched ballistic missile
SLCM submarine-launched cruise missile
LACM land-attack cruise missile
GBI ground-based interceptors
BMD ballistic missile defense
PAC-3 Patriot advanced capability-3

SOURCES: SIPRI, BULL, WIKI, IISS, JDW

Notes.

1) According to an official report which was submitted to the American congress in 2004, it may be that with a payload of 1,000 kg the Jericho 3 gives Israel nuclear strike capabilities within the entire Middle East, Africa, Europe, Asia and almost all parts of North America, as well as within large parts of South America and North Oceania.
2) Henry A. Kissinger (16 July 1969), "Israeli Nuclear Program," Memorandum for the President (The White House), Retrieved 2009-07-26
3) Proliferation of Weapons of Mass Destruction: Assessing the Risks, U.S. Congress Office of Technology Assessment, August 1993, OTA-ISC-559, Retrieved 2008-12-09
4) Missile Survey: Ballistic and Cruise Missiles of Foreign Countries, by Andrew Feikert, Congressional Research Service, Updated March 5, 2004
5) Study on a Possible Israeli Strike on Iran's Nuclear Development Facilities, by Abdullah Toukan, Center for Strategic and International Studies, March 14, 2009

Table 2.10 – Operational Nuclear Warheads, 2017-2018, Strategic

Таблица 2.10 – Действующие ядерные боеголовки, 2017-2018, Стратегические

RANK РАНГ	COUNTRY СТРАНА	ICBM МЕЖКОНТИНЕНТАЛЬНЫЕ БАЛЛИСТИЧЕСКИЕ РАКЕТЫ	IRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ СРЕДНЕГО РАДИУСА ДЕЙСТВИЯ	SLBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ, ЗАПУСКАЕМЫЕ С ПОДВОДНЫХ ЛОДОК	ALCM / BOMBS КРЫЛАТЫЕ РАКЕТЫ, ЗАПУСКАЕМЫЕ С САМОЛЕТОВ / БОМБЫ	TOTAL ВСЕГО
1	U.S.	800		1,920	880	3,600
2	Russia	1,138	16	768	616	2,538
3	France			240	50	290
4	China	80	106	48	20	254
5	U.K.			215		215
6	Israel	25	25			50
7	Pakistan		36			36
8	India		16	16		32
9	N. Korea		10-20			10-20

ALCM air-launched cruise missile
ICBM intercontinental ballistic missile
IRBM intermediate-range ballistic missile
SLBM submarine-launched ballistic missile

SOURCES: SIPRI, BULL, IISS, JDW

Table 2.11 – Operational Nuclear Warheads, 2017-2018, Sub-Strategic

Таблица 2.11 – Действующие ядерные боеголовки, 2017-2018, Полустратегические

RANK РАНГ	COUNTRY СТРАНА	SRBM БАЛЛИСТИЧЕСКИЕ РАКЕТЫ МАЛОГО РАДИУСА ДЕЙСТВИЯ	SLCM, NAVY WEAPONS КРЫЛАТЫЕ РАКЕТЫ, ЗАПУСКАЕМЫЕ С ПОДВОДНЫХ ЛОДОК, ВОЕННО-МОРСКОЕ ОРУЖИЕ	ABM, AIR / COASTAL DEFENSE ПРОТИВОРАКЕТНАЯ, ПРОТИВОВОЗДУШНАЯ / БЕРЕГОВАЯ ОБОРОНА	AIRCAFT STRIKE УДАРНЫЕ БОМБАРДИРОВЩИКИ	TOTAL ВСЕГО
1	Russia		810	373		1,183
2	U.S.				200	200
3	Pakistan	78			36	114
4	India	44			48	92
5	China	Some	48		Some	>48
6	Israel	Some	Some		30	>30
7	N. Korea				Some	Some
8	France					Some
9	U.K.					Some

SLCM sea-launched cruise missile
SRBM short-range ballistic missile

SOURCES: SIPRI, BULL, IISS, JDW

Table 2.12 – Operational Nuclear Warheads, 2017-2018, Total Strategic and Sub-Strategic

