

# З-я МЕЖДУНАРОДНАЯ НАУЧНАЯ КОНФЕРЕНЦИЯ по военно-техническим проблемам, проблемам обороны и безопасности, использованию технологий двойного применения

23–24 мая 2007 г. г. Минск

ПРОГРАММА-ПРИГЛАШЕНИЕ

3rd INTERNATIONAL SCIENTIFIC CONFERENCE for military and technical issues, defence and security problems, application of double-purpose technologies

May 23–24, 2007 Minsk

PROGRAMME



# 3rd INTERNATIONAL SCIENTIFIC CONFERENCE for military and technical issues, defence and security problems, application of double-purpose technologies

May 23-24, 2007

Minsk, Belarus

Conference-room of the hotel "Belarus" Storozhevskaya str., 15 Minsk, Belarus

# PROGRAMME-INVITATION

ORGANIZERS

The State Military-Industrial Committee of the Republic of Belarus The Belarusian Institute of System Analysis and Information Support for Scientific and Technical Sphere

# BY THE INSTRUMENTALITY OF

The State Secretariat of Security Council Ministry of Defence Ministry of Internal Affairs Ministry of Industry Ministry of Foreign Affairs Ministry of Foreign Affairs Ministry of Trade Ministry of Education The State Security Committee The State Customs Committee The State Customs Committee The State Committee on Science and Technologies The National Academy of Sciences of the Republic of Belarus Minsk City Executive Committee

# ORGANIZING COMMITTEE

# Leader:

Valeriy E. Kratenok, Director of the Belarusian Institute of System Analysis and Information Support for Scientific and Technical Sphere

# Deputies:

Sergey K. Turbin, Acting of Deputy Chairman of the State Secretariat of Security Council;

Oleg S. Hat'ko, Deputy Governance Chief, Head of Department of the State Secretariat of Security Council

#### Members:

Andrey E. Moskalevich, Consultant of Department of the State Secretariat of Security Council;

Sergey A. Savenko, Director of the Scientific-Research Institute of the Armed Forces of the Republic of Belarus;

#### Alexander A. Pet'kov,

Head of 1034th CMR of AF and AD;

Vasily M. Buloichik, Chief of Sub-Faculty of the Military Academy of the Republic of Belarus;

Ivan M. Kosachiov, Chief of the Scientific Research Laboratory of the Military Academy of the Republic of Belarus;

Nikolai M. Slusar', Professor of Sub-Faculty of the Military Academy of the Republic of Belarus;

Igor M. Bykov, Deputy Chairman for Science of Joint Staff of Armed Forces of the Republic of Belarus;

Vitaly I. Stetsurenko, Chief of Department of the United Institute of Informatics Problems of the National Academy of Sciences of the Republic of Belarus;

Igor E. Zuikov, Chief of Sub-Faculty of the Belorussian National Technical University;

Valentin V. Murav'ev, Chief of Sub-Faculty of the Belorussian State University of Informatics and Radio Electronics;

Leonid M. Lyn'kov, Chief of Sub-Faculty of the Belorussian State University of Informatics and Radio Electronics;

Serghei M. Kostromitsky, Director of RUE "KB Radar";

Serghei G. Kotov, Deputy Chief of the Scientific-Research Institute of Fire-Fighting Security and Emergency Problems;

Alexander P. Patskevich, Associate Professor of the Academy of Ministry of Internal Affairs of the Republic of Belarus

# **CONFERENCE GOAL**

To analyze the problems of scientific and engineering research, R&D activities in the interests of new technologies and materials, equipment and devices intended for defense and security, the ways to develop and intensify high-tech productions to enhance scientific and technical potential in the Republic of Belarus, to create new conditions for tightened military engineering collaboration, integration and cooperation with the close neighboring and other foreign states in the key areas of defence industry.

# **KEY SUBJECTS**

 Military engineering aspects of defense and security, interaction and control of army-related components in national defense systems under war conflicts and non-military actions;

Development of military engineering collaboration in line with a common and comprehensive security concept;

 Scientific and technical grounds for novel defense technologies, armament and defense systems; design and implementation of advanced defense and dual-use technologies;

Reconnaissance, control and destruction means;

Means and methods of protection for army personnel and economic sites;

 Information technologies and computeraided systems for troops and weapon controls, information protection systems;

- Specific technical safety means; anti-terror equipment and techniques;

- Upgrade and repair of materiel, armament utilization;

Means and technologies for emergency situations prevention and elimination;

- Standardization, certification and metrology in defense and dual-use products.

