



**Dipankar Banerjee**

Major General Dipankar Banerjee is the Head and Director of the Institute of Peace and Conflict Studies, New Delhi since October 2003, a leading independent and autonomous think tank on peace and security issues in India.

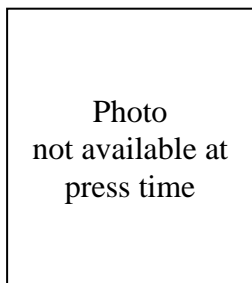
Banerjee was a Senior Fellow under the Jennings Randolph Research Fellows program of the United States Institute of Peace, Washington, DC for 2002-2003, working on a project on India's strategic policy.

From May 1, 1999- July 30, 2002, Banerjee was the Executive Director of the Regional Centre for Strategic Studies, based at Colombo, the only peace and strategic studies institute in all of South Asia.

While in active service, Banerjee was associated with the Institute for Defence Studies and Analyses, New Delhi, a premier Government think tank, first from 1987-90 as a Senior Fellow and from July 1992 to August 1996 as its Deputy Director. Before that he had a distinguished record in the Indian military serving in important assignments in operations, staff and instructional assignments.

Banerjee has authored several books, co-authored others, edited over twenty books, written about thirty chapters in different books and published over 80 articles in journals and numerous op-ed pieces in various newspapers and magazines in India and abroad. His interests include strategic planning, threat assessments, studies of India's neighbours and issues related to India's security concerns.

Among others Banerjee is a Member Board of Governors, Global Coalition Against Terrorism, Washington, DC, USA. In recent years he was an International Adviser with the ICRC at Geneva from 2000-2003. He was the UN Consultant to the Group of Governmental Experts reviewing the Conventional Arms Register in 2000 at New York. He was an Executive Committee member of the Senior Military Officers Week of the Asia-Pacific organised by IDSS, Singapore from 1998-2001. Banerjee travels extensively around the world, particularly to the US, China, Southeast Asia, Europe and India's neighbourhood on various academic related responsibilities.



**Khalid Banuri**

Air Commodore Khalid Banuri was appointed as Director Arms Control & Disarmament Affairs (ACDA) at Pakistan's *Strategic Plans Division* (SPD) in November 2005. His earlier association with the SPD as Deputy Director and later, as Additional Director has been from the year of organization's inception, since August 2000.

He is a fighter pilot by training. Serving in the Pakistan Air Force (PAF) since 1979, he has flown a variety of fighter aircraft and holds significant field, flight instruction, command and staff experience. He is a graduate of the F- 16 squadron of the Combat Commanders' School, Flying Instructors' School as well as the PAF's Air War College and UK's Joint Services Command & Staff College. He is decorated with Sitara-e-Imtiaz (Star of Distinction) for his outstanding commitment and devotion towards the service.

Air Commodore Banuri holds an MSc in Defence & Strategic Studies (DSS) from Quaid-e-Azam University (QAU) Islamabad and an MA in Defence Studies from Kings College London. He is a former fellow of The Henry L. Stimson Center Washington DC and has participated in a number of international conferences and seminars in USA, UK and Russia. He has been part of various national delegations for bilateral talks with countries of Pakistan's strategic interest, including Pak-India expert level talks on nuclear confidence building measures. He has occasionally spoken at some foreign universities, local and foreign think tanks, and is a frequent lecturer at military and civilian institutions in Pakistan.

Having served as Senior Directing Staff and DS Tutorial at the Staff Wing of the Air War College, he is currently a Visiting/ Adjunct faculty member at the DSS Department of QAU (since Fall 2002) and at *Defence & Diplomatic Studies Department* of Fatima Jinnah Women University Rawalpindi (since Fall 2006) where he lectures on WMD proliferation, arms control, disarmament and strategy. He also serves on the Board of Studies of DSS QAU. His current areas of interest are nuclear/ missile issues, missile defence, chemical- biological control and South Asian security.



### **Thomas Beer**

Dr. Thomas Beer graduated in Law in 1984 at the Berlin "Freie Universität". He completed his J.D. in 1986 examining the legal implications of the US Strategic Defence Initiative (SDI). He is a member of the German Air Force Reserve Corps, presently with the rank of Lieutenant Colonel.

Dr. Beer has 20 years of work experience in international law and international organisations, specializing in the areas of procurement as well as security & defence. After initial employments with the United Nations Department for Disarmament Affairs in New York (1983-1984), the Berlin Freie Universität as Research Assistant (1984- 1986) and with the German company SEL ALCATEL (1987-1988) as legal adviser, he joined the European Space Agency in 1988 as a procurement lawyer. He was involved in the European HERMES space plane programme in Toulouse and moved to ESA Headquarters in 1992 where he became Head of the HQ Procurement Service in 1999. His main duties included the negotiations of all ESA launch contracts, the contractual relations to the Russian space industry and the ESA commercial contacts with the European Commission. In 2004 he became the first ESA staff member to be detached

to the Council of the European Union's General Secretariat, Directorate for Defence Issues, Brussels. In this function he also served as focal point for the EU taskings concerning the European Satellite Centre in Torrejon, Spain. Upon his return to ESA Headquarters in February 2007 Dr. Beer is working in the Director General's Policy Office, covering ESA Security Strategy and Partnership Development matters.



**Sergey Batsanov**

Sergey Batsanov is a long-time practitioner and scholar in the field of international security, arms limitation and non-proliferation. From 1976 till 1989 he worked on the whole range of arms control and disarmament issues in the Ministry of Foreign Affairs of the USSR; then, in 1989-1993 was the Soviet, then Russian Ambassador to the Conference on Disarmament. Chairman of the Ad-Hoc Committee on Chemical Weapons in the penultimate year of negotiations on the CWC, and the Chair of the Final Drafting Group during the last year of negotiations in 1992. During 1993 -2004 worked in the Hague in the OPCW PrepCom, and then in the OPCW, as the Director for Special Projects, dealing, among other things, with the issues of compliance and implementation support. Participated in several NPT, as well as BWC and Sea-bed Treaty Review Conferences.