Таблица 2.12 – Действующие ядерные боеголовки, 2017-2018, Всего стратегических и полустратегических

RANK РАНГ	COUNTRY СТРАНА	STOCKPILE ЗАПАСЫ			DELIVERABLE В СТРОЮ			
		18(BULL)	18(SIPRI)	See [1], [2], [3]	18(BULL)	18(SIPRI)	15(IISS)	10(JDW)
1	Russia	6,850	6,850		4,350	4,350	3,648	
2	U.S.	6,550	6,450		4,000	3,800	2,038	
3	Israel		80	Up to 400		80	80	100-300
4	France		300		300	300	280	
5	China	280	270		280	270	Up to 250	
6	U.K.	225	215		160	215	120	
7	Pakistan	140-150	140-150		140-150	140-150	Up to 130	
8	India	130-140	130-140		130-140	130-140	Up to 120	
9	N. Korea		10-20		6-8	10-20	Up to 20	

Notes:

1) "Background Information, 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons," United Nations, Retrieved 2006-07-02.
2) Brower, Kenneth S., "A Propensity for Conflict: Potential Scenarios and Outcomes of War in the Middle East," Jane's Intelligence Review, Special Report no. 14 (February 1997), p. 14-15.
3) "Nuclear Weapons: Who Has What at a Glance," Arms Control Association, Retrieved 2007-05-30.
4) The Bulletin of the Atomic Scientists puts the Israeli nuclear stockpile at 60-80 but notes that it is believed that Israel has produced nuclear material enough for 115-190 warheads.
5) In 1986, Mordechai Vanunu, a former technician at Dimona, revealed to the media some evidence of Israel's nuclear program. Israeli agents abducted him from Italy and transported him to Israel. An Israeli court then tried him in secret on charges of treason and espionage, and sentences him to 18 years imprisonment. At the time of Vanunu's arrest, *The Times* reported that Israel had material for approximately 20 hydrogen bombs and 200 fission bombs. If we take this information at face value, by now Israel should have material for considerably more nuclear bombs and that seems to corroborate the opinion of the sources from Notes [1], [2], [3] that Israel now may have up to 400 nuclear weapons.
6) Vanunu's information in October 1986 said that based on a reactor operating at 150 megawatts Israel produces 40 kg of plutonium per year. Israel possesses a 200 kg warhead, containing 6 kg of plutonium (Farr, Warner D. The Third Temple's Holy of Holies: Israel's Nuclear Weapons, USAF Counterproliferation Center, September 1999, Retrieved 2007-07-03). During 32 years after 1986 until 2018, Israel could have produced 32 x 40 = 1,280 kg of plutonium; divided by 6, it gives us 213 warheads; plus 220 warheads, which, according to Vanunu, Israel already had in 1986, we receive a possible number of Israel's warheads now at 433.
7) The substantial discrepancy over data about Israel (between the Bulletin of the Atomic Scientists and the

Stockholm International Peace Research Institute on one side and the International Institute for Strategic Studies, Jane's Defense Weekly, and sources from the notes [1], [2], [3] on the other side) may be explained by the following:

7.1) "Israel's nuclear weapons are not believed to be fully operational under normal circumstances" (Bulletin of the Atomic Scientists, article "Nuclear Notebook: Worldwide deployment of nuclear weapons, 2009").

7.2) As Zbigniew Brzezinski stated on Book TV in 2009, Israel had acquired a second-strike capability.

7.3) The opinion of Brzezinski is supported by other less prominent sources stating that Israel's nuclear weapons can now be launched from land, sea and air (Douglas Frantz, Israel Adds Fuel to Nuclear Dispute, Officials confirm that the nation can now launch atomic weapons from land, sea and air, Los Angeles Times, Sunday, October 12, 2003). This gives Israel a second strike option even if much of the country is destroyed (David Eberhart, Samson Option: Israel's Plan to Prevent Mass Destruction Attacks, NewsMax.Com, October 16, 2001).

