ISS INSTITUTE FOR SECURITY STUDIES

POLICY BRIEF 90 | SEPTEMBER 2016

The Hague Code of Conduct against Ballistic Missile Proliferation

Relevance to African states

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Recommendations

1 The African Union (AU) should encourage its member states to engage with the HCoC Executive Secretariat and to support related United Nations (UN) General Assembly resolutions.

2 The AU should consider mechanisms to encourage and facilitate the sharing of information and experience concerning civilian space activities.

3 African states that have not yet subscribed to the HCoC should consider doing so to reinforce their support for global disarmament and non-proliferation efforts, and to enhance the effectiveness of the code as a confidence-building measure.

4 African states that have subscribed should increase their participation in the code's mechanism of annual declarations.

Summary

The Hague Code of Conduct against Ballistic Missile Proliferation (HCoC), which came into effect on 25 November 2002, aims to strengthen efforts to curb ballistic missile proliferation worldwide, thereby supplementing the Missile Technology Control Regime, which restricts access to technologies needed to develop such systems. Ballistic missiles are the favoured delivery vehicles for weapons of mass destruction and therefore have a destabilising effect on regional and global security. This brief provides an overview of the HCoC, examines its relevance for African states and outlines the benefits that can be derived by subscribing to its general principles, commitments and confidence-building measures.

THE HAGUE CODE OF CONDUCT against Ballistic Missile Proliferation (HCoC) came into effect on 25 November 2002. Established at a conference hosted by the Netherlands and attended by 93 states, the code aims to contribute to international peace and security by strengthening global efforts to curb ballistic missile proliferation.[2] Because ballistic missiles have a high arching trajectory, they are the favoured delivery vehicles for weapons of mass destruction (WMD), such as nuclear warheads.

Overview of the development of the HCoC

At the end of the 1990s, steps taken by the Democratic People's Republic of Korea (North Korea) and the Islamic Republic of Iran, among others, to develop ballistic missile programmes led to the members of the MTCR

reassessing their strategy for curbing ballistic missile proliferation by restricting access to related technologies.

The Missile Technology Control Regime (MTCR), which was established in 1987, plays an important part in limiting the proliferation of delivery systems by restricting the exports of missiles capable of carrying a 500 kg payload at least 300 km, and of missiles that deliver chemical, biological or nuclear weapons, as well as related technologies. The 34 member states of the MTCR maintain vigilance over the transfer of missile equipment, material and related technologies that could be used for producing systems capable of delivering WMD.[3]

> Ballistic missiles are considered by some states as legitimate weapons for their national security

As a means of supplementing these trade limitations, and with the backing of the European Union (EU), the MTCR members proposed a politically binding code (the International Code of Conduct against Ballistic Missile Proliferation [ICoC]) – now called the Hague Code of Conduct against Ballistic Missile Proliferation – to the international community to encourage states to be more transparent about their ballistic missiles and civilian space programmes. The code of conduct was also intended to serve as a warning system before launches are conducted. The proposed code illustrated the conviction, widely shared at the time of its adoption, that multilateralism could be a

Glossary[1]

Anti-ballistic missile: A system designed to detect, identify, track, intercept and destroy a ballistic missile or its re-entry vehicle(s) during flight.

Ballistic missile: A missile whose flight path follows a ballistic (parabolic) trajectory governed mainly by gravity and aerodynamic drag once thrust is cut, and comprising a launcher, a rocket-powered propulsion system, a payload and a guidance system.

Confidence-building measures: Unilateral or agreed actions taken by a state for the purpose of reducing uncertainties and concerns of other states about its intentions, making the state's behaviour more predictable to other states, and promoting the reduction of tensions between states.

Cruise missile: A missile that uses aerodynamic lift to offset gravity and a propulsion system to counteract drag. Unlike ballistic missiles, cruise missiles travel parallel to the ground (usually at a constant height) like an aircraft.

Delivery system: A means of propulsion or transport employed to carry munitions to their target. Many delivery systems are dual-capable, meaning that they can transport both conventional weapons and WMD payloads.

Export controls: Measures designed to regulate international trade in sensitive equipment, materials and dual-use technologies, such as weapon systems and their components.