# SCHEDULE

# May 23, 2007

#### Conference-room of the hotel "Belarus"

- 09.00 10.00 REGISTRATION OF THE PARTICIPANTS
- 10.00 10.20 OPENING OF THE CONFERENCE
- 10.20 14.00 PLENARY MEETING
- 14.00 15.00 **LUNCH BREAK**

# **SECTIONAL MEETINGS**

## May 23, 2007

#### Conference-room of the hotel "Belarus"

15.00 – 18.00 Section 1. Scientific and technical basis for new and defence technologies, armament systems and military hardware and equipment

## May 24, 2007

#### Conference-room of the hotel "Belarus"

- 09.30 13.30 Section 2. Actual problems of militarytechnical politics
- 14.30 17.00 Section 4. Automated Control Systems for troops and weapons command and control. Information protection systems

# Small hall of the hotel "Belarus"

- 09.30 13.30 Section 3. Modernization, operation and reconditioning of armament and military hardware and equipment. Problems of utilization of armament and military hardware
- 14.30 17.00 Section 5. Protection against emergency situations at peace and war time. Military education
- 13.30 14.30 Lunch break

#### Conference-room of the hotel "Belarus"

17.00 – 18.00 Summing-up, closing ceremony

# PLENARY MEETING

May 23, 2007, 10.00 - 14.00

# Conference-room of the hotel "Belarus"

#### Presiding persons:

Sergey K. Turbin, Acting of Deputy Chairman of the State Secretariat of Security Council

Valeriy E. Kratenok, Director of the Belarusian Institute of System Analysis and Information Support for Scientific and Technical Sphere

- 09.00 10.00 Registration of the participants
- 10.00 10.10 Opening of the conference

**S. Turbin**, Acting of Deputy Chairman of the State Secretariat of Security Council

10.10 – 10.30 Modern World Tendencies of Development of Armament and Military Technique

S. Turbin, Acting of Deputy Chairman of the State Secretariat of Security Council

10.30 – 10.50 The Methodological Approach to Assessment of Military and Economical Security of the State: Maxims, Principles, Criteria and Their Threshold Importance

> V. Dernovoi, Chief of Main Department of Ministry of Economy of the Republic of Belarus

10.50 – 11.10 The Development of Military and Technical Collaboration of CIS for Guaranteeing of Security

N. Shvets, Assistant General Director of FSUE "Rosoboronexport"

11.10 – 11.30 Condition and Perspectives of Development of Dual-Application Technologies in NAS of Belarus

P. Vit'az', First Deputy of President of Presidium of NAS of Belarus

11.30 – 11.50 Current Situation And Development of the Dual-Application Measurement Equipment

S. Zdorovtsev, Joint Stock Company "MNIPI"

11.50 – 12.10 Perspectives of Development of Microelectronics Within the Bounds of the Programme of the Union State "Functional Microwave Frequency Electronics"

A. Grinchuk, Director of Minsk Research Institute of Radiomaterials

- 12.10 12.30 Coffee Break
- 12.30 12.50 Problems of Economic and Information Safety of Military-Technical Cooperation of the Russian Federation with the Foreign States

V. Kruk, FSUE "Rosoboronexport"

12.50 – 13.10 Perspectives of Development of unmanned aircrafts

Yu. Chahovskyi, General Director of Minsk Aircraft Repair and Overhaul Plant

13.10 – 13.30 Creation of the System of Navigation Ensuring of the Republic of Belarus

A. Demyaninko, Director of UE "SKB Kamerton" 13.30 – 14.00 Reply answers and discussion of the results of plenary meetings

14.00 - 15.00 Lunch break

# TIME-LIMIT OF MEETINGS IN SECTIONS

May 23, 2007, 15.00 - 18.00

Conference-room of the hotel "Belarus"

SECTION 1. SCIENTIFIC AND TECHNICAL BASIS FOR NEW AND DEFENCE TECHNOLOGIES, ARMAMENT SYSTEMS AND MILITARY HARDWARE AND EQUIPMENT

Leader of the section — Deputy Chairman for Science of Joint Staff of Armed Forces of the Republic of Belarus **I. Bykov** 

15.00 – 15.15 "Vostok" VHF Band Mobile Solid State Surveillance Radar

> S.M. Kostromitsky, I.S. Sadovsky, P.N. Shumsky, Research-and-production republican unitary enterprise "DB Radar"

15.15 – 15.30 Millimeter-Wave Multibeam Surveillance Radar

N.M. Naumovich, V.V. Muraviev, S.A. Korenevskij, O.L. Karpovich, P.V. Smirnov, Belarusian State University of Informatics and Radio Electronics

15.30 – 15.45 Shungite-Containing Flexible Knitted Fabric Based Radar Absorbing Material

