

New Types and Systems of WMD: Consideration by the CD

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The CD Discussion Series

Between December 2010 and July 2011, the UNIDIR project “The Conference on Disarmament: Breaking the Ice” and the Geneva Forum are organizing a series of thematic discussions to examine the myths and realities of the CD—as well as the critical challenges facing it—with the aim to increase understanding of the history, processes and issue areas of this unique negotiating forum.

Background paper by Jerzy Zaleski for the discussion “New forms of WMD, transparency in armaments, and a comprehensive programme of disarmament—obsolete or ignored?” organized by UNIDIR and the Geneva Forum, 6 May 2011

Origins of the item on new types of WMD

1. Oddly, the term “weapons of mass destruction” was defined by the Commission for Conventional Armaments. In its first resolution, adopted in 1948, the Commission advised the Security Council that “all armaments and armed forces, except atomic weapons and weapons of mass destruction fall within its jurisdiction” and also stated that “weapons of mass destruction should be defined to include atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above”.¹ Thus, the Commission incidentally established guidance for the differentiation of conventional weapons and weapons of mass destruction.

2. The issue of possible new weapons was presented to the General Assembly in 1969 by Malta and, subsequently, the General Assembly adopted two resolutions on the subject. By the first resolution, the Assembly invited the Conference of the

¹ See Commission for Conventional Armaments, *Resolution Adopted by the Commission at Its Thirteenth Meeting, 12 August 1948, and a Second Progress Report of the Commission*, UN document S/C.3/32/Rev.1, 12 August 1948.

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Committee on Disarmament (CCD) to consider measures against the use of radiological methods of warfare and for control of nuclear weapons with enhanced radioactive effects.² By the second resolution, the Assembly recommended that the CCD consider the implications of the possible military applications of laser technology.³

3. In 1970, the Netherlands submitted to the CCD two working papers on those resolutions and, following their consideration, the Conference endorsed rather sceptical conclusions contained therein that: (a) the possibilities of radiological warfare did not seem to be of much practical or arms control significance, and that (b) laser technology applied to weapons did not seem to substantiate the need for consideration at that time. Nevertheless, the Conference considered that further developments should be followed.

4. In 1975, at the request of the Soviet Union, the item entitled “Prohibition of the development and manufacture of new types of weapons of mass destruction and new systems of such weapons” was included on the agenda of the General Assembly. The request was accompanied by a draft international agreement, which did not contain a definition of such weapons, but only indicated that they would be specified through negotiations on the subject. In the debate on the corresponding draft resolution, the proposal was welcomed by a number of states. However, many delegations from Western states held that the scope of the draft agreement was not clearly defined and believed that, before consideration of the agreement, preliminary study was needed to gain a clearer understanding of the issues involved.⁴

Consideration by the CCD

5. Pursuant to resolution 3479(XXX), the CCD started consideration of the issue at its 1976 session. During the debate, the Soviet Union and the other Eastern European states advocated the adoption of a general prohibition of the development and manufacture of new types and systems of weapons of mass destruction while they were still at the stage of research or experiment. In particular, the Soviet Union believed that the proposed ban should apply to new weapons of mass destruction that were based on physical, chemical and biological principles other than those of any of the types and systems of such weapons in existence at the time of entry into force of the proposed agreement. The Soviet Union suggested that they might include ray weapons affecting blood and intracellular plasma, infrasound weapons designed to damage internal organs and affect human behaviour, or genetic weapons affecting the mechanism of heredity. On the other hand, Western states were of the view that new scientific developments should be dealt with as they arose and that some potential new weapons of mass destruction fell within existing categories of weapons and should be covered in the context of such. In this connection, the United States was of the view that arms control, including of new types and systems of weapons, should be applied through the development of specific agreements with a definite scope and with adequate verification of compliance. Later that year, the General Assembly

² General Assembly, *Question of General and Complete Disarmament*, UN document A/RES/2602(XXIV)C, 16 December 1969.

