

The International Arms Control and Disarmament Situation in 2015

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In 2015, the situation of the international arms control and disarmament was in the overall stability, the United States and Russia continued to promote the performance process of the *Strategic Arms Reduction Treaty (New START)*, the final agreement on the Iran nuclear issue was signed. But the ninth Review Conference of the *Treaty on the Non-Proliferation Of Nuclear Weapons (NPT)* ended in failure, the U.S.-Russian further nuclear disarmament was stagnant, negotiations on *Treaty Banning the Production of Fissile Material For Nuclear Weapons and Other Explosive Devices (FMCT)* is difficult to start, the *Comprehensive Nuclear Test Ban Treaty (CTBT)* shows no sight to go into effect and has made no substantive progress either, the outer space rules-setting still has differences with intense competition .

I. Nuclear Disarmament

1. The United States and Russia continue implementing the new START, and their further nuclear disarmament faces difficulties

The U.S.-Russia relationship because of the crisis in Ukraine dropped to the freezing point, and blocked bilateral strategic cooperation and dialogue, but did not affect implementation of the new START. According to data released by the U.S. State Department, as of September 2015, the United States and Russia had deployed 1538 and 1648 pieces of strategic nuclear warheads respectively, 898 and 877 pieces of strategic delivery vehicles respectively (including deployed 762 and 526 pieces of strategic delivery vehicles). The U.S. nuclear warheads number dropped significantly, decreased by 104 compared with

the data in September 2014, below 1550 limits required by the Treaty for the first time. The quantity of Russia-deployed strategic delivery vehicles is already far below the Treaty requirement, but due to the Russian nuclear arsenals retooling and renovation, the number of Russian nuclear warheads did not decrease but increased in the past two years, and this year continues the reversed growth trend with increase of 5 pieces. Although the United States and Russia increased or decreased the number of their nuclear weapons in the course of treaty compliance, but in overall view, their compliance process will not be fundamentally reversed, because the new START provides very limited actual cut of their arsenals, so it is not difficult for the United States and Russia to complete the Treaty obligations, meanwhile, to keep a low level strategic balance between the two countries with the aid of treaty compliance is also in line with the common interests of both sides.

For the next step of nuclear disarmament, both the United States and Russia have space for further reduction, but it is unable to attain progress in the near future due to the status of relations between the two countries. It is in 2013 that the United States considered 1/3 cut of the deployed strategic nuclear weapons on the basis of the new START, i.e. cutting the nuclear warheads down to about 1000. In terms of maintenance capacity, Russia should be more welcome to further nuclear disarmament. According to the U.S. and Russian experts estimate that by 2020, Russia's strategic nuclear delivery vehicles can only be maintained at around 500, far below the threshold of the new START. However, based

on concerns of the U.S. missile defense, long-range cruise missiles, conventional precision strike capacity and many other issues, Russia has made a negative performance on the further nuclear reduction issue. In 2015, the United States replaced the existing tactical nuclear weapons with improved B61-12 nuclear cruise missile with better precision in Europe, which caused discontent from Russia, and Russians threatened to withdraw from the INF treaty, thus, highlighting strategic contradictions between the two countries, and increasing difficulties for the two sides to further nuclear disarmament. The further progress of nuclear disarmament depends on the strategic relationship between the two countries, and can be seen more clearly as the new START treaty is close to expiration.

2. *The multilateral nuclear disarmament voices rise again, the five nuclear weapon states strengthen their positions coordination*

In the past two years, advocated and led by the non-nuclear weapon states, three *International Conferences on the Humanitarian Impact Of Nuclear Weapons* were held in attempt, on humanitarian grounds, to further fundamentally negate nuclear weapons legitimacy and seize the initiative in the struggle to advance nuclear disarmament. In recent years, non-nuclear weapon states are strongly critical of the international nuclear disarmament process for lack of progress, and increase pressure on the nuclear weapon states with the help of the NPT Review Conference, which has shaped strong momentum and influence.

In the meantime, the nuclear states have also strengthened their positions coordination. On February 4-5, 2015, the P5 held their Sixth Meeting in London, carrying out the last comprehensive consultations in response to the 2015 NPT Review Conference. At the Meeting, the P5 held consultations on the NPT compliance progress, reporting standards, promoting the CTBT entry into force, the United Nations disarmament mechanism, and establishing nuclear weapon free zones and other issues, with the premise that each other's core interests are not touched. The Meeting came to a number of consensus, including

cognition on gradual nuclear disarmament concept, strengthening the CTBT universality and verification measures, supporting the United Nations disarmament mechanism, addressing with peaceful diplomacy nuclear proliferation challenges, and supporting establishment of nuclear weapon free zones and zones without weapons of mass destruction, etc..

