

# **Russian Biodefensive Efforts and Apparent Concerns**



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**Putin's Directive of March 22, 2012 (and *Komersant*): I have formulated 28 tasks for Strategy 2020.**

Task 4. The development of weapons based on new physical principles: radiation, geophysical, wave, genetics, psychophysical, and others. [Later clarification (?) that Putin meant to defend against.]

**Putin's Address to the Security Council of Russia on May 27, 2015**  
**“Basics of state policy in the fields of chemical and biological security of the Russian Federation for the period up to 2025 and beyond.”**

**Paragraphs 11x&y: Address threats against Russia for terrorist purposes and new foreign-made weapons including those created using genomics, proteomics, genetic engineering, organic and inorganic chemistry and other related fields.**

# Russia's Genetics Program?

What does Putin mean when calling for development of weapons based on “genetics”? Official definition by Russian Ministry of Defence:

Genetic weapons are able to damage the genetic (hereditary) apparatus of people. It is assumed/expected, that some viruses can/may serve as the active ingredient. These viruses are in possession of mutagenic activity (with the capability to cause hereditary changes) and can be introduced into a chromosome cells [sic] that contain deoxyribonucleic acid (DNA) and even chemical mutations, taken from natural sources by chemical synthesis or biotechnological methods. The primary result of the use of genetic weapons is to cause damage/injury and changes to basic/primary structure of DNA, which can lead to serious diseases and their hereditary transmission.

<http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=13770@morfDictionary>



# Center for Military Technical Problems of Biological Defense of the Scientific Research of Microbiology (2005)



**Compound 19, Sverdlovsk >**



# Center for Military Technical Problems of Biological Defense of the Scientific Research of Microbiology (2015)



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## **Training Exercises of Radiation, Chemical, and Biological [RKhB] Defense Troops Have Drastically Intensified and Increased in Number Since 2012**

**In 2014, 20 large-scale training exercises involving RKhB (CBN) troops. In 2015, there were a supposed 40 large-scale exercises. Of these, 25 exercises were held during June – November 2015. Two examples:**

**August 2015, >1,500 RKhB Defense Troops deploying 500 pieces of equipment exercised on ranges of Shikhany, Donguz and Totskoye in Central Military District to practice "cleanup in the aftermath of a CB event." Objectives - operations to deploy aerosol screens and actions to reduce the visibility of command posts and firing positions.**

**November 13, 2015, during an exercise in Moscow vicinity, reconnaissance was carried out by thousands of troops in new RKhM-6 chemical reconnaissance vehicles using an automated field control system to transmit the data collected by special mobile laboratories to higher command levels. A mobile diagnostic group from a MOD central research institute undertook activities related to the detection, identification, and neutralization of biologically dangerous substances with the use of a wide range of modern devices and equipment.**



# RKhM-6 Reconnaissance Vehicle



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**RKhM-6 can detect and determine the presence of CB substances in the environment while moving at a speed of 20-50 km/h in accordance with the degree and complexity of contamination. It is equipped with the Biokepcher-650 air sampling device, KPO-1M sampling set, ANK-32 nucleic acids analyzer, and LG US-M autonomous protective suits so personnel can work with extremely dangerous chemicals and pathogens. The reconnaissance unit is able to detect vapors and aerosols of CB substances over an area of 10 square meters in 1 minute.**



# **What or Who is the Major Biothreat to Russia? (2012 & 2013)**

- **November 2012. Major General Yevgeniy Starkov, then commander of RKhM troops:**
  - **Biological weapons cannot be excluded in armed conflict. The US and other Western states have spent billion to develop new weaponized agents that bypass the BWC. They have also used dual-use technologies to defend against agents but that can also be used to develop new weapons agents.**
- **July 2013. Russia's Chief Sanitary and Health Inspector Gennadiy Onishchenko:**
  - **The Americans have created a foothold for biological weapons in Georgia. The Georgian-U.S. laboratory in Alekseyevsk were involved in the spread of African swine fever virus in Russian regions. The Georgians carcasses of pigs that had died of the disease into the Inguri River to cause environmental damage in South Ossetia, Abkhazia, and Russia.**
  - **The U.S. has created similar laboratories to the one in Alekseyevsk in anti-plague centers in Almaty, Baku, and Simferopol where they "may be conducting research to create biological weapons."**

