

Missile Proliferation: Extending Missile Non-Proliferation Tools – New Initiatives

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Since the adoption of the Missile Technology Control Regime in 1987, the number of States possessing ballistic technology regularly increased. According to *Missile Defense Agency*, “*In terms of quantities alone, there were about 4,700 (four thousand and seven hundred) ballistic missiles outside of U.S., Russian, and Chinese inventories in 2003. By 2008, there were some 5 900 five (thousand and nine hundred)*”.¹ In parallel, long range cruise missile programs are developing, notably in the U.S., China, India, Pakistan, South Korea or even Iran. Despite continuous upgrading, neither the MTCR nor the recently adopted Hague Code of Conduct have been able to reverse these trends even if the MTCR has clearly helped to curb the most serious cases of ballistic proliferation.

Originally the MTCR was inspired by the National Security Decision Directive 70 adopted by the Reagan administration to limit potentially proliferative transfers to States seeking to develop strategic means of delivery for crude nuclear weapons, in a confined geographical context such as the Middle East or North Korea. This technical a priori explains the specification of range and payload retained to define weapon systems subjected to control, namely missiles of 300 km range and 500 kg payload and their afferent subsystems and technology. Any subsystem and technology exploitable for the weaponization of WMD have also been subject to export controls since 1993.

Military equipment, systems and subsystems as well as industrial equipment are listed in the Equipment, Software and Technology Annex, which encompasses two lists. Category 1 items include complete weapon systems and major sub-systems whereas Category 2 comprises dual use items and technologies as well as production tools. Propellant, chemical precursors and specialized material are also included. MTCR guidelines exhort its members to exert the utmost vigilance on export of Category 1 items to non members, according to the rule of “presumption of denial”, leading to a quasi-prohibition of trade. Exporting production facilities is totally prohibited. Trade restrictions with non member States are less stringent on Category 2 items, due to their dual use nature. In practice, the effectiveness of trade restrictions on Category 2 items varies greatly and some member states tend to

¹ *Missile Defense Agency*, Fiscal Year (FY) 2010 Budget Estimates Overview, 09-MDA-4527, April 27 2009.

ignore them, pointing to the fact that their transfers concern short range missile technology and should not be subject to restrictions.

Currently, the MTCR numbers comprises 34 members. Most of them are European countries and during annual plenary meeting the EU is represented by one of them but the US has been the MTCR's main architect throughout its existence. American impetus has helped the Regime to compel Argentina and Brazil to stop their ballistic programs, whose development was financially dependant of proliferative exports, but also to stop proliferative transfers from European and U.S. companies. European countries have played a more substantial role in Russian accession to the Regime and have incited the U.S. to favour its full integration rather than a mere alignment on MTCR guidelines. The U.S. has also played a leading role in convincing China and Israel to bring their exports legislation in line with MTCR guidelines and control lists and exert continuous pressure to compel members to abide by their commitments. Recently the U.S. requested that Argentina clarify some aspects of its SLV program and is still at odds with Ukraine for suspected Category 1 and Category 2 transfers to India. European countries, such as France, Germany or the UK are also deeply involved in MTCR internal reforms and act as facilitators to harmonize EU regulations with the MTCR. Along with the U.S., France is the spearhead of all initiatives taken within the Regime to curb Iranian proliferation.

In parallel, the EU has played a decisive role to promote The Hague Code of Conduct. A first version of the Code was completed in 2000, and subsequently adopted by the plenary assembly of the MTCR. The EU and France worked actively to give it a universal character², turning what was initially perceived as an instrument dedicated to complement the MTCR into a wider one, designed to pave the way for multinational measures against missile proliferation. However, even if the HCOC is widely described as necessary to stem missile proliferation, its direct impact will be remote as long as missile non proliferation relies merely on supplier group logic rather than on an international treaty requiring members of the international community to partially or totally renounce strategic missiles.

Different initiatives have been launched for that purpose since the end of the Cold War. In the wake of the INF Treaty, the U.S. and the Soviet Union have considered the possibility of extending the treaty and American negotiators have explored the option of a missile-free zone in the Middle East, gathering some support from Egypt and Israel. WMD issues as well as conflicting interest of Arab States precluded agreement on any concrete action. In 2001, Russia proposed a Global Control System for Non-Proliferation of Missiles and Missile Technologies (GCS) with the aim of strengthening ballistic non-proliferation mechanisms and incidentally, to undermine U.S. missile defense projects. The Russian proposal anticipated the establishment of Confidence and Security Building Measures, later formalized by the HCOC. Aware of the need to back CSBM to disarmament, Russia suggested creating an instrument proposing security guarantees to states renouncing strategic missiles together with economic incentives. Conceived as a treaty, the GCS would

² See 2001/567/CFSP and 2002/406/CFSP.

have federated regional Missile Free Zones and instituted an international body of monitoring and verification. According to some analysts, the Russian proposal also intended to strengthen the MTCR through its universalization and institutionalization and through its association with the planned body of verification.

