

**Nonproliferation & Arms Control Technical Division
Export Control Subcommittee**

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ABSTRACT

In 2018 the Nonproliferation and Arms Control Technical Division revitalized the Subcommittee on Export Controls and hosted a working group meeting at the Annual Meeting to discuss a path forward. Through this working group meeting, the subcommittee identified three key areas of focus: Bring the international outreach programs on export controls and internal/domestic export control communities closer together to share information and contribute to raising the next generation of export control experts; raise awareness across the broader nonproliferation community to encourage cross-collaboration and information sharing; and transfer knowledge to early-mid career staff to build the next generation of export control experts. This paper aims to raise awareness of the revitalized Subcommittee, engage new participants from the broader nonproliferation community, and outline next steps to meet the Subcommittee's near- and mid-term objectives.

Background/History of the NAC Subcommittee on Export Controls

The Nonproliferation and Arms Control (NAC) Subcommittee on Export Controls was first founded to create a U.S.-based forum to bring together experts and to share research in the field of nonproliferation side of export controls. While the Export Control Coordinators Organization (ECCO) brings together export control compliance experts and practitioners every year, an organization solely focused on research and the international aspects of nonproliferation export controls did not exist. Originally the subcommittee was founded to close this gap by creating a forum for those working on the nonproliferation side of export controls to come together to exchange research, knowledge, topics of interest, and to network with other experts both in the U.S. and internationally. Additionally, this new working group aimed to engage industry and universities researching key topics related to export controls and nonproliferation.

Several challenges stood in the way of progress towards reaching the Subcommittee's goals. The Subcommittee first started by hosting dedicated export control sessions at the Annual Meeting. One of the challenges was encouraging a wide variety of presenters at the session. Most of the export control session presenters from year to year were predominantly from the Joint Research Centre (JRC) and South Korea. In addition to the difficulty of bringing in a range of presenters, there were also administrative concerns that precluded U.S.-based export control practitioners from sharing their research. Due to these challenges and the environment around sharing export control research at the time, the Export Control Subcommittee became dormant after a few years.

Today, many of those earlier challenges have been resolved and recently some of the newer INMM members demonstrated interest in reinvigorating the subcommittee, which led to the restart of the NAC Subcommittee on Export Controls in July 2018.

Current Charter

In 2018 the Nonproliferation and Arms Control Technical Division revitalized the Subcommittee on Export Controls and hosted a working group meeting at the Annual Meeting to discuss a path forward. This Subcommittee on Export Controls was revitalized to create a forum to exchange information and discuss export control related research, knowledge, and activities between practitioners, universities, nongovernmental organizations, and industry. A large reason for reviving the Subcommittee is to give the nonproliferation side of export controls representation and a platform within the broader INMM community. During the 2018 technical meeting, the Subcommittee identified writing a formal charter as the next step which also outlines the three key areas of focus identified at the meeting:

1. Bring the international outreach programs on export controls and internal/domestic export control communities closer together to share information and contribute to building the next generation of export control experts
2. Raise greater awareness across the broader nonproliferation community to encourage cross-collaboration and information sharing
3. Transfer knowledge to early-mid career staff to prepare the next generation of export control experts

The subcommittee on export controls plans to meet these goals and implement ideas by establishing near- and mid-term outputs for the working group and developing a list of topics of interest.

Near- and Mid-term Objectives

We, (the Subcommittee core team) will continue to encourage subject matter experts to present work at the dedicated session on export controls at the INMM Annual Meeting by reaching out to INMM members and experts in the field in advance of requests for abstracts. We aim to engage new early-career staff interested in export controls, and eventually strive to connect those interested in similar topics to share their work and findings with the community. Building and maintaining a strong session on export controls at the Annual Meeting is critical to reaching the Subcommittee's objectives.

We plan to host a research forum series and potentially develop a dedicated Fundamentals of Strategic Trade Controls series. Export control practitioners both U.S. and international, universities, industry, and nongovernmental organizations will be invited to share research and current work on relevant topics. The goal is to bring the community together through topics of interest and raise awareness of the diverse perspectives working in the same field. A research series could also engage early-career staff who are interested in export controls and looking for avenues to learn about and engage with nonproliferation export control work. Part of this initiative will include finding ways to share information and make resources easily accessible to the broader nonproliferation community. The subcommittee plans to start by developing an annotated bibliography with the most relevant strategic trade control resources and modifying an existing list of export control basic terms and definitions to share. The working group will develop these outputs as part of an effort to increase awareness of export controls starting with the INMM community.