# What or Who is the Major Biothreat to Russia? (2014 & 2015)

- June 2014. Gennadiy Onishchenko after Russian inspectors returned from Georgia:
  - Our experts were alarmed what they saw. They saw people they knew were from the Walter Reed biological weapons laboratory and they saw that know-how that no peacefully directed laboratory had need of such as “know-how to amass the virus.”
- October 2015. Russian Security Council Secretary Nikolai Patrushev:
  - “The U.S. controls a number of laboratories producing biological weapons. The number of laboratories controlled and run by the U.S. has increased by 20 times, including numerous laboratories functioning on the territories of the CIS member states. Tens of billions of dollars are assigned for this.”
  - The *Interfax* headline on October 20, 2015 “Patrushev after Russian Security Council Meeting: U.S. Creating Biological Weapons; This is a Threat to Russia.” Patrushev stated: “The problems are actual. There are internal threats, there are external threats, which must be solved jointly with other nations.”

# **Russian Views on Why U.S. Opposes Strengthening BWC**

At two preparatory meetings for the 8<sup>th</sup> Review Conference held in August and December 2015), Russian representatives voiced two main reasons why U.S. is a threat to Russia and, indeed, regions of the world:

- **U.S. has shown its inability to control safe use and transport of pathogens.**
  - Since 2001, over 100 incidents of loss or theft of pathogens occurred in U.S.
  - U.S. posted *Bacillus anthracis* to 194 addresses in 10 countries (U.S. has violated the BWC's Article III).
  - U.S. stored unrecorded and unguarded cultures of variola virus.
- **U.S. "Military Department" has created "regional centers" in "states bordering Russia and many other regions of Asia and Africa."**
  - Due to U.S.' poor record in biosafety, these centers are a threat to their host countries and the world.
  - The U.S. "actively continues searching for causative agents... of horrible pandemics of the past. The reasons why the U.S. is expanding "its cultures of contagious agents" are unknown.



# **USA TODAY headlines U.S. biological failures**

## **August 4, 2015 – June 2, 2016**

- Secret sanctions revealed against university hosting \$1.25 billion biolab, August 4, 2015
- Labs cited for 'serious' security failures in research with bioterror germs, August 28, 2015
- Pentagon halts work with bioterror germs at 9 labs, September 4, 2015
- Concern grows over Pentagon's handling of anthrax, September 5, 2015
- Latest military lab concerns involve plague bacteria, deadly viruses, September 10, 2015
- CDC hires top lab safety official to address string of incidents, culture, September 15, 2015
- In key anthrax test, scientist just threw out test tube showing sample was alive, September 17, 2015
- FDA hiring top official to improve lab safety in wake of smallpox incident, September 23, 2015
- White House advisers call for greater accountability, safety at biolabs, October 29, 2015
- Sanctioned biolabs' names still kept secret despite White House memo, December 3, 2015
- Top U.S. lab regulator replaced in wake of incidents with bioterror pathogens, December 8, 2015
- Latest CDC lab incident involves worker infected with salmonella, March 31, 2016
- New website tracks oversight fixes for labs working with bioterror germs, April 9, 2016
- CDC labs repeatedly faced secret sanctions for mishandling bioterror germs, May 11, 2016
- Newly disclosed CDC biolab failures 'like a screenplay for a disaster movie', June 2, 2016

# **Why Russia's Biodefense Efforts?**

- ◆ **Hypothesis yet to be proven/disproven:**
  - ◆ Russian government actually believes that the U.S. is busy developing biological weapons at home and abroad and therefore must meet this threat.
  - ◆ Russian government is striking back at the U.S. Dept. of State findings in its annual compliance reports.
  - ◆ Russian biodefence efforts are a screen for it conducting a secret offensive R&D program.
  - ◆ Other hypothesis to be developed...



**Issues? Questions? Rejoinders?**