Missile: An unmanned, self-propelled, self-contained, unrecallable, guided or unguided vehicle designed to deliver a weapon or other payload.

Payload: The front part of a missile that carries a nuclear or explosive charge, or a chemical or biological agent. Payloads can also be satellites with a wide range of missions: communication, weather monitoring, planetary exploration and observation.

Warhead: The component of a missile that contains either nuclear explosives, chemical high-explosives, chemical or biological agents, or other material intended to cause damage.

useful tool to curb the proliferation of WMD. This was a belief that had led to the adoption of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) by the UN General Assembly on 10 September 1996, to the entry into force of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC) on 29 April 1997, and to the indefinite extension of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) on 11 May 1995.

While the CWC and the 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (or the Biological and Toxin Weapons Convention, BTWC) both ban an entire category of weapons, and the NPT commits states parties to eventual nuclear disarmament, the same technologies used in ballistic missiles can also be used for peaceful purposes, such as civilian rockets, satellite launches and space exploration. As ballistic missiles are capable of carrying various types of conventional weapons, and not only WMD, they are also considered by some states as legitimate weapons for their national security.

> The HCoC is an example of how 'soft law' can be respected and can play a concrete role in the international security context

To take this into account, it was agreed that normative measures with regard to these systems would need to be decided on and that a relatively consensual, universal instrument based on voluntary implementation would be drafted. To signal the international community's concern over the proliferation of ballistic missiles, the HCoC consists of a set of general principles, modest commitments and limited confidence-building measures aimed at delegitimising ballistic missile proliferation, and at increasing transparency and confidence among states.[4] (See the annex for the full text of the HCoC.)

The MTCR and HCoC are thus both based on an informal political understanding among states seeking to limit the proliferation of missiles and missile technology. They depend for their enforcement on either a common export policy applied to an integral list of items, voluntary political compliance, or a self-imposed code of conduct, rather than being subject to treaties sanctioned by international law.[5]

Key provisions of the HCoC

The main objective of the HCoC is to promote confidence-building measures, thereby reinforcing the security of the signatories, without being too burdensome or restrictive, which would hamper its universal applicability and effectiveness. This delicate balance takes shape through three categories of measures.

THE MAIN OBJECTIVE OF THE HCoC IS TO PROMOTE CONFIDENCE-BUILDING MEASURES

First, the signatories commit to accede or adhere to a number of international conventions and treaties relating to the peaceful use of space, such as the 1967 Outer Space Treaty[6] and the 1996 Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries.

Secondly, they agree, under the wording of the code, to prevent the proliferation of ballistic missiles capable of delivering WMD by applying prudent export control policies, to exercise maximum restraint in their development, testing and deployment, and, where possible, to reduce possession of such missiles.

Finally, by subscribing to the code, states voluntarily undertake to make an annual declaration outlining their policy on ballistic missiles and space launch vehicles, to declare the launches of each made during the year, and to send pre-launch notifications. Visits to space launch sites are encouraged. For the states that do not have missile or space programmes, a nil declaration ought to be submitted annually to the Executive Secretariat. Therefore, the HCoC is an example of how 'soft law' can be respected and can play a concrete role in the international security context.[7]

> The code has come to be seen as a genuine component of the global non-proliferation regime

Austria is the Immediate Central Contact (Executive Secretariat) and coordinates information exchange within the HCoC framework. To promote transparency, the code has a dedicated website (http://www.hcoc.at/). General meetings are organised annually, and the chair rotates among subscribing states every other year.

The HCoC and the global non-proliferation regime

As of August 2016, 138 countries, including 36 African states have subscribed to the code.

The HCoC is currently the only international instrument which regulates ballistic missiles. Although it clearly has its roots in the MTCR, the code has in recent years come to be seen as a genuine component of the global non-proliferation regime. The UN General Assembly has officially expressed concern about the increasing regional and global security challenges posed by the proliferation of ballistic missiles, and has recognised the code as an important component of the broad international framework of agreements that are aimed at preventing the spread of WMD and contributing to arms control and disarmament.

Today, subscribing states organise events promoting the code during international meetings, such as NPT Review Conferences and the First

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THE NUMBER OF AFRICAN STATES THAT HAVE SUBSCRIBED TO THE HCoC

Committee of the UN General Assembly, that deal with global challenges and threats to international peace and security. They also draw linkages between the HCoC and other UN initiatives, such as the implementation of UN Security Council Resolution 1540 (2004).

