Substantiation of Priorities for the Creation of Defense Scientific Reserve

V.Yu. Korchak[1], Innovative Technology Center of the Scientific Policy Complex of N.E. Bauman Moscow State Technical University, Prof. Dr., Full Member of Russian Academy of Rocket and Artillery Sciences (RARAS), korchak.v@mail.ru
R.V. Reulov[2], FSBI 46 Central Research Institute (FSBI 46 CRI) of the RF Defense Ministry, Assoc. Prof. Dr.
S.V. Stukalin[3], FSBI 46 CRI of the RF Defense Ministry, Assoc. Prof. Dr.
A.Yu. Pronin[4], FSBI 46 CRI of the RF Defense Ministry, Assoc. Prof. Dr.

[1] Lead Analyst, Moscow, Russia
[2] Head of Center, Moscow, Russia
[3] Head of Department, Moscow, Russia
[4] Deputy Head of Department, Moscow, Russia

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The analysis of the main documents defining the priorities of scientific and technological development in the Russian Federation is carried out and their interrelation is shown. The organizational and methodological aspects of forming a list of priority areas of fundamental, predictive and exploratory research in the interests of national defense and state security are considered. This list is a normative document containing the key areas of scientific research in the state armament program. In order to respond effectively to the challenges of potential opponents, it is necessary to promptly use breakthrough scientific ideas, which, as a rule, are born as a result of fundamental and exploratory scientific research. In this regard, the correct choice of priorities in conducting defense FPER seems to us to be the most important task. The organizational and methodological approach developed by us allows us to select from the entire initial set of proposals those studies whose implementation will ensure the promising development.

