
About the authors

Dr Gunnar Arbman (Sweden) has worked for the Swedish Defence Research Agency (Totalförsvarets forskningsinstitut, FOI) since 1965 and was appointed Director of Research in 1987. In 1980–90 his work was concerned mainly with protection against the effects of nuclear weapons, and in this context he designed protection systems for Swedish military and civilian systems. Since 1995 he has focused on nuclear weapon policy issues, including arms control and disarmament. He edited the *Proceedings of the Fissile Material Cut-off Seminar in Stockholm* (1998) and co-edited the *Proceedings of the Workshop on FMCT Verification: Detection of Clandestine Activities* (1999). He is the co-author of *Weapons of Mass Destruction and Security in the Middle East Region* (in Swedish, 1999) and *Arms Control and Tactical Nuclear Weapons* (2002).

Dr Oleg Bukharin (United States) is a Research Scientist with the Program on Science and Global Security at the Princeton University Woodrow Wilson School of Public and International Affairs. He conducts research and writes on the Russian and US nuclear weapon programmes, nuclear arms control, international safeguards, and the security of nuclear materials and facilities. His publications include *Making the Russian Bomb: From Stalin to Yeltsin* (co-author, 1995); *Russian Strategic Nuclear Forces* (co-author, 2001); and *US-Russian Warhead Dismantlement Transparency: The Status, Problems, and Proposals* (co-author, 1999).

Professor Steve Fetter (United States) is Professor of Public Policy at the University of Maryland. He has previously held positions at the US Department of Defense, Stanford University, Harvard University and the Lawrence Livermore National Laboratory. He is vice-chairman of the Federation of American Scientists and treasurer of the Arms Control Association, and he serves on the National Academy of Sciences Committee on International Security and Arms Control. He has contributed chapters to more than a dozen edited volumes. He is the author of *Toward a Comprehensive Test Ban* (1988), and co-author of *The Future of US Nuclear Weapons Policy* (1997) and *The Nuclear Turning Point* (1999).

Dr Richard L. Garwin (United States) is Senior Fellow for Science and Technology at the Council on Foreign Relations, New York, a long-time consultant to the Los Alamos National Laboratory and the Sandia National Laboratories, and a member of the JASON group of consultants to the US Government. He is also a member of the National Academy of Sciences, the National Academy of Engineering and the Institute of Medicine. He is a co-author of *Megawatts and Megatons: A Turning Point in the Nuclear Age?* (2001).

Mr Camille Grand (France) is Associate Researcher at the Security Studies Department of the Institut français des relations internationales (IFRI) and an advisor on nuclear issues to the French Ministry of Defence. He served in the French delegation to the 2000 NPT Review Conference. He is a member of the ‘Core Group’ of the Programme for Promoting Nuclear Non-Proliferation and a lecturer at the Institut d’études politiques (Paris) and at the Ecole spéciale militaire (St Cyr-Coëtquidan). He has previously worked with the European Union Institute for Security Studies, as a visiting fellow, and the Institut français des relations internationales et stratégiques, as a research fellow and editor of the quarterly journal *Relations Internationales et Stratégiques*. His publications include *A French Nuclear Exception?* (1998) and *The European Union and the Non-Proliferation of Nuclear Weapons* (2000).

Professor David Hafemeister (United States) has worked on national security issues at the US National Academy of Sciences. He was a professional staff member for the Senate Committees on Foreign Relations and on Governmental Affairs. He has also worked on non-proliferation issues for the State Department and for the Arms Control and Disarmament Agency. He has worked on nuclear arms control projects at the Massachusetts Institute of Technology, the California Polytechnic State University, Princeton University and Stanford University. He is the co-editor of *Arms Control Verification* (1986), *Nuclear Arms Technologies* (1988) and *Physics and Nuclear Arms Today* (1991). His book *Physics of Societal Issues* is forthcoming in 2003.