> E. Krishtopova, T. Borbotko, Belarusian State University of Informatics and radioelectronics

15.45 – 15.55 Electroless Technology for Synthesis of Composite Metallic Radioabsorbing Nanomaterials

> L. Nikiforenko, V. Bogush, L. Lynkov, Belarusian State University of Informatics and Radio Electronics

## 15.55 – 16.05 Powder Water-Containing Materials for Integrated Protection Panels

S. Petrov, L. Lynkov, Sui Cidzun, Belarusian State University of Informatics and Radio Electronics

16.05 – 16.15	Radar Absorbing Composites for Reduc- ing Weaponsand Arms Radar Detection
	V. Sokolov, Belarusian State University of Informatics and Radio Electronics
16.15 – 16.30	Coffee break
16.30 – 16.45	The Mockup of Zenithal Rocket System S-300P
	A. Talanov, Scientific Production Association "Rusbal"
16.45 – 17.00	Millimeter-Wave Wideband Omnidirectional Antenna
	N.M. Naumovich, O.A. Yurtsev, I.V. Veretennikov, A.V. Bartsevich, S.A. Chekan, Belarusian State University of Informatics and Radio Electronics
17.00 – 17.10	Millimeter-Wave Monopulse Antenna
	N.M. Naumovich, O.A. Yurtsev, T.V. Shukevich, E.A. Picta, P.V. Smirnov, Belarusian State University of Informatics and Radio Electronics
17.10 – 17.20	Spatial Simulation Mathematical Model of Circle of Radio Guided Missile of Small-Range Air Defense Complex
	D. Morozov, O. Lapuka, Military Academy of the Republic of Belarus
17.20 – 17.30	Cherenkov's Oscillators of Ultra-High Power for System of ARD and AAD of New Generation
	M.P. Batura, A.A. Kuraev, I.V. Lushchitskaja, A.K. Sinitsyn, Belarusian State University of Informatics and Radio Electronics
17.30 – 18.00	Reply questions and discussing of the results of the section

May 24, 2007, 9.00 - 13.30

Conference-room of the hotel "Belarus"

# SECTION 2. ACTUAL PROBLEMS OF MILITARY-TECHNICAL POLITICS

Leader of the section — Acting of Deputy Chairman of the State Secretariat of Security Council **S. Turbin** 

09.00 - 10.00	Registration of the participants
10.00 – 10.30	Application of System Analysis for Assessment of Military Command Unit Realizing Computer Forms of Efficient Training
	F. Kolomoets, State Republic of Belarus Armed Forces Research Institute
10.30 – 10.50	Assessment of Effectiveness of Forming of Intergovernmental Strategic Alliances in Indeterminacy
	G. Kolesnik, G. Shugaev, FSUE "Rosoboronexport"
10.50 – 11.10	Diversity of Scientific-Technical and Innovation Activity As Basis of Effective Strategical Menegment of Holding Company
	D. Manturov, N. Turko, FSUE "Rosoboronexport"
11.10 – 11.30	Organizational Approaches to Protection of Economic Interests of Subjects of Economic Activities During the Carry- ing Out of International Exhibitions
	S. Pogromskiy, FSUE "Rosoboronexport"
11.30 – 11.45	Coffee break
11.45 – 12.05	Formation of the System of Measures on Struggle against Unfair Competition
	S. Pogromskiy, V. Kruk, FSUE "Rosoboronexport"

12.05 – 12.25	Marketing Planning by Realization of Military and Technical Collaboration With Foreign States
	S. Svechnikov, A. Kr'ukov, FSUE "Rosoboronexport"
12.25 – 12.55	Synergetic Resource in Context of Optimization of Strategy for Advancement of Military Production to World Market
	D. Shugaev, S. Chemezov, FSUE "Rosoboronexport"
12.55 – 13.15	Perspective Ways of Development of Aircraft's Self-Protection Means Against Radio-Frequency Guided Weapons
	I. Kozubov, O. Lapuka, Military Academy of the Republic of Belarus
13.15 – 13.30	Reply questions and discussing of the results of the section
13.30 – 14.30	Lunch break

May 24, 2007, 9.00 - 13.30

Small hall of the hotel "Belarus"

# SECTION 3. MODERNIZATION, OPERATION AND RECONDITIONING OF ARMAMENT AND MILITARY HARDWARE AND EQUIPMENT. PROBLEMS OF UTILIZATION OF ARMAMENT AND MILITARY HARDWARE

Leader of the section — Director of the Scientific-Research Institute of the Armed Forces of the Republic of Belarus **S. Savenko** 