Russia for its part has not renounced the universalization of the INF treaty. In 2008, during the Disarmament Conference, Foreign minister Lavrov made a proposal to this end, based on the elimination of shorter range and medium range ballistic missiles and a prohibition on manufacturing and testing them.³ The proposal was once again aimed at disrupting U.S. missile defense in Europe but also at correcting the military distortion resulting from the bilateral character of the INF treaty. Nicolas Sarkozy took up the idea soon afterwards and proposed “*to open negotiations for prohibiting short and intermediate range surface to surface missiles*”⁴ but it did not lead to any concrete initiative. Indeed, Russian and French proposals can hardly be implemented since they would affect almost all emerging powers’ arsenals, question the deployment of Chinese forces around Taiwan and deprive India and Pakistan of nearly all of their strategic delivery means, without any reciprocal concession from the great powers. Such a measure could only be implemented as a prelude to a complete ban.

Unfortunately, the current trend in military acquisition shows that countries subject to strained security environments are increasingly looking for deep strike capacities whereas great powers continue to rely on strategic assets to ensure their deterrence as to sustain military operations, resorting in such cases to weapon systems armed with a conventional payload but whose delivery means are generally encompassed in MTCR categories. These twin trends concern proliferating states and their neighbours as well as all great powers (Iran, Syria, North Korea, Pakistan and reciprocally Turkey, Israel, South Korea, U.S., UK, China, Russia, France and so on).

Proliferating states develop missiles as means of delivery for WMD but also, as the Iranian example illustrates, to sanctuarize their territory, ballistic missiles and deep strike weapon systems contributing actively to deter their adversaries, even when armed with conventional payloads. The development of long-range missiles, able to threaten great powers’ territory, is then a logical outcome as shown with the North

³ « *We propose that a new multilateral agreement based on the relevant provisions of the existing INF Treaty be elaborated and concluded. Such an international legal arrangement could comprise the following basic elements. Firstly, the obligation of the parties not to conduct flight testing and not to manufacture medium- and shorter-range missiles or their stages and launchers. Secondly, the undertaking by states parties to eliminate, by an agreed deadline, all their medium- and shorter-range missiles, launchers thereof and associated supporting facilities and equipment. Thirdly, the arrangement should set rules for counting and defining the types of medium- and shorter-range missiles, their deployment and movement, in the process of getting them ready for elimination, procedures for their elimination and compliance verification* », *Statement by H.E. Mr. Sergey Lavrov, Minister of Foreign Affairs of the Russian Federation, at the Plenary meeting of the Conference on Disarmament, Geneva, 12 February 2008.*

⁴ Discours de M. le Président de la République Française, Cherbourg (Manche), vendredi 21 mars 2008.

Korean Taepo Dong. Besides, the North Korean arsenal proves that coupled with WMD, ballistic missiles bolster deterrence with such a magnitude that tiny States deprived of any functional economy and defended by weak armed forces are able to pursue destabilizing policies without military consequences. The assessment of Pakistani or even Syrian strategic behaviour leads to the same conclusion. Weaponized WMD are a precondition to sanctuarized deterrence, which guaranties States a broader freedom in the pursuit of political and military objectives.

However, it is worth noting that numerous studies have shown that, due to physical constraints, coupling crude ballistic missiles with chemical weapons does not permit the implementation of efficient strike plans in the theatre and would have a limited impact on a strategic level, the North Korean arsenal being probably a notable exception. This means that even when coupled with chemical programs, proliferating states ballistic programs correspond to a logic of last resort deterrence rather than a logic of first strike.