7.4) The second strike strategy may mean that at any given time some of Israel's nuclear weapons are in storage.

Table 2.13 – States Possessing, Pursuing Or Capable Of Acquiring Weapons Of Mass Destruction, As Well As Those Which Used To Have Or Used To Pursue Them, 2017-2018

Таблица 2.13 – Государства, обладающие или способные к созданию оружия массового поражения, а также те, которые обладали или были способны к их созданию в прошлом, 2017-2018

STATE ГОСУДАРСТВО	NUCLEAR ENERGY ЯДЕРНАЯ ЭНЕРГИЯ	URANIUM ENRICHMENT ОБОГАЩЕНИЕ УРАНА	PLUTONIUM PRODUCTION ПРОИЗВОДСТВО ПЛУТОНИЯ	NUCLEAR WEAPONS ЯДЕРНОЕ ОРУЖИЕ	CHEMICAL WEAPONS ХИМИЧЕСКОЕ ОРУЖИЕ	BIOLOGICAL WEAPONS БИОЛОГИЧЕСКОЕ ОРУЖИЕ	MISSILE TECHNOLOGY РАКЕТНАЯ ТЕХНОЛОГИЯ
Algeria				Used to pursue			
Argentina	Possessing		Possessing	Capable			Pursuing
Armenia	Possessing		Possessing				
Australia				Capable	Capable	Capable	Capable
Belarus				Capable			
Belgium	Possessing		Possessing				
Brazil	Possessing	Pursuing	Possessing	Capable			Possessing
Bulgaria	Possessing		Possessing			Capable	
Burma					Pursuing		
Canada	Possessing		Possessing				
Chile					Capable		
China	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing
Cuba						Capable	
Czechia	Possessing		Possessing				
Ethiopia					Used to pursue		
Egypt					Possessing	Possessing	Pursuing
Finland	Possessing		Possessing				
France	Possessing	Possessing	Possessing	Possessing	Possessing	Capable	Possessing
Germany	Possessing	Possessing	Possessing	Capable	Capable	Capable	Capable

Table 2.13 – States Possessing, Pursuing Or Capable Of Acquiring Weapons Of Mass Destruction, As Well As Those Which Used To Have Or Used To Pursue Them, 2017-2018

Таблица 2.13 – Государства, обладающие или способные к созданию оружия массового поражения, а также те, которые обладали или были способны к их созданию в прошлом, 2017-2018

STATE ГОСУДАРСТВО	NUCLEAR ENERGY ЯДЕРНАЯ ЭНЕРГИЯ	URANIUM ENRICHMENT ОБОГАЩЕНИЕ УРАНА	PLUTONIUM PRODUCTION ПРОИЗВОДСТВО ПЛУТОНИЯ	NUCLEAR WEAPONS ЯДЕРНОЕ ОРУЖИЕ	CHEMICAL WEAPONS ХИМИЧЕСКОЕ ОРУЖИЕ	BIOLOGICAL WEAPONS БИОЛОГИЧЕСКОЕ ОРУЖИЕ	MISSILE TECHNOLOGY РАКЕТНАЯ ТЕХНОЛОГИЯ
Hungary	Possessing		Possessing				
India	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing
Indonesia					Pursuing		
Iran	Possessing	Possessing	Pursuing	Used to pursue	Possessing	Possessing	Pursuing
Iraq			Used to have	Used to pursue	Used to have	Used to have	Used to pursue
Israel			Possessing	Possessing	Possessing	Possessing	Possessing
Italy			Possessing				
Japan	Possessing	Possessing	Possessing	Capable	Capable	Capable	Possessing
Kazakhstan			Possessing	Capable			
Laos					Used to pursue	Used to pursue	
Libya				Used to pursue	Used to have	Used to have	
Lithuania	Possessing		Possessing				
Mexico	Possessing		Possessing				
Netherlands	Possessing	Possessing	Possessing				
North Korea	Possessing		Possessing	Possessing	Possessing	Possessing	Possessing
Pakistan	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing
Romania	Possessing		Possessing				
Russia	Possessi	Possessing	Possessing	Possessi	Possessing	Possessing	Possessing