³ General Assembly, *Question of General and Complete Disarmament*, UN document A/RES/2602(XXIV)D, 16 December 1969.

⁴ General Assembly, *Prohibition of the Development and Manufacture of New Types of Weapons of Mass Destruction and New Systems of Such Weapons*, UN document A/RES/3479(XXX), 11 December 1975.

considered the report of the CCD and adopted a resolution requesting the Conference continue its negotiations, with the assistance of governmental experts, on an agreement on the prohibition of the development and manufacture of new types of weapons of mass destruction and new systems of such weapons.⁵

6. At the next session of the CCD, in 1977, the Soviet Union submitted a revised draft treaty with an annex listing the following new types and systems of weapons affecting biological targets: (a) radiological (dispersing), (b) technical means using charged or neutral particles, (c) infrasonic means using acoustic waves and (d) electromagnetic radiation. Together with other Eastern European states, it called for an early agreement on the general prohibition of such weapons. On the other hand, Western states, while supporting efforts to ban particular weapons of mass destruction, objected to the conclusion of a comprehensive convention banning unspecified future weapons.

7. In parallel to the activities of the CCD, the Soviet Union and the United States held bilateral talks on the prohibition of new weapons of mass destruction, during which progress was made on radiological weapons. Divergences in approaches to the question of new weapons of mass destruction resulted in the submission of two resolutions on the subject. While the draft submitted by the Eastern European states advocated negotiations on the general agreement on the prohibition of the development and production of new weapons of mass destruction,⁶ the draft submitted by the Western states emphasized the desirability of formulating agreements on the prohibition of any specific new weapons that might be identified.⁷

8. During the 1978 session, CCD members generally maintained their established positions. In addition some new proposals were presented to the Conference. The Soviet Union submitted a proposal for the establishment, under the auspices of the CCD, of an ad hoc group of governmental experts to explore the possible areas of development of new weapons of mass destruction;⁸ the Eastern European states submitted a draft convention on the prohibition of nuclear neutron weapons⁹ and Hungary submitted a working paper on infrasound weapons.¹⁰ The Committee also was informed by the United States and the Soviet Union about the progress on their joint initiative on radiological weapons to be submitted to the CCD. Nevertheless, the divergent approaches to the issue of new weapons of mass destruction resulted, as in 1977, in the adoption of two separate resolutions, submitted by the Eastern European states and the Western states.¹¹

5 General Assembly, *Prohibition of the Development and Manufacture of New Types of Weapons of Mass Destruction and New Systems of Such Weapons*, UN document A/RES/31/74, 10 December 1976.

6 General Assembly, *Prohibition of the Development and Manufacture of New Types of Weapons of Mass Destruction and New Systems of Such Weapons*, UN document A/RES/32/84A, 12 December 1977.

7 General Assembly, *Prohibition of the Development and Manufacture of New Types of Weapons of Mass Destruction and New Systems of Such Weapons*, UN document A/RES/32/84B, 12 December 1977.

8 Conference of the Committee on Disarmament, *Draft Decision of the Conference of the Committee on Disarmament on the Establishment of an Ad Hoc Group of Qualified Governmental Experts to Consider the Question of Possible Areas of Development of New Types and Systems of Weapons of Mass Destruction*, document CCD/564, 28 March 1978.

9 Conference of the Committee on Disarmament, *Draft Convention on the Prohibition of the Production, Stockpiling, Deployment, and Use of Nuclear Neutron Weapons*, document CCD/559, 10 March 1978.

10 Conference of the Committee on Disarmament, *Working Paper on Infrasound Weapons*, document CCD/575, 14 August 1978.

11 General Assembly, *Prohibition of the Development and Manufacture of New Types of Weapons of Mass Destruction and New Systems of Such Weapons*, UN document A/RES/33/66A and B, 14 December 1978.