Conversely, neighbouring states such as South Korea or Turkey but equally great powers, perceive strategic delivery means as counter-balance weapons allowing them to respond to military escalation. Turkey's acquisition of U.S. ATACMS (MGM-140) heavy rockets or South Korea's development of Hyunmo-3C cruise missiles obey this logic. Chinese deployment of huge ballistic forces in the Formosa Straight region follows both principles, since it responds to U.S. dominance in the area and now supports the renewed aggressiveness of Chinese armed forces in the Pacific. Last but not least, the evolution of Western weapon systems such as U.S. ATACMS heavy rocket, AGM-86C cruise missile, or French/British Scalp-EG/Storm Shadow cruise missile shows that means of delivery with extended range are required by military planers to meet the growing effectiveness of air defence and to enhance operational flexibility. One can expect that dissemination of modern air defence systems as well as long range artillery and rockets will soon lead Western powers to reconsider the pertinence of MTCR limitations. More broadly the growing utility of missiles is widely acknowledged

In 2002, for instance, in the context of the GCS proposal, Russia noted: *“The reasons for missile proliferation are, to a considerable extent, the attempts of States to find answers to the political instability in individual regions of the world and their efforts to ensure their security and stimulate industrial and economic development through access to missile and space technologies. Individual countries are seeking to strengthen their political and military influence by building and perfecting rocket weapons. The fact that demand begets supply is also of no small importance”*.⁵ In 2006 the United Nations second Panel of government experts on missile in all its aspects confirmed the general interest of States for greater controls to curb missile proliferation, as far as they were not concerned: *“following on from this general acknowledgement that missiles exert effects on international security, it is universally argued that these effects are only negative in the case of another State's missiles. No State regards its own missiles as unduly threatening, and all*

⁵ GCS proposal in *Missiles Report of the Secretary-General*, U.N. General Assembly, A/56/136, 5 July 2001.

look upon their missiles as both necessary and legitimate. No State regards its own missiles as part of the problem: on the contrary, missiles are often claimed to be a response to the problem, rather than a part of it".⁶ The third panel report (2008) denotes a complete absence of general agreement on the ways and means to limit missile proliferation and the spread of technologies, putting an end, in the short term, to any initiative to implement any missiles-free zone.⁷

Global interest in missiles also results from technical evolutions, notably in guidance and propulsion. Ballistic missiles of proliferating States are still crude weapons but emerging industrial States are now able to acquire or manufacture accurate cruise missiles and heavy rockets. The association of strategic delivery means and WMD, which is fundamentally the *raison d'être* of the MTCR, is now less relevant since most ballistic missiles, cruise missiles and heavy rockets are acquired in a perspective of long range conventional strikes.

In parallel, North Korean, Iranian or Syrian schemes of proliferation, that is to say intra proliferating State proliferation, is certainly a problem the international community has to address. But they are only a minor aspect of missile proliferation. The diffusion of Scud technology from North Korea to Iran, Pakistan or Syria attests that the MTCR *has* been effective. Proliferating States have spent a pretty penny buying useless missiles and outdated technologies to build ineffective arsenals structured around Scud type and No Dong type weapons, trapping them in a technologic dead end. Proliferation stemming from deliberate transfers from developed States represents a threat of incomparable magnitude. Transfers from Russia are probably at the origin of North Korean programs and Chinese industrial transfers contributed, and may currently be contributing, to the construction of Iranian solid propellant industry, leading to the production of solid propellant missiles and rockets (Sejjil-2 Fateh-110) which are much more effective than the obsolete Scud derivatives. Following a similar but even more proliferating scheme, transfers from ballistic powers to non-proliferating but industrially developed purchasers lead to the constitution of new ballistic powers in a very short time frame.

For instance, Chinese transfers of WS-1 rockets and B-611 short range ballistic missile technology to Turkey allowed Ankara to build up a national capacity in less than ten years. Finally, national programs pursued by developed MTCR member States such as South Korea or by emerging industrial powers such as India show that, from a certain point of technical and industrial development, a minimal capacity can be built on a national basis rather quickly. The reality of industrial and technological dissemination of missile technology is now widely acknowledged, with a growing element of missile technology escaping the control of Westerns

⁶ *The issue of missiles in all its aspects, report to the Secretary-General, A/61/168, U.N. General Assembly, 20 July 2006.*

⁷ *The issue of missiles in all its aspects, Report of the Secretary-General, A/63/176, U.N. General Assembly, 28 July 2008.*

manufacturers. Some MTCR members States or affiliated States, such as Russia, Ukraine or China are responding to the increasing international demand while advanced proliferating States such as Iran in the short term likely to play the role that North Korea played in the 1990s. In February 2010 the *Ballistic Missile Defense Review* stated: « Globally, the Intelligence Community continues to see a progression in development from short to medium - and in some cases intermediate - range missiles. Development programs reflect increasing ambition in improving payload, range, precision, and operational performance. Those development programs could be helped by the open market that now exists in many of the associated technologies, materials, and expertise [..]. There is the potential for a substantial increase in the transfer of advanced capabilities from both government and nongovernment entities in some technically advanced countries. Some states with more advanced capabilities continue to transfer both technologies and systems to those with less mature capabilities ».⁸

These various trends demonstrate a need to adapt missile non-proliferation norms and instruments

As explained above, the prospect of the international community renouncing strategic missiles is slim, to say the least. If one agrees with the assumption that the HCOG is insufficient to stem proliferation, the MTCR remains the best instrument to deal with it. Its members work relentlessly to refine it, to harmonize national control exports within it and to select items, technology and even entities that need to be controlled.