A key objective of the working group is building the next generation of export control experts. One way to transfer knowledge and build the next generation of experts is through establishing an

export control mentorship program. As many senior experts in the field are coming up on retirement age within the next decade, there is a great need to maintain continuity of knowledge through the transfer knowledge and experience from senior experts to early- and mid-career staff in the field. While this transfer of knowledge occurs within the lab system and universities, establishing a unique avenue through the subcommittee could be beneficial by connecting and establishing mentorship outside of traditional channels and bring unique sets of perspectives and expertise together. Establishing a mentorship program also enables participating organizations to share their unique expertise and experiences with the larger export control community. While this idea needs to be further defined and developed through the larger working group, an idea for this program is potentially university-laboratory collaboration and industry-laboratory collaboration.

The Subcommittee will hold regular working group meetings outside of the technical meeting at the INMM Annual Meeting to build on and maintain the momentum created at the Annual Meetings towards outputs and community engagement. While funding and time may be challenge, the working group meetings will start by video teleconference and phone calls. Updates from these meetings will be shared regularly through emails with the working group.

In 2021, the European Safeguards Research and Development Association (ESARDA) and the Institute of Nuclear Materials Management plan to host a Joint INMM-ESARDA Export Control working group meeting in Vienna, Austria. The joint-working group meeting presents an opportunity to cooperate with ESARDA's active working group on export controls, learn from their experience, and look for a way to expand engagement.

Topics of Interest

The Subcommittee developed a list of topics of interest which was circulated, reviewed, and updated by members of the group. The Subcommittee will continue to revise and update the list as the nonproliferation export control landscape evolves.

- Intangible technology transfers and related challenges such as dealing with a rapidly changing IT environment and cloud computing
- Free trade zones and special economic zones – Where are free trade and special economic zones emerging? What threats do they pose and how can export controls be enforced?
- Blockchain and supply chain security – can blockchain/distributed ledger technology be used for supply chain security? If so, then how? What use cases exist?
- Secondary markets – The scrap metal market and secondary markets like eBay can be used to shop for strategic goods. What are some of the challenges that secondary markets pose, how can proliferators exploit these markets, and what can be done to address the threats that secondary markets present?
- Emerging Technologies – what threats do biotechnology, artificial intelligence and other emerging technologies pose to enforcing export controls and is the threat the same across chemical, nuclear, biological, delivery system, and conventional weapons? What do effective means of control look like?
- Trade statistics/trade data – What are the relevant data sets for looking at strategic trade risk and proliferation threats?
- What more could be done to strengthen international partnerships when it comes to export controls? What are the barriers and challenges to strengthening these partnerships and the international regimes?

Lessons Learned and Opportunities

Past challenges highlight the difficulty of attracting participants from the broader INMM community and carving out a role for export controls within INMM. This is in large part because the export control community is relatively small. A key challenge for growing the subcommittee will be reaching out to and engaging interested participants. Finding areas of intersection and collaboration between strategic trade controls and other areas of nonproliferation, like safeguards and arms control, will be key to addressing this challenge. Additionally, accurately messaging the objectives and purpose of the working group to outside participants will be vital to growing the forum. The subcommittee will center some outputs like the research forum series and annotated bibliography on outreach to the broader community.

Another lesson learned from the past is the importance of having a sponsor and champion that shares the vision of the Subcommittee. This presents an important opportunity for the Subcommittee to engage the sponsor from the start and demonstrate the value of Subcommittee and its subsequent outputs. Potential benefits to U.S. Programs include developing the next generation of experts and establishing a strong community and network of experts, domestically and internationally, working towards strengthening export controls for nonproliferation and global security.

A persistent challenge for all participants is carving out time from their day-to-day jobs to dedicate to the working group. The objective of establishing the subcommittee is to create a good-natured community and collaborative, diverse environment for nonproliferation export control practitioners. The outputs of the working group include varying levels of efforts required so that participants can determine their own levels of engagement. The aim is that participants receive value out of the time they decide to invest into the working group.

One opportunity we identified is including and engaging industry, particularly industry licensing and compliance professionals, in the Subcommittee. Industry offers a nuanced and vital perspective on export controls and so having industry share information with the working group is particularly useful for understanding the evolving issues and environment around export controls. Additionally, working with industry is one way for early-career export control practitioners to gain hands-on, relevant experience that can build the expertise and knowledge of the next generation of export control experts. A question for the working group is how do we effectively engage industry and include industry's perspective?

Conclusion

The revitalized Subcommittee on Export Controls provides an excellent opportunity to bring the nonproliferation export control community together, to create a forum for export control professionals to exchange ideas and research, and to contribute to building the next generation of export control professionals. At the same time, we strive to engage the broader INMM community and welcome all interested members to take part in the Export Control Subcommittee.

Acknowledgements

We thank Kevin Whattam, the original founder of the Subcommittee, at Pacific Northwest National Laboratory for sharing his experience and providing mentorship to the revived NAC Subcommittee on Export Controls.

Sandia National Laboratories is a multi-mission laboratory managed and operated by National Technology and Engineering Solutions of Sandia, LLC., a wholly owned subsidiary of Honeywell International, Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.