The HCoC has a number of limitations, and it could be argued that its efforts to increase transparency and confidence have had little impact on the race for ballistic arms led by some non-signatories, especially in Asia and the Middle East. Despite its 138 participants, the code has still not been signed by some of the states that are the most active in the field of ballistic missiles (Brazil, Egypt, Iran, Israel, North Korea, Pakistan and Syria). Others fail to submit their nil annual declarations. Finally, the HCoC does not include cruise missiles, which are increasingly being developed for the delivery of nuclear weapons.

Nevertheless, it remains the only international instrument that points to the fact that ballistic missiles are destabilising weapons, and that aims to delegitimise their development, especially for WMD. Moreover, most states that have missile or space activities provide relevant pre-launch notifications and up-to-date annual declarations.

While the failure of the 2015 NPT Review Conference illustrates persistent tensions among states on non-proliferation and disarmament matters, the HCoC remains a unique multilateral confidence-building and transparency instrument against ballistic missile proliferation. The HCoC contributes to the process of strengthening existing national and international security arrangements. It also creates new opportunities for states to pursue their socio-economic and developmental goals.

Ballistic missile and space launch activities in Africa

Limited ballistic missile activity in Africa

Ballistic missile activity in Africa has been limited. Only South Africa, Libya and Egypt have shown some level of interest in acquiring or developing ballistic missiles. Egypt is currently considered to be the only African state with an active ballistic missile programme, while some capacity may remain in Libya.

In the 1970s and 1980s, apartheid South Africa began developing a long-range ballistic missile as a possible delivery vehicle for nuclear warheads. A July 1989 test launch of what South Africa called a 'booster rocket' confirmed that Pretoria had a ballistic missile programme. In 1993 South Africa decided to terminate and fully dismantle its long-range missile programme. The country is now a member of both the MTCR and the HCoC.

> Egypt is currently considered to be the only African state with an active ballistic missile programme

In the 1980s the then leader of Libya, Muammar Gaddafi, had been keen to establish a nuclear weapons programme in spite of that country's accession to the NPT. These efforts remained modest and were brought to a halt in the early 2000s under the supervision of the International Atomic Energy Agency and with the support of the UK and the US. The Libyan effort in the field of ballistic missiles was limited to acquiring old-generation short-range Scud missiles of Soviet origin. Although Libya is one of the few African countries to have possessed such weapons, the programme never had the intended political, military or strategic impact.

Egypt expressed interest in acquiring tactical and ballistic missiles back in 1951 in the context of the birth of Israel. Germany was the first key partner in the development of Egyptian capabilities, before the then Soviet Union took over in 1965, with the delivery of FROG-7A rockets and launchers in 1968 in a context of increasing regional tensions. This relationship continued until 1973 when the first Scud-B missiles were delivered to Egypt. Political tensions between the two countries, however, led Egypt to cooperate with other partners, including Iraq and Argentina, with the development of an indigenous capability as the ultimate goal. The Condor II programme, which began in 1983, involved developing a solid propulsion-equipped missile with a range of 900 km for a 500 kg payload. A test centre and a factory producing solid propellant were built. However, the programme was halted in 1988 under international pressure.

Maintaining its interest in ballistic missile technology, Egypt then pursued another approach, the so-called Project T, to improve its Scud-C missile capability, this time with the help of North Korea.[8] It is not known whether Egypt continues to invest in these technologies or whether it has the necessary technical and industrial capability to produce liquid fuel or for the maintenance of propulsion engines or guidance systems. It is believed that test equipment and installations have been developed by a competent workforce that provides Egypt with a solid basis for future efforts in this field if needed.

New opportunities for African space launch activities

Peaceful space-launch activities also fall within the scope of the HCoC. The development of space agencies in several African countries has been one of the most notable evolutions of the space landscape over recent years. The Nigerian Space Research and Development Agency, one of the first, aims to cover the full range of space technologies and services, from satellite development (for earth observation,[9] meteorology and telecommunications) to space launch vehicle programmes.