Dr Li Bin (China) is Associate Professor at the Institute of International Studies of Tsinghua University. In 1996 he attended the CTBT negotiations as a technical advisor to the Chinese negotiation team. Before joining the faculty at Tsinghua University, he directed technical arms control programmes at a defence institute. Since 1990 he has been working on issues such as missile defence, the nuclear test ban, deep nuclear reductions and Chinese arms control policy. His publications include *Nuclear Missile Delivery Capabilities in Emerging Nuclear States* (1997), *China’s Nuclear Disarmament Policy* (1999), *The Effects of NMD on the Chinese Strategy* (2001) and *Absolute Gains, Relative Gains and US Security Policy on China* (2002).

Dr Alexander Pikayev (Russia) is Scholar-in-Residence at the Carnegie Moscow Center and Editor-in-Chief of the journal *Nuclear Proliferation*. He has worked for the Russian Institute of World Economy and International Relations (IMEMO) since 1984, has been the Director of IMEMO’s Section on Arms Control and Non-Proliferation since 1996, and has been Advisor to the Defense Committee of the State Duma since 1997. His publications include *Russia’s Missile Power: Past and Present* (in Russian, 1996), *Eliminating a Deadly Legacy of the Cold War: Overcoming Obstacles to Russian Chemical Weapon Disarmament* (in Russian and English, 1998) and *The Rise and Fall of START II: The Russian View* (1999).

Dr Annette Schaper (Germany) is Senior Research Associate at the Peace Research Institute Frankfurt (PRIF). Her publications include the report *Bio- and Nuclear Terrorism* (co-author, in German, 2001); *Principles of the Verification for a Future Fissile Material Cutoff Treaty* (2001); *Tactical Nuclear Weapons: Options for Control* (co-author, 2000); *Emerging Nuclear Energy Systems: Their Possible Safety and Proliferation Risks* (co-author, 1999); and *A Nuclear Weapon Free World—Can it be Verified?* (co-author, 1999).

Dr Thomas E. Shea (United States) is Senior Scientist at Pacific Northwest Laboratory, serving at the International Atomic Energy Agency. An IAEA safeguards expert, he heads technical work on the Trilateral Initiative and IAEA studies in support of a fissile material cut-off treaty and on proliferation resistance and physical protection in future nuclear energy systems. He is a Fellow of the Institute of Nuclear Materials Management. Among his recent publications, he is the author of 'FMCT burdens and benefits: today's needs, tomorrow's opportunities', *Disarmament Forum* (UNIDIR, forthcoming 2003), 'IAEA verification of weapon-origin fissile material in the Russian Federation and the United States: the Trilateral Initiative', *IAEA Bulletin* (December 2001) and 'Reconciling IAEA safeguards requirements in a treaty banning the production of fissile material for use in nuclear weapons or other nuclear explosive devices', *Disarmament Forum* (UNIDIR, 1999); and a co-author of 'Proliferation resistance in innovative nuclear reactors and fuel cycles' (2002).

Professor William Walker (United Kingdom) is Professor of International Relations at the University of St Andrews in Scotland. He was formerly Director of Research at the Science Policy Research Unit, University of Sussex. His publications include *Uncharted Waters: the UK, Nuclear Weapons and the Scottish Question* (co-author, 2001); 'Nuclear order and disorder' (2000); *Fissile Material Stocks: Characteristics, Measures and Policy Options* (co-author, UNIDIR, 1999); and the SIPRI volumes *Plutonium and Highly Enriched Uranium 1992* (co-author, 1993) and *Plutonium and Highly Enriched Uranium 1996: World Inventories, Capabilities and Policies* (co-author, 1997).

Dr Nicholas Zarimpas (Greece) was Leader of the SIPRI Project on Military Technology and International Security in 1999–2002. Before joining SIPRI, he worked on civilian plutonium management and nuclear fuel cycle issues as an administrator at the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD). He has also held appointments with the European Commission and acted as scientific secretary to several international research, technological and policy committees. He edited *Management of Separated Plutonium: The Technical Options* (OECD, 1997) and has contributed chapters on 'Nuclear verification: the IAEA strengthened safeguards system' (2000), 'The illicit trafficking in nuclear and radioactive materials' (2001) and 'Tactical nuclear weapons' (2002) to the *SIPRI Yearbook*.