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Atomic Graveyard

by Peter A. Huchthausen

Starting with the Gorbachev era, precise information about the Soviet Navy fleet's material and safety state, especially that the nuclear powered ships, began to emerge, confirming what the West had already surmised from earlier fragmentary intelligence reports and accounts leaked during widening contacts between western diplomats and Soviet citizens. As more and more information emerges from the Soviet-era archives and files, the more evident it becomes that Soviet naval forces operated on a thin margin of safety with hardware that was technically sophisticated but crudely manufactured and poorly maintained.

More alarming than the accounts of the individual naval disasters are revelations by former Soviet submariners. These accounts, which began to surface after 1991, confirm the number and locations of wrecked nuclear reactors and lost atomic warheads on the ocean floor. In the Kara Sea dumping area alone—the largest Soviet nuclear graveyard—more than 3.5 million curies of nuclear waste were disclosed on the seabed in 1992, the equivalent of one tenth of the contamination leaked to the atmosphere during the Chernobyl incident.

Between the late 1950s and 1993, the normal procedure for the Soviet, and then Russian navy, was to dump radioactive waste at sea in designated sites in the Barents and the Pacific. However, testimony by witnesses in the disposal business claims that vast quantities of nuclear waste were disposed during the Soviet years without records at night in areas not authorized for dumping. Thus, a completely accurate accounting of early nuclear waste disposal is impossible. Unauthorized dumping of radioactive waste at sea was a result of the prevailing attitudes during the so-called 'stagnation period', when the pressure to meet unrealistic production targets took precedence over all activities. Party officials and naval construction leaders falsified records to show compliance with impossible, centrally-planned production goals. Nuclear engineering

work was completed with little or no quality control and shipyard safety during construction was minimal.

Following the disclosures of disastrous Soviet navy safety record, and increasing international pressure to end nuclear dumping at sea, President Yeltsin commissioned a team in 1992 to study and report on the nuclear dumping situation in the areas around the former Soviet naval bases. The study known as the *Yablokov Report* was released a year later revealing details of the Soviet nuclear dumping in the North Atlantic, Barents, and the Pacific. However, some experts claim that the report documents merely a fraction of the total materials dumped.

The official US and Soviet Navy response to criticism of dumping nuclear debris has for years been that the best place to dispose of old reactors and warheads is in deep mud on the sea bed. This is, however, only valid if the reactor container or missile casings remain well sealed. How long such containers can remain unchanged on the seabed is an open question. The US Navy

“...peacemaking must reconstitute the social contract.”

carefully monitors the bottom effluent near the sunken submarines USS *Thresher* and USS *Scorpion*, the only US atomic submarines lost in

accidents, and publishes the results every few years. It also monitors the site of the reactor vessel and plant components of the USS *Seawolf*, dumped in the Atlantic in 1959.

Upon dissolution of the Soviet Navy in 1991, Russia inherited the world's largest submarine nuclear fleet of 245 boats and now faces the immense task of decommissioning and dismantling the aging boats. By 1995, only 126 submarines had been decommissioned. Another 80 were scheduled for decommissioning by the end of the century; however, despite assistance from the US and Japan, progress is behind schedule. As of January 2003, 70 nuclear submarines still await decommissioning and disassembly. Moreover, the reprocessing of nuclear waste from these submarines is almost six years behind schedule. The Russian naval nuclear support infrastructure is now stretched to the limit with inactive submarines, nuclear fuel still aboard, stacked up and abandoned at bases in the Northern and Pacific Fleet areas.

Constraints on dismantling inactive nuclear-powered submarines and surface ships include limited shipyard capacity, spent fuel management and disposition of liquid and solid radioactive waste, storage of separated submarine reactor compartments, and institutional and financial deficiencies. For example, Russia's Pacific fleet currently stores some 10,000 atomic fuel rods from dismantled submarines aboard two rusting ships in the Sea of Japan and at a storage facility southeast of Vladivostok. The storage ship hull conditions are so bad that they are in danger of sinking. The combined radioactive level aboard these two ships is approximately 4 million curies. The two ships and the Pacific Fleet land-storage facility are already filled to capacity. A program to build a proper barge to treat nuclear waste is also almost six years behind schedule, despite assistance from the US and Japan.

Due to the current storage conditions, Russia had to practically cease dismantling nuclear submarines in 1997, and the number scheduled to be retired continues to increase. Of 300 Russian submarine reactors requiring disposal before the end of the last century, only 97 were disassembled. In an effort to ease the dismantling problem, Russia requested western assistance. Although some US, Norwegian and Japanese assistance has been provided, the US Navy has resisted spending more until Russia reduces or ends its dwindling, but continuing, submarine construction programs—an unlikely prospect if the US continues to produce nuclear submarines. This means hundreds of fueled reactors will remain inside rusting and abandoned submarines awaiting dismantling—a chilling prospect at best.