> Industrial giants like Google and Samsung plan to have more than 4 000 satellites in orbit over the next decade

The South African National Space Agency (SANSA), established in 2010, represents another key development for the African continent. Focusing on earth observation and science, SANSA delivers services and products using space systems destined to foster societal and industrial development. Efforts to develop space launches have not yet been pursued by SANSA.

The evolution of space systems, especially given their substantial reduction in size and cost, may lead to autonomous launch programmes in the mid to long term. A cursory scan of current developments in the space landscape worldwide shows that space may become more accessible than ever before. Ever-higher performances in micro satellites, ranging in weight from just a few kilograms to 100 or 150 kg, have allowed the emergence of a new private industry. Recently, numerous projects have been announced that envision putting in space hundreds of satellites for telecommunication or earth-observation services.

PEACEFUL SPACE-LAUNCH ACTIVITIES ALSO FALL WITHIN THE SCOPE OF THE HCoC

One of the most advanced telecommunication projects, OneWeb, plans to put more than 650 satellites into orbit in the period 2019 to 2020. Other less advanced projects undertaken by industrial giants like Google and Samsung plan to have more than 4 000 satellites in orbit over the next decade. And many start-ups have more modest programmes for high-precision earth-observation satellites with very high revisit rates.[10] These developments are also linked to rapidly changing information technology, and the Internet

industry has become a new downstream partner for space networks and data providers.

These developments could have a major impact on the commercial launch sector, with the potential for small space vehicles to find a renewed role in commercial enterprise. Strong downward pressure on prices is already having an impact on launch providers, with increased competition between Arianespace SA, Space Exploration Technologies Corporation, United Launch Alliance and others. A large number of small space-launch vehicles have been proposed, to fill in market niches that have not been occupied so far. Although these initiatives remain to be implemented and validated at the economical and industrial levels, they present a renewed opportunity for African countries to invest in this new field and increase their presence in the space-launch sector.[11]

Implementation of the HCoC on the continent

Though Africa has only a limited number of ballistic missile and space-launch activities, there is a relatively high level of support for the HCoC among African states. As of August 2016, 36 of the 54 African UN member states had subscribed to the code. This is a subscription rate of 67% – only four percentage points below the subscription rate of UN membership as a whole (71%). With a few additional subscriptions, the African continent would therefore rise above the world average, and provide another illustration of its firm stance on disarmament and non-proliferation issues.

In Africa, the regional economic community (REC) with the lowest proportion of states to have subscribed to the HCoC is the Southern African Development Community (SADC). The East African Community (EAC) has the highest participation rate in the HCoC, with 100% of its member states having subscribed. Table 1 shows the eight RECs' subscription rates to the HCoC, calculated as a percentage of their memberships.

Table 1: African RECs' subscription rates to the HCoC

Regional economic community	Subscription to HCoC (%)
Southern African Development Community	47
Economic Community of Central African States	55
Inter-Governmental Authority on Development	63
Common Market for Eastern and Southern Africa	68
Community of Sahel-Saharan States	79
Arab Maghreb Union	80
Economic Community of West African States	87
EAC	100

Eighteen African UN member states have not yet subscribed to the HCoC: Algeria, Angola, Botswana, Cameroon, Côte-d'Ivoire, the Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Liberia, Mauritius, Namibia, São Tomé and Príncipe, Somalia, South Sudan, Swaziland, Togo and Zimbabwe. However, each of the these non-subscribing states – with the exception of Algeria, Egypt and Mauritius – has affirmed its political support to the objectives of the HCoC by constantly voting in favour of the HCoC resolutions adopted by the UN General Assembly.[12]

Mauritius chose to abstain on the three first HCoC resolutions (A/RES/59/91, A/RES/60/62 and A/RES/63/64), which reflected initial defiance towards the code. Further consideration of the matter led Mauritius to change its position, however. It started voting in favour in 2010 (A/RES/65/73), and has continued to do so since.

Algeria and Egypt are the only two African UN member states to have systematically expressed their opposition to HCoC resolutions adopted by the UN General Assembly, either by abstaining or by voting against them. Explaining their stance, Algeria and Egypt have put forward the arguments that the code's limited scope does not address modernisation efforts by states with ballistic missile capabilities; that the HCoC does not cover activities related to cruise missiles; that the conditions of negotiation of the HCoC are elaborated in the context of the MTCR, with its restricted membership, rather than in an inclusive forum; and that there is insufficient commitment to promoting peaceful uses, cooperation and assistance as a compensation for restraint in ballistic missile activities. Egypt has also explained its position by 'the continued presence and development of nuclear weapons, of which ballistic missiles are only a means of delivery',[13] in an attempt to exert pressure on Israel and the nuclear weapons states.