The point is not to suggest any technical or administrative proposal to strengthen the MTCR, but to draw a conclusion from these prior remarks.

First, the strengths and weaknesses of the MTCR lie in its very nature of supplier regime. It is a plus point since the selective nature of a supplier regime entails the implementation of more restrictive export directives and maximizes leverage policy on potentially reluctant members. It is also a weakness since its legitimacy is overtly questioned, by both non-members and members, some of them refusing to abide fully by Category 2 export restrictions. Moreover, the emergence of a parallel non-MTCR missile market implies its enlargement to integrate new producers but also to shape their non-proliferation policies. Unfortunately, enlargement is associated with the risk of turning the Regime into a mere discussion forum. French representatives have long underlined that a solution has to be found to facilitate the membership of around ten countries still ineligible for accession due to non-proliferation policy or inefficient export systems but whose capacity should be taken into account. Slow, conditional but continuous enlargement is probably the best way to reconcile the traditional opposition of emerging countries to supplier regimes with the imperative of integrating countries whose non-proliferation approach, export controls, and export administration are mature enough to ensure that the proper functioning of the Regime will not be altered.

⁸ *Ballistic Missile Defense Review Rapport*, 2010.

Second, the yet reduced format of the MTCR provides for the initiation of structural reforms favouring a better control of newcomers' policy. Russia and Ukraine are vivid examples of risks associated with the accession of inadequately reformed partners. Enlarging the MTCR without creating collective sanction procedures against Members and companies of member States regularly breaching guidelines implies that the Regime will inevitably turn into, at best, a harmonization forum, weakening its efficiency. Russo-Indian cooperation on BrahMos cruise missiles is already a symbol of this diminishing effectiveness. Sanctions adopted by one State should be adopted by the others.

Third, sanctions procedures induce some forms of verification and monitoring. Currently, the Regime requires States benefiting from transfers to take legally binding end-use commitments. Nonetheless, verification of these commitments depends on heterogenic national means. If U.S. Blue Lantern program and sanctions relating to ITAR violations are clearly dissuasive, Ukrainian monitoring capacities are a long way from fulfilling minimal norms. An automatic bilateral process of verification or monitoring could then be implemented and associated to the transfer of specific technology. Supplier States as well as purchasing States should be responsible for this implementation.

Currently, few States are expected to accept verification processes monitoring their defence industry, even partially. But as demonstrated above, numerous missiles or subsystems encompassed in MTCR's Categories are not acquired in order to weaponize WMD but to develop conventional deep strike capacities. Automatic bilateral processes of verification or monitoring should therefore uniquely concern technology and items relating to warheads and payloads whenever they can potentially be used to weaponize WMD.

Fourth, MTRC effectiveness is directly linked to the industrial and economical characteristics of the targeted State. It proved to be very effective against States whose defence and space industries are dependent on or narrowly integrated into the international market or, conversely, totally excluded from it. Its efficiency is minimal against industrial States who possess their own know-how, independent from Western licenses, and their own market. Consequently the MTCR directly contributes to frame Western States' missile non-proliferation norms and to compel their usual economic partners to comply, it deeply affects programs of proliferating States but it is more or less useless against Russia and its effectiveness is declining against States like China or India. The more defence industries are internationally interdependent, the more the Regime is effective, leading to the conclusion that the more missile technology is traded, in a context where States abide by their end user commitments, the more effective the Regime will be. Hence, the Regime should continue to restrict trade and transfers from members to non-members but also actively promote them between members that comply strictly with their commitments. Controls and restrictions on systems and technology not directly associated to WMD weaponization could be relaxed.

Adoption of such a set of measures would induce a transformation of the Regime, which would become more burdensome and probably more legally binding. Again,

few States, including traditional MTCR supporters, are likely to promote them. Concrete incentives have to be found to convince them to do so.