Table 2.13 – States Possessing, Pursuing Or Capable Of Acquiring Weapons Of Mass Destruction, As Well As Those Which Used To Have Or Used To Pursue Them, 2017-2018

Таблица 2.13 – Государства, обладающие или способные к созданию оружия массового поражения, а также те, которые обладали или были способны к их созданию в прошлом, 2017-2018

STATE ГОСУДАРСТВО	NUCLEAR ENERGY ЯДЕРНАЯ ЭНЕРГИЯ	URANIUM ENRICHMENT ОБОГАЩЕНИЕ УРАНА	PLUTONIUM PRODUCTION ПРОИЗВОДСТВО ПЛУТОНИЯ	NUCLEAR WEAPONS ЯДЕРНОЕ ОРУЖИЕ	CHEMICAL WEAPONS ХИМИЧЕСКОЕ ОРУЖИЕ	BIOLOGICAL WEAPONS БИОЛОГИЧЕСКОЕ ОРУЖИЕ	MISSILE TECHNOLOGY РАКЕТНАЯ ТЕХНОЛОГИЯ
	ng			ng			
Saudi Arabia				Pursuing	Pursuing	Pursuing	Pursuing
Serbia				Pursuing	Capable		
Slovakia	Possessing		Possessing				
Slovenia	Possessing		Possessing				
South Africa	Possessing		Possessing	Capable	Capable	Capable	Capable
South Korea	Possessing		Possessing		Capable	Capable	Possessing
Spain	Possessing		Possessing				
Sudan					Used to pursue		
Sweden	Possessing		Possessing				
Switzerland	Possessing		Possessing				
Syria					Pursuing	Pursuing	Pursuing
Taiwan	Possessing		Possessing		Possessing	Possessing	Possessing
Thailand					Pursuing		
Ukraine	Possessing		Possessing	Capable			
Vietnam					Pursuing	Pursuing	
United Kingdom	Possessing	Possessing	Possessing	Possessing	Capable	Capable	Possessing
United States	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing	Possessing

SOURCES: BULL, SIPRI, EST, E, CIA, WIKI

Table 2.14 - Global Stocks Of Highly Enriched Uranium (HEU), 2017

Таблица 2.14 – Мировые запасы высокообогащенного урана, 2017

STATE ГОСУДАРСТВО	STOCKPILE (TONS) ЗАПАСЫ (ТОНН)
Argentina	0.001-0.01
Australia	0.001-0.01
Belarus	0.1-1
Belgium	0.1-1
Canada	1-10
China	14 ± 3
France	30 ± 6
Germany	0.1-1
Ghana	~0.001
India	4 ± 1.4
Indonesia	~0.001
Iran	0.001-0.01
Israel	0.3
Italy	0.1-1
Jamaica	~0.001
Japan	1-10
Kazakhstan	1-10
Netherlands	0.1-1
Nigeria	~0.001
North Korea	0.01-0.1
Norway	0.001-0.01
Pakistan	3.4 ± 0.4
Poland	0.1-1
Russia	679 ± 120
South Africa	0.1-1
Switzerland	0.001-0.01
Syria	~0.001
United Kingdom	21.1
United States	574.5
Uzbekistan	0.01-0.1
TOTAL	~1340

Notes.

1) Most of highly-enriched material is 90-93% enriched uranium-235, which is typically considered as weapon-grade. Important exceptions are noted. Blending down (i.e. reducing the concentration of U-235) of excess Russian and U.S. weapon-grade HEU up to the end of 2016 has been taken into account.
2) The revised estimate for China is based on new assessment for the International Panel on Fissile Materials (IPFM) of fissile material production and stocks in China.
3) France declared 4.8 tons of civilian HEU to the International Atomic Energy Agency (IAEA) as of the end of 2016; it is assumed here to be weapon-grade, 93% HEU, even though 1.54 tons of the material is in irradiated form. The uncertainty in the estimate applies only to the military stockpile of 26 tons and does not apply to the declared civilian stock. A recent analysis offers grounds for a significantly lower estimate of the stockpile of weapon-grade HEU (as large as 10 ± 2 tons or as low as 6 ± 2 tons), based on evidence that the Pierrelatte enrichment plant may have had both a much shorter effective period of operation and a lower weapon-grade HEU production capacity than previously assumed.
4) It is believed that India is producing HEU (enriched to 30-45%) for use as naval reactor fuel. The estimate is

for HEU enriched to 30%.