II. The nuclear production ban and the nuclear test ban

1. *The UN Group of Governmental Experts on FMCT completed the work report, but the FMCT negotiation is kicked off yet by the Conference on Disarmament*

In January and from late March to early April 2015, the UN Group of Governmental Experts on FMCT reconvened again, like the 2014 meeting, the Group of Experts discussed all issues related to FMCT negotiations, formed a work report, and submitted to the Seventieth UN General Assembly and the Conference on Disarmament (CD), and eventually completed all the work entrusted by the UN resolution. But since the Group of Experts is only entrusted on making proposals "on possible aspects involved in FMCT, but not in the treaty negotiations", therefore, the work of the Group of Experts plays no substantial role in starting the Treaty negotiations. However, as the most comprehensive discussion in history, a possible negotiations trajectory of the FMCT can be seen from the report of the Group of Experts, and in the future, a possibility that some countries propose a draft resolution to the UN General Assembly for the FMCT negotiations in the UN cannot be ruled out.

In 2015, the CD held four informal discussions on the cut-off, various sides exchanged views on the report by the Group of Experts, the French "FMCT" draft, etc.. Having changed the past practice for non-involvement, Pakistan deeply involved in the discussions, proposed a working document on treaty elements, and comprehensively expounded the Pakistani position and proposition, emphasizing that all the existing nuclear weapon fissile material in inventory except those inside the weapons be included in the scope of treaty

verification, the verification mechanism should cover all nuclear material and the whole recycling process, not only the enriching uranium and reprocessing facilities. But regarding the start of the FMCT negotiations, Pakistan still maintains the exclusive barrier, resulting in the failure for the CD to reach a consensus on the work plan, and to be unable to carry out substantive work.

2. *The Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) continues to carry out the nuclear test ban related activities, but there is no sign at all for the CTBT to enter into effect*

In 2015, the CTBTO Preparatory Committee continued carrying out work related to CTBT. On February 24, the Preparatory Committee and Ecuador reached an agreement to establish two stations of the international monitoring system on the Galapagos Islands. May 12 to 14, the Preparatory Committee organized seminars on "Medical And Industrial Isotope Production Characteristics" and discuss how to get less effect of radiation released by medical radioisotope production in nuclear explosion detection. June 22 to 26, the Preparatory Committee held the "2015 Science and Technology Conference" in Vienna, which further enhanced the relationship between the scientific community and the Preparatory Committee.

On March 20, 2015, Angola ratified the CTBT, having become the 164th nation to ratify the Treaty, but among 44 countries that must ratify the treaty for it to take effect, there are still 8 nations that have neither signed nor ratified the treaty. India, Pakistan and the DPRK have neither signed the Treaty nor shown a sign to do so, directly affected its process of entry into force. The Obama Administration in both terms has shown a will to "actively work to promote the U.S. ratification of the CTBT", and expressed the wish to start "education" activities " on the CTBT, but the U.S. Congress has not held a treaty-related hearing. As Obama's term is drawing to a close, the ratification issue is more difficult to be included in the U.S. Government's priority schedule.

III. Nuclear non-proliferation and regional nuclear issues

1. *All sides at the Ninth NPT Review Conference had sharp engagements and failed to reach the final document*

From April 27 to May 22, 2015, the Ninth Session of the NPT Review Conference was held at the United Nations Headquarters in New York, and 163 signatories attended the Conference. This is the Conference specified by the NPT that it is held once every five years. Participating parties debated and discussed the NPT three pillars, i.e., nuclear non-proliferation, nuclear disarmament and peaceful use of nuclear energy, but serious differences remained. Among them, the nuclear disarmament and the establishment of the nuclear weapon free zone in the Middle East are the two major focus of disagreement. Non-nuclear weapon states, especially those represented by the non-aligned movement member states and the New Agenda Coalition members express dissatisfaction over the nuclear disarmament slow process by the nuclear states, urge the nuclear countries to accelerate nuclear disarmament, eliminate nuclear weapons transparently, irreversibly and verifiably, and increase nuclear transparency, emphasizing the five nuclear states submit their reports of nuclear disarmament in a standard format, and request the General Assembly to set specific time-table for consideration of their nuclear disarmament implementation reports. Moreover, the nuclear weapon states state that currently there are no political conditions and the international environment for prohibition of nuclear weapons, nuclear disarmament should take steps forward, and take into consideration the factors such as peace, security and strategic stability. Nuclear states also stated their national efforts on the NPT compliance, publicizing their significant contributions to nuclear disarmament and nuclear non-proliferation, including reduced nuclear weapon quantity, and reduced use risks of nuclear weapons and so on. And the differences of participating parties on the Middle East nuclear weapon-free zone

