

Jack Boureston

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Education, Training, and Certifications

- M.A: International Policy Studies, *Monterey Institute*, December, 1993
- B.A: International Relations: *Monterey Institute*, May 1993
- Intelligence Seminar, Practices and Evolutions, 1993
- Open-source Intelligence Workshop, 1993
- Verity Topic Instruction Course, 1994
- Nuclear Fuel Cycle Basic Course, 1997
- IAEA Safeguards Systems and Safeguard Evaluations Course, 1998
- IAEA Nuclear Fuel Cycle and Proliferation Indicators Course, 2000
- Nuclear Fuel Cycle for Diplomats Course, 2001

Relevant Experience and Qualifications

Nuclear Proliferation Analysis

- **FirstWatch International** 2002 – Present: Direct a team of analysts that support the nonproliferation efforts of governments, academia, and international research institutes. Develop national nuclear profiles and write nuclear program assessments.
-Nuclear Information Analysis. Examine the technical and political aspects of countries to determine possible proliferation activities. Assess scientific and technical literature to perform studies of country's programs.

2006: Supported assessments on Iranian nuclear issues for Science Applications International Corporation (SAIC). Assembled profiles and wrote assessments of Pakistan's nuclear related institutions. Wrote assessments on nuclear programs of Brazil, Iran, and Pakistan for WMD Insights project (DTRA project). Performed contract work for Jane's Advisory Services (Consultants) to assess Iran's nuclear program. Advised various groups on nonproliferation issues, analysis, projects, etc. Wrote various articles on technologies and countries (see below).

2001-2005: Wrote nuclear assessments on the DPRK, Egypt, Syria, Iran, Iraq, and Yugoslavia for the Center for Nonproliferation Studies (CNS). Analyzed the industrial infrastructures of countries with proliferation potential ("Countries of Strategic Nuclear Concern" Project with Stockholm International Peace Research Institute (SIPRI). Completed profiles on Indonesia, Libya, Taiwan, and South Korea. Conduct analyses and produce reports on current issues of proliferation and security importance in publications such as Jane's Intelligence Review (JIR), The Bulletin of the Atomic Scientist, and Nuclear Engineering International (NEI).

- **Assessed proliferation threat stemming from non-State actors.** Assess the proliferation potential of non-state actors such as terrorist groups developing conventional nuclear devices or radiological dispersion devices (RDDs). Consider the proliferation ramifications of black market networks that facilitate the sale of nuclear technologies and know-how. Consider the problems of knowledge dissemination, training, and assistance from scientists and technicians to potential proliferators.
- **International Atomic Energy Agency (IAEA) 1998-2002: Safeguards Information Analyst.** Similar systems were developed for the International Atomic Energy Agency (IAEA) to support their Safeguards Evaluation Report (SER) process. Used the Verity Search 97 software system and Verity Agent Server to monitor relevant nonproliferation and media sources, extracted relevant data, and indexed it into the Verity database for subsequent research and analysis. Assessed S & T literature as an integrated source for safeguards information analysis.
- **Considered methodologies for using open sources to verify member state's additional protocols (AP).** While working at the IAEA, considered ways that AP declarations may be efficiently assessed and verified using open sources. Considered with depth, the articles of the AP, and it's implications for assessing the correctness and completeness of state's declarations.

Open-Source Collection Activities - Over 20 years experience developing and managing Information research and collection systems

- **Develop, implement, and manage collection systems.** Using software tools called intelligent agents, develop online monitoring systems that facilitate the automated detection and collection of information from multiple sources to support nonproliferation analysis. Collecting various formats of open-source information such as hard copy media and electronic media, and limited distribution gray literature. Also identify primary sources such as regional or technical experts to discuss issues of concern.
- **Center for Nonproliferation Studies.** Beginning in 1994, designed open source collection system to support nonproliferation analysis at the Center for Nonproliferation Studies (CNS). Identified sources from all over the world and used graduate students to review it. Students were trained to understand the context and importance of information, and provided instruction on collection and distribution to customers. From 1995 to 1998 revised the CNS collection system to take advantage of growing body of information on the internet and used new software tools to monitor and collect it. Developed method of monitoring non-English language sources, using students to manually review, extract, and abstract relevant information. Collected company data on missile components (inertial navigation systems and GPS systems). Explored "nuclear recipes" on the Internet. Tracked WMD terrorist activities. Developed an Internet based information collections system by using intelligent agents.
- **International Atomic Energy Agency (IAEA).** Similar systems were developed for the International Atomic Energy Agency (IAEA) to support their Safeguards Evaluation Report (SER). Used the Verity Search 97 software system and Verity Agent Server to monitor relevant nonproliferation and media sources, extracted relevant data, and indexed it into the Verity database for subsequent research and analysis. Served as Chair of working group to collect and use Agency wide S & T literature for safeguards information analysis.
- **Nonproliferation Literature Review (NLR)/Nonproliferation Issues (NPI).** Identify open sources from all over the world that contain information relevant to the nonproliferation of weapons of mass destruction. Develop system of monitoring and collecting that information. Devise methods of distributing information to analysts. Distributed an assembled review of relevant information with links to full text