Peter A. Huchthausen is retired US Navy Captain. He was senior Naval Attaché to the USSR and is author of several books.

Staff Spotlight:



Martina Reuter

Martina Reuter joined BICC in April 2002. She works as the information officer for the Help Desk for Practical Disarmament, a project funded by German Technical Cooperation (GTZ). The project examines programs for the control, collection and destruction of small arms and identifies elements of 'best practice', particularly in post-war disarmament. Here knowledge and experience of micro-disarmament is collected, expanded and made generally available. At the Help Desk website, www.disarmament.de, practical guides on weapons collection and destruction can be downloaded and links to various specialist agencies in the field of disarmament can be found. Apart from its catalog of online-tools, the Help Desk also answers individual queries and requests for consultancy and support. While it cannot provide funding for actual projects in the field, the Help Desk offers advice to NGOs on how they might be able to secure such funding. It aims at primarily assisting NGOs from the developing world to find the appropriate response to their small arms problems in their specific context.

Martina is responsible for the public relations side of the project as well as for day-to-day matters. She is currently working on overhauling the Help Desk website so that it will be more attractive and user-friendly for the NGO community.

Before joining BICC, Martina worked as media manager at the International Paralympic Committee. Furthermore, as a recipient of a Robert Schuman scholarship, she completed a three-month internship at the Press Department of the European Parliament in Brussels. She holds a degree in Political Science from the University of Dundee and is currently in the process of completing by correspondence a Masters Degree in Political Science at the University of Stellenbosch, South Africa.

In her free time, Martina enjoys spending time with her husband and her two cats. A passionate hobby chef, she loves to arrange get-togethers and dinner parties for her friends.

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Annual German Peace Report launched

On 4 June 2003, the *Friedensgutachten 2003*, the joint annual book publication and report of the five major German peace research institutes went public, this year with BICC in the editorial lead position. In their analysis, the authors cover the difficult period of substantive shifts in international affairs in the context of the Iraq war and its consequences. Using the theme of 'cooperation versus confrontation' as a frame, the main issues of concern dealt with are the transatlantic rifts; the future shape of the world order; the need for multilateral action; the role of the military; and international law. Relevant regions of conflict are well scrutinized: the Middle East and the difficulties of implementing the 'road map'; the security gap in Afghanistan; resource wars in Africa; and, the impacts of the "war against terrorism" on countries such as Indonesia, the Philippines, Colombia, or North Korea.

In their joint statement—which offers recommendations in particular for German and European peace and security policy—the editors focus on the European concept of 'soft power', international cooperation and integration as an alternative to the military-dominated course spelled out in the new US National Security Strategy.

The *Friedensgutachten 2003* has received considerable public attention in the media, and for the first time was discussed at a meeting of the editors with the President of the German Parliament, Wolfgang Thierse, who explicitly expressed his appreciation for the research report presented by the institutes. Both the English version of the editors' statement and summaries of the individual chapters can be found at BICC's website (www.bicc.de/friedensgutachten).

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BICC Small Arms Workshop in New York

For several years now, capacity-building has been one of the main themes in the international debate on small arms control. However, there have not been many occasions for potential donors and recipients to discuss in detail the kinds of capacities needed for specific purposes. On 9 July 2003, the Bonn International Center for Conversion (BICC) is therefore organizing a workshop in New York entitled '**Training Programmes for Lesser Developed Countries—Building**

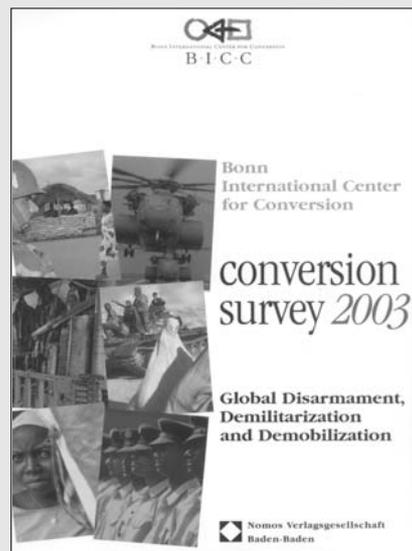
Capacity for Small Arms Control'. The workshop will take place on the margins of the *UN Biennial Meeting of States to Review the Implementation of the UN Programme of Action to Combat the Illicit Trade in Small Arms*.

The aim of the workshop is, first, to identify the requirements for small arms action in lesser developed countries. Three experts from recipient countries will submit papers and give short presentations on the need for capacity-building programs. Their presentations will pay particular attention to the necessity of training government officials in weapons control, of training non-governmental organizations in raising public awareness, and of promoting a 'gendered' approach to small arms action. Second, representatives from donor countries and international organizations will be given the opportunity to respond to this needs assessment and indicate how assistance programs might be able to help provide the training required. The overall objective is thus to encourage a productive dialogue between various levels of agency in small arms control.

