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TCBMs as Steps towards Verification

greetings
Good morning. It is a pleasure and an honor to be here this morning. I was also glad to hear the former speaker Larry MacFaul, from Vertic, where I worked for a short time 15 years ago.

introduction
In this morning's panel, this presentation on « TCBMs as step towards verification » is sandwiched between two much more concrete presentations on what actual verification measures should be (1), and which verification systems are currently available or may soon be so (3). In order to complement these presentations, I will therefore not focus on the systems per se, but rather on the political context around TCBMs and verifications measures: more precisely, on what is the relationship between TCBMs and Verification.
A topic that is steeped in political science, a soft subject, as compared with the hard facts of system description. I hope you will bear with me.

So: "TCBM as Steps toward Verification". The phrase itself is a statement: please observe that there is no question mark at the end of the sentence – this would seem to reflect the wide-spread belief that TCBMs are a weaker version of Verification measures; that TCBMs are agreed upon when Verification measures are not available, but that they remain essentially a plan B-type solution.
This assumes that eventually, progress will be made, verification measures will be adopted and that they will be better. This is really about the order in which we should pursue TCBMS and verification. Ultimately, a question about the strategy that disarmament proponents should follow. Very big question!
The think-tank where I work, Ifri, is not an advocacy group with an agenda – we try and study issues in an academic, non-partisan way. So I will try and question the statement that, indeed, there is a logical sequence between TCBMs and Verification measures.

1. TCBMs and Verification measures have a different basis

TCBMs and Verification measures are both information gathering mechanisms set up between international actors who seek to better manage their relationship. A relationship that is problematic, due perhaps to strong ideological differences, due to the pursuit of an arms race that threatens to go out of hands, … Both TCBMs and verifications measures are meant to reassure.
Beyond this, TCBMs and verification measure are really not the same.

. TCBMs are non-binding, based on good-will: exchange of information, invitation of observers during exercises, conduct of common exercises. In a word, they are cooperative measures. There is no sanction if a party stops to follow them. This makes TCBMs very dependent on the political context.

. on the other hand, Verification measures are provisions in a legal treaty (most often an annex to the treaty). They are binding. They are meant to be activated by each country on its own, they are non-cooperative in essence. Also, there are penalties or consequences if verification measures prove the non-respect of a treaty provision by a party (the other party can denounce the treaty, etc…).

Verification measures are provision to a treaty, whereas TCMS constitute the whole agreement.
In a word, TCBMs are based on trust whereas verification measures are based on distrust (or "trust but verify", in the words of Ronald Reagan).

Now, past experience is very telling:

2. In the 1970's, TCBMs and Verification measures were parallel process linked to the political context

Preamble : In the early cold war, in the 1950's and 1960's, the great disarmament treaty called for by many nation at the UN was deemed impossible because the Soviet Union refused on-site inspections, and satellites were not yet reliable observation tools (OSI are now common : IAEA, CTBT, START treaties).

The 1970's as the decade of arms control. The first legal agreements in which National Technical Means of verification (NTM), i.e. mainly satellites, were mentioned are the Salt 1 Agreement and the ABM Treaty signed by the US and the Soviet Union in May 1972. An interesting aspect in these agreements in that they also set up a transparency instrument: the Standing Consultative Commission (SCC) was set up as an informal forum for discussion and data exchange between the two countries.

Meanwhile, the first TCBMs were discussed as of 1973 in the Helsinki process. They were formally adopted in 1975. Their main goal was reassurance, in order to diminish the threat of surprise attack or misunderstanding of military activity.

	First instruments in the 1970's	Possible space-related measures
TCBMs	1975 Helsinki Final Act sets up CSCE (OSCE) and details the following Confidence- and Security-Building Measures (CSBMs): . prior notification of troop maneuvers, observation of military exercises.	. Pre-launch TCBMs : declared national space policy, cooperative space programs, information-sharing on planned activities; . Launch-related TCBMs : pre-launch notifications, pre-launch demonstrations invitation of foreign observers to space launches. . Post-launch TCBMs creation of a space traffic management system and of a database or register for space systems, possibly a cooperative space surveillance system; . TCBMs for the decommissioning and re-entry of spacecrafts : re-entry notification and active policy for the mitigation of space debris. (Lars Hostbeck list)
Verification	Salt 1 and ABM 1972 NTM (satellites) On-site inspection conducted as	On-site Inspection of launchpads and industrial facilities Space Situational Awareness architecture as a (National) Technical Means

	of the 1980's in different arms control and security agreements (IAEA, etc)	

Life of these instruments:

Verification measures and the SCC worked very well between 1972 and 1977. All major issues raised by either the US or the Soviet Union in the context of Salt and ABM found a positive outcome. For instance, the US party complained of too much encryption of the missile tests conducted by the Soviets. Within months, the level of encryption was reduced to acceptable standards[1].

