AGA 5: Verification Methodologies

Time: Thursday 12:00–13:00 Location: DO24 Reuter Saal

AGA 5.1 Thu 12:00 DO24 Reuter Saal

Geospatial Information and Technologies Supporting Non-proliferation, Arms Control, and Disarmament — •Irmgard Niemeyer and Clemens Listner — International Safeguards Group, IEK-6: Nuclear Waste Management and Reactor Safety, Forschungszentrum Jülich, Germany

Geospatial information and technologies combined with open-source tools play an important role in international safeguards, non-proliferation, arms control, and disarmament by helping to detect undeclared or clandestine nuclear activities. Recent technological advances in how information is created, disseminated, collected and managed have created promising opportunities for the further expansion of the use of geospatial information and technologies in the safeguards analysis process.

Geospatial information and technologies combined with open-source tools could open up a number of avenues for verifying non-proliferation and arms control agreements in general. Furthermore, open sources provide increasing volumes of relevant data while social media continue to rapidly expand and analysis of these information sources has moved into the mainstream.

The presentation seeks to examine the issues, challenges and opportunities of these expanding information sources and technologies from a non-proliferation, arms control and disarmament perspective.

AGA 5.2 Thu 12:30 DO24 Reuter Saal

Information and Risk-driven Verfication - An Innovative Approach? — •Clemens Listner[1], Gotthard Stein[2], Irmgard Niemeyer[1], Morton J. Canty[1], and Arnold Rezniczek[3] — [1]Forschungszentrum Jülich, Jülich, Germany — [2]Consultant, Bonn, Germany — [3]UBA GmbH, Herzogenrath, Germany

As a result of the inability to detect the Iraq's clandestine nuclear weapons programme, the IAEA realised the need to give greater consideration to the State as a whole, rather than focusing primarily on nuclear material and facilities declared by the State. This has led to an approach known as the State-level concept. It allows for an assessment of a State's technical capabilities to acquire weapon grade nuclear material and the potential risk of such scenarios.

The paper gives an overview of the major principles of this approach and explores how far these ideas could also be implemented in other fields of international agreements where verification of treaty compliance is essential. Furthermore, it will be shown how the concept could be applied to the field of nuclear disarmament. By enhancing the ability to verify nuclear disarmament, it could thus serve as a driver for further multinational and international negotiations.