

## SCIENTIFIC-TECHNICAL REVIEW - YESTERDAY, TODAY, TOMORROW -

**Danilo Ćuk, Marinko Ugrčić**

*The periodical of the Military Technical Institute in Belgrade, Scientific Technical Review (STR), has a tradition half a century long. It was founded in order to inform engineering and scientific personnel of the Military Technical Institute and military industry firms about the latest achievements in the fields of technical science of interest for research, development and production of weaponry and military equipment. Today, it has grown into a leading national periodical, publishing original scientific papers with the results of firsthand-applied research work related to the field. Therefore, it contributes to the promotion of the research personnel. The aim of the Editorial Board is to enlarge the editorial staff by eminent specialists from other countries in the near future, and to invite interested world experts occupied with the military technology to contribute to the development of the Scientific-Technical Review into a periodical of international interest.*

### HISTORY

The Review was first published under the title Scientific News Review of Military Literature<sup>1</sup> at the end of 1950, covering information about the most interesting achievements in the field of military technical science. From 1959 to 1962, it was published under the changed title Military Accomplishments Review<sup>2</sup>, bringing translations of selected articles from foreign military periodicals of direct interest for researchers during the development and mastering of weaponry and military equipment. Leafing through the periodicals from the period 1950-1962, and analyzing over 500 news from the foreign periodicals, a great number of scientific disciplines covered by STR can be noticed: scientific researches concerning military problems, weapons of artillery and infantry, tanks and armoured vehicles, aeronautical technology, engineering, naval technology, telecommunications and radar technology, missile weaponry, chemical materials and equipment, nuclear weapons, logistic support, medical corps, transportation, logistics, metallurgy, etc.

In 1963, the title was changed again into Scientific Technical Informative Review<sup>3</sup> and the review has been published under the present title Scientific Technical Review since 1965. The changes of title reflected the changes in the character and profile of the periodical.

The first original scientific and professional papers were published in No.9 from 1963, covering researches regarding the effect of the seismic events on buildings, exterior ballistics and characteristics of material used in infrared technique. Until the end of 1963

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<sup>1</sup> Pregled naučnih novosti iz vojne literature

<sup>2</sup> Pregled vojnih dostignuća

<sup>3</sup> Naučno-tehnički informativni pregled

(in numbers 10, 11 and 12), interesting papers concerning the testing of material by ultrasonoscope and x-ray methods, the design of inductor for field telephones and solving the problem of flutter in aircrafts were published. In the next two years (1964 and 1965), the number of scientific disciplines increased. The original scientific and professional papers concerning these disciplines have also been published ever since. In that way, the Review gained its present profile of primary scientific publication.

At the time, the Review overgrew the importance of a scientific review of an institution with respect to the quality of published papers, the number of authors and referees from all scientific research institutes in the country, and took the leading position in acquainting engineering and scientific personnel with the results of researches in the military science.

In technical and aesthetic respect, the Review took appearance of a modern scientific publication.

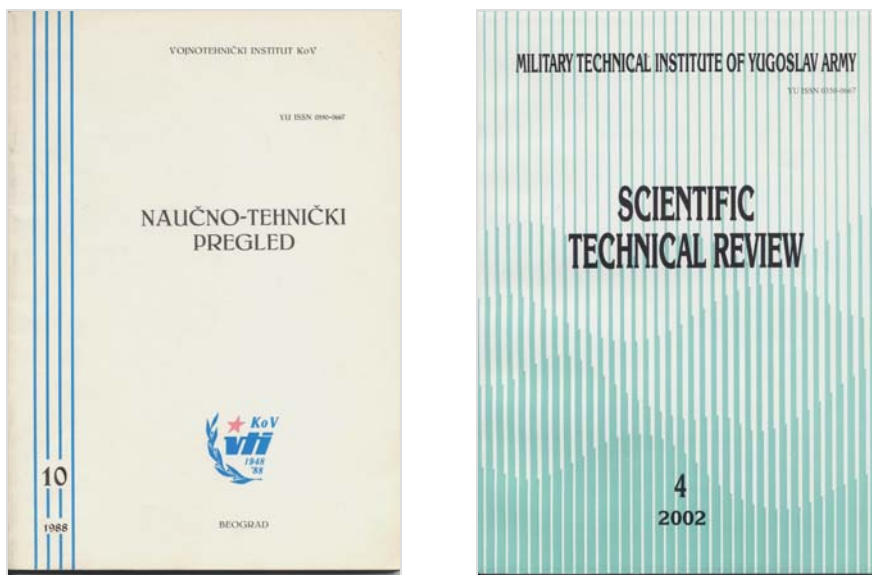


Fig. 1. Former and present appearance of the STR front-page

From year to year, the quality of the Review has increased and acquired a good reputation in the society. Precious contribution of many generations of researchers, who participated in the development of new weaponry and military equipment and in that way gave a contribution to the defense capability of the country, is preserved on over 22500 pages of the STR. Over 3500 experts from the military scientific institutes, mostly with the highest academic degrees, have published nearly 3000 articles with scientific or professional contribution in the field of technical sciences.