Since 2005 he the Director of the Geneva Office of Pugwash Conferences on Science and World Affairs. He is also a member of the International Advisory Board of the Geneva Center for the Democratic Control of Armed Forces (DCAF).



**Parvez Butt**

Engr. Parvez Butt is an eminent Nuclear-Mechanical Engineer who has had a very successful career, spanning over 43 years, in various aspects of the nuclear programme of Pakistan. He has made significant contributions in the field of mechanical engineering, nuclear power engineering and other related activities in Pakistan. He joined Pakistan Atomic Energy Commission in 1963. He was born in Gujranwala, Pakistan on 4 October 1942.

Engr. Butt graduated from the University of Engineering & Technology, Lahore in 1962 and did his Masters in Nuclear Engineering from the University of Toronto, Canada in 1965.

In the field of Nuclear Power Plants, he was involved in the design, installation, operation and maintenance of the Karachi Nuclear Power Plant (KANUPP) from the very beginning of the project in Canada in 1965 and then at the site. From 1968 to 1970, he

worked in the design office of Canadian General Electric, Peterborough Ont. Canada. In 1976, Mr. Butt was assigned the task of indigenous development of spare parts and equipment to keep the plant operational. His efforts in establishing workshops and facilities resulted in the continued operation of the Nuclear Power Plant. The experience gained at KANUPP encouraged Pakistan to expand its nuclear power programme which has led to the establishment of the Chinese supplied Chashma Nuclear Power Plants, the Unit 1 of which is operating very well according to world standards and Unit 2 is under construction.

To develop indigenous capability, Mr. Butt was assigned the responsibility to develop the necessary infrastructure for mechanical equipment manufacture. His efforts resulted in the establishment of large infrastructure workshops consisting of design and development and testing facilities and large manufacturing workshops located at Karachi, Islamabad and Taxila. The last one being the most modern, well equipped with the largest and latest machine tools, workshop in Pakistan. The national industrial training centers for welding (Pakistan Welding Institute) and non-destructive testing (NCNDT), to ensure high quality production, are amongst other organizations established by him.

In view of his extra-ordinary contributions to the indigenization efforts of the PAEC, Mr. Butt was appointed Director in 1984, Director General in 1994 and Member (Power) of Pakistan Atomic Energy Commission in 1994 and its Chairman in 2001. During his tenure of 5 years as Chairman, he successfully took actions to accelerate the growth in various areas of activities in which PAEC is involved and created many new organizations. These included research in agriculture, establishing more nuclear medical centers, nuclear power generation, search and mining of uranium, industrialization, self-reliance, human resource development etc, etc.

Mr. Butt has been an active member of the Board of Governors of WANO (World Association of Nuclear Operators), WNA (World Nuclear Association) and the IAEA (International Atomic Energy Agency). In 2004-2005, he was elected as the Vice Chair of the IAEA Board of Governors. He was also till recently a member of the AAAS, USA.

In April 2006, Mr. Butt was appointed Federal Secretary, Ministry of Science & Technology, Government of Pakistan.



**S Chandrashekar**

S Chandrashekar's areas of expertise are mainly Technology Management and R & D Management. After getting a B.Tech, from IIT-Madras in Metallurgy and a Post Graduate Diploma in Business Management (PGDM) from IIM-Calcutta, he joined the Indian Space Research Organisation (ISRO) as a Scientist.

At ISRO, his responsibilities spanned a wide spectrum of activities

ranging from programme and budget planning, monitoring and control to project responsibilities for the various satellite and launch vehicle projects. He was a member and then the leader of the Indian delegation to the UN Outer Space Committee and is an expert on the Law of Outer Space. He has negotiated several major domestic and international contracts, both in the satellite and launch vehicle area. He played a major role in the remote sensing and communication satellite programmes of ISRO, especially in the INSAT and IRS programmes.

Professor Chandrashekar's major areas of activity include "Links Between Technology and Business", "National Technology Priorities", "Competitiveness of Indian Industries and Companies with Respect to Technology", "Technology and R & D Strategy and Management", "Measurement of Technological Changes" and "Innovation".

He has an interest in Telecom, IT, Missile proliferation and national security issues. Current interests include hydrogen, patents and the study of complex systems.



**Paolo Cotta-Ramusino**

Dr. Paolo Cotta-Ramusino's scientific and social responsibilities have included teaching mathematical physics at the University of Milan (Italy), Secretary General of Italian Union of Scientists for Disarmament (USPID) and Director of the Program on Science Technology and International Security of Landau Network in Centro Volta. The issues addressed by USPID include nuclear arms-control and disarmament, nuclear proliferation, consequences of nuclear explosions, control of fissile material, developments of military technology, conventional disarmament, chemical and biological disarmament, problems of conflicts and conflict resolution. Members of USPID, both individually and collectively, share their views with Italian policy-makers and opinion-makers. Beginning in August 2002 he became the Secretary General of Pugwash Conferences on Science and World Affairs. The purpose of the Pugwash Conferences is to bring together, from around the world, influential scholars and public figures concerned with reducing the danger of armed conflict and seeking cooperative solutions for global problems.

He procured his Doctorate in Physics 1971 at Università degli Studi di Milano. Then, Dr. Cotta-Ramusino was made an Associate Professor in Theoretical Physics at Università degli Studi di Trento from 1988 - 1993. From 1993-2000 he concentrated on Mathematical Physics at the same University. His research and teaching experience include the University of North Carolina, CERN at Geneva and a postdoctoral fellowship at Harvard University.

Dr. Cotta-Ramusino's scientific expertise include Topological Quantum Field Theories in any dimension, BF theories, Cohomology of imbedded loops, Higher dimensional knots, Differential geometrical aspects of string and field theories and Anomalies in Quantum field theory and their differential geometrical interpretation. On the world affairs side, Dr. Cotta-Ramusino has written about Global Politics and Strategy of Missile Defense, Eliminating the Causes of War, Nuclear Stability and Missile Defense and co-operative threat reduction.