References

1. Korchak V.Yu. Sozdanie oboronnogo nauchnogo zadela: sistema planirovaniya i organizatsii issledovaniy [Defense scientific reserve creating: system for planning and organizing research], *Kompetentnost' / Competency (Russia)*, 2021, no. 2, pp. 3–11.
2. Korchak V.Yu., Reulov R.V., Stukalin S.V. Monitoring i otsenka nauchnykh i tekhnologicheskikh dostizheniy [Monitoring and evaluation of scientific and technological achievements], *Kompetentnost' / Competency (Russia)*, 2021, no. 5, pp. 6–15.
3. Borisenkov I.L., Korchak V.Yu., Pomazan Yu.V., Tuzhikov E.Z. Rol' fundamental'nykh, prognoznykh i poiskovykh issledovaniy v reshenii zadach oborony strany i bezopasnosti gosurarstva [The role of fundamental, predictive and exploratory research in solving the tasks of national defense and state security], *Bulletin of the Academy of Military Science*s, 2016, no. 4(57), pp 18–26.
4. Korchak V.Yu., Makosko A.A. Rol' fundamental'noy nauki v obespechenii oborony i bezopasnosti Rossiyskoy Federatsii [The Role of fundamental science in ensuring the Russian Federation defense and security], *Kompetentnost' / Competency (Russia)*, 2019, no. 9–10, pp. 56–63.
5. RF President Decree of 7.07.2011 N 899 On approval of priority directions for the development of science, technology and technology in the Russian Federation and the list of critical technologies of the Russian Federation (with amend. and add.); https://base.garant.ru/55171684/.
6. Explanatory Note to the Draft RF President Decree of 07.07.2011 N 899 On approval of priority directions for the development of science, technology and technology in the Russian Federation and the list of critical technologies of the Russian Federation; http://science.stu.ru/userfiles/files/.
7. RF President Decree of 16.12.2015 N 623 On the National center for the development of technologies and basic elements of robotics; http://publication.pravo.gov.ru/Document/View /0001201512160011?index=2&rangeSize=1.
8. Burenok V.M., Ivlev A.A., Korchak V.Yu. Razvitie voennykh tekhnologiy XXI veka: problemy, planirovanie, realizatsiya [Development of military technologies of the XXI century: problems, planning, implementation], Tver', *DOME*, 2009, 624 P.
9. War and peace in terms and definitions. Military-technical dictionary. Book two. Normative-legal basis and official military-technical and military-economic terminology / general ed. of D.O. Rogozin, Moscow, *Veche; Weapons and Technologies*, 2017, 272 P.
10. RF Government Order of 16.05.2016 N 425-8 On approval of the Russian Federation state program Development of the military-industrial complex (with amend. and add.); https://base.garant.ru/71405638/.
11. Razumovskiy V.A. O soderzhanii kriticheskikh promyshlennykh tekhnologiy [On content of critical industrial technologies], *Defense Complex — Scientific and Technical Progress of Russia*, 2017, no. 1(133), pp. 62–70.
12. Razumovskiy V.A. Kriticheskie promyshlennye tekhnologii: mekhanizm otbora [Critical industrial technologies: selection mechanism], *Scientific Bulletin of the Military-Industrial Complex of Russia*, 2017, no. 3, pp. 81–92.
13. Plokhikh Yu.V., Khrapova E.V., Kulik N.A., Chizhik V.P., Kharina L.I. Promyshlennye tekhnologii i innovatsii [Industrial technologies and innovation], Omsk, *OmSTU*, 2017, 140 P.
14. Korchak V.Yu., Kravchenko A.Yu., Smirnov S.S., Reulov R.V. Programmno-tselevoe planirovanie razvitiya bazovykh voennykh tekhnologiy na sovremennom etape [Program-targeted planning of the development of basic military technologies at the present stage], *Armament and Economics*, 2017, no. 4(41).
15. Borisenkov I.L., Korchak V.Yu., Kotelyuk L.A., Pomazan Yu.V., Tuzhikov E.Z. Oboronnyy nauchnyy zadel: etapy razvitiya, problemy planirovaniya i organizatsii issledovaniy [Defense scientific reserve: stages of development, problems of planning and organization of research], general ed. by V.Yu. Korchak, Tver', *Centerprogramsystem*, 2019.
16. Security of Russia. Legal, socio-economic, scientific and technical aspects. Safety of complex human-machine systems, general ed. by V.A. Barishpol'ts, Moscow, *Knowledge*, 2021, 432 P.
17. Burenok V.M. Evolyutsiya i perspektivy programmno-tselevogo planirovaniya razvitiya sistemy vooruzheniy Rossiyskoy Federatsii [Evolution and prospects of program-targeted planning of the Russian Federation armament system development], *Armament and Economics*, 2012, no. 4(20), pp. 6–19.
18. Reulov R.V., Stukalin S.V., Pronin A.Yu. Organizatsionno-metodicheskiy podkhod k formirovaniyu Perechnya prioritetnykh napravleniy fundamental'nykh, prognoznykh i poiskovykh issledovaniy v interesakh obespecheniya oborony strany i bezopasnosti gosudarstva na period do 2033 goda [Organizational and methodological approach to the formation of a List of priority areas of fundamental, predictive and exploratory research in the interests of national defense and state security for the period up to 2033], *Armament and Economics*, 2021, no. 3(57), pp. 26–34.
19. Orlov A.I. Organizatsionno-ekonomicheskoe modelirovanie [Organizational and economic modeling], Part 2. Expert evaluations, Moscow, *N.E. Bauman MSTU*, 2011, 486 P.
20. Semenov S.S., Voronov E.M. i dr. Metody prinyatiya resheniy v zadachakh otsenki kachestva i tekhnicheskogo urovnya slozhnykh tekhnicheskikh sistem [Methods of decision-making in the tasks of assessing the quality and technical level of complex technical systems], ed. by dr. prof. E.Ya. Rubinovich, Moscow, *LENAND*, 2016, 520 P.
21. Knyazev A.V., Tikhomirova A.N. i dr. Gruppovaya ekspertiza innovatsionnykh proektov s ispol'zovaniem bayesovskogo podkhoda [Group examination of innovative projects using the Bayesian approach], *Economics and Mathematical Methods*, 2013, vol. 49, no. 2. pp. 124–139.
22. Zatsepin V. Osobennosti novoy gosudarstvennoy programmy razvitiya oboronno-promyshlennogo kompleksa [Features of the new state program for the development of the military-industrial complex], *Economic Development of Russia*, 2016, vol. 23, no. 8, pp. 75–78.
23. The program of fundamental scientific research in the Russian Federation for the long-term period (2021–2030); http://static.government.ru/media/files/skzO0DEvyFOIBtXobzPA3zTyC71cRAOi.pdf.