

AGA 3: Nuclear Disarmament Verification

Time: Thursday 11:00–12:55

Location: H-HS XVII

Invited Talk AGA 3.1 Thu 11:00 H-HS XVII
International Partnership for Nuclear Disarmament Verification: Current Status and Future Prospects — ●IRMGARD NIEMEYER¹, GERALD KIRCHNER², and GÖTZ NEUNECK³ — ¹Forschungszentrum Jülich — ²ZNF Universität Hamburg — ³IFSH Universität Hamburg

The International Partnership for Disarmament Verification (IPNDV) includes technical experts and government representatives of NWS and NNWS to work jointly on procedures and technologies that would allow for effective verification of nuclear disarmament. In Phase I (2016-2017), the Partnership focused on nuclear warhead dismantlement and identified 14 key steps in the nuclear weapons dismantlement lifecycle. Initially, IPNDV considered steps 6 to 10, associated with monitoring the nuclear warhead physical dismantlement process. In Phase II (2018-2019), IPNDV broadened its work to consider wider aspects of nuclear disarmament verification while at the same time deepen the work on specific elements of verification. In moving from paper to practice, IPNDV demonstrated their work and progress through five practical exercises and technology demonstrations: A table top exercise, three technology demonstrations, and the Nuclear Disarmament Verification (NuDiVe) Exercise, co-hosted by Germany and France. In the following phase, IPNDV will build on current working methods and engage in further hands-on activities, including scenario-based discussions, practical exercises and technology demonstrations. The talk will discuss the outcome of IPNDVs first two phases and give an outlook to the next phase.

Invited Talk AGA 3.2 Thu 11:45 H-HS XVII
Nukleare Abrüstungsverifikation in der Praxis: Die Übung NuDiVe — ●SIMON HEBEL und GERALD KIRCHNER — Carl Friedrich von Weizsäcker-Zentrum für Naturwissenschaft und Friedensforschung, Universität Hamburg, Beim Schlump 83, D-20144 Hamburg, Deutschland

Um die technischen und organisatorischen Herausforderungen einer inspierten Abrüstung nuklearer Sprengköpfe zu untersuchen, sind prak-

tische Übungen unerlässlich. Mit "NuDiVe" ist erstmals eine multilaterale Abrüstungsübung von Frankreich und Deutschland ausgerichtet worden im Rahmen des International Partnership for Nuclear Disarmament Verification (IPNDV). Teilnehmer aus zahlreichen Ländern nahmen die Rollen von Inspektionsteam und Nuklearwaffenstaat ein, um die Demontage eines Sprengkopfes mit allen notwendigen Technologien in Echtzeit zu simulieren. Zwei der Organisatoren berichten von Verlauf und Ergebnissen der Übung.

AGA 3.3 Thu 12:30 H-HS XVII
Moving from Paper to Practice in Nuclear Disarmament Verification: NuDiVe - The Nuclear Disarmament Verification Exercise — JAN GEISEL-BRINCK¹, SIMON HEBEL¹, PHILIP KEGLER², GERALD KIRCHNER¹, MANUEL KREUTLE¹, STEFAN NEUMEIER², and ●IRMGARD NIEMEYER² — ¹Carl Friedrich von Weizsäcker-Zentrum für Naturwissenschaft und Friedensforschung (ZNF), Universität Hamburg — ²Forschungszentrum Jülich GmbH

The Nuclear Disarmament Verification (NuDiVe) Exercise, organised by Germany and France, was held in September 2019 at Forschungszentrum Jülich, as part of the International Partnership for Disarmament Verification (IPNDV). NuDiVe was the first nuclear disarmament verification exercise that was not limited to the organisers, but included participants from 11 countries, taking roles as inspector, host or evaluator. The inspection team applied verification measures immediately prior to and after the notional dismantlement of a fictitious nuclear warhead to gain assurance of the non-diversion of fissile material. The host team, representing the fictional inspected state of "Urania", used managed access arrangements designed to prevent any disclosure of proliferation-sensitive information. Procedures followed were prepared by the organisers, based on inspection concepts and approaches developed by IPNDV. The evaluation team observed the exercise. NuDiVe has shown that multilateral nuclear disarmament verification is possible with the involvement of nuclear weapon states and non-nuclear weapon states. The talk highlights the conceptual design, execution and results of NuDiVe from the organiser's point of view.