Type/NATO designation	Russian designation	Launchers	Year deployed	Warheads x yield (kilotons)	Total warheads ^ª
Strategic offensive weapons	designation	Luuneners	ucpioyeu	x yield (kilotofis)	wanicaas
ICBMs					
SS-18 M6 Satan	RS20V (Voevoda)	34 ^b	1988	10×500/800 (MIRV)	340 ^c
SS-19 M4	? (Avangard)	10	2019	1 × HGV	10
SS-27 Mod 1 (mobile)	RS-12M1 (Topol-M)	18	2019	1 × 800?	18
SS-27 Mod 1 (silo)	RS-12M1 (Topol-M)	60	1997	1 × 800	60
SS-27 Mod 2 (mobile)	RS-24 (Yars)	180	2010	4 × 100? (MIRV)	720 ^d
SS-27 Mod 2 (iilo)	RS-24 (Yars) ^e	24	2010		96
	RS-28 (Sarmat)	- 24	(2024)	4 × 100? (MIRV) 10 × 500? (MIRV)	90
SS-29 (silo) ?	? (Sirena-M)	3	2024)	Command	-
	: (Silelia-W)	2	2022	and control module	-
Subtotal		329 ^f			1,244 ⁹
SLBMs		529			1,244-
		F (00	2007	$4 \times 100 \text{ (MIRV)}^{h}$	320 ⁱ
SS-N-23 M2/3	RSM-54 (Sineva/Layner)	5/80	2007		· · · ·
SS-N-32	RSM-56 (Bulava)	7/112	2014	6×100 (MIRV)	672 ^J
Subtotal		12/192 ^k			992'
Bombers/weapons		52	1004/2015		4200
Bear-H6/16	Tu-95MS/MSM ^m	52	1984/2015	$6-14 \times AS-15A$ ALCMs	430 ⁿ
Blackjack	T			and/or AS-23B ALCMs	4 = 40
	Tu-160/M	15	1987/2021	$12 \times \text{AS-15B}$ ALCMs	156°
		D		or AS-23B ALCMs, [Kh-BD], bombs	
Subtotal		67 ^p			586 ^q
Subtotal strategic offensive forces		588 ^r			1,822 ^s
Nonstrategic and defensive weapons					
Naval					
Submarines/surface ships/air				LACMs, SLCMs, ASWs,	784
				SAMs, DBs, torpedoes	
Land-based air					
Bombers/fighters (Tu-22M3(M3M)/Su-24M/Su-34/		289	1974–2018	ASMs, ALBMs, bombs	334
MiG-31K)		207	177 1 2010		55.
ABM/Air/Coastal defense					
S-300/S-400 (SA-20/SA-21)		750	1992/2007	$1 \times low$	250
53T6 Gazelle		68	1986	1×10	68 ^t
SSC-1B Sepal (Redut)		8 ^u	1973	1 × 350	4
SSC-5 Stooge (SS-N-26) (K-300P/3M55)		56	2015	$(1 \times 10)^{\vee}$	23
Ground-based		50	2015	(1 × 10)	25
SS-26 Stone SSM (9K720, Iskander-M),		150	2005	1×10-100	75 ^w
SSC-7 Southpaw GLCM (<i>R</i> -500/9M728, Iskander-M) ^x		150	2005	1 × 10-100	75
SSC-8 Screwdriver GLCM (9M729) ^y		20	2017 ^z	1×10-100	20
Subtotal nonstrategic and defensive forces		20	2017	1 × 10-100	1,558 ^{aa}
TOTAL					-
					4,380
Deployed					1,710
Reserve					2,670
Retired warheads awaiting dismantlement					1,200
Total inventory					5,580

Table 1. Russian nuclear forces, 2024.

Abbreviations used: ABM = antiballistic missile; ALCM = air-launched cruise missile; AS = air-to-surface; ASM = air-to-surface missile; ASW = antisubmarine weapon; DB = depth bomb; GLCM = ground-launched cruise missile; ICBM = intercontinental ballistic missile; LACM = Land-Attack Cruise Missile; MIRV = multiple independently targetable reentry vehicle; SAM = surface-to-air missile; SLBM = submarine-launched ballistic missile; SLCM = sea-launched cruise missile; SRAM = short-range attack missile; SSM = surface-to-surface missile.

^aAll warhead numbers come with significant uncertainty because of the limited transparency of Russian nuclear-capable forces. The numbers for nonstrategic nuclear weapons in particular are highly uncertain.

^bIt is possible that a third SS-18 regiment at Dombarovsky (175th) is also active, in which case there would be 40 SS-18s.

^cIt is estimated that the SS-18s now carry only five warheads each to meet the New START limit for deployed strategic warheads.

^dIt is estimated that the SS-27 Mod 2s carry only three warheads each to meet the New START limit on deployed strategic warheads.

