288		CENTRAL INTELLIGE	NCE AGENCY	,		
~~~~						
		· · · · · · · · · · · · · · · · · · ·				
UNTRY	USSR		REPORT NO.			
UECT	Developments in the Soviet Missile and Nuclear Weapons Programs Up to Mid-September 1961		DATE DISTR.	n March	1963	
•			NO. PAGES	4	•	
			REFERENCES	RD		
ie of O.	Up to	Mid-September 1961				
CE & E ACQ.	-		FIELD REPORT	NO.		
		EVALUATED INFORMATION. SOURCE GRADINGS	ARE DEFINITIVE. APPRA	ISAL OF CONTENT	IS TENTATIVE.	
		· · · · · · · · · · · · · · · · · · ·				
	· ·	СНІСН	KADEE -			
•						
		APPROVED FOR REL	EVGE			
			LAOL			
		1/16/2006				
·		HR 70-14			· · · ·	
			·			
	Note:	The R-12 missile mentioned in detail in	this report is dated	discussed i 6 March 1962	n greater •	
•	Nuclear	Weapons Tests	J			
	1.	As of September 1961, Eng. Col	. Gen. Pyrskiy	, ¹ one of tw	o deputies	
	weapone	of Marshal of Artillery S. S. Va , was on Novaya Zemlya to direc	t the nuclear t	weapons test	s going	
•	Pyrskij	re. He was not subordinate to V was formerly commander of arti	llery of the No	g this assig orth Caucasu	nment. s	
	Militar	y District. There are both a h	uge	<u> </u>		
					1	

Der:



missile launching base and a missile testing rangehead on Novaya Zemlya equipped to launch R-12 and R-14 missiles, not R-11 missiles; both the launching base and the rangehead have nuclear warheads. In September 1961 Muclear testing was also going on in Central Asia, and Lt. Gen. Semenov, second deputy to Chief Marshal of Artillery Varentsov, i was there in connection with the tests.

2. In early September 1961, a nuclear detonation with a yield of 16,000 kilograms (16 kt) was carried out at Kapustin Yar. Although yields of 10, 15 and more kilotons had been achieved previously, this was the first detonation yielding 16 kt. Chief Marshal of Artillery Varentsov was at Kapustin Yar for several days at the time of this test.

3. This warhead was carried on an R-12 missile launched from Kapustin Yar toward an impact area in Central Asia. Detonation was a high air burst, at the apogee of the missile's trajectory, which is generally one-tenth of the range in ballistic theory. An R-12 missile was first launched with a conventional warhead to determine lateral and range errors; lateral dispersion was 160 meters. Range error is not known. A nuclear-armed missile was then launched on the same trajectory.

4. Soviet testing practice is first to fire a missile against a selected target with a conventional warhead and then install a nuclear warhead on the same type of missile and fire at the same target.

## The R-12 and R-14 Missiles

5. The R-12 missile has been adopted as standard equipment and is in serial (seriynoye) production. It has a nuclear range of 2,500 km. The R-14 is being prepared for serial production but has not been produced in quantity (massovoye) as yet. Its nuclear range is 4,500 km. Conventional warhead ranges for R-12 and R-14 missiles are probably about twice their respective nuclear ranges, as that is the usual ratio with Soviet missiles.

10.00



## Deployment of Missiles

6. In addition to Novaya Zemlya, there are also missile bases in the Norilsk area, the Vorkuta area, and in Franz Joseph Land; these bases have nuclear warheads. Extensive underground shelters and fortifications have been built around Vorkuta. In the south there are missile bases with nuclear warheads in the Krasnovodsk and Kirovabad areas, for use against Iran and Pakistan. The Soviet deployment concept is to disperse and avoid concentrations of bases.

7. A brigade of mixed battalions (divizion) of R-11 and R-12 missiles is located at Kremenchug for training purposes; there is a missile school there.

## Anti-Missile Development

8. Anti-ballistic missile development is being carried out by a large, special scientific research institute in Moscow and one experimental battalion (divizion) at a testing site.

## Miscellany

9. The Chief Artillery Directorate (GAU) has been renamed the Chief Missile and Artillery Directorate (GRAU).

10. In mid-summer 1961, Chief Marshal of Artillery S. S. Varentsov visited plants at Sverdlovsk.

11. A prominent and competent Soviet missile designer named Vladimir Nikolayevich Chelomey, who is 43 or 44 years old, has two laboratories in Moscow.² Khrushchev's son <u>Sergey Nikitovich</u>, an engineer, works in one of these laboratories. Chelomey developed the P-5 (krylatka) for use by ground forces, and is improving its use on submarines. The velocity of this missile is 500 m/sec.³

12. There is a shortage of vodka in Moscow and Leningrad because alcohol is being stored as a strategic reserve for missiles.

	* * *		
		SECRET	
		Headquarters Comments:	
		<ul> <li>1. This is probably Col. Gen. of Artillery Ivan Mikhaylovich Pyrskiy.</li> </ul>	
		2. The Directory of the Academy of Sciences of the USSR for 1961 Nikolayevich Encromey as naving been born on 30 June 1914, and having joined the Academy of Sciences on 20 June 1958, where he is associated with the Department of Technical Sciences.	
in an		3	
		-4-	