The limited number of space-launch and ballistic missile-related activities on the continent means that there is poor participation by African states in the mechanism of annual declarations and pre-launch notifications established by the HCoC. However, African states that have subscribed to the HCoC receive all the information exchanged through this mechanism. They are therefore informed of space-launch and ballistic missile activities by other countries.

The role of the AU

The AU Commission promotes compliance among its member states of international and regional disarmament and non-proliferation multilateral regimes. The AU also assists states in developing the required human and technical capacities to implement such regimes.

> African states that have subscribed to the HCoC receive all the information exchanged through this mechanism

In July 1964 the then Organization of African Unity (OAU, now the AU) adopted the Declaration on the Denuclearisation of Africa [AHG/Res.II(I)]. In June 1995, at the 31st Ordinary Session of the OAU, held in Addis Ababa, the African Nuclear-Weapon-Free Zone Treaty (known as the Treaty of Pelindaba) was agreed to. The treaty declares Africa a zone free of nuclear weapons, [as] 'an important step towards the strengthening of the non-proliferation regime, the promotion of co-operation in the peaceful uses of nuclear energy, complete disarmament, and the enhancement of regional peace and security'.[14]

Signed in Cairo in 1996, the treaty entered into force in 2009. As of August 2016, 40 AU members are states parties and an oversight body, the African Commission on Nuclear Energy, is currently being established in South Africa. The treaty's states parties agree, among other things, not to undertake research on, manufacture, stockpile or otherwise acquire, possess or have control over nuclear explosive devices by any means, anywhere.[15] Although the treaty does not refer specifically to missiles, missiles with nuclear warheads are therefore prohibited from being developed, produced, acquired, tested, or stationed on the territories of states parties.

The AU's Common African Defence and Security Policy, adopted by the 2nd Extraordinary Session of the AU in February 2004, identifies 'the accumulation, stockpiling, proliferation and manufacturing of weapons of mass destruction, particularly nuclear weapons, chemical and biological weapons, unconventional long-range and ballistic missiles' as common external threats to continental security in Africa.[16] This provides the policy framework for matters related to ballistic missiles, including the HCoC.

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THE NUMBER OF AU MEMBERS THAT ARE STATES PARTIES TO THE AFRICAN NUCLEAR-WEAPON-FREE ZONE TREATY

In practice, though, the HCoC has so far not been a priority for the AU, which has instead focused its efforts on other important disarmament and non-proliferation instruments, such as the NPT, the CWC, the BTWC and Resolution 1540 (2004).

In addition, the *Report of the Chairperson of the Commission on Arms Control, Disarmament and Non-proliferation*, considered by the 584th meeting of the AU Peace and Security Council (PSC) in March 2016, renews Africa's commitment to institute practical measures to effectively address the illicit proliferation of small arms and light weapons, and chemical, biological and nuclear weapons.[17] The report reiterates that 'the proliferation of Weapons of Mass Destruction (WMD), as well as their *means of delivery* [emphasis added], continues to constitute a serious threat to international peace and stability …' and stresses that 'the Treaty on the Non-Proliferation of Nuclear Weapons, the Chemical Weapons Convention and the Biological Weapons Conventions remain the key pillars of the global regime against WMD'.[18] The report calls on 'member states and the larger international community to work within these frameworks to further strengthen their authority and the non-proliferation assurances they are meant to provide'.[19]

Importantly, in the African context, the PSC takes a development-oriented approach to the implementation of WMD regimes and affirms the inalienable right of all parties to apply chemical, biological and nuclear science and technology for peaceful purposes, including spearheading socio-economic development without discrimination and in conformity with the instruments.