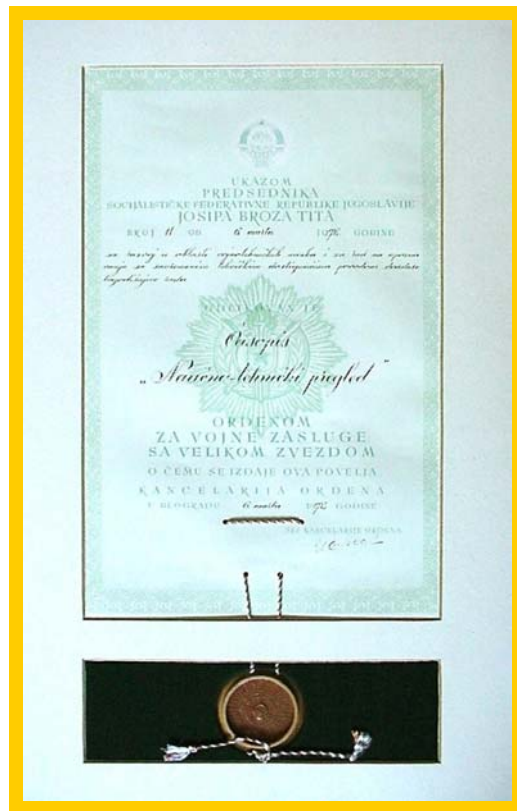


Fig. 2. Large Medallion of the Yugoslav Army awarded to the STR

Under the most difficult economic conditions provoked by the long-lasting sanctions to the country, under the conditions that were limiting the possibility of scientific research and development, the Scientific Technical Review managed to preserve and expand its activity. Besides the regular editorial activities, five thematic issues dedicated to the radar, missile and aircraft technology, the field of speech analysis, coding and recognition, and the most interesting achievements concerning explosive materials were published from 1991 to 1997.

#### RECOGNITIONS

On the 20<sup>th</sup> anniversary, in 1970, the Scientific Technical Review was awarded the Medal for Military Merits with the Big Star for the development in the field of technical sciences and work on informing about new technical achievements. Five years later, the Review was awarded the Large Medallion of the Yugoslav Army for the contribution to the promotion of scientific research.

Besides, the Editorial Board of STR has received letters of thanks for the successfully realized cooperation from a great number of editorial boards of national and foreign periodicals.

## CURRENT SITUATION

Today, the Scientific Technical Review as a primary scientific review in the field of technical sciences covers a large number of scientific and professional disciplines of interest for the research and development of the weaponry and military equipment. It traditionally represents the following scientific disciplines: aerodynamics, ballistics (interior, exterior and terminal ballistics), rocket propulsion, mechanics of flight, physics of explosion, aircraft guidance and control, automatic control, mechanics of ballistic systems, combat vehicles (armoured hulls, drive and transmission),

Then, there are optics and optoelectronics, laser technique, microwave and radar technique, military telecommunications, sensors, explosive materials (explosives, powders, rocket propellants, pyrotechnic mixtures), electric power utilities, specific metals and other materials, corrosion and material protection, chemical and nuclear protection, toxicology and radiobiology, engineering and protection construction, camouflage technique, flying vehicle propulsion units, ship resistance, propulsion and strength, computer technology and science, specific problems concerning basic sciences and general technology.

The Review is issued four times a year with the current circulation of 300 copies. The electronic publication of the Review representing digitalized classical issue of the Scientific Technical Review has been published since 2000. The STR Data Base containing the abstracts of all published articles with their authors' names was created at the same time.

The Review has been published in English since 2002. Reports of at least two eminent referees chosen by the Editorial Board, respecting the policy of secrecy, became the standard procedure. The Editorial Board has also resumed the former idea to establish the Award of Scientific Technical Review for the papers of the highest quality in a previous year.

At this point, it is very important to emphasize that the Military Technical Institute regularly publishes two well-known publications: Scientific Technical Information and Weapons Data besides the Scientific Technical Review. These publications of the cumulative character treat information about current fields of research and development of military technology home and abroad, as well as the relevant data about the weaponry and military equipment, systematized according to the class, type and model.

