

**Session Chair Guidance**

“Technology as a Facilitator for Detection”

WG Session 4

Thank you for agreeing to assist in the upcoming Nuclear Detection Working Group (NDWG) discussions on “Technology as a Facilitator for Detection”. The purpose of this memo is to offer brief guidance to help you respond to and fulfill your role as session chair.

The goal of Session 4 is to establish NDWG agreement on the scope of the Volume IV document. Previously, the idea of focusing this document on operator-directed guidance for detection in the interior was introduced. This focus has been suggested due to the lack of guidance available on this topic and the importance of including this pathway layer in a multi-layered defense. This session should establish consensus (not necessarily unanimity) on this direction or develop an alternative that is of strong interest to the NDWG. Additionally, this session will also be used to initiate the brainstorming of content—specifically by developing a robust set of challenges to detection in the domestic interior.

Listed below are “guiding questions” to help initiate the working group discussion. In addition a time breakdown is suggested to ensure the group has an opportunity to move through all necessary topics.

Time	Topic	Notes/Questions
20 min	Case study presentation	<ul style="list-style-type: none"> <li>• “Challenges with detection technologies” (Theodore Matikas, Greek Atomic Energy Commission)</li> </ul>
30 min	<b>Document Scope</b>	
	<i>Topic</i>	<ul style="list-style-type: none"> <li>• <b>Proposed: Technology and other means for facilitating detection in the domestic interior.</b></li> <li>• Is guidance for detection in the interior layer a gap in the existing body of guidance? Are there other significant gaps related to using technology for detection that should have higher priority?</li> <li>• Should the document focus exclusively on the use of technology or should complementary non-technical methods also be considered?</li> <li>• What are some of the success stories and lessons learned that member States might want to share with others?</li> </ul>
	<i>Audience</i>	<ul style="list-style-type: none"> <li>• <b>Proposed: leadership within operational organizations</b></li> <li>• At which stakeholders should this document be targeted? High-level coordinating body/mechanism? Implementing organizations/competent authorities? Frontline officers?</li> <li>• What should this document help readers to accomplish?</li> </ul>
	<i>Document Format</i>	<ul style="list-style-type: none"> <li>• <b>Proposed: Enumeration of major challenges with actionable guidance for each and supplemental case studies demonstrating implementation of guidance.</b></li> <li>• Should this document focus on actionable guidance? Descriptive information? Framework development?</li> <li>• How would the proposed audience use this document? Reference? Full read-through?</li> <li>• Would a document focused around enumerating challenges and providing actionable guidance to combat those challenges be useful?</li> <li>• Would real world case studies that support the concepts be useful?</li> <li>• Will the NDWG be able to support the development of this content?</li> </ul>

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<b>Time</b>	<b>Topic</b>	<b>Notes/Questions / Examples</b>
40 min (~5 min/ category)	<b>Detection Challenges</b>	<ul style="list-style-type: none"> <li>• Overarching question: What are the major challenges related to detection of illicit trafficking of RN materials (in the interior, or other qualifier if another topic is selected)?</li> <li>• Examples derived from the previous day’s TTX will be used to prepopulate each challenge category. Step through each category to review what has already been listed and to request additional ideas. Ways to address the listed challenges will be the subject of the discussions in Session 5.</li> </ul>
	<i>Geographic</i>	<ul style="list-style-type: none"> <li>• Large areas to be secured</li> </ul>
	<i>Legal</i>	<ul style="list-style-type: none"> <li>• Jurisdictional boundaries</li> </ul>
	<i>Interacting with commerce and the public</i>	<ul style="list-style-type: none"> <li>• Minimize impact to commerce</li> </ul>
	<i>Technical</i>	<ul style="list-style-type: none"> <li>• Equipment Interference</li> </ul>
	<i>Threat Environment</i>	<ul style="list-style-type: none"> <li>• Domestic RN sources may be used by an adversary</li> </ul>
	<i>The Multi-mission Role of Law Enforcement</i>	<ul style="list-style-type: none"> <li>• Detailed operational knowledge exists, but specific technical knowledge of RN materials/threats is lacking</li> </ul>
	<i>Financial</i>	<ul style="list-style-type: none"> <li>• Coordination of complementary equipment acquisition across organizations</li> </ul>
	<i>Systemic/Structural</i>	<ul style="list-style-type: none"> <li>• It is harder for defensive elements to be more flexible and adaptive than the adversary</li> </ul>