directly led the meeting to failure. Some Mid-East countries expressed strong dissatisfaction over the failed convocation of the Middle East 2012 nuclear weapon-free zone conference as scheduled, and demanded that the final document of the conference include "nuclear weapon-free zone conference be held on March 1, 2016, and the special representative conference held on July 1, 2015, for making preparation for a successful meeting, and inviting all the Mid-East countries to attend", and define the Middle Eastern countries including the Arab League members, Iran and Israel. The United States stated that the definition is inconsistent with the U.S. long-term policy, it does not support the text, and is opposed to setting a time limit, the United Kingdom and Canada support the U.S. views, thus, ultimately consensus on consultation cannot be reached on the final document.

NPT review conference ended in failure, which highlights the growing contradiction and confrontation between the non-nuclear weapon states and the nuclear weapon states, and will have a negative impact on the international non-proliferation mechanism. However, the Treaty has been widely recognized by the international community, and its status as a cornerstone of the non-proliferation regime will not change in a short time, so various parties will continue to take advantage of this platform to reflect their demands and maintain interests. How to balance the relationship between the three pillars, i.e. nuclear disarmament, non-proliferation and peaceful use of nuclear energy in the future is still the issue calling for joint efforts of the international community to solve.

2. The final agreement is signed on the Iran nuclear issue, the international non-proliferation mechanism is maintained

After more than a year and half negotiations, on July 14, 2015, the Iran nuclear issue-related six countries (the United States, the United Kingdom, France, Russia, China and Germany) and Iran reached a historic agreement for a comprehensive solution to the Iran nuclear issue -- *the Joint Comprehensive Plan of Action*, -- reached a political

consensus to solve the 12-year long Iran nuclear issue. Under the agreement, Iran reiterates that it does not seek, develop and acquire any nuclear weapons under any circumstances; cuts the number of existing centrifuges by two thirds, down to 6104 units, does not produce enriched uranium with purity over 3.67% within the next 15 years, does not build any new uranium enrichment facility, reduce the existing about 10 tons uranium of low enrichment to 300 kg, convert the Fordow nuclear facilities to a nuclear technology center, and transform the Arak heavy water reactor, and in 15 years shall not carry out uranium enrichment related R & D activities and not establish a new heavy water reactor. Meanwhile, IAEA will regularly check all nuclear facilities in Iran. In return, the UN Security Council, the European Union and the United States will lift most economic and financial sanctions (the United States retains the sanctions for supporting terrorism, violations of human rights and other reasons) on Iran, lift an arms embargo after five years, lift sanctions of ballistic missile after eight years; and after the expiration of the agreement, Iran, as a NPT member nation, enjoys the same rights and obligations as other members. As of October 18th, the Iran nuclear agreement enters into force. On the same day, U.S. President Barack Obama ordered to take measures to lift sanctions against Iran, the European Union also adopted a legal framework designed to lift sanctions. On November 3, Iran Atomic Energy Organization Chairman Salehi said that Iran began preparation for implementation of the final agreement on its nuclear issue, and had launched the work to remove excess centrifuges.

The Iran nuclear agreement is a win-win move. The Agreement in fact recognizes the rights of Iran to uranium enrichment, from the perspective of the agreement contents, Iran does not permanently give up the right to and ability of enriching uranium, but more important is that Iran could thereby significantly improve its external environment and create conditions for economic development. U.S. President Obama views the deal as an important diplomatic legacy of his

presidency. Obama claimed that the Agreement will cut off the Iran's road to nuclear weapons, limit Iran nuclear activities to a certain scope and establish surveillance, the Iran nuclear agreement is the victory for the international nuclear non-proliferation regime. According to the Agreement, within the forthcoming 10-15 years, Iran will significantly reduce its uranium enrichment quantity, promise not to pursue development of plutonium, implement more stringent verification measures, and limit nuclear activities in civil application, greatly reducing the risk of nuclear arms races in the region, easing the regional tensions, and becoming an important achievement for the maintenance of the international nuclear non-proliferation regime.

However, the specific implementation of the Iran nuclear Agreement will face multiple challenges. One is serious shortage of trust between the United States and Iran, an agreement is difficult in a short time to dispel suspicions formed for a long-time. Two is the understanding by various parties on the Iran nuclear Agreement text details are not the same, some fuzzy expressions may bring troubles to Iran's future implementation of the Agreement. Three is the U.S. and Iranian domestic conservative and strong forces will continue to obstruct, and block the Agreement execution. The future implementation process of the Agreement may be more difficult than the negotiation itself.