Presentations

- "Al-Qaeda's WMD Aspirations and Capabilities, *US Naval Postgraduate School*, Dec 2003
- "Export Related Research at the IAEA," *Oxford Conference*, Oct 2000
- "Open Sources for Support Safeguards," *IAEA*, May 2000
- "Scientific Literature - Experts Meeting," *IAEA*, Mar 2000
- "Open-Source Information to Support Integrated Safeguards System," *IAEA*, Mar 2000
- "Virtual Intelligence Collectors," *Annual SCIP Conference*, Apr 1999
- "Competitive Intelligence Systems, *Online World 98*, Oct 1998
- "Open-Source Collection and Analysis," *Monterey Institute*, Sep 1998
- Various presentations on open source analysis for WMD investigation, 1994 – Present

Publications

- "Role of Iran's New Foreign Policy Council in Nuclear Debate Still in Flux," *WMD Insights*, November 2006.
- "Pakistan's Past, Current and Future Reprocessing Capabilities," *Jane's Intelligence Review*, October 2006.
- "Ukraine's Missile Industry: Still Armed and Dangerous?" *Jane's Intelligence Review*, July 2006.
- "Brazilian Nuclear Debate Highlights Parallels And Contrasts With Iran," *WMD Insights*, June 2006.
- "Breeder Reactors and India's Nuclear Strategy," with Leonard S. Spector, *WMD Insights*, April 2006.
- "Iran Steps Up Its Nuclear Training," *WMD Insights*, March 2006.
- "Iran Hones Laser Skills... With Uranium Enrichment in Mind?" *WMD Insights*, February 2006.
- "Strengthening Nuclear Safeguards: Special Committee to the Rescue?" *Arms Control Today*, December 2005.
- "China Industry Overview," Supplement for Conference on Nuclear Power in China, *Nuclear Engineering International*, April 2005.
- "Laser Enrichment: Separation anxiety," by Jack Boureston and Charles Ferguson, *Bulletin of the Atomic Scientists*, March/April 2005.
- "The Nuclear Black Market: What We Know Now, What Questions Remain," by Jack Boureston and Lindsay Fritz, *Jane's Intelligence Review (JIR)*, 2005.
- "Verifying Libya's Nuclear Disarmament," with Yana Feldman, in *VERTIC Yearbook 2004*, (London: Verification Research, Training, Information Centre, 2004), January 2005.
- "Tracking the technology," by Jack Boureston, *Nuclear Engineering International (NEI)*, August 2004. (*focus on uranium centrifuges*)

- "IAEA puts Iranian Laser-enrichment technology in the spotlight," with Charles Ferguson, *Jane's Intelligence Review*, July 2004.
- "Schooling of Iran's Atom Squad," with Charles Ferguson, *Bulletin of the Atomic Scientists*, June 2004.
- "The Iran Nuclear Question: Where Do We Go From Here?" with Yana Feldman and Alexandra Anastassopoulos, *HEARTLAND: Eurasian Review of Geopolitics*, April 2004.
- "Assessing Iran's plutonium reprocessing capabilities: A way to obtaining nuclear weapons material," with Charles Ferguson, *Jane's Intelligence Review*, March 2004.
- "Putting Together Libya's Nuclear Puzzle," with Yana Feldman and Charles Mahaffey, *Jane's Intelligence Review*, Vol. 16, No. 2, February 2004.
- "Verifying Libya's Nuclear Disarmament," with Yana Feldman and Charles Mahaffey, *Trust & Verify*, Issue No. 112, January-February 2004.
- "Iran's IR-40 Reactor A Preliminary Assessment," with Charles Mahaffey, *Jane's Intelligence Review*, (December 2003), <<http://www.firstwatchint.org/IR40.htm>>.
- "Iran's IR-40 Reactor A Preliminary Assessment," with Charles Mahaffey, *Jane's Intelligence Review*, (December 2003), <<http://www.firstwatchint.org/IR40.htm>>.
- "Countering the al-Qaeda WMD Threat," by Jack Boureston, *Strategic Insights* (November 2003), <<http://www.ccc.nps.navy.mil/si/nov03/homeland.asp>>.
- "Al-Qaeda and Mass Casualty Terrorism: Assessing the Threat," by Jack Boureston, *Strategic Insights* (October 2003), <<http://www.ccc.nps.navy.mil/si/oct03/terrorism.asp>>.
- "Assessing Al Qaeda's WMD Capabilities," by Jack Boureston, *Strategic Insights* (September 2003), <<http://www.ccc.nps.navy.mil/si/sept02/wmd.asp>>.