9. The question of the prohibition of the development and production of new weapons of mass destruction was also considered at the First Special Session of the General Assembly devoted to Disarmament. The Programme of Action in the Final Document of the Special Session includes a paragraph on new weapons of mass destruction that reflects a compromise between a general prohibition approach and the idea of specific agreements:

In order to prevent a qualitative arms race and so that scientific and technological achievements may ultimately be used solely for peaceful purposes, effective measures should be taken to avoid the danger and prevent the emergence of new types of weapons of mass destruction based on new scientific principles and achievements. Efforts should be appropriately pursued aiming at the prohibition of such new types and new systems of weapons of mass destruction. Specific agreements could be concluded on particular types of new weapons of mass destruction which may be identified. This question should be kept under continuing review.¹²

With regard to the banning of radiological weapons, the Programme of Action stated that, “A convention should be concluded prohibiting the development, production, stockpiling and use of radiological weapons”.¹³

Consideration by the Committee/Conference on Disarmament (1979–1992)

10. In 1979, pursuant to paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to Disarmament, a new negotiating body, the Committee on Disarmament, was convened in Geneva.¹⁴ One of the items on its agenda was “New types of weapons of mass destruction and new systems of such weapons: radiological weapons”,¹⁵ under which the Committee held the initial consideration of a joint proposal submitted by the Soviet Union and the United States on major elements of a treaty prohibiting the development, production, stockpiling and use of radiological weapons.¹⁶ The Committee also considered the general question of new types of weapons of mass destruction and new systems of such weapons. In general, the views presented by the CD members were the same as those expressed previously in the CCD.

11. In 1980, the Committee on Disarmament established four subsidiary bodies, one of which was the Ad Hoc Working Group on Radiological Weapons.¹⁷ While all the delegations were ready to negotiate a treaty on the subject, there were different views on the priorities, its role and scope, as well as on the definition of radiological weapons and the procedures for verifying compliance. The joint USSR–United States proposal was regarded as a suitable

12 General Assembly, Final Document of the Tenth Special Session of the General Assembly, UN document A/S-10/2, 30 June 1978, para. 77

13 Ibid., para. 76

14 In 1984, the Committee on Disarmament changed its name to the Conference on Disarmament.

15 Committee on Disarmament, *Agenda and Programme of Work for the Committee on Disarmament*, document CD/12, 11 April 1979.

16 Committee on Disarmament, *Agreed Joint USSR–United States Proposal on Major Elements of a Treaty Prohibiting the Development, Production, Stockpiling and Use of Radiological Weapons*, documents CD/31 and CD/32, 9 July 1979.

17 Other Ad Hoc Working Groups were mandated to deal with (a) chemical weapons, (b) effective international arrangements to assure non-nuclear-weapon states against the use or threat of use of nuclear weapons, and (c) comprehensive programme on disarmament

basis for reaching agreement although views were also expressed that its scope should be broadened so as to include the prohibition of all kinds of weapons that use radiation. It was also proposed that any treaty prohibiting the use of radiological weapons should contain provisions for nuclear disarmament. In order to facilitate the work of the Working Group, its Chairman submitted a working paper on the main elements in the negotiations of a treaty on the prohibition of radiological weapons. Deliberations covered some new aspects of the draft treaty. Sweden, for example, considered that its scope should also address deliberate damage to nuclear installations that might cause the release of radioactive substances. It also believed that the definition might address particle-beam weapons, although the Netherlands was of the view that such weapons should be dealt with in a separate context as they were not covered in the definition of weapons of mass destruction put forward by the 1948 Commission for Conventional Armaments. Although some proposals were acceptable to the Soviet Union and the United States, others were viewed as altering the content of their joint proposal.

12. The Committee also considered the general question of new types of weapons of mass destruction and new systems of such weapons. In this connection, the Soviet Union proposed the establishment of an ad hoc group of experts to prepare a draft comprehensive agreement and to consider the question of concluding special agreements on individual types of weapons of mass destruction and new systems of such weapons. The group was also to follow any developments in this field. Alternatively, it was suggested that an expert study could be commissioned on the subject. However, no consensus was reached on the matter.