10.00 – 10.15	Electromagnetic Defence of Personnel and Radar Camouflage of Military Objects Using Polymer Radioabsorbing Materials
	V.A. Bannyi, V.A. Belyi, Metal-Polymer Research Institute of National Academy of Sciences of Belarus
10.15 – 10.30	Not Destroying Control of Various Designs Over Ground Penetrating Radars
	A. Grunkevich, S. Savenko, N. Vasilin, A. Gurinovich, State Republic of Belarus Armed Forces Research Institute
10.30 – 10.45	Quality Management for Restructing of the Multisectoral Enterprise
	V. Koreshkov, N. Kusakin, M. Heifets, T. Alekseeva, State Standard of the Republic of Belarus, Polotsk State University
10.45 – 11.00	Perspective Directions and Offers for Improvement of the System of Long- Term Storage of Military Engineering
	N. Liseichikov, V. Piskun, State Republic of Belarus Armed Forces Research Institute
11.00 – 11.15	Designing of Scientific and Technical Decisions for Update of Technical Levels of Four-Wheel Drive Vehicles
	G. Man'shin, C. Drobyshevskiy, A. Markovskiy, A. Smol'skiy, V. Tihomirov, The United Institute of Mechanical Engineering of NAS of Belarus

11.15 – 11.30	Range of Minsk Wheel Tractor Plant Military Products
	Y. Nikolaev, Minsk Wheel Tractor Plant
11.30 – 11.45	Coffee break
11.45 – 12.00	Particularities of the Life Cycle of the Electronic Equipment of Military Technics
	U. Semak, State Republic of Belarus Armed Forces Research Institute
12.00 – 12.15	The Creation of the Perspective Optical Electronic Equipment of Remote Probing of Earth
	D. Sikorskyi, Public Corporation "Peleng"
12.15 – 12.30	Certain Problem Questions Using of Digital Transmission System By Armed Forces Cable Telecommuni- cations
	L. Utin, State Republic of Belarus Armed Forces Research Institute
12.30 – 12.45	The Perspective Directions of Moderni- zation of the Mobile Radio Altimeters
	G. Hal'kov, The Research Institute of Computer Machinery
12.45 – 12.55	Experience of Complex Repairs of the Surface of Brass Details By Laser Building-Up, Multiple Copper Coating with Next Following Chromium-Plating
	S. Yurkevich, T. Polyakova, N. Kabataev, N. Kuhta, A. Tomashevich, 558th Aircraft Repair Plant
12.55 – 13.05	Renewal of Aviation Engineering Details Copper Alloy with Dotted and Local Malfunction by Laser Building-Up
	S. Yurkevich, A. Tomashevich, A. Yurkevich, 558th Aircraft Repair Plant
13.05 – 13.15	Modernization of Engines of Military Destination
	N. Yankevich, D. Yastremsky, A. Stakhievich, Joint Institute of Mechanical Engineering of the National Academy of Sciences
13.15 – 13.30	Reply questions and discussing of the results of the section
13.30 - 14.30	Lunch break

## May 24, 2007, 14.30 - 17.00

#### Conference-room of the hotel "Belarus"

# SECTION 4. AUTOMATED CONTROL SYSTEMS FOR TROOPS AND WEAPONS COMMAND AND CONTROL. INFORMATION PROTECTION SYSTEMS

Leader of the section — Chief of Sub-Faculty of the Military Academy of the Republic of Belarus **V. Buloichik** 

14.30 – 14.40 The Methodological Foundation of the Creation of the Allocated Automated Control Systems and Bonds in Defend Implementation Yu. Borodakyi, A. Dobrodeev, S. Korotkov,

I. Bedarev,

Concern "Systemprom"

14.40 – 14.50 Metodological Fundamentals of Construction High-Precision Weapons Counteraction Integrated System

> V.V. Bondarenko, A.N. Semashko, State Republic of Belarus Armed Forces Research Institute

14.50 – 15.00 The Mathematical and Software Routine for the Centre of Situational Military Modelling

V. Buloichik, A. Gertsev, A. Buloichik, Military Academy of the Republic of Belarus

15.00 – 15.10 The Structure of Perspective Model of Communications

> V. Berikbaev, S. Prokopov, Military Academy of the Republic of Belarus

15.10 – 15.20 The Designing of Imitating Model of Sub-Unit of Electronic Warfare

V. Berikbaev, I. Komarov, Military Academy of the Republic of Belarus

15.20 – 15.30 Elements of Supporting of Decision Making in Military Geoinformation Systems