5) Israel may have acquired 300 kg of weapon-grade HEU from the USA in or before 1965.
6) For Russia the estimate may understate the amount of HEU since it assumes that Russia ceased production of all HEU in 1988. However, Russia may have continued producing HEU for civilian and non-weapon military uses after that date. The material in discharged naval cores is not included in the current stock since the enrichment of uranium in these cores is believed to be less than 20 percent U-235.
7) The United Kingdom declared a stockpile of 21.9 tons of HEU as of March 31, 2012, the average enrichment of which was not given. The United Kingdom declared a stock of 1.37 tons of civilian HEU to the IAEA as of the end of 2016.
8) The amount of the United States HEU is given in actual tons, not 93% enriched equivalent. In 2016, the United States has declared that, as of September 30, 2013 its HEU inventory was 585.6 tons, of which 499.4 tons was declared to be for "national security or non-national security programs including nuclear weapons, naval propulsion, nuclear energy, and science". The remaining 86.2 tons was composed of 41.6 tons "available for potential down-blend to low enriched uranium or, if not possible, disposal as low-level waste", and 44.6 tons in spent reactor fuel. As of Dec. 2016, another 11.1 tons had been down blended or shipped for blending down. The 95 tons of HEU declared excess includes the remaining 75.1 tons and 20 tons of HEU reserved for HEU fuel for research reactors.
9) The 2016 IAEA Annual Report lists 181 significant quantities of HEU under comprehensive safeguards in non-nuclear weapon states as of the end of 2016. In order to reflect the uncertainty in the enrichment levels of this material, mostly in research reactor fuel, a total of 15 tons of HEU is assumed. About 10 tons of this is in Kazakhstan and has been irradiated; it was initially slightly higher than 20%-enriched fuel. It is possible this material is no longer HEU.

SOURCES: SIPRI, BULL, CIA, WIKI

Table 2.15 - Global Stocks Of Separated Plutonium, 2017

Таблица 2.15 – Мировые запасы обогащенного плутония, 2017

STATE ГОСУДАРСТВО	MILITARY STOCKS (TONS) ВОЕННЫЕ ЗАПАСЫ (ТОНН)	CIVILIAN STOCKS (TONS) ГРАЖДАНСКИЕ ЗАПАСЫ (ТОНН)
Argentina (2015)	-	17.6
Armenia (2015)	-	2.1
Belgium (2015)	-	40.9
Brazil (2015)	-	5.9
Bulgaria (2015)	-	8.8
Canada (2015)	-	213
China	2.9 ± 0.6	0.04
Czechia (2015)	-	16.8
Finland (2015)	-	17.6
France	6 ± 1.0	65.4
Germany	-	0.6
Hungary (2015)	-	10.8
India	0.58 ± 0.15	6.4 ± 3.5
Israel	0.9 ± 0.13	-
Italy (2015)	-	<0.4
Japan	-	47.0
Kazakhstan (2015)	-	3.0
Lithuania (2015)	-	12.3
Mexico (2015)	-	5.2
Netherlands (2015)	-	1.4-1.7
North Korea	0.04	-
Pakistan	0.28 ± 0.09	2.17
Romania (2015)	-	10.4
Russia	128 ± 8	57.2
Slovakia (2015)	-	14.3
South Africa (2015)	-	9.46
South Korea (2015)	-	97.9
Spain (2015)	-	44.4
Sweden (2015)	-	54.4
Switzerland (2015)	-	18.0
Taiwan (2015)	-	32.4
Ukraine (2015)	-	50.6
United Kingdom	3.2	110.3
United States	87.8	629
TOTALS	~230	~2,388

Notes.