> The PSC takes a development-oriented approach to the implementation of WMD regimes

In relation to the HCoC, this is crucial. The code recognises that there needs to be a balance between security and development – that while being totally committed to ensuring global security, this must be done without impeding the continued delivery of the developmental benefits that missiles and related applications provide, or undermining international cooperation for the peaceful purposes of such material and technologies. Paragraph 2(f) of the code clearly recognises that 'states should not be excluded from utilising the benefits of space for peaceful purposes'. It also acknowledges 'that, in reaping such benefits and in conducting related cooperation, they must not contribute to the proliferation of Ballistic Missiles capable of delivering weapons of mass destruction'.[20]

THE HCoC RECOGNISES THAT THERE NEEDS TO BE A BALANCE BETWEEN SECURITY AND DEVELOPMENT

Conclusion

Africa is not free from the threat posed by ballistic missiles, and all African states are within reach of ballistic missiles, illustrating the risks posed by their proliferation and the need to ensure predictability in this area.[21] By

joining the HCoC, a state signals its readiness to strengthen global non-proliferation objectives without undermining its national security interests or its developmental imperatives.

In light of this, the AU should encourage its member states to proactively engage with the HCoC's Immediate Central Contact (Executive Secretariat) and to support related UN General Assembly resolutions.

The code of conduct also covers peaceful space-launch activities, and this is of critical relevance to Africa as more states and private-sector entities pursue initiatives in outer space. The code is not designed to impede national space programmes or international cooperation in such programmes – as long as they do not contribute to delivery systems for WMD. Today, several African countries, including Ethiopia, Nigeria, South Africa, Egypt, Morocco, Tunisia, Algeria, Uganda, Angola, Ghana and Kenya, have space programmes. Although these are at various stages of development, some already have operating satellites providing tangible benefits in sectors such as monitoring human settlements, telecommunications, agriculture, environmental and water management, soil assessment, disaster planning, gathering meteorological data and global positioning system technology.

By subscribing to the HCoC, African states will not only receive advance notification of any ballistic missile and space-launch vehicle flights, but it will also allow them to not fall behind in what is clearly a rapidly growing

Figure 1: African states and the Hague Code of Conduct

Source: Institute for Security Studies

and developing space-launch landscape. The AU should therefore also consider continental and regional mechanisms to encourage and facilitate the sharing of information and experience regarding civilian space activities. African universities should also be encouraged to develop curricula and offer academic courses on space studies, including the international and domestic legal and policy frameworks governing space activities and applications.

All African states, except Algeria and Egypt, have voted at least once in favour of a UN General Assembly resolution supporting the code. The continent therefore overwhelmingly supports the HCoC. Formally subscribing to the code is one way for African states, both individually and as part of the African community, to stay informed of developments in a field that presents many opportunities for entrepreneurs and the private sector, while at the same time furthering their commitment to strengthening the global non-proliferation regime, and enhancing international and regional peace and security.

Annex: Text of the HCoC[22]

Preamble

The subscribing states:

Reaffirming their commitment to the United Nations Charter;

Stressing the role and responsibility of the United Nations in the field of international peace and security;

Recalling the widespread concern about the proliferation of weapons of mass destruction and their means of delivery;

Recognizing the increasing regional and global security challenges caused, inter alia, by the on-going proliferation of Ballistic Missile systems capable of delivering weapons of mass destruction;

Seeking to promote the security of all states by fostering mutual trust through the implementation of political and diplomatic measures;

Having taken into account regional and national security considerations;

Believing that an International Code of Conduct against Ballistic Missile Proliferation will contribute to the process of strengthening existing national and international security arrangements and disarmament and non-proliferation objectives and mechanisms;

Recognising that subscribing States may wish to consider engaging in co-operative measures among themselves to this end;

1. Adopt this International Code of Conduct against Ballistic Missile Proliferation (hereinafter referred to as “the Code”);

