

Russians admit advanced work on radio frequency weapons

A new report from EIR's Wiesbaden bureau, documents the revolution in warfare.

Soviet media have begun to "leak" the existence of an advanced research and technology program to develop radio frequency weapons, a technology using shaped pulses of electromagnetic radiation to destroy human targets. Soviet Defense Minister Dmitri Yazov wrote an article for the Feb. 8 issue of *Pravda*, speaking about "conventional weapons developed on principally new frontiers." Then on Feb. 12, *Pravda* announced the awarding of the Lomonosov Science Gold Medal to a scientist working on the Soviet "SDI" program and a pioneer in the field of electromagnetic research.

The award was given to A.M. Prokhorov, who according to *Pravda*, has "revolutionized modern physics" through his work in "radio physics, solid-state physics, spectroscopy, and the physics of electromagnetic phenomena," conducting "experiments in establishing the coherency of VHF/microwave frequencies." The head of the Institute of Spectroscopy in Moscow, Prokhorov is one of the Soviet inventors of the laser and, *Pravda* hinted, has contributed to the Soviet radio frequency weapon program.

Nuclear weapons turn obsolete

Although not talked about in the West, and little known outside a small circle of military and scientific experts, the technology of radio frequency weapons is about to revolutionize the doctrine of warfare, making the nuclear missiles negotiated under the INF and upcoming START treaties increasingly obsolete and irrelevant to the emerging Soviet war plan masterminded by Marshal Nikolai Ogarkov.

Those better informed include a few hundred participants in a series of seminars sponsored in late 1987 in Munich, Paris, Milan, Rome, Oslo, and Stockholm by the newsweekly *Executive Intelligence Review*. Speeches from those seminars, combined with several newly written studies, form the chapters of a new *EIR Special Report*, "Electromagnetic-Effect Weapons: The Technology and the Strategic Implications," just published in English and soon to be published in German. The report supplements the Dec. 7, 1987 *EIR* report "Global Showdown Escalates: The zero option and the Berlin crisis of 1987."

For the first time in the West, the public here can get acquainted with the basic scientific principles and technolog-

ical applications of electromagnetic pulses, their use in weapon systems to destroy human tissue and the function of the brain, as well as, potentially, for civilian purposes in healing illnesses not yet mastered by man, or in agricultural development.

The report also documents the scary Soviet advantage in benefiting from a longstanding, comprehensive scientific research program in areas where Western efforts are neglected, creating the potential for some very nasty "new Sputnik" surprises to the West.

Gyrotron

One case in point is the Soviet work on gyrotrons, a type of cyclotron resonance maser which generates electromagnetic pulses from helical motion of an electron beam. Since the Russians built the world's first gyrotron in the mid-1960s, they have developed high peak power gyrotrons which at some frequencies operate efficiently at peak powers three orders of magnitude greater than any in the West. But while Soviet personnel involved in gyrotron research has increased sixfold since the 1960s, the number of scientific papers reporting on the results of this research in literature available to the West has declined.

Publicly available information on Russian development of compact sources of coherent electromagnetic radiation delivered in pulses of billions of watts, combined with Russian expertise regarding the effects of such pulses on chemical and biological processes, indicate successful development and the capability of early deployment of offensive weapon systems superior to and more frightening than nuclear missiles.

Ranging from hand-held weapons suitable for spetsnaz assassination and sabotage missions, through mobile, truck- or aircraft-carried applications and tactical, battlefield weapons, to strategic, land- or space-based weapons capable of attacking distant cities or command centers, radio frequency weapons imply a thorough revolution in the concept of warfare. This revolution, yet to be acknowledged as a bare idea in the West, the new *EIR* report documents as an emerging reality of current Soviet military doctrine, reflected in each decision from scientific projects down to the last appointments of military commanders.