**Philip E. Coyle, III**

Mr. Coyle is a Senior Advisor to the President of the World Security Institute, and to its Center for Defense Information, a Washington D.C.-based national security study center. He is a recognized expert on U.S. and worldwide military research, development and testing, on operational military matters, and on national security policy and defense spending, including defense acquisition reform and defense procurement. Coyle also has extensive background in missile defense, in military space systems, and in high-technology weapons, such as high power lasers and other directed-energy weapons. From his many years at Lawrence Livermore National Laboratory, Coyle also has considerable experience in nuclear weapons research, development, and testing, and nuclear weapons effects, including EMP.

From Sept. 29, 1994, through Jan. 20, 2001, Coyle was assistant secretary of defense and director, Operational Test and Evaluation, in the Department of Defense, and is the longest serving director in the 20-year history of the office. In this capacity, he was the principal advisor to the secretary of defense on test and evaluation at DOD.

At DOD, Coyle's responsibilities included stewardship of the Defense Department's Major Range and Test Facility Bases, including the large test ranges and test centers which DOD operates from Maryland and Florida to California and Hawaii.

Coyle was appointed by President George W. Bush to serve on the 2005 Defense Base Realignment and Closure Commission, and was nominated for this position by House Minority Leader Nancy Pelosi.

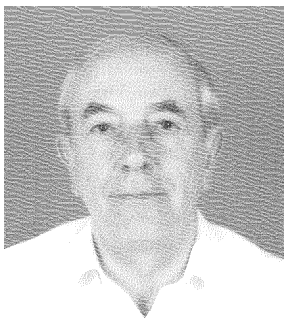
During the 1995 Base Realignment and Closure (BRAC), Coyle served as the co-chairman of the Defense Department's Joint Cross-Service Group for Test and Evaluation, with joint cross-service authority for all military bases and test ranges involved in test and evaluation. Beginning in late 2004, Coyle served briefly on Gov. Arnold Schwarzenegger's Base Support and Retention Council.

As director, Operational Test and Evaluation, Coyle had responsibility for overseeing the test and evaluation of over 200 major defense acquisition systems. This included reporting to the secretary of defense, and to Congress, on the adequacy of the DOD

testing programs, and on the results from those testing programs. Coyle was called upon regularly to testify before Congress and to brief Congressional staff on the status of major defense acquisition programs.

Coyle has 40 years experience in research, development, and testing matters. From 1959 to 1979, and again from 1981 to 1993, Coyle worked at the Lawrence Livermore National Laboratory in Livermore, California. From 1987 to 1993, he served as laboratory associate director and deputy to the laboratory director. In recognition of his 33 years service to the laboratory and to the University of California, the university named Coyle Laboratory Associate Director Emeritus.

Mr. Coyle graduated from Dartmouth College with an MS in Mechanical Engineering (1957) and a BA (1956).



**Bertrand de Montluc**

Space Councilor to the Policy Planning Staff (C.A.P.) of the French MFA

D Graduated from Institut d'Etudes Politiques of Paris (Public Service section, 1966)

Public Law degree (DES), University of Paris, PARIS II, 1967

Political Sciences degree (DES), University of Paris, PARIS II, 1968

Doctorate, PHD International Law (with honors)

Teacher for a two years seminar at C.N.A.M in Paris (Engineering Institute) on Space programmes of the USA and USSR (1988-1989)

Coordinator for an annual seminar on international relations for four years at Institut d'Etudes Politiques (1992-1996)

Organization and direction of European Space Policy workshops: with Germany (Fondation des Sciences Politiques in Paris and IFRI, DGAP Bonn), UK (MATRA/MMS, WEU, HCI), Italy (with IAI Rome)

Participation as Adviser at the ESA Council (1996-98) and ESA International Relations Committee

Participation in the University of KOLN (G) research project 2001 and IISL workshop on legal issues of privatizing space (1998/99)

Former member of the Centre des Hautes Etudes de l'Armement (CHEAR), French high studies for Armament institute (22nd session).

Alumnus Ecole des Hautes Etudes Internationales (International Law Academy).

Chevalier de l'Ordre National du Mérite (Knight in the French National Order of Merit).

Head of Asia division at the International Directorate of the National Centre for Scientific Research, C.N.R.S., HQ Paris (1980-81).

Directorate for Programmes, Centre National d'Etudes Spatiales, CNES, Paris

Special adviser to the Deputy General Director of CNES (Space Military Affairs) (1986)

Head of the Division of International Affairs, CNES (1986-1988)  
Ministry of Foreign Affairs, Adviser of the French Delegation at the Geneva Conference for Disarmament, at the U.N. COPUOS (1988-89)  
Head of market studies, CNES (1989-1992)  
Rapporteur for the President of CNES's Task Force for Long term Policy (White Paper on CNES Long Term Space Policy, 1994)  
Deputy Director for European strategy at the Directorate General for Strategy, CNES (1996-98)  
Deputy Director, International Relations, CNES, 1998  
Space Affairs Counsellor, French Diplomatic Representation to the European Union (1999-2003)  
Space Adviser to the Director of Delegation for Strategy (DAS) of Ministry of Defence (2003-2004)  
Space Counsellor, Center for Analysis and Forecast (CAP), Ministry of Foreign Affairs (since January 2005)



**Vladimir Egorov**

Colonel Vladimir Egorov is the Deputy Chief of the Directorate of International Treaties of the Ministry of Defense of the Russian Federation. In 1980 Dr. Egorov graduated with honours from Minsk Engineering Anti-aircraft Missile Military College and in 1991 from Kharkov Military Radio Engineering Marshal L.Govorov Academy of Air Defense. In 2004 he attended post graduate courses at the General Staff Academy of the Russian Federation. Dr. Egorov has occupied various positions at different institutions of the Ministry of Defense. From 1996 he has served in the Directorate of International Treaties of the Ministry of Defense of the Russian Federation. Dr. Egorov has a PhD in technology and is the author of more than 150 scientific publications. He was awarded with an order for Distinguished Military Service, with an order for Honour and other numerous medals.