^eIt appears that there are multiple variants of the Yars system: One is reportedly equipped with "light warheads" and another (known as Yars-S) is reportedly equipped with more powerful, medium-yield warheads for use against hardened targets.

^fAlthough they would presumably still be counted as launchers under New START, the Sirena-M systems at Yurya serve as back-up launch code transmitters and do not carry nuclear warheads. Therefore, the total number of nuclear-armed ICBMs is 326.

^gThrough analysis of satellite imagery, New START data, and statements from high-ranking Russian generals, we estimate that only about 872 of these warheads are deployed; the rest are in storage for potential loading.

^hThe current version of the RSM-54 SLBM might be the Layner (SS-N-23 M3), a variant of the previous version—the Sineva (SS-N-23 M2). However, the US Air Force's National Air and Space Intelligence Center (NASIC) did not include the Layner in its 2020 report on ballistic and cruise missile threats, and there is some uncertainty regarding its status and capability. In 2006 US intelligence estimated that the missile could carry up to 10 warheads, but it lowered the estimate to 4 in 2009. The average number of warheads carried on each missile has probably been limited to 4 multiple independently targetable reentry vehicles (MIRVs) to meet the New START limits.

ⁱAt any given time, only 256 of these warheads are deployed on four operational Delta IV submarines, with the fifth boat in overhaul. Sometimes two boats are out for maintenance.

^jIt is possible that Bulava SLBMs now carry only four warheads each for Russia to meet the New START limit on deployed strategic warheads.

^kThe first figure is the number of operational SSBNs; the second is the total number of missiles (launchers) on the SSBNs. Note that several SSBNs may be in overhaul at any given time.

120 🛞 H. M. KRISTENSEN ET AL.

¹At any given time, one or two SSBNs are in overhaul and do not carry nuclear weapons, so not all 992 warheads are deployed—perhaps only around 640. ^mThe START Treaty distinguished between the Tu-95MS6 and Tu-95MS16 variants, of which the MS6 could carry six ALCMs internally and the MS16 an additional 10 on wing pylons for a total of 16. However, it is unclear whether the MS16 configuration is still used or whether the external pylons were removed, which would effectively turn them back into Tu-95MS6 variants. The current MSM upgrade adds four pylons with a capability to carry eight Kh-101/ 102 cruise missiles plus, potentially, six Kh-55 missiles internally.

ⁿThis number assumes that approximately 20 of the Tu-95s have been modernized, therefore enabling them to carry up to 280 warheads, whereas 25 legacy Tu-95MS6 versions can carry up to 150 warheads. It also assumes that seven aircraft are out either for maintenance or modernization.

^oThis number assumes that two Tu-160 aircraft are out either for maintenance or modernization; the remaining 13 can carry up to 156 warheads.

^pOnly about 58 of the bombers are thought to be deployed.

^qThe total bomber force can theoretically carry more than 650 nuclear weapons, but weapons are probably only assigned to deployed bombers for a total of 586 weapons. Bomber weapons are not deployed on the aircraft under normal circumstances, but we estimate a couple hundred weapons are present at bomber bases, with the remainder in off-base central storage.

¹This number of total fielded strategic launchers is higher than those listed in the New START aggregate data as of September 1, 2022, the last aggregate data Russian shared, because some bombers are not counted as deployed. This is the total number of operational launchers (ICBMs, SLBMs, and bombers) in service. Russia also has more than 250 non-deployed launchers, many of which are mothballed or in the process of being dismantled.

⁵Only about 1,710 of these warheads are estimated to be deployed on missiles and at bomber bases. New START counts fewer deployed warheads because it does not count weapons in storage and because at any given time, some SSBNs are not fully loaded.

^tWe estimate that the warheads for the remaining Gazelle interceptors are kept in central storage under normal circumstances. All previous 32 Gorgon missiles have been retired.

^uIt is assumed that all SSC-1B units, except a single silo-based version in Crimea, have been replaced by the K-300P by now.

^vThe US National Air and Space Intelligence Center lists the ground-, sea-, and sub-launched 3M55 as "nuclear possible."

^wThis estimate includes warheads for both SS-26 and SSC-7.

^xThe US National Air and Space Intelligence Center lists the R-500/9M728 as "Conventional, Nuclear Possible."

^yIt is possible that SSC-8 launchers are co-located with some of the Iskander brigades.

²This figure assumes five SSC-8 battalions, each of which is equipped with four launchers. Since each launcher appears to be equipped to carry four missiles, this would indicate a total of 80 missiles per battalion (possibly 160 if each battalion has one reload missile). However, it is assumed that each launcher is only assigned one nuclear warhead on average (with the rest being equipped with conventional warheads), for a total of 20 warheads across five battalions.

^{aa}Russia's nonstrategic nuclear weapons are believed to be in storage and are not collocated with their launchers, and therefore are not formally counted as "deployed" in this Nuclear Notebook; however, many regional storage sites are located relatively close to their launcher garrisons and in practice warheads could be transferred to their launch units on short notice.