## Session Chair Guidance

“Technology as a Facilitator for Detection”

WG Session 5



Thank you for agreeing to assist in the upcoming Nuclear Detection Working Group (NDWG) discussions on “Technology as a Facilitator for Detection”. The purpose of this memo is to offer brief guidance to help you respond to and fulfill your role as session chair.

The goal of Session 5 is to further develop content for Volume IV by generating a robust set of critical challenges for RN detection and the means to address those challenges. These ideas will serve as the foundation for Volume IV. Session 4 initiated the discussion of document scoping and expanded the set of detection challenges that had been identified in the TTX on the previous day. This session will consider methods of mitigating or countering these challenges. At the beginning of this session [or prior to this session], participants will be broken up into groups to brainstorm means for countering the challenges identified in Sessions 3 and 4. Next, each group will have a brief time to report to the full NDWG the results of their discussions, and the NDWG will have the opportunity to add any additional ideas. The role of the session chair will be to explain the purpose of this session to the breakout groups, coordinate the timing for the discussion sessions, and moderate the post-discussion session reporting and full group discussion.

Listed below is an outline of activities to help initiate and organize the working group discussion. In addition, an example list of methods for addressing challenges is also provided.

Time	Activity	Notes
<b>20 min</b>	CASE STUDY	<i>TBD</i>
<b>5 min</b>	Introduce discussion group topics	<ul style="list-style-type: none"><li>• Moderator explains the focus of this session is on brainstorming ways to address the challenges in the categories assigned to each group.</li><li>• Each group should select a notetaker to record the ideas of the group and a spokesperson to report the results to the group.</li></ul>
<b>20 min</b>	Discussion groups brainstorm solutions to their category(ies) of challenges	<ul style="list-style-type: none"><li>• A flip chart for each category of challenges will be prepared during the previous sessions to provide seeding for this brainstorming session.</li><li>• Each group will be assigned to brainstorm ways to mitigate one or two of these challenge categories.</li><li>• Example categories of options for addressing detection challenges:<ul style="list-style-type: none"><li>○ Aware and trained personnel in the field</li><li>○ Intelligence gathering</li><li>○ Information fusion</li><li>○ Jurisdictional/Inter-agency cooperation mechanisms</li><li>○ Investigation of suspicious leads/suspicious indicators</li><li>○ RN detection equipment to verify presence of RN materials</li><li>○ Testing and equipment certification for field use</li><li>○ Integration with other mission equipment and AT&amp;E</li><li>○ Highly trained technical personnel</li><li>○ Public awareness</li><li>○ Knowledge of typical operational/field conditions</li><li>○ Clear mission definition/goals set by the coordinating body</li><li>○ Strategic deployment of resources/assets</li></ul></li></ul>

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<b>Time</b>	<b>Activity</b>	<b>Notes</b>
		<ul style="list-style-type: none"><li>○ Efficient concepts of operations</li></ul>
<b>40 min</b> <b>(~5-7 mins/ group)</b>	Group spokespeople share discussion results, one at a time	<ul style="list-style-type: none"><li>• Moderator should attempt to keep each group report and subsequent NDWG discussion to ~5 minute slots to ensure all groups have the opportunity to present.</li><li>• Allow all participants to write any additional ideas on post-it notes and add them to the relevant flip-chart if time is short.</li></ul>
<b>5 min</b>	Thank participants	<ul style="list-style-type: none"><li>• Remind participants that the flip-charts will be available for submission of additional ideas through the close of the workshop.</li><li>• Remind participants that case studies reflecting experiences relevant to the topics discussed will be solicited and the flip charts can also be used to suggest case study topics.</li></ul>