**Geoffrey Forden**

Dr. Forden has been at Massachusetts Institute of Technology since 2000 where his research includes the analysis of Russian and Chinese space systems as well as trying to understand how proliferators acquire the know-how and industrial infrastructure to produce weapons of mass destruction. In 2002-2003, Dr. Forden spent a year on leave from MIT serving as the first Chief of Multidiscipline Analysis Section for UNMOVIC, the UN agency responsible for verifying and monitoring the dismantlement of Iraq's weapons of mass destruction. Previous to coming to MIT, he was a strategic weapons analyst in the National Security Division of the Congressional



Budget Office after having worked at a number of international particle accelerator centers.



### **Nancy Gallagher**

Nancy Gallagher is the Associate Director for Research at the Center for International and Security Studies at Maryland (CISSM). She co-directs the Advanced Methods of Cooperative Security Program, which seeks to address the security implications of globalization by developing more refined rules of behavior and more comprehensive transparency arrangements. Her recent research at CISSM has focused on ways to maximize benefits and minimize risks from the global spread of space capabilities, biotechnology, and nuclear energy. Before coming to the University of Maryland, Dr. Gallagher was the Executive Director of the Comprehensive Test Ban Treaty Task Force and worked with the Special Advisor to the President and the Secretary of State on recommendations to build bipartisan support for U.S. ratification.

She has been an arms control specialist in the State Department, a Foster Fellow in the Arms Control and Disarmament Agency, and a faculty member at Wesleyan University. Dr. Gallagher is the author of The Politics of Verification (Johns Hopkins University Press, 1999), the editor of Arms Control: New Approaches to Theory and Policy (Frank Cass, 1998), and the co-author of Controlling Dangerous Pathogens: A Prototype Protective Oversight System (CISSM, 2007). She has also written articles on space security, nuclear arms control and nonproliferation, and other topics related to global security. She received her Ph.D. in political science from the University of Illinois, Champaign-Urbana and her undergraduate degree in history from Carleton College.



### **Subrata Ghoshroy**

Subrata Ghosroy joined MIT's Science, Technology, and Global Security Working Group in 2005. He is the Director of the Promoting Nuclear Stability in South Asia Project. In addition to directing the project, he will also be focusing on the impact of missile defenses and space weaponization on global security – where there is much common ground between India and Pakistan. Before joining MIT, Mr. Ghoshroy was a Senior Fellow at the Belfer Center for Science and International Affairs.

He has also been a Senior Defense Analyst at the Government Accountability Office for a number of years. Subrata also served as a Congressional Fellow under the AAAS program. Later, he served as a staff member of the House International Relations Committee and the House Armed Services Committee where he worked on issues of non-proliferation, arms control, South Asian security, ballistic missile defense, the Comprehensive Test Ban Treaty, nuclear weapons stockpile stewardship, laser weapons,

chemical weapons demilitarization, and landmines. He was also responsible for monitoring and evaluating budget and policy matters related to Military Research and Development (RDT&E) using his expertise to carry out comprehensive evaluations of complex weapons systems that incorporate state-of-the-art technology. Prior to his

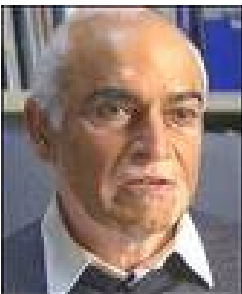
transition to the policy world, Subrata worked more than 20 years as an engineer and an engineering-manager in developing high-power and high-energy laser, electron beam, and pulse power technologies and has a highly successful track record in managing sophisticated, interdisciplinary teams to develop advanced technology for DOD, DOE, and NASA. He holds master's degrees in both electrical engineering and public policy.



### **Tariq Osman Hyder**

Ambassador Tariq Osman Hyder, served in the Pakistan Foreign Office 1967-2007. He has had diplomatic assignments in many countries, including as Ambassador to Ashgabat and to Seoul. With a Masters degree from Oxford specializing in military history, he has been a Research Fellow of the Harvard Law School, the Center for Science and International Affairs, the Kennedy School and the

IISS, London. For the last five years he has been the Additional Secretary for UN & Economic Coordination in the Foreign Office, looking after multilateral and bilateral disarmament, non-proliferation and counter-terrorism issues and negotiations. In the Indo-Pakistan peace dialogue from 2004, he led Pakistans delegation for the three expert level talks on Nuclear CBMs, Conventional CBMs and the Anti-Terrorism Mechanism. He negotiated hotlines agreement of 2004, the Pakistan-India Ballistic Missiles flight testing Pre-Notification Agreement of 2005 and the Agreement on Reducing the Risk from Accidents relating to Nuclear Weapons of February 2007, which he signed on behalf of Pakistan. After retirement from the Foreign Service in August 2007, he has been appointed as a Member of the GoPs Oversight Board for Strategic Export Controls, and is located in the Ministry of Foreign Affairs.



### **Bhupendra Jasani**

Bhupendra Jasani is a Visiting Professor in the Department of War Studies, King's College London. Before this he worked for the British Medical Research Council at the University College Hospital Medical School, London and acquired an MSc in nuclear physics and a PhD in nuclear physics and nuclear medicine. He has worked for the UN, as a consultant as an individual as well as on behalf of the UK and German Governments. He has been the main driving force to getting the UN International Atomic Energy Agency to use space-based capabilities for monitoring nuclear activities of States. He has prepared consultancy reports for the UK Foreign Office on chemical weapons related issues and for the British National Space Centre on

British space policy and contributed to the final reports of the Palme (former Prime Minister of Sweden), Commission, an Independent Commission on Disarmament and Security Issues and to the Brundtland (former Prime Minister of Norway) Commission (1987) report entitled *Our Common Future*. He played a key role in the establishment of the European Union Satellite Centre to monitor arms control treaties, early warning of conflicts and the environment. He is coordinating two major research projects under the European Commission study on security and participating in another that is developing a space-based sensor. For the past few years he has been giving lectures each year at the International Space University, Strasbourg, France on various civil and military space issues. Recently he has been appointed as a chairperson for the Technical Commission VIII, Working Group VIII.5, Policies, Treaties and Data Access, of the International Society for Photogrammetry and Remote Sensing (ISPRS). Apart from scientific publications (25 papers), he has published some 178 papers on nuclear and space arms control and disarmament issues and written and edited 17 books on the subjects. Currently he is working on two books on monitoring nuclear arms activities from space, one for the European Commission and the other for the German Government. He is also working on a report dealing with characterisation of nuclear fuel cycle so as to facilitate an image interpreter when confronted with an image acquired from a satellite.