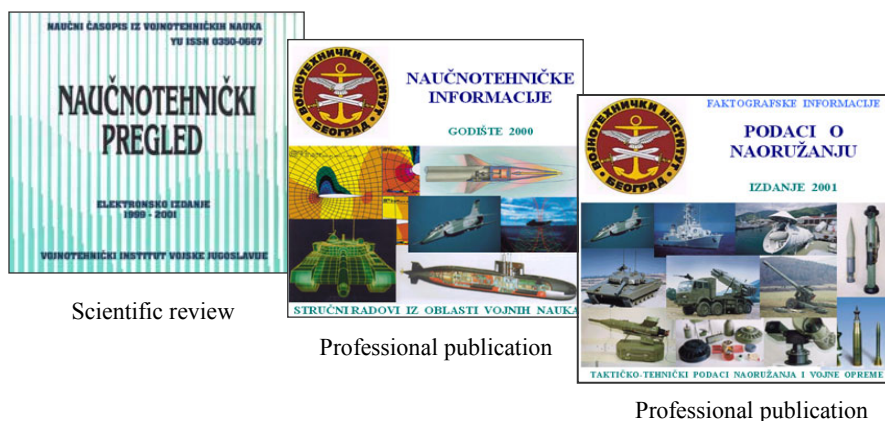


Fig. 3. Electronic issues of the scientific-technical publications

All scientific-technical publications of the Military Technical Institute are published in printed and electronic form readable in both HTML and PDF format.

#### PLANS

The Review has more than 100 subscribers from the country and abroad. Readers and users of the Scientific-Technical Review are members of the Army of Serbia and Montenegro, scientific institutes, technical faculties, military industry, civil firms and other institutions. Although scientific research in many fields has been conducted under very difficult conditions in the recent years, persistence and desire of a significant number of researchers to publish the results of their researches is amazing. In the future, the Scientific Technical Review will keep on trying to present them on time and promote them in scientific circles.

The existing practice of presenting the Scientific Technical Review at the Book Fair in Belgrade has aroused a great interest in the Review even outside the restricted circles. It will be continued for the purpose of its popularization and presentation to large domestic and foreign public.



Fig. 4. Interest in the Scientific Technical Review. Official visit of military attaché delegations to the exhibiting stand of the Army of Serbia and Montenegro during the Book Fair in Belgrade

Now, the Review is cooperating with several world's reference and library editions<sup>4</sup> where it is referred to according to scientific categories, i.e. scientific fields. It works on expanding the list of cooperative periodicals of the world.

<sup>4</sup> Titles of reference and library editions the STR cooperates with: Chemical Abstracts Service, **Columbus, USA**; The British Library, **Wetherby, United Kingdom**; Harkievska Deržavna Naukova Bibl., **Ukraine**;

Making efforts to preserve the acquired reputation of the Review and striving for its further promotion and intention to develop it into a periodical of international interest, the Editorial Board of the Scientific Technical Review has determined the following tasks as the imperative of the upcoming work:

- publishing large number of the original scientific papers,
- publishing large number of papers of applied research work that contributes to the development and organization of new technologies in the fields of weaponry and military equipment
- expanding the editorial staff by eminent specialists from other countries and introducing foreign referees and
- expanding the cooperation with leading national and foreign periodicals.

At the end, the Editorial Board of the Scientific Technical Review expresses its deep gratitude to the editor-in-chief of the periodical FACTA UNIVERSITATIS, professor Katica (Stevanović) Hedrih Ph.D., who made it possible for the Editorial Board to present the STR on several previous pages of this issue. The Editorial Board of the Scientific Technical Review invites all interested readers of the periodical FACTA UNIVERSITATIS, who can recognize and present their scientific and professional work under the profile of the Scientific Technical Review, to prepare and send their articles to our editorial staff and contribute personally to the accomplishment of the objectives of the Scientific Technical Review.

Editorial Board address:  
MILITARY TECHNICAL INSTITUTE  
  
STR (NTP) EDITORIAL  
Katanićeva 15, 11000 Belgrade  
Serbia and Montenegro

Contact:  
Phone: 011/3401–500  
Fax: 011/2458–991  
E-mail: [ntp@vti.vj.yu](mailto:ntp@vti.vj.yu)

Editor-in-chief:  
associate professor  
Marinko Ugrčić PhD  
Phone: 011/3539–929  
Fax: 011/2458–991  
E-mail: [ntp@vti.vj.yu](mailto:ntp@vti.vj.yu)