2. Resolve to respect the following Principles:

   a. Recognition of the need comprehensively to prevent and curb the proliferation of Ballistic Missile systems capable of delivering weapons of mass destruction and the need to continue pursuing appropriate international endeavours, including through the Code;

   b. Recognition of the importance of strengthening, and gaining wider adherence to, multilateral disarmament and non-proliferation mechanisms;

   c. Recognition that adherence to, and full compliance with, international arms control, disarmament and non-proliferation norms help build confidence as to the peaceful intentions of states;

   d. Recognition that participation in this Code is voluntary and open to all States;

   e. Confirmation of their commitment to the United Nations Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States taking into particular Account the Needs of Developing Countries, adopted by the United Nations General Assembly (Resolution 51/122 of 13 December 1996);

   f. Recognition that states should not be excluded from utilising the benefits of space for peaceful purposes, but that, in reaping such benefits and in conducting related cooperation, they must not contribute to the proliferation of Ballistic Missiles capable of delivering weapons of mass destruction;

   g. Recognition that Space Launch Vehicle programmes should not be used to conceal Ballistic Missile programmes;

   h. Recognition of the necessity of appropriate transparency measures on Ballistic Missile programmes and Space Launch Vehicle programmes in order to increase confidence and to promote non-proliferation of Ballistic Missiles and Ballistic Missile technology;

3. Resolve to implement the following General Measures:

   a. To ratify, accede to or otherwise abide by:

      - the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (1967),
      - the Convention on International Liability for Damage Caused by Space Objects (1972), and
      - the Convention on Registration of Objects Launched into Outer Space (1975);

b. To curb and prevent the proliferation of Ballistic Missiles capable of delivering weapons of mass destruction, both at a global and regional level, through multilateral, bilateral and national endeavours;

c To exercise maximum possible restraint in the development, testing and deployment of Ballistic Missiles capable of delivering weapons of mass destruction, including, where possible, to reduce national holdings of such missiles, in the interest of global and regional peace and security;

d. To exercise the necessary vigilance in the consideration of assistance to Space Launch Vehicle programmes in any other country so as to prevent contributing to delivery systems for weapons of mass destruction, considering that such programmes may be used to conceal Ballistic Missile programmes;

e. Not to contribute to, support or assist any Ballistic Missile programme in countries which might be developing or acquiring weapons of mass destruction in contravention of norms established by, and of those countries' obligations under, international disarmament and non-proliferation treaties;

4. Resolve to implement the following:

a. Transparency measures as follows, with an appropriate and sufficient degree of detail to increase confidence and to promote non-proliferation of Ballistic Missiles capable of delivering weapons of mass destruction:

i. With respect to Ballistic Missile programmes to:

- make an annual declaration providing an outline of their Ballistic Missile policies. Examples of openness in such declarations might be relevant information on Ballistic Missile systems and land (test-) launch sites;
- provide annual information on the number and generic class of Ballistic Missiles launched during the preceding year, as declared in conformity with the pre-launch notification mechanism referred to hereunder, in tiret iii);

ii With respect to expendable Space Launch Vehicle programmes, and consistent with commercial and economic confidentiality principles, to:

- make an annual declaration providing an outline of their Space Launch Vehicle policies and land (test-) launch sites;
- provide annual information on the number and generic class of Space Launch Vehicles launched during the preceding year, as declared in conformity with the pre-launch notification mechanism referred to hereunder, in tiret iii);

- consider, on a voluntary basis (including on the degree of access permitted), inviting international observers to their land (test-) launch sites;

iii. With respect to their Ballistic Missile and Space Launch Vehicle programmes to:

- exchange pre-launch notifications on their Ballistic Missile and Space Launch Vehicle launches and test flights. These notifications should include such information as the generic class of the Ballistic Missile or Space Launch Vehicle, the planned launch notification window, the launch area and the planned direction;

b. Subscribing States could, as appropriate and on a voluntary basis, develop bilateral or regional transparency measures, in addition to those above.

c Implementation of the above Confidence Building Measures does not serve as justification for the programmes to which these Confidence Building Measures apply;

5.Organisational aspects

Subscribing States determine to:

a. Hold regular meetings, annually or as otherwise agreed by Subscribing States;

b. Take all decisions, both substantive and procedural, by a consensus of the Subscribing States present;

c. Use these meetings to define, review and further develop the workings of the Code, including in such ways as:

- establishing procedures regarding the exchange of notifications and other information in the framework of the Code;
- establishing an appropriate mechanism for the voluntary resolution of questions arising from national declarations, and/or questions pertaining to Ballistic Missile and/or Space Launch Vehicle programmes;
- naming of a Subscribing State to serve as an immediate central contact for collecting and disseminating Confidence Building Measures submissions, receiving and announcing the subscription of additional States, and other tasks as agreed by Subscribing States;
- and others as may be agreed by the Subscribing States, including possible amendments to the Code.