13. The main development in the Ad Hoc Working Group on Radiological Weapons in 1981 was the proposal by Sweden on the prohibition of attacks on civilian nuclear installations. For some states the relevance of this proposal was emphasized by the Israeli military attack on the Iraqi nuclear installations near Baghdad. Nevertheless, while supported by a number of states, the proposal was rejected by those who saw it as an enlargement of the scope of the convention, which could prolong negotiations. The Working Group was also addressed by experts from several member states, who stated that no new weapons were reported and that the possibility of their development continued to be a matter of controversy.

14. In 1982, the Ad Hoc Working Group started a separate consideration of two aspects of the issue: (a) radiological weapons in its “traditional” aspects, and (b) prohibition of military attacks against civilian nuclear facilities. Despite this separation, the majority of states still preferred a linkage between the two issues. In particular, Japan proposed an optional draft protocol to a treaty on the prohibition of radiological weapons, while Sweden proposed a draft treaty containing two separate protocols, one on radiological weapons per se and the other on the prohibition of attacks against nuclear facilities. This two-track approach was reflected in the General Assembly resolution on the subject, which was adopted without vote.¹⁸

15. In 1983, the Ad Hoc Working Group on Radiological Weapons continued its work in two groups. Group A considered the subject of radiological weapons in its “traditional” sense and had before it a consolidated negotiating text of a radiological weapons treaty prepared

¹⁸ General Assembly, *Prohibition of the Development, Production, Stockpiling and Use of Radiological Weapons*, UN document A/RES/37/99C, 13 December 1982.

by its Coordinator.¹⁹ According to this proposal “Each State Party to this Treaty undertakes never under any circumstances to develop, produce, stockpile, otherwise acquire or possess, transfer, or use radiological weapons”. “Radiological weapon” was defined as, “(a) any device, including any weapon or equipment, specifically designed to employ radioactive material by disseminating it to cause destruction, damage, or injury by means of the radiation produced by the decay of such material”, and “(b) any radioactive material specifically [designed] for employment, by its dissemination to cause destruction, damage, or injury by means of the radiation produced by the decay of such material”.

16. Group B considered the question of the prohibition of attacks against nuclear facilities. Discussions focused, inter alia, on the scope of the prohibition, compliance and verification. There were different suggestions on the scope, according to which the prohibition of attacks could apply to (a) all nuclear facilities, (b) all nuclear facilities in non-nuclear-weapon developing states, (c) civilian nuclear facilities only, (d) civilian nuclear facilities above a specified power threshold for nuclear reactors and above a specified level of quality and quantity of radioactive material for other facilities, or (e) all nuclear facilities subject to the IAEA safeguards system. It was also understood that the prohibition of attack would *not* include naval vessels, submarines, space vehicles or other devices having nuclear installations and designed as weapons systems.

17. In 1984, the Ad Hoc Committee on Radiological Weapons continued its examination of questions related to radiological weapons and to the prohibition of attacks against nuclear facilities without establishing separate groups to deal with these two aspects. The Committee focused on the working paper submitted by Sweden, which proposed that the use of radioactive material for hostile purposes should be prohibited irrespective of the method applied, be it radiological weapons or attacks on nuclear facilities.²⁰ While many delegations believed that this proposal provided the best negotiation framework to address all related issues, others continued to maintain that proposals aimed at resolving both issues in one treaty could lead to a stalemate in both areas.