He is often asked to comment on defence related subjects on the national and international radio and television; he is interested in Indian Classical music and Spirituality.



**Neil Joeck**

Neil Joeck is a Senior Fellow at the Center for Global Security Research (CGSR) at the Lawrence Livermore National Laboratory (LLNL) and an Adjunct Professor of Political Science at the University of California, Berkeley. He served from 2004 to 2005 as Director for Counterproliferation Strategy at the National Security Council and from 2001-2003 as a Member of the Department of State Policy Planning Staff, where

he received a Meritorious Honor Award.

Dr. Joeck worked on India and Pakistan as a political analyst and group leader in Z Division at LLNL from 1987-2001. During that time, he took leave as a Research Fellow at the International Institute for Strategic Studies in London in 1996-1997. He served in 1999 as consultant to the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction, and worked for the RAND Corporation under contract with the Department of Defense Office of Net Assessments in 2000.

Dr. Joeck received a Ph.D. and MA in political science from UCLA (1986), an MA from the Paterson School of International Affairs at Carleton University in Canada (1976), and a BA from the University of California, Santa Cruz (1973). In addition to classified

reports for the US government, his publications include Maintaining Nuclear Stability in South Asia, Adelphi Paper #312 (Oxford University Press, 1997) and two edited books: Arms Control and International Security (with Roman Kolkowicz, Westview Press, 1984) and Strategic Consequences of Nuclear Proliferation in South Asia (Frank Cass, 1986). He has contributed articles to *Comparative Strategy*, *Journal of Strategic Studies*, *International Herald Tribune*, *Los Angeles Times*, *Energy and Technology Review* and various chapters to edited books.



### **Shaukat Hameed Khan**

Dr Shaukat went to Oxford as a Rhodes Scholar, where he obtained his undergraduate and research degrees of B.A B.Sc. and D. Phil.

Currently he is Member of the Planning Commission, Islamabad, looking after science and technology, higher education and industries. He is also Project Director of Vision 2030 - which prepared a long term study of economic, social, technical, and political transformation for Pakistan. This was formally launched by the President and Prime Minister of Pakistan on 21<sup>st</sup> September 2007.

Earlier, he worked as Chief Scientist & Director General (SPS) in the Pakistan Atomic Energy Commission, Islamabad where he was the founder of the laser and opto - electronics programme in Pakistan.

He has been engaged in research, design and development, as well as production of lasers and opto-electronics for local use as well as for clients in Switzerland, Germany and Spain. Systems designed by him have led to commercial contracts worth Rs 2.7 billion.

*His most recent activity was as Scientific Associate, at CERN in Geneva, Switzerland , where he helped design a laser based position monitoring system for the massive CMS project at CERN which comes on-line in 2007. This project is now being integrated with Pakistani designed and manufactured systems.*

He has been involved in policy formulation at the national and international level, the most recent being the document : “National Vision for Technology Driven Development “, 2005. Earlier he was a member of the 13 man Steering Committee for Higher Education, which drew up the reform framework, leading to the creation of HEC.



### **Masood Khan**

Ambassador Masood Khan is Permanent Representative of Pakistan to the United Nations in Geneva

Over the years, he has acquired expertise in various facets of Pakistan's foreign policy, including multilateral diplomacy, security and disarmament issues, human rights, social development, and Pakistan's relations with China, South Asia, and the United States.

Khan has served, in various diplomatic positions, in Pakistan's Embassies in Beijing, The Hague, and Washington DC. He also worked in Pakistan's Permanent Mission to the United Nations in New York, from 1993-1997.

He is a widely known speaker on foreign policy of Pakistan. He has delivered lectures on Pakistan's policies in premier Pakistani institutions as well as at major universities and think tanks in the US.



### **Srikanth Kondapalli**

Dr Srikanth Kondapalli is Associate Professor in Chinese Studies at Jawaharlal Nehru University, New Delhi. He is also an Honorary Fellow at Institute of Chinese Studies, Delhi and Research Associate at Centre for Chinese Studies, University of Stellenbosch, South Africa. He served at Institute for Defence Studies & Analyses, New Delhi for nearly 12 years. He is educated in Chinese studies in India and China with a specialisation in Modern Chinese History in Master of Arts at Osmania University at Hyderabad, Master of Philosophy and Doctor of Philosophy in 1989 and 1995 respectively in Chinese Studies Division of School of International Studies, Jawaharlal Nehru University, New Delhi. He learnt Chinese language at Beijing Language & Culture University and was a post-Doctoral Visiting Fellow at People's University, Beijing from 1996-98. He was a Visiting Professor at National Chengchi University, Taipei in 2004 and Visiting Fellow at China Institute for Contemporary International Relations Beijing in May 2007.

He has published two books, two monographs, co-edited a volume and several articles in edited books and in national and international journals and newspapers. He has presented several research papers at national and international conferences in India, China, Japan, Singapore, South Africa, Taiwan, United Kingdom and United States and lectured at Indian academic, defence, and media establishments. He is a guest faculty member at College of Naval Warfare, Army War College, Indo-Tibetan Border Police Academy and Border Security Force Academy.



### **Mitsuru Kurosawa**

Mitsuru Kurosawa, professor of international law and relations at Osaka School of International Public Policy, Osaka University, Japan, graduated from Graduate School of Law, Osaka University and got M.A and Ph. D in law. He was a visiting scholar at University of Virginia in 1980-1982, and Monterey

Institute of International Studies in 2003-2004. He has been researching arms control, disarmament and non-proliferation for 30 years and published 10 books and many articles. He was an advisor to the Japanese delegation to the NPT review conferences in 2000 and 2005 as well as preparatory committee in 2007.