Notes

1 This glossary is compiled from various sources, including Steve Tulliu and Thomas Schmalberger, Coming to terms with security: A lexicon for arms control, disarmament and confidence-building, UN Institute for Disarmament Research, 2004; P5 glossary of key nuclear terms, Beijing: China Atomic Energy Press, April 2015; UN Panel of Governmental Experts, The issue of missiles in all its aspects, UN General Assembly, 2002.

2 For the Hague Code of Conduct, see www.hcoc.at/ or https://cms.bmeia.at/en/foreign-ministry/foreign-policy/disarmament/weapons-of-mass-destruction/hcoc.html.

3 For the Missile Technology Control Regime, see www.mtcr.info/english/FAQ-E.html.

4 See www.hcoc.at/ or https://cms.bmeia.at/en/foreign-ministry/foreign-policy/disarmament/weapons-of-mass-destruction/hcoc.html.

5 Bernd Kubbig and Sven Eric Fikenscher (eds), *Arms control and missile proliferation in the Middle East*, London: Routledge, 2012.

6 Formally, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

7 Wolfgang Rathgeber, Nina Louisa Remuss and Kai-Uwe Schrogl, Space security and the European Code of Conduct for Outer Space Activities, UN Institute for Disarmament Research, *Disarmament Forum*, 10:4, 2009.

8 See Missile Threat, http://missilethreat.com/missiles/scud-b-100-project-t/.

9 A radar satellite made in Nigeria, NigeriaSat-X, was successfully launched in August 2011.

10 See, for example, Caleb Hebry, Satellogic on its way to launching 300 satellite constellation for earth observation, 17 March 2016, www.satellitetoday.com/technology/2016/03/17/satellogic-on-its-way-to-launching-300-satellite-constellation-for-earth-observation/.

11 See Jeff Foust, The shifting commercial launch landscape, 14 March 2016 http://www.thespacereview.com/article/2943/1.

12 From 2004 to 2014, the UN General Assembly has adopted six resolutions in support of the HCoC: A/RES/59/91 (December 2004); A/RES/60/62 (December 2005); A/RES/63/64 (December 2008); A/RES/65/73 (December 2010); A/RES/67/42 (December 2012); and, most recently, A/RES/69/44 (December 2014). On some occasions, certain states have not participated in the vote, for technical reasons. Only expressed positions (i.e. in favour, against or abstentions) have been taken into account in this policy brief. In July 2011 South Sudan became the 193rd UN member state and voted in favour of A/RES/67/42 (December 2012).

13 Official records of the 1st Committee, 59th session of the UN General Assembly, A/C.1/59/PV.17.

14 Noel Stott, 'The Treaty of Pelindaba: Towards the Full Implementation of the African Nuclear-Weapon-Free Zone Treaty, Institute for Security Studies, March 2011.

15 Oluyemi Adeniji, The Treaty of Pelindaba on the African Nuclear-Weapon-Free Zone, Geneva: UN Institute for Disarmament Research, 2002.

16 AU, Solemn Declaration on a Common African Defence and Security Policy, 2004, www.peaceau.org/uploads/declaration-cadsp-en.pdf.

17 The report and communiqué are posted on the website of the AU Peace and Security Department, www.peaceau.org/en/article/the-584th-meeting-of-the-au-peace-and-security-council-on-arms-control-disarmament-and-non-proliferation.

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20 See www.hcoc.at/ or https://cms.bmeia.at/en/foreign-ministry/foreign-policy/disarmament/weapons-of-mass-destruction/hcoc.html.

21 Nicolas Kasprzyk, Africa must pull its weight in stopping ballistic missile proliferation, ISS Today, 22 June 2016, https://www.issafrica.org/iss-today/africa-must-pull-its-weight-in-stopping-ballistic-missile-proliferation.

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Acknowledgements

This policy brief was made possible with the support of the European Union. The ISS is also grateful for support from the members of the ISS Partnership Forum: the Hanns Seidel Foundation and the governments of Australia, Canada, Denmark, Finland, Japan, Netherlands, Norway, Sweden and the USA.

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ISS Policy Brief No 90

ISSN 1026-0404

9 771026 040004