IV. The outer space and cyber security issues

1. The EU's "Code of Conduct For Outer Space" started substantive discussions, but ended in failure

In July 2015, the EU held a multilateral diplomatic conference on the international code of conduct for outer space at the UN Headquarters in New York, inviting 109 countries, 2 intergovernmental organizations and 6 non-governmental organizations to attend. Initially, the EU defined the conference as a multilateral meeting of negotiations, hoped that the code of conduct is adopted by the 2/3 majority, but also had the consideration to strengthen the conference authority by the UN

venue. But China, Russia and the vast number of developing countries questioned about the entrusted negotiation authority, voting procedures, scope of application, core obligations clauses of the code of conduct, which forced the EU temporarily renamed the "multilateral negotiation conference on Code of Conduct For Outer Space" as "EU conference on Code of Conduct for Outer Space", change the planned negotiations into discussions, upset the EU established plan, and resulted in failure of the meeting. Finally, chairman of the meeting only published a summary of the meeting, and a simple list of various points of view, made neither comment on the discussions of the meeting, nor proposal for future direction.

As far as the meeting is concerned, the most controversial issue is whether the Code needs to be authorized, on what platform to negotiate, how to determine the scope of application. China, Russia and the vast number of developing countries argue that the UN mechanism is more authoritative, and it is very important to be authorized by the United Nations; there are also some countries advocating separation of the Code contents according to their nature, i.e. the peaceful use of outer space issue handled by COPUOS, disarmament issues by CD. Western countries argue that the Code is a response to the "Resolution on Report of the Group of Governmental Experts On Transparency and Confidence-Building Measures in Outer Space Activities" (69/38), and is also a step to implement the General Assembly resolution, indicating that the EU Code of Conduct negotiations have a clear basis, without the need for a UN authorization; believe that Code of Conduct negotiations is under the existing EU framework, and the number of the participating countries and organizations has shown the extensive and representative involvement; that the Code of Conduct is a comprehensive document, both the peaceful use of outer space and military use of outer space activities are possible to generate security issues, so the military and the civil activities cannot be separated. Developing countries emphasize that the rights to universal participation and peaceful use should not

be hindered, and the importance to prevent the weaponization of outer space; while western countries emphasize the rationality, urgency and pragmatic nature of the current process of the EU Code of Conduct. There are fundamental differences in the positions of various parties, and difficult to reconcile in the foreseeable future.

2. The momentum of cooperation in cyberspace has increased and China has played an positive role

In 2015, while all major countries competed in development of cyberspace military capabilities, and contended for the cyberspace advantages, their will to cooperate was on the rise, to establish cyberspace confidence-building measures and strengthen cyber cooperation became the important content for major countries to promote cyber security. In July 2015, the UN Group of Governmental Experts On Information Security held a meeting, representatives of over 20 countries including China, Russia, the United States, the United Kingdom, France, Japan, Brazil, South Korea and others participated, and the meeting finally concluded a report submitted to the Secretary General of the United Nations. Various countries for the first time agreed to constrain their activities in the cyberspace, including no use of cyber network to attack important infrastructure such as nuclear power plant, bank, traffic, water supply system, etc. and no plantation of "backdoors program" in IT products. The United States also changed its resistant attitude to support the consensus. The fundamental reason to promote its changes is the highlighting information and cyber security issues, the possibility of the information and communication technology used for terrorism cannot be excluded, so the United States is unable to address these problems alone, and must choose the road of multilateral cooperation. In January 2015, having integrated the international communal opinion and situation development, the Shanghai Cooperation Organization Member States updated the International Code of Conduct for Information Security, and distributed it as an official document of the UN General Assembly. The new version of "International Code" strengthens the contents on the Internet governance, bridging the digital gap, capacity-building, and added the cyber confidence-building measures to it.

In various international efforts, the most attractive is the Sino-U.S. cyber cooperation in 2015. In September, President Xi visited the United States, the two countries reached some consensus on cyber security issues: the two sides agreed to

strengthen the cyber crime case investigation and information sharing; neither government should be engaged in, or steal intellectual property intentionally, including trade secrets, and other confidential business information in order to ensure a favorable position for its enterprise or business sector in competition; explore a push for development of a state code of conduct adapted to cyber space in the international community; establish the high-level joint dialogue mechanism and a hotline for bilateral cooperation in combating cyber crime and the related matters. On December 1, China and the United States for the first time held the high-level joint dialogue for bilateral cooperation in combating cyber crime and the related items in Washington, the two sides signed the *Sino-U.S. guiding principles for fighting cyber crime and related issues*; established the hotline for the two countries to combat cyber crime and the related matters, and timely carried out direct communication for a major emergent cyber case and relevant law enforcement cooperation. Both sides agreed to exchange experience in combating cyber crime, and conduct cooperation to crack down on cyber crimes. The contents of the cooperation focus on establishment of mutual trust, and elimination of mutual suspicions between the two countries in the cyber domain and stress on combating cyber crime, and crisis management, etc.