### **Ajey Lele**

Wing Commander Ajey Lele is an Indian Air Force Officer currently working as a 'Research Fellow' at the Institute for Defence Studies and Analyses (IDSA), New Delhi since 2001. He specializes on issues related to Weapons of Mass Destruction (WMD) and Space Technologies. He is a postgraduate in Physics from Pune University. He has also done post graduation in Defence & Strategic Studies. He has done his doctoral work at Jawaharlal Nehru University, New Delhi and his PhD Thesis

is on *Asymmetric Warfare*.

He has published many articles in journals, websites and newspapers. He has authored two books titled '*Bio-Weapons: The Genie in the Bottle*' and '*Weather and Warfare*'.



### **Paul Meyer**

Paul Meyer is a career foreign service officer who was born and educated in Toronto, Canada where he graduated from the University of Toronto with a BA (1974) and a MA (1975) in Political Science. He joined the then Department of External Affairs of Canada in 1975 as a Foreign Service Officer and served abroad in Oslo (1976-78), Moscow (1982-84) and Brussels (1988-92) where he was Political Counsellor in Canada's delegation to NATO. From 1992-97, he served at the Embassy in Washington D.C. as Minister-Counsellor (Political) and from 2001-2003 as Minister and Deputy Head of Mission at the Embassy in Tokyo. In Ottawa, Mr Meyer has held a variety of positions at the Department of Foreign Affairs and International Trade, primarily in the field of international security policy. He was Director-General of the International Security Bureau from 1998-2001. From September 2003 to August 2007, Mr Meyer served as Ambassador and Permanent Representative to the Office of the UN and to the Conference on Disarmament in Geneva. In the latter capacity he has led Canada's delegation to the First Committee of the UN General Assembly, to the Conference on Disarmament and to meetings of States Parties of the Nuclear Non-Proliferation Treaty and the Biological and Toxin Weapons Convention. He is married to Judy Meyer and they have three adult children.



**Marvin Miller**

Marvin Miller received a Ph.D in Applied Physics from the Polytechnic Institute of New York in 1967, and was a tenured Associate Professor of Electrical Engineering at Purdue University working on laser theory and applications before joining the MIT Nuclear Engineering Department (NED) in 1976. He retired from the position of Senior Research Scientist in the NED in 1996, and became a Research Affiliate both with NED and the Security Studies Program (SSP) at the MIT Center for International Studies. He is now a Research Affiliate with NED and the Science, Technology and Society (STS) Program at MIT where he continues his work on nuclear arms control and the linkage between nuclear power and nuclear proliferation as a member of the Science and Technology Working Group. During his affiliation with MIT, Dr. Miller has been a consultant to the Oak Ridge, Los Alamos, and Argonne National Laboratories, the U.S. Departments of State and Energy, and the International Atomic Energy Agency, and is currently still active as a consultant to the Nonproliferation Bureau of the State Department.



**Götz Neuneck**

Prof. Dr. Götz Neuneck is physicist and earned his Dr. rer. nat. at the University of Hamburg in the faculty of mathematics. From 1984 to 1987, he worked at the Afheldt Working Group of the Max Planck Society in Starnberg near Munich on questions of strategy, military technologies and armament control. Since 1989, he has acted as research advisor at the IFSH and manager of IFAR. Since 2001, he has been teaching in the Master's programme "Peace and Security Studies". He is member of the Board of the Deutsche Physikalische Gesellschaft (DPG) / German Physical Society, chairman of the working group "Physik und Abrüstung" / Physics and Disarmament of the DPG and Pugwash representative of the Verband Deutscher Wissenschaftler (VDW) / Association of German Scientists as well as member of the Council of Pugwash Conferences on Science and World Affairs.

Dr. Neuneck is the Chair of *Working group "Physics and Disarmament (AKA)* , German Physical Society (DPG) and a member of the Council of the *"Pugwash Conferences on Science and World Affairs"*. He was a member of the German Delegation at the 7th NPT Review Conference in New York in 2005



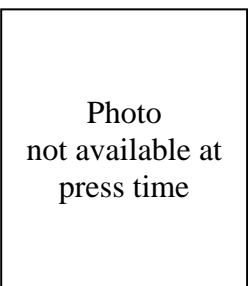
**Amol Shankarrao Parab**

Rank : Brigadier  
Defence Attache, Embassy of India



**Theodore Postol**

Theodore Postol is Professor of Science, Technology and National Security Policy at MIT. He has a Ph.D. in nuclear engineering from MIT and has worked as a research physicist at Argonne National Laboratory. Prior to coming to MIT in 1989, he worked as an analyst at the Congressional Office of Technology Assessment and as a science and policy advisor to the Chief of Naval Operations. He has received the American Physical Society’s Leo Szilard Award for “incisive technical analysis of national security issues that [have] been vital forming the public policy debate” and the Hilliard Roderick Prize in Science, Arms Control, and International Security from the American Association for the Advancement of Science for “outstanding contributions that advance our understanding of issues related to arms control and international security.” In 2001 he received the Norbert Wiener Prize from Computer Professionals for Social Responsibility for uncovering numerous and important false claims about missile defenses and in 2005 was awarded the Whistleblower Award by the Federation of German Scientists and the German Section of the International Association of Lawyers Against Nuclear Arms. His current research includes work on ballistic missile defense technologies, fraud in the U.S. missile defense program, and reducing nuclear dangers in South Asia as well as those due to the deteriorating Russian nuclear infrastructure.



**Leonid F. Ryabikhin**

**Education**

- Diplomatic Courses at the Diplomatic Academy, of the Russian Foreign Ministry 1999-2000.
- Political University, Soviet Air Force Academy, 1968-1970, MA in Philosophy.
- Moscow Institute of Technology, 1962-1968. MA in computer



science.

Special military training Courses of Air Force Reserve. 1962-1967.