But things went awry after the Soviet invasion of Afghanistan in 1979, when the East-West détente was over. The Salt 2 Treaty, signed in 1979, was never ratified by the U.S. Senate. The two parties accused the other one of cheating. Most famously in the West, there was a suspicion that a radar being built by the Soviets in Central Siberia at Krasnoyarsk was really a new ABM facility. The SCC never met again.

Meanwhile, TCBMs adopted by the Helsinki process were also put to the test. For a few tense years in the early 1980s, CSCE negotiations were the only place where East and West sat at the same table to discuss security matters. But even that was not enough to prevent the scare of the Able Archer episode in 1983.

To this day, historians have been unable to agree on the value of arms control at the end of the 1970's : did they collapse completely under political strain – conversely, was it because there was not enough restraining measures that the situation became so difficult?

Some have very negative judgments, such as Colin Gray, *House of cards, why Arms control must fail*, 1992: critic of arms control as a whole, as well as Richard Perle, assistant US secretary of Defense in the Reagan Administration, member of the Defense Policy Board Advisory Committee from 1987 to 2004 and Chairman of the Board from 2001 to 2003 under George W. Bush.

This is too big a question for us this morning and, for the purpose of this discussion, let us conclude that in any case, during the 1970's, TCBMs and verification were not sequential, but parallel. They were both pushed forward when the political context was good; when the political context went awry, both types of measures came under stress.

3. A sequential approach makes more sense for Space

So, coming back to space – is there indeed a necessary progression between TCBMs and verification measures? Let's look at the option, where Space TCBMs that are present in the Code of Conduct are meant to pave the way for Verification measures such as may be adopted in a future proper space treaty.

[1] Sources on the Standing Consultative Commission: reports by the US Congress and Dep. of State made public in 1979.

Indeed, around 2007, European officials chose the non-binding Code format because a treaty was deemed to be impossible to reach. First, it was deemed too difficult to agree on legal definitions (what is a "space weapon"?); and second, some countries were strongly opposed to a treaty. The code format was very much chosen as a lesser option. Therefore, the Transparency and confidence building pleasures it contains could be meant as a plan-B solution, hoping for better more reliable verification measures/treaty provisions later on.

In other words, if TCBMs are steps towards verification, then the CoC should lead to a second Outer Space Treaty (OST2). This would be a way to reconcile the EU proposal with the Chinese/Russian diplomats in the room. I know this has been discussed here yesterday, and I don't want to presume on your informed discussion.
By the way, we held a seminar at Ifri in Paris two years ago to discuss space security and there was a strong debate (that we did not bring to a close at the time) on whether adopting a simple non-binding Code of conduct could help bring about a stronger treaty – this we called the "every little helps" approach- or whether, on the contrary, adopting a Code or other non-binding agreements (best practice guidelines on debris mitigation, for instance) would dilute efforts towards the adoption of a Treaty – as the international community would consider the Code a definitive (though weak solution). This we called the "exclusive approach".

This will all depend on the dynamism of the international community on the issue of space security. However, the sequential approach may make more sense in the case of space. First, space is not central to the international community; second, there are more actors involved. For these two reasons, the political impetus to conduct space-related arms control is diluted and stretched over time. It could therefore make sense to start small and then continue to more ambitious systems.

SSA: an instrument that could switch from TCBM to verification
Concretely, if there is sequential approach, then we should look at the instruments. Most of the TCBM-type trust-based data exchange mechanism could not translate easily to a verification regime. On the other hand, space situational awareness architectures are versatile instruments that could serve both purposes:
. National and non-governmental systems can be organized in a more or less loose network to share data – this would allow for a cooperative transparency system for TCBMs
. Alternatively, they could remain purely national and be the next "national technical means", attached to a treaty.

The development of SSA architectures can certainly bring us closer to a functioning code and treaty. And with this, I will leave the floor to david finkelman.
Thank you.