V. The control of biological and chemical weapons

1. The biological safety problem is still stern

On May 27, 2015, the U.S. Dugway weapon testing ground, due to negligence, sent out the active anthrax samples, which may spread to many laboratories in 9 U.S. states and in Osan Air Force base, South Korea. On July 9, 2015, American scholar Melissa Hanham, in his article, pointed out North Korea has necessary equipment and raw materials and facilities to produce the military-scale anthrax bacillus and large-scale procurement of prohibited items, and argued that North Korea has the biochemical deterrent capability against South Korea and the United States.

In May 2015, the U.S. State Department released the Report On Adherence to and Compliance with Arms Control, Non-Proliferation and Disarmament Agreements and Commitments, continuing the distrusting attitude of Russia, Iran and other countries, and to blame Syria, North Korea and other countries.

The year 2015 is the 40th anniversary of the Convention On The Prohibition Of Biological

Weapons, on March 30, 2015, the UN Department of Disarmament Affairs held a commemorative event at its headquarters in Geneva. U. S. Deputy Secretary of State Rose Gottemoeller in his published article stated that the U.S. future work direction includes: promoting wide-ranging compliance, ensuring national performance transparent, effectively managing dual-use research, and getting prepared to cope with any form of biological weapons.

2. The destruction of chemical weapons still lags behind

Regarding chemical weapons control, as of November 30, 2015, the number of States parties to the Convention on the Prohibition of Chemical Weapons has increased to 192, while Israel has ratified the Convention, only Egypt, North Korea and South Sudan, the three countries have not signed the Convention. In terms of destruction of the stockpiled chemical weapons, as of August 31, 2015, 90% of 72525 tons of stockpiled chemical weapons agents destroyed and verified announced by States parties to the Convention. However, the United States and Russia fail to complete the destruction of their chemical weapons on schedule. The Convention specifies that the deadline for chemical weapons destruction is April 29, 2012, but Russia is expected to complete the destruction in 2020, while the United States will postpone it to 2023. In addition, the destruction of the Japanese abandoned-chemical weapons in China will also be postponed to 2022.

VI. Conventional Arms Control

1. The States parties to the "Arms Trade Treaty" hold its first conference, and establish the rules of procedure

On 24-27 August 2015, the first conference of the State parties to the *Arms Trade Treaty* was held in Cancun, Mexico, representatives of 121 countries, 70 international and regional organizations and the military industrial enterprises participated. During the four-day meeting, various parties to the conference launched substantive discussions on the rules of procedure for the future of the conference of States parties, fund-raising matters and permanent secretariat and other matters. A

regulatory agency of the *Arms Trade Treaty* was set up at the Meeting through behind closed door vote. And the agency was named the Permanent Secretary to the *Arms Trade Treaty*, headquartered in Geneva; the Meeting established the rules of procedure for important decisions needed to obtain a two-thirds majority; the Meeting also requires that each State party to the Convention must before December submit the first copy of the treaty execution situation report, and a copy of their weapons import-export, and preventing arms transfers annual report. With the Treaty organization improvement and formation of the rules of procedure, implementation of the Treaty will be increasingly on the right track. The *Arms Trade Treaty* was open for signature on June 3, 2014 in UN Headquarters, its official entry into force on September 24, 2014. A total of 130 countries have signed the treaty, 72 of which have already ratified.

2. "The Convention on Certain Conventional Weapons" continues discussions on the "lethal autonomous weapon system"

On April 13-17, 2015, the Convention on Certain Conventional Weapons (CCW) once again held an informal meeting of experts on the "fatal autonomous weapon system" (also known as "killer robots"), which is the second informal discussion after the one last year. The representatives of 88 countries discussed the terrible consequences that maybe brought about by "killer robots", and generally believed that to implement control "fatal autonomous weapon systems" has important significance. The representatives of Cuba, Ecuador, Pakistan and other countries called for the ban on the weapon system. The representative of Pakistan said that it should set up special provisions in the Convention on Certain Conventional Weapons to prevent the development and use of such weapons. And other countries representatives advocated taking other actions except for prohibition to exercise control, such as encouraging the relevant countries to take transparent measures and strengthen information sharing, etc. The meeting ultimately failed to reach agreement on how to control the system.