BICC is organizing the workshop in cooperation with the German Federal Foreign Office, InWEnt-Capacity Building International, GTZ and the German Federal Ministry for Economic Cooperation and Development. All delegates to the UN Biennial Meeting of States are most welcome to participate in the event.

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New Publication



BICC 2003. *Conversion Survey 2003: Global Disarmament, Demilitarization and Demobilization*. Nomos Verlagsgesellschaft, Baden-Baden, Germany, May. ISBN 3-8329-0135-3, 180 Pages, 20,- Euro
For further information see
www.bicc.de/general/survey2003/content.html

BICC Publications

In addition to its annual *conversion survey*, the BICC publishes *disarmament and conversion studies* and other books, BICC publishes *reports, briefs, and papers*. These series analyze the international conversion process, report on conversion projects and experience gained, and offer scientific as well as practical know-how. Further details can be obtained at www.bicc.de/publications/.

BICC 2003. *Conversion Survey 2003: Global Disarmament, Demilitarization and Demobilization*. Nomos Verlagsgesellschaft, Baden-Baden, Germany, May

paper 27:

João Gomes Porto and Imogen Parsons, *Sustaining the Peace in Angola: An Overview of Current Demobilisation, Disarmament and Reintegration*, March 2003

paper 28:

Myeong-Chin Cho, *Restructuring of Korea's Defense Aerospace Industry: Challenges and opportunities?* June 2003

paper 29:

Lucien Mufor Atanga, *Tackling Small Arms in Central Africa*, June 2003

paper 30:

Henri Myrntinen, *Base Conversion in Central and Eastern Europe 1989-2003*, June 2003

BICC Notes

At the end of March **Kees Kingma**, our senior expert on Demobilization and Reintegration, left BICC to start a new appointment at the World Bank in Washington DC. All of the BICC staff would like to thank Kees for his almost nine years of excellent work at the center. For matters related to BICC's peace-building, demobilization and reintegration work, BICC's new contact person is Andreas Heinemann-Grüder at hg@bicc.de. Kees Kingma's new e-mail is ckingma@worldbank.org.

On 13 May 2003 BICC launched its yearbook *Conversion Survey 2003* at a national press conference in the Bundespresseamt Bonn. Alongside Peter Croll and Michael Brzoska, **Kerstin Müller, secretary of state in the German foreign ministry**, participated in the discussion about the new tendencies in security and development policy which were analyzed in the *Conversion Survey 2003*.

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BICC hosted an e-conference on Afghanistan titled **'Assessing the Progress of Security Sector Reform, One Year After the Geneva Conference'** from 4 to 11 June 2003. Over 90 participants from over 15 countries participated in the event. A summary of the e-conference dialogue along with a set of policy recommen-

dations that emanated from the conference can be found on BICC's website under 'what's new'. Additionally, a selection of conference papers produced for the event will be compiled into a BICC publication that will be made available in late summer or early fall 2003.

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On June 19-21 2003 BICC co-hosted a second **workshop** with the Université libre de Bruxelles for the *ESDP-Democracy research and training network* in Brussels. The workshop brought together officials and researchers from eleven different countries to discuss the topic **Arms Control, Procurement and Transfers: Europeanization versus Globalization?** BICC experts Herbert Wulf, Ksenia Gonchar and Jocelyn Mawdsley all took part in the workshop. The results of the workshop will be published in a co-edited book.

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The Geneva based Center **Democratic Control of Armed Forces (DCAF)** organized a **seminar on demobilization and reintegration of military personnel** on 19-21 June near Zagreb/Croatia. The seminar took place at the Regional Arms Control Verification and Implementation Center (RACVIAK) with government participants from Croatia, Bosnia-Herzegovina, Albania, Serbia & Montenegro, Macedonia as well as participants from various countries. For the first time, representatives of the Ministries of Defense of the five Western Balkan countries gathered in order to exchange experiences, future plans and possible coordination of efforts in military personnel restructuring. BICC senior expert Andreas Heinemann-Grüder presented his recently finished report on post-Dayton demobilization and military planning in Bosnia-Herzegovina to be published in August 2003 jointly with DCAF.

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On 23 June 2003 the **Minister of Science and Research of North Rhine-Westphalia, Hannelore Kraft**, and the **Mayor of Bonn, Bärbel Dieckmann**, came to visit BICC for the first time. BICC's director Peter Croll gave an introduction into the center's work, followed by a presentation of selected projects. Bärbel Dieckmann praised BICC's achievements: "Due to BICC's close connections to the United Nations and its involvement in North-South relations, the center has made a major contribution to Bonn's new role as host city for a range of international organizations."

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