#### Professional/Occupational Experience

- Current position: Committee of Scientists for Global Security and Arms Control, Executive Secretary since 1999.
- Diplomatic Academy of the Russian Foreign Ministry, Senior science fellow, 1999-2005, and Senior science fellow in Institute of World Economy and International Relations, 2003-2005.
- The USSR Copyright Agency, Deputy chief of Department of Political, Social and Technical Sciences, 1974-1984, 1987-1989.
- The USSR Embassy in India, chief of section (culture and science affairs), 1984-1987.
- The USSR Council of Ministries, Main Department for Microbiological Industry, Senior science fellow, 1972-1974.
- The USSR National Flight Safety Committee, Senior science fellow, 1971-1972.

Soviet Air Force Academy, instructor, 1968-1970.

In 1994 and 1996 Visiting Fellow at the Center for International Security and Cooperation (CISAC), Stanford University.



#### **K Santhanam**

K Santhanam is presently President of The India-Central Asia Foundation (ICAF). He was Director General, Institute for Defence Studies Analyses (IDSA), New Delhi till July 31 2004 and earlier was Chief Adviser (Technology) in the Defence Research and Development Organisation (DRDO). He has worked for about 43 years in the area of science, technology and security and contributed to the evolution of India's positions on disarmament and arms control. He has served as India member in the Inter-Governmental Committee of Experts set up by the UN Secretary General (1978-80) on verification of arms control treaties, has been Scientific Adviser in the Ministry of External affairs (1984-86) and a member of the

National Security Advisory Board. He was conferred the *Padma Bhushan* award in recognition of his contributions to the Shakti-98 series of nuclear tests conducted in May 1998. He was the editor, *Strategic Analysis* (New Delhi). His recent published works include co-authorship of *Jihadis in Jammu and Kashmir: A Portrait Gallery* (Sage Publications, New Delhi 2003); *Iraq War 2003: Rise of the New 'Unilateralism'* (Ane Books, New Delhi 2003) ; *Asian Security and China 2000-2010* (Shipra Publications, New Delhi 2004) and *India And Central Asia: Advancing the Common Interest* (IDSA and Anamaya Publishers, New Delhi, 2004), *India And Kazakhstan Relations: Enhancing the Partnership* (KazISS, Almaty and Anamaya Publishers, New Delhi, 2006) and *India-Tajikistan Cooperation: Perspectives and Prospects* (ICAF & Anamaya Publishers, New Delhi, 2007).

**E. A.S. Sarma**



Dr. E.A.S.Sarma was a member of the Indian Administrative Service from 1965 to 2000. In that capacity, he held several senior assignments in Government of India and Government of Andhra Pradesh. These assignments included Principal Secretary (Energy), Government of Andhra Pradesh, Adviser (Energy), Planning Commission, Delhi and Secretary in the Ministries of Power and Finance in Government of India.

During 2001-04, Dr. Sarma was Principal of the Administrative Staff College of India, Hyderabad.

While in government, Dr. Sarma was closely associated in formulating legislative framework for reform in the electricity, telecom and insurance sectors in India.

He chaired the Nuclear Power Pricing Committee (1995) constituted by the Department of Atomic Energy, Government of India and the Committee constituted by the Government of Andhra Pradesh in 2003 to evaluate the viability of LNG-based electricity generation in Andhra Pradesh.

Dr. Sarma holds a Master's degree in Nuclear Physics (Andhra University, Waltair, India, 1962), a Master's degree in Public Administration (Harvard University, USA, 1980) and Ph.D. in Energy Modeling (Indian Institute of Technology, Delhi, 1986).

At present, he is engaged in civil society activity at Visakhapatnam (India) where he has settled down after retirement. He is the coordinator of Forum for Better Visakha, a non-profit non-governmental body engaged in articulating the citizens' concerns in different areas of public policy, including regional and national security issues.



**Lawrence Scheinman**

Dr. Scheinman has extensive experience as an academic, including positions as a tenured faculty member at UCLA, University of Michigan and Cornell University, teaching and writing on international security, technology and proliferation issues and on international law and regimes. He was the Director of the Peace Studies Program and Program on Science, Technology and Society at Cornell University. Dr. Scheinman has experience with negotiating and policy-making and received the Distinguished Honor Award from the ACDA.

Dr. Scheinman has published extensively on the issues of proliferation, international technology cooperation and other related topics. He has been a guest speaker at universities, professional societies and organizations including the Council on Foreign Relations, National Security Study Group of the South Korean Parliament, Brookings Institute, Woodrow Wilson Center, Atomic Industrial Forum, National Press Club and others. He is a member of the Council on Foreign Relations, Phi Kappa Phi, American Men of Science and is admitted to practice before the State Bar of New York.



**Josephine Anne Stein**

Dr. Josephine Stein is Principal Research Fellow in Innovation Studies at the University of East London (UEL) in England. Her research focuses on security-building through international scientific cooperation and interdisciplinary approaches to understanding human security; and on the interplay between international policies and innovation systems. She runs a new MA in Innovation Studies, teaches third-year courses on the Information Society such as computer ethics, and supervises PhD and undergraduate dissertation students.

Stein holds a PhD in Mechanical Engineering from MIT, where she was also a Departmental Instructor. Other experience includes working as a cryogenic/ aerospace engineer designing cooling systems for spaceborne sensors at the NASA Jet Propulsion Laboratory in Pasadena, California, and working as a nuclear engineer at the General Atomic Company in San Diego.

Josephine Stein's career in S&T policy analysis has included working for the US Congress, with the European Commission, at the Royal Society and in academia, and she has provided consultancy for the OECD and various national and international S&T organisations. She has directed numerous studies for the European Commission, the European Parliament, the Economic and Social Research Council (UK) and the National

Science Foundation (USA). *She has given talks and briefed policymakers in sixteen countries, and her work has been translated into half a dozen languages.* She has written, co-edited or contributed to seventeen books and has published numerous reports, academic and conference papers and shorter works for the popular press. Her most recent papers have ventured into the realms of sociology and political science, and she is poised to integrate insights from other disciplines, such as psychology and theology, into her writing on human security.



**Jan Stupl**

In December 2004 Jan Stupl finished his university education receiving a National Diploma in Physics of the Friedrich-Schiller-University in Jena, Germany. The topic of his diploma thesis was the Q-Switching of a CO<sub>2</sub>-Laser.

