

# IAEA NSSC NETWORK NEWSLETTER

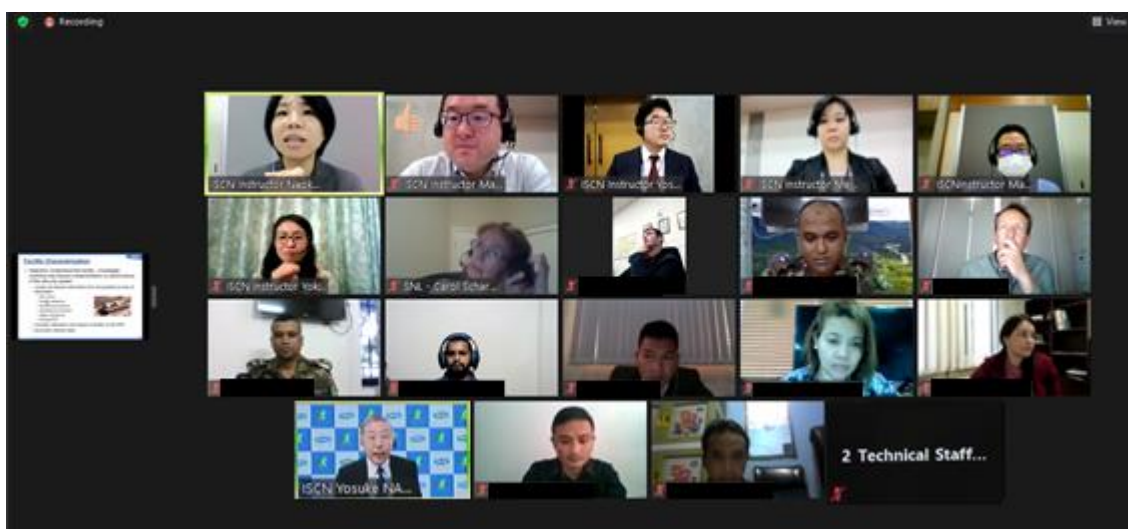
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## In Focus

### Japan's Experience in Mitigating the Impact of COVID-19 on NSSC Operations

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*Participants listen to a technical lecture during an online regional training course at ISCN. (Photo: JAEA/ISCN)*

Nearly every aspect of life has been disrupted by the ongoing COVID-19 global pandemic, and nuclear security is no exception. NSSCs are responsible for helping States to sustain nuclear security through programmes in human resource development, technical support, and scientific support. While some NSSC activities in these areas may be relatively unaffected by the pandemic, others may be impacted significantly and it is our responsibility to identify strategies and implement measure to mitigate these impacts, ensuring that nuclear security can still be effectively sustained in these challenging and uncertain times.

Japan Atomic Energy Agency (JAEA) established the Integrated Support Center for Nuclear Nonproliferation and Nuclear Security (ISCN) in December 2010, based on a commitment made by Japan at the first Nuclear Security Summit held in Washington D.C., USA, to establish a regional center for strengthening nuclear security in Asia and other regions. ISCN conducts training,

workshops, and seminars that support capacity building, as well as research and development on new technologies in nuclear security and non-proliferation.



*Breakout session during an ISCN regional training course on physical protection. (Photo: JAEA/ISCN)*

Our training courses are implemented based on a needs-oriented approach with tailored training curriculum fitting the requirements of target participants. ISCN also combines various methods and tools for effective learning, such as lectures, group exercises, physical protection exercise fields, a virtual reality system, and technical visits to JAEA research reactors and other nuclear fuel cycle R&D facilities.

ISCN support includes regional and bilateral training courses for other countries in Asia, national training courses for Japanese stakeholder organizations, and also hosts IAEA international training courses. As a product of this approach, 4642 people from 99 countries and six international organizations have participated in 183 courses at ISCN over the last ten years.

The COVID-19 pandemic, however, has had a serious impact on ISCN operations and it poses continued risks to the effective approach that we have taken to training since the centre was founded. Worldwide travel restrictions forced us to postpone all four international and regional in-person training courses and workshops that we had planned since March 2020. Domestic travel in Japan was also restricted until late June, so we had to postpone three domestic trainings planned during this period as well.

To mitigate the impact of COVID-19 both now and into the future, we decided to transition our two major training courses to an online format. Every year, we host a regional training course (RTC) on physical protection (PP-RTC) and another RTC on state systems of accounting for and control of

nuclear material for IAEA safeguards. We recognized early on how serious the pandemic would be and therefore started to develop these online RTCs in April 2020, with the target of conducting them at the originally planned dates, 19-30 October and 9-20 November, respectively.

While we have been able to preserve some features of the in-person training courses, there are of course some differences and limitations with the online courses. Although the two-week duration of the RTCs is the same in the online format, we have had to reduce the number of participants, primarily in order to keep sub-group exercises to a manageable size for online-based work. In the online RTCs, we effectively combine lectures and Q&A sessions in a virtual classroom for interactive learning and e-learning for self-study, but we reduced the module and lecture times, considering the difficulties some participants have in concentrating for a longer period of time online.

The scope of the course objectives, both overall and for each module, is adjusted mainly by taking out redundancies and the exercises are simplified to fit the online environment. Additionally, since our courses included international participants from various time zones around the world, each interactive module conducted in the virtual classroom environment cannot exceed three hours in total duration.

Technical tools for online training and a suitable training venue from which to host the virtual classroom are also important. Not only did we need to select a viable virtual meeting platform and ensure we had proper equipment for our online courses, but we also had to reconfigure our existing physical classrooms and conference rooms to serve the unique features of online learning.

To help create a more immersive training environment, ISCN also developed a virtual tour of its Physical Protection Exercise Field using commercially available software and camera. While this virtual tour was not incorporated in the online physical protection RTC held this year, we have piloted it during other workshops and lectures for university students and will consider integrating this technology into additional training courses in the future.

Fortunately, our centre was able to resume national in-person training courses starting in July 2020 with appropriate infection control measures, including: conducting the courses in locations of Japan with lower COVID-19 case numbers; limiting the number of participants to ensure social distancing; wearing masks; window ventilation; preparing hand sanitizer; and, frequent disinfection of surfaces. With these measures in place, ISCN has already successfully completed or rescheduled three domestic training courses.

At the time of the publication of this newsletter, ISCN has just completed its first online physical protection RTC. Thanks to the professional efforts of our technical staff to prepare and practice in advance, the course has been implemented without major problems and we have gotten positive feedback from the participants. Having said that, we have learned a lot of lessons and identified new challenges every day, including learning how best to support participants who do not have reliable or stable internet connections. This is something we will evaluate to pursue better solutions for future online training.

Despite the challenges and some limitations, online training courses definitely provide new opportunities, not only just to mitigate the impacts of COVID-19 but also to invest in an innovative approach to capacity building support that can reach participants efficiently, while still maintaining effectiveness. For future ISCN activities, we may integrate or combine shorter in-person training courses with e-learning, for example by using e-learning as a prerequisite to make in-person exercises more efficient. We may also develop some short online training courses focused on specific topics.

Regardless, while the road ahead is uncertain and we are still learning how best to achieve the ISCN mission in the midst of a global pandemic, we have found that the virtual classroom format and e-learning can still effectively and efficiently meet many of our training objectives. And as we identify further good practices and lessons learned, we will be sure to share them with our colleagues in the NSSC Network, in support of our mutual goal of sustainable nuclear security worldwide.

*Photos below: Ensuring social distance in lectures, sub-group exercises, and at field exercise.*

*(Photo: JAEA/ISCN)*