> V. Buloichik, D. Skripko, Military Academy of the Republic of Belarus

15.30 – 15.40	Simulation of Neural Nets Simplicity Measure and Generalization Capability S. Vatlin, SO "BellSA"
15.40 – 15.50	Estimation of Information Safety the Automated Control Systems A. Bakurenko,
15.50 – 16.00	Military Academy of the Republic of Belarus Computer Simulators of Communications Facilities
	V. Piskun, S. Kasanin, State Republic of Belarus Armed Forces Research Institute
16.00 – 16.15	Coffee break
16.15 – 16.30	The Information Subsystem Develop- ment of the Automated and Controlled Systems of the Air Defense Forces
	S.V. Potetenko, Military Academy of the Republic of Belarus
16.30 – 16.40	The Methods of Performance Evaluation of Functioning of State Military Organization System
	B. Verveyko, S. Gul'bis, State Republic of Belarus Armed Forces Research Institute
16.40 – 16.50	Problems and Perspectives of Develop- ment of Modelling Systems
	V. Gertsev, V. Buloichik, A. Gertsev, PC "Belfortex"
16.50 – 17.00	Hardware-Software Complex of Reception and the Analysis of the Spectral-Polarizing Images, Based on Processing Videogiven by Neural Networks and Fuzzy Methods of Automatic Classification
	A.V. Hizhnyak, A.V. Shevyakov, V.V. Moiseev, I.L. Syomchenko, Military Academy of the Republic of Belarus
17.00 – 17.15	Reply questions and discussing of the results of the section

May 24, 2007, 14.30 - 17.00

## Small hall of the hotel "Belarus"

# SECTION 5. PROTECTION AGAINST EMERGENCY SITUATIONS AT PEACE AND WAR TIME. MILITARY EDUCATION

Leader of the section — Deputy Chief of the Scientific-Research Institute of Fire-Fighting Security and Emergency Problems **S. Kotov** 

- 14.30 14.45 Training of Scientific Personnel of Fine Qualifications in the Republic of Belarus for Military and Policing Branch of Government I. Voytov, The State Committee on Science and Technologies Republic of Belarus
- 14.45 15.00 Mobile Multiwave Complexes for Ecology and Security
  - A.S. Boreysho, K.A. Konyaev, A.V. Morozov, A.V. Pikulik, A.V. Savin, A.B. Trilis, K.A. Konovalov, A.V. Belov, Laser Systems Ltd.
- 15.00 15.15 Laser Systems of Atmospheric Pollution Control in Regions of Chemically Dangerous Objects Allocation

T.G. Gabrichidze, V.V. Batyrev, I.M. Yannikov, Laser Systems Ltd.

15.15 – 15.30 The Dirt Wind Transfer Modeling By Emergency Situations V. Katkov.

The United Institute of the Informatics Problems of NAS of the Republic of Belarus

- 15.30 15.45 The Lighting in Emergency Situations A. Kirilenko, Minsk State Higher Aviation College
- 15.45 16.00 Perfection of Medical Supply Medical Army Formations

I. Burak, N. Roshchin, V. Rednenko, Vitebsk State Medical University

16.00 - 16.15 Coffee break

16.15 – 16.30	Software and Hardware Complex of Registration of Medical Information in Military Medical Formations
	V. Taller, V. Rednenko, V. Kviatkouski, A. Filanovich, Vitebsk State Medical University
16.30 – 16.40	The Estimation of the Functional Condi- tion of the Future Pilots on the Basis of Tool and Biochemical Monitoring in Conditions of Altitude Anoxia
	V. Rednenko, A. Nicolaeva, A. Oladko, E. Poplavets, Vitebsk State Medical University
16.40 - 16.50	The Ways of Improvement of Military Education Control System
	Yu. Fomichev, I. Zinevich, Military Academy of the Republic of Belarus
16.50 – 17.00	The Ways of Improvement of Advanced Studies of Military Medical Cadres at the Present Stage
	S. Shnitko, The Belarusian State Medical University
17.00 – 17.15	Reply questions and discussing of the results of the section

May 24, 2007, 17.00 - 18.00

# Conference-room of the hotel "Belarus"

# SUMMING-UP, CLOSING CEREMONY

Проезд: автобусами № 1, 63, 69, 73, 91 — до остановки «Гостиница Юбилейная»; метро — до станции «Немига».



Место проведения: конференц-зал гостиничного комплекса «Беларусь» (ул. Сторожевская, 15, г. Минск) Отель «Беларусь» расположен в историческом центре г. Минска, на берегу реки Свислочь.



Справки по тел.: +375 (17) 203-14-87, 203-69-88, 203-34-87 e-mail: isa@belisa.org.by