18. In 1985 the Ad Hoc Committee continued considerations of the Swedish proposal during which delegations upheld their positions. In addition, the Committee considered suggestions for elements of a draft treaty submitted by its Chairman. The results of the deliberations were compiled by the Chairman under the headings of scope, definitions, peaceful uses, cessation of the nuclear arms race and nuclear disarmament and were, subsequently, annexed to the report of the Ad Hoc Committee to the Conference on Disarmament.²¹

19. In 1986, the Ad Hoc Committee set up three contact groups on the issues of scope and definitions, peaceful uses and cessation of the nuclear arms race and nuclear disarmament, and verification and compliance. In 1987, the Conference decided not to continue with the previous, unitary approach and replaced these groups with two contact groups: group A to consider the prohibition of radiological weapons in its “traditional” sense and group B to

19 Conference on Disarmament, *Submission by the Coordinator of Group A*, document CD/RW/CRP.20/Rev.1, 3 August 1983.

20 Conference on Disarmament, *Proposals for Parts of a Treaty Prohibiting Radiological Weapons and the Release or Dissemination of Radioactive Material for Hostile Purposes*, document CD/530, 18 June 1984.

21 Conference on Disarmament, *Report of the Ad Hoc Committee on Radiological Weapons*, document CD/635, 29 August 1985; see also General Assembly, *Report of the Conference on Disarmament*, UN document A/40/27, 3 October 1985, para. 104.

consider the prohibition of attacks against nuclear facilities. At the end of the session, the Coordinators of groups A and B submitted the results of their work, which were attached to their reports to the Ad Hoc Committee²² (“Possible elements for a convention on the prohibition of radiological weapons” and “Possible elements relevant to the prohibition of attacks against nuclear facilities”, respectively).

20. During the first part of the 1988 session of the Conference on Disarmament, the Ad Hoc Committee on Radiological Weapons prepared its report to the General Assembly at the Third Special Session of the General Assembly devoted to Disarmament, which summarized the consideration of the issue since 1982.²³ During the second part of the session, the Ad Hoc Committee continued its work in the two contact groups. It is worth noting that the Ad Hoc Committee received a letter from the IAEA Secretariat, conveying the Agency’s readiness to provide technical assistance to the Conference in its work relating to the prohibition of armed attacks against nuclear installations. The Committee agreed to keep the matter under review in its future work.

21. In 1988, a new item on the dumping of nuclear waste was introduced in the General Assembly and, subsequently, two resolutions on the subject were adopted, which, inter alia, requested the Conference on Disarmament to take into account, in its negotiations on the prohibition of radiological weapons, the issue of the deliberate employment or dumping of radioactive wastes.²⁴

22. In 1989, there were no new developments in the work of the Ad Hoc Committee on Radiological Weapons and no substantive progress was made in its contact groups on the two aspects of the question. As in previous years, the General Assembly adopted separate resolutions on the two aspects of the prohibition of the radiological weapons.²⁵ However, it is worth mentioning that the General Assembly for the first time since 1975 did not adopt a resolution on the prohibition of the development and manufacture of new types of weapons of mass destruction and new systems of such weapons. It was the result of the gradual diminishing of interest within the Conference for consideration of this general item after the establishment of the Ad Hoc Committee on Radiological Weapons.

23. Between 1990 and 1992 little progress was made in both contact groups of the Ad Hoc Committee on Radiological Weapons on both tracks. In 1992, the draft convention on the prohibition of radiological weapons was at an advanced stage. However, there was no progress on basic provisions governing the scope and definitions of radiological weapons. Similarly, there was no progress on a convention prohibiting attacks against nuclear facilities and there was no agreement on what facilities would be protected under such a convention. Therefore, the Ad Hoc Committee, while recommending its re-establishment in 1993,

22 Conference on Disarmament, *Report of the Ad Hoc Committee on Radiological Weapons*, document CD/779, 25 August 1987; see also General Assembly, *Report of the Conference on Disarmament*, UN document A/42/27, 14 September 1987, para. 88.

23 General Assembly, *Special Report of the Conference on Disarmament to the Third Special Session of the General Assembly of the United Nations Devoted to Disarmament*, UN document A/S-15/2, 11 May 1988, paras. 93–6.

24 General Assembly, *Prohibition of the Dumping of Radioactive Wastes for Hostile Purposes*, UN document A/RES/43/75Q, 7 December 1988; and General Assembly, *Dumping of Radioactive Wastes*, UN document A/RES/43/75T, 7 December 1988.