Since January 2005 he has been working on the assessment of future High Energy Laser weapons. This is part of his PhD Thesis in physics on the topic of time-dependent temperature development under the influence of laser radiation. The project is supervised by the Institute of Peace Research and Security Policy at the University of Hamburg, Germany and takes place under collaboration with the Technical University Hamburg and the physics department at the University of Hamburg.

His interest in security policy and international politics was fuelled by an internship at the United Nations headquarter in New York in summer 2003.



**Ashley J. Tellis**

Ashley J. Tellis is Senior Associate at the Carnegie Endowment for International Peace, specializing in international security, defense, and Asian strategic issues. He was recently on assignment to the U.S. Department of State as Senior Adviser to the Undersecretary of State for Political Affairs, during which time he was intimately involved in negotiating the civil nuclear agreement with India.

Previously he was commissioned into the Foreign Service and served as Senior Adviser to the Ambassador at the U.S. Embassy in New Delhi. He also served on the National Security Council staff as Special Assistant to the President and Senior Director for Strategic Planning and Southwest Asia.

Prior to his government service, Mr. Tellis was Senior Policy Analyst at the RAND Corporation and Professor of Policy Analysis at the RAND Graduate School.

He is the author of *India's Emerging Nuclear Posture* (2001) and co-author of *Interpreting China's Grand Strategy: Past, Present, and Future* (2000). He is the Research Director of the Strategic Asia program at NBR and co-editor of the four most recent annual volumes, including *Strategic Asia 2007–08: Domestic Political Change and Grand Strategy*. In addition to numerous Carnegie and RAND reports, his academic

publications have appeared in many edited volumes and journals. He is frequently called to testify before Congress.

*He earned his Ph.D. in Political Science from the University of Chicago. He also holds an M.A. in Political Science from the University of Chicago and B.A. and M.A. degrees in Economics from the University of Bombay.*

Mr. Tellis is a member of several professional organizations related to defense and international studies including the Council on Foreign Relations, the International Institute of Strategic Studies, the United States Naval Institute and the Navy League of the United States.



### **Abdul Hameed Toor**

Abdul Hameed Toor received his Ph.D. in theoretical Laser physics in 1996 from Quaid-e-Azam University, Islamabad followed by a two year postdoctoral research associate position at the Department of Physics, Texas A & M University. Since 1998 he has been an Assistant Professor in the Department of Electronics at Quaid-i-Azam University.



### **John Thomson**

Sir John Thomson served as the United Kingdom Ambassador to India and as the Permanent Representative in the United Nations. He has also been Head of Policy and Planning in the British Diplomatic Service, and a Minister at NATO. Sir John Thomson joined the British Foreign Service in 1950. During that career, he served in Lebanon, Saudi Arabia, Syria, and London, becoming Private Secretary to the Permanent Under-Secretary in the Foreign Office. Following four years of politico-military work in Washington, he became Head of Policy Planning in the Foreign Office, Chief of the Assessments Staff in the Cabinet Office, Minister at NATO and Under-Secretary for defense and disarmament in the Foreign Office. While at NATO he also led the British delegation to the MBFR negotiations in Vienna. He was High Commissioner (i.e. ambassador) to India for five years, and finally spent five years as Permanent

Representative and Ambassador at the UN. He retired on his 60th birthday in 1987. Subsequently, he led a CSCE mission to Bosnia (1992) and participated in another to Albania (1994).

**William Walker**

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press time

William Walker came to the University of St Andrews in 1996 after working for many years at the Science Policy Research Unit, University of Sussex where he was latterly Director of Research. Initially trained as an electrical engineer, he has been involved in the study of technological innovation, energy policy, military industries and international nuclear relations during his academic career. In recent years, he has become particularly well known for his work on the international control of plutonium and highly enriched uranium, the fissile materials used in nuclear weapons. He has general interests in arms control and non-proliferation regimes, and a specific interest in Indian nuclear policies.

Professor Walker has been a recipient of research grants on various occasions from the Economic and Social Research Council (ESRC), The Rockefeller Brothers Fund, The Joseph Rowntree Charitable Trust, the Leverhulme Trust, The W. Alton Jones Foundation and The Ploughshares Fund.

**Robert H. Williams**

Robert H. Williams is Senior Research Scientist at Princeton University's Center for Energy and Environmental Studies. His research interests span a wide range of topics relating to advanced energy technologies, energy strategies, and energy policy, for both industrialized and developing countries. A considerable part of his research is focused on energy technologies and strategies for developing countries, where most of the growth in global energy demand will take place, and where environmental and security challenges relating to energy are especially great. He was Chair of the Renewable Energy Task Force for the President's Committee of Advisors on Science and Technology (PCAST) and was the principal author of "Renewable Energy", (Chapter 6) in the 1997 report, Federal Energy Research & Development for the Challenges of the 21st Century and Report of the Energy R&D Panel. He received a B.S. in physics from Yale University in 1962 and a Ph.D. in theoretical plasma physics from the University of California at Berkeley in 1967.



**Moeed Yusuf**

Moeed Yusuf is a Doctoral student in Political Science at Boston University, USA. He holds a Master of Arts in International Relations from Boston University. Currently he is a Research Fellow at Strategic and Economic Policy Research, Pakistan and a Visiting Associate at the Sustainable Development Policy Institute (SDPI), Pakistan. Most recently, he was based at the Brookings Institution as a Special Guest Scholar. Mr. Yusuf focuses on strategic concerns related to South Asia, especially those falling within the ambit of Pakistan's security policy. His research interests relevant to the conference include: Pakistan's nuclear program, the stability-instability paradox, strategic balance between Pakistan and India, missile defense systems in South Asia, global non-proliferation regime, the Kashmir dispute, and United States strategic interests in South Asia.

Mr. Yusuf has also been a member of the visiting faculty at the Department of Defence and Strategic Studies at Quaid-e-Azam University, Pakistan. He has published widely in national/international journals, organizational publications, and magazines. He writes a weekly column in The Friday Times, Pakistan. He is currently also engaged in writing a book, which is a compilation of his previous writings on strategic and economic issues relevant to Pakistan.