1) Some countries own civilian plutonium that is stored overseas, mostly in France and the United Kingdom, but do not submit IAEA declaration, including Australia, Belgium and the Netherlands. The data is foe the end of 2015.
2) The amount for Germany may be an overestimate since Germany apparently reports plutonium as being in unirradiated mixed oxide (MOX) fuel even if the fuel has started being irradiated in a reactor.
3) India's estimate for military plutonium is reduced because of new publicly available information about the performance of its Dhruva reactor. As part of the 2005 Indian-U.S. Civil Nuclear Cooperation Initiative, India has included in the military sector much of the plutonium separated from its spent power-reactor fuel.

While it is labelled civilian here since it is intended for breeder reactor fuel, this plutonium was not placed under safeguards in the 'India-specific' safeguards agreement signed by the Indian government and the IAEA on February 2, 2009.

4) Israel is believed to still be operating the Dimona plutonium production reactor but may be using it primarily for tritium production (tritium is an important component in nuclear weapons; it is used to enhance the efficiency and yield of fission bombs and the fission stages of hydrogen bombs in a process known as "boosting" as well as in external neutron initiators for such weapons). The estimate is for the end of 2016.
5) North Korea reportedly declared plutonium production of 37 kg in June 2008. It resumed production in 2009, but has probably expended some material in the nuclear tests conducted in 2019-2017.
6) As of the end of 2016, Pakistan was operating 4 plutonium production reactors at its Khushab site. This estimate assumes that in 2016 Pakistan separated plutonium from the cooled spent fuel from 2 new reactors, 1 of which began operating some time in 2013 and the other in late 2014 or early 2015.
7) For Russia, the 40 tons of plutonium not available for weapons comprises 25 tons of weapon-origin plutonium stored at the Mayak Fissile Material Storage Facility and about 15 tons of weapon-grade plutonium produced between 1 Jan. 1995 and 15 Apr. 2010, when the last plutonium production reactor was shut down. The post-1994 plutonium, which is currently stored at Zheleznogorsk, cannot be used for weapon purposes under the terms of the U.S.-Russian agreement on plutonium production reactors signed in 1997. Russia made a commitment to eliminate 34 tons of plutonium not available for weapons (including all 25 tons of plutonium stored at Mayak) as part of the U.S.-Russian Plutonium Management and Disposition Agreement, concluded in 2000. Russia does not include the plutonium that is not available for weapons in its INFCIRC/549 statement. Nor does it make the plutonium it reports as civilian available to IAEA safeguards.
8) The United Kingdom declared 103.3 tons of civilian plutonium (not including 23.2 tons of foreign-owned plutonium in the United Kingdom) as of the end of 2016. This includes 4.4 tons of military plutonium declared excess and placed under Euroatom safeguards.
9) In 2012, the USA declared a government-owned plutonium inventory of 95.4 tons as of the 30 Sep. 2009. In its 2016 IAEA statement, the USA declared 49 tons of unirradiated plutonium (both separated and in MOX) as part of the stock that was identified as excess for military purposes. Since most of this material is stored in classified form, it is considered military stock. The USA considers a total of 61.5 tons of plutonium as declared excess to national security needs. This includes 49 tons of unirradiated plutonium, 4.5 tons of plutonium disposed as waste, 0.2 tons lost to radioactive decay since 1994 and 7.8 tons of irradiated government-owned plutonium. The plutonium reported in INFCIRC/549 also includes 0.4 tons of plutonium brought to the USA in 2016 from Japan, Germany and Switzerland (331 kg, 30 kg, and 18 kg, respectively). Like the 49 tons of unirradiated excess plutonium, this material will not be used for weapons. However, it has not been placed under IAEA safeguards, so it is accounted for together with military material.
10) Data for other states is estimated by reconciling the amounts of plutonium declared as 'held in locations in other countries' and 'belonging to foreign bodies' in the INFCURC/549 reports.

SOURCES: SIPRI, BULL, CIA, WIKI