25 General Assembly, *Prohibition of the Development, Production, Stockpiling and Use of Radiological Weapons*, UN document A/RES/44/116A, 15 November 1989; and General Assembly, *Prohibition of the Development, Production, Stockpiling and Use of Radiological Weapons*, UN document A/RES/44/116T, 15 November 1989.

requested the Conference on Disarmament to provide the Committee with guidance on reviewing the organization of its work so that it could fulfil its mandate.

Consideration of the item on new types of WMD after 1992

24. Despite these recommendations, the Ad Hoc Committee on Radiological Weapons has not been re-established since. Moreover, in 1993 the Conference on Disarmament changed the procedure of the adoption of the agenda and also simplified its programme of work. As a result, the Conference concentrated its work on a nuclear test ban, the prevention of an arms race in outer space, effective international arrangements to assure non-nuclear-weapon states against the use or threat of use of nuclear weapons and transparency in armaments.


25. In 2002, the President of the Conference (Germany) proposed to revisit the issue of radiological weapons in light of new threats, and subsequently held open-ended informal consultations on the basis of his discussion paper.²⁶ In this paper, the President drew attention to the new threats of terrorism and in particular the fact that a “dirty bomb” could be a weapon of choice for terrorists and suggested exploring whether the issue of radiological weapons should again be actively considered by the Conference on Disarmament. In particular, the paper suggested that (a) a mere continuation of the work of the Conference from 1992 should not be the goal of such an exercise, (b) any approach considered for radiological weapons should strengthen and not detract from or duplicate initiatives and efforts undertaken by the IAEA, states and relevant regulatory bodies aimed at reducing the threat of nuclear theft and sabotage, and (c) the issue of radiological weapons should be considered independently without distracting the Conference from efforts to overcome its stalemate and to start substantive work on other issues. The issue should be revisited because of the potential risk of the use of “dirty bombs”, in particular by non-state actors. There was no follow-up to this paper.

26. The question of the prohibition of radiological weapons was also discussed in 2006 at the plenary meetings of the Conference on Disarmament, and from 2007 onwards in informal settings. These discussions were inconclusive. Although delegations indicated that the item “New weapons of mass destruction and new systems of such weapons” should be kept on the agenda of the Conference for review and update, they did not envisage any possibility for the commencement of substantive work, and rather preferred the appointment of a special coordinator to explore the potential of this item.

Conclusions

27. The history of the consideration of the item “New types of weapons of mass destruction and new systems of such weapons” shows how the original list of weapons that could have effects comparable to those of acknowledged weapons of mass destruction (nuclear, chemical and biological) became shorter and shorter, as technical problems with weaponization of some proposed phenomena with potential military application led to the

²⁶ Subsequently issued as Conference on Disarmament, *Discussion Paper: Radiological Weapons*, document CD/1681, 15 August 2002.



questioning of their military effectiveness. After decades of consideration of the item, only radiological weapons remains on the agenda of the Conference although, paradoxically, there seems to be no serious interest in the Conference to negotiate a ban on such weapons.

28. So far, the only case of an attempt to use a radiological weapon was an action by Chechen militants who, in November 1995, placed a small quantity of cesium-137 in one of Moscow's parks. However, this radiological material was not dispersed, so it is considered to have been used as a psychological weapon to create panic. In general, radiological weapons are widely regarded to be militarily useless for attacking opposing forces as the contamination slows the rate of advance of one's own forces and makes the area uninhabitable. Also, radiological weapons incapacitate soldiers very slowly, thus giving the opponent enough time for massive retaliation.

29. In view of the experience accumulated during the years of negotiating a ban on non-existing weapons, it might be advisable to consider seriously the rationale for keeping this item on the agenda of the Conference on Disarmament. The Conference should draw a lesson from the cases of disarmament treaties on rather exotic weapons, which relatively quickly have been shelved and practically forgotten after just a few review conferences, such as the 1972 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof, or the 1978 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques.

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