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Georgy Nikolaevich Rykovanov (on his 60th birthday)

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February 9, 2014 is the sixtieth birthday of the Full Member of the Russian Academy of Sciences (RAS), Georgy Nikolaevich Rykovanov.

Rykovanov was born in Vologda and, having finished an eight-year secondary school, entered a physico-mathematical school of Leningrad State University. Studies at this school were a good starting point for his further higher education.

In 1971, G N Rykovanov entered Moscow Engineering Physics Institute (MEPhI), from which he successfully graduated in 1977 as an engineer-physicist specializing in nuclear physics, and was assigned to work at the All-Union Scientific Research Institute of the Instrument-Making Industry (now the Russian Federal Nuclear Center — Zababakhin All-Russian Research Institute of Technical Physics (RFNC–VNIITF) in Snezhinsk, Chelyabinsk region.

When he began working at RFNC–VNIITF (April of 1977), G N Rykovanov joined in the computational investigation aimed at creating new nuclear charges. In the scientific theoretical division of VNIITF, from 1977 to 1997 he successively took up the posts of engineer; junior, senior, and leading researcher; head of sector; head of division, and associate of the research supervisor. From 1998 to 2007, Georgy Nikolaevich Rykovanov was Director of RFNC–VNIITF, and from 2007 to 2012 he was Director and Research Supervisor of the Institute.

Since 2012, G N Rykovanov has been Research Supervisor of RFNC–VNIITF.

G N Rykovanov participated in the creation of several types of modern nuclear ammunition, mastering the complete cycle of its elaboration, from the very idea and the choice of the physical scheme to the manufacture of test samples, full-size testing, and the beginning of series production. Charges created with his direct participation are not inferior to the best foreign analogs and are currently on service in the Russian Army and Fleet.

Among G N Rykovanov's scientific interests are the theoretical, computational and experimental studies of hydrodynamic phenomena, turbulence, detonation, thermonuclear fusion, and the extreme states of matter. He is the author of the empirical detonation kinetics model for low-sensitivity explosives, and the author and co-author of numerous scientific publications.

At the present time, he leads RFNC–VNIITF scientific research in modeling the radiation and thermodynamic characteristics of dense plasma, the interaction between high-power laser radiation and matter, the employment of ultrashort pulse laser devices for exploration in the field of high energy density physics, and the creation and application of semiconductor, solid-state, and fiber-optic lasers.

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Translated by M V Tsaplina

Georgy Nikolaevich Rykovanov

Special emphasis should be laid on the creation, on his initiative, of a materials science facility equipped with modern diagnostic equipment and intended for studying the properties of nuclear materials. This facility can ensure fulfillment of important defense and civilian research.

Under the guidance of G N Rykovanov, theoretical, computational and experimental studies were started in the interests of the atomic energy industry in Russia.

G N Rykovanov established cooperation among a number of institutes of the Ural and Siberian Branches of RAS related to defense and civilian areas.

G N Rykovanov places great emphasis on training highly qualified specialists. He heads the Chair of Physics of High-Energy Processes at the Ural Federal University named after the first President of the Russian Federation, Boris Yeltsin, and supports the work of one chair at the National Research Nuclear University 'MEPhI'.

In 1985, G N Rykovanov defended his thesis for Candidate of Physicomathematical Sciences, and in 1998 his thesis for Doctorate of Physicomathematical Sciences; in 2003, he was elected a Corresponding Member of the Russian Academy of Sciences, the Division of Energy Production, Machinery Construction, Mechanics, and Con-

trol Processes. In 2011, G N Rykovanov was elected a Full Member of RAS.

For his creative scientific contribution to the elaboration of up-to-date standards of nuclear ammunition, G N Rykovanov was conferred the rank of laureate of the RF State Prize in Science and Engineering in 2002, and in Science and Technology in 2010.

G N Rykovanov has earned the following State awards: the Badge of Honor, and the fourth degree order 'For Services for the Motherland'.

We wish Georgy Nikolaevich Rykovanov new creative achievements, success in scientific supervision of current research, health, happiness, and prosperity.

E N Avrorin, V V Alekseev, V G Degtyar,
R I Ilkaev, G N Kulipanov, N N Ponomarev-Stepnoi,
V E Fortov, V N Charushin