Since its creation, a number of proposals have been made to enhance MTCR's efficiency. Seventeen years ago, in 1994 Deborah A. Ozga had already mentioned all the proposals made above⁹ as well as internal reforms on guidelines or export control harmonization and notification. It is worth noting that some of her proposed upgrades have been adopted or are currently being discussed but only when they concern the inner functioning of the Regime, that is to say, the harmonization of members' control exports. Proposals aimed at creating any legally binding instrument inside the Regime have never been implemented, essentially due to a lack of incentive to do so.

This lack of incentive is clearly linked to the very perception of the MTCR by its own members. Initially the MTCR was dedicated to stamp out any kind of proliferation, including proliferation that might have resulted from space programs, and to disable incomers' ballistic programs. Due to Brazil's accession, this approach has been softened. Brazil was allowed to keep its space industry, marking a first conceptual evolution. The accession of South Korea in 2001 marked another one, with Seoul obtaining the right to retain its 180 km range missiles but also to develop 300 km range ballistic missiles. Security constraints were then invoked. According to the Chinese press, the 300 km limit could even soon be dropped. Another turning point is also in the offing. Following the U.S. India Civil Nuclear Agreement (123 agreement) between the U.S. and India, India is required to adhere to MTCR Guidelines. According to the press, the U.S. administration is now considering Indian accession. The consequences would be far reaching, since Indian accession would definitively alter the nature of the Regime, which could hardly still be considered as a supplier regime designed to curb any form of ballistic proliferation. According to the Obama administration: now « *the function of the Missile*

⁹ “internationalizing the Intermediate-range Nuclear Forces Treaty reducing world arsenals to the zero ballistic missile level ; creating an international clearinghouse for dual-use exports ; creating a World Space Organization to include an international inspection system for the launch of space objects ; establishing of an international launch notification center (to include ballistic missile tests); creating a warhead inspection regime ; developing confidence building measures ;[.]Regardless of the approach, reconstituting the MTCR to create a sound instrument to address future missile proliferation issues would need to include: A legally binding instrument that provides clearly written export guidelines on which states can base national export controls. (It should be fairly narrow in interpretation.). - A mechanism to provide recourse in the event of regime violations or guideline interpretation disputes. - A means of facilitating and guaranteeing dual-use technology transfers that provides access to states wishing to utilize missile technology for peaceful purposes. - A mechanism for addressing the security concerns of suppliers through the utilization of safeguarding agencies and verification techniques. - An avenue to promote negotiations for missile reductions. - Increased transparency in the exports of sensitive technologies. (One possibility that would compliment the current practice of providing denial notifications and occasional courtesy notification of Category I scheduled transfers, would be providing advance notification of all MTCR-controlled item transfers.). - A shifting of the organization's rationale from a supplier/export barrier regime to center on creating a broad international effort to discourage missile proliferation and support peaceful uses of technology”. Deborah A. Ozga, « A Chronology of the Missile Technology Control Regime », *The Nonproliferation Review*, 1994.

Technology Control Regime is to facilitate ad hoc coordination of export controls among likeminded exporters who desire to keep militarily sensitive technologies out of the hands of dangerous states »¹⁰.

Following this logic the MTCR is becoming an instrument aimed at gathering stable, non-proliferating, and responsible actors, rather independently of the very nature of their missile programs. But if one wishes to give the MTCR the necessary tools to verify the non-proliferation nature of their programs, some incentives has to be given to member States as well as to non-member States wishing to join. One such incentive should be the liberalization of trade and transfers between members on a broader category of missiles, including missiles with strategic capacity. Such an approach combines security and economic incentives, as it would allow countries threatened by proliferating States to rearms and to regenerate a market for Western companies, currently being slowly evicted from the missile market by proliferating manufacturers of proliferator States. This eviction leads traditional partners to turn to Russian or Chinese companies to get their products, without any control, and contributes to the distention of old security ties between Western countries and their traditional allies.

Moreover this combined incentive could be sufficient to convince member States or future member States to support the creation of monitoring and verification instruments and also the implementation of sanctions to coerce member States that are regularly in breach of their commitments.

Conversely, presumption of denial should be maintained against proliferating States, States refusing to ratify non-proliferation instruments such as the Chemical Weapon Convention, or States unable to implement efficient export controls. Presumption of denial should also be maintained for specific items related to warheads.

This approach involves making a choice between a bad option and a very bad option. The bad option is to liberalize missile trade as a reward, to federate non-proliferating States around non-proliferation norms and instruments with which they are encouraged to comply with. The very bad option is to consider that a supplier Regime is sufficient to stop the dissemination of already disseminated technology and that constrained producers, abiding by their commitments, will still be able to control a market they are already about to lose.

¹⁰ *Ballistic Missile Defense Review report*, op. cit.