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## **NATO Parliamentary Assembly**

### **SUMMARY**

of the meeting of the Science and Technology Committee  
*Hall B, Tecnopolo*  
*Funchal, Madeira, Portugal*

Saturday 26<sup>th</sup> May 2007

**ATTENDANCE LIST**

<b>Chairman</b>	Michael Mates (United Kingdom)
<b>General Rapporteur and Special Rapporteur</b>	Pierre Claude Nolin (Canada)
<b>Rapporteur of the Sub-committee on the Proliferation of Military Technology</b>	Cristian Valeriu Buzea (Romania)
<b>Special Rapporteur</b>	Rafael Gimalov (Russian Federation)
<b>President of the NATO PA</b>	José Lello (Portugal)
<b>Secretary General</b>	Simon Lunn
<b>Member delegations</b>	
Bulgaria	Mario Tagarinski
Canada	Blaine Calkins
	Joseph A. Day
	Cheryl Gallant
Czech Republic	Antonin Seda
	Pavel Severa
Denmark	Svend Erik Hovmand
Estonia	Sven Mikser
France	Hélène Luc
	Xavier Pintat
Germany	Ernst-Reinhard Beck
	Karl Peter Bruch
	Werner Hoyer
	Lothar Ibrügger
	Thomas Röwekamp
Greece	Nikolaos Legas
	Evangelos Papachristos
Italy	Antonio Cabras
Latvia	Ainars Latkovskis
	Dzintars Rasnacs
Lithuania	Andrius Baranauskas
	Rasa Juknevičienė
Luxembourg	Claude Adam
	Marc Spautz
	Fred Sunnen
Norway	Jan Arild Ellingsen
	Heikki Holmas
Netherlands	Arend Jan Boekesteijn
	Karien Van Gennip
	Willem Hoekzema
	Raymond Knops
	Hendrik Jan Ormel
Poland	Tadeusz Mackala
	Rafał Ślusarz

Portugal	Jerzy Zawisza Luiz Manuel Fagundes Duarte Joaquim Da Ponte
Romania	Cristian Ilie Marcu Tudor
Slovakia	Martin Fedor Maros Kondrot
Slovenia	Anton Anderlic
Spain	Gabriel Elorriaga Jordi Marsal Alejandro Munoz-Alonzo
United Kingdom	Maria Asuncion Oltra Peter Bottomley David Crausby Jimmy Hood Lord Jopling Baroness Ramsay of Cartvale
United States	Ben Chandler Baron Hill Kendrick Meek Charlie Melancon Dennis Moore Ralph Regula John Shimkus Ellen Tauscher

#### **Associate delegations**

Austria	Katharina Pfeffer Peter Pilz
Azerbaijan	Ziyaafat Asgarov
Montenegro	Borislav Banovic
Russian Federation	Anatoly Semenchenko Victor A. Ozerov Bato-Zhargal Zhambalnimbuev Barbara Haering
Switzerland	Gjorgi Orovcanec
the former Yugoslav Republic of Macedonia*	Vasyl Horbal Yuriy Samoylenko Andriy Shkil
Ukraine	

#### **European Parliament**

Ana Maria R.M. Gomes  
Vasco Graça Moura  
Pawel Piskorski

#### **Parliamentary Observer**

Japan Masataka Suzuki

#### **Interparliamentary Assembly**

AWEU (IESDA) Robert Walter

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\* Turkey recognises the Republic of Macedonia with its constitutional name

**Speakers**

**Daniel P. Fata**, Deputy Secretary Assistant of Defense for European and NATO Policy, US Department of Defense

**Waheguru Pal Singh Sidhu**, Course Director, New Issues in Security Course (NISC), Geneva Centre for Security Policy (GCSP)

**Professor Ricardo Serrão Santos**, Director, Department of Oceanography and Fisheries, Pro-Rector, University of the Azores

**International Secretariat**

Andrius Avizius, Director of the Committee  
Valérie Geffroy, Coordinator of the Committee  
François-Xavier Finet, Research Assistant  
Luca Tardelli, Research Assistant

**Speakers.**

**Daniel P. Fata**, Deputy Secretary Assistant of Defense for European and NATO Policy, US Department of Defense.

**Dr. Waheguru Pal Singh Sidhu**, Course Director, Geneva Centre for Security Policy.

**Pr. Ricardo Serrão Santos**, Director of the Department of Oceanography and Fisheries, Pro-Rector, University of Azores.

**I. JOINT MEETING OF THE SCIENCE AND TECHNOLOGY COMMITTEE AND THE DEFENCE AND SECURITY COMMITTEE.****A. Briefing by Daniel P. Fata, Deputy Secretary Assistant of Defense for European and NATO Policy, US Department of Defense, on *Proposed US Missile Defense Installations in Europe.***

1. **Daniel P. Fata**, Deputy Secretary Assistant of Defense for European and NATO Policy for the US Department of Defense, described US plans to develop and field a missile defence system as stemming from a growing ballistic missile threat to the US and its Allies. This threat originated from worrying trends in the Middle East (particularly Iran) and North Korea. The US system was intended to prevent attempts at blackmailing by rogue states with long range missile capabilities. He suggested that the Bush Administration had transitioned from a National Missile Defence to a Missile Defence writ large in order to protect the indivisibility of security of its Allies.

2. Mr Fata described the installations the US has proposed to field in Europe, which would include radar in Czech Republic, an interceptor site located in Poland and a forward-deployed radar in Southeast Europe. This capability was designed for threats from the Middle East and was not directed against Russia. It was a purely defensive system, which could not be equipped with offensive warheads. Most importantly, the missile defense (MD) system would provide defensive coverage of a considerable part of Europe, a symbol of US commitment to the European security. Mr Fata suggested negotiations with Poland and the Czech Republic might be concluded by the end of this year, and with funding from Congress, construction could start in 2008, with the goal of completing the installations by 2010.

3. The US had regularly briefed Russian officials on this system, Mr Fata indicated, including three briefings since November in the NATO-Russia Council. Russia has never accepted nor rejected cooperation offers from the US. Mr Fata also cited the existence of a nuclear-armed Russian missile defence system around Moscow as evidence that Russia does not oppose missile defence *per se*.

**B. Presentation by Dennis Mays, Chief Engineer, Missile Defence Agency**

4. Mr Fata was accompanied by **Dennis Mays**, Acting Deputy Director for Systems Engineering and Integration Chief Engineer, Missile Defence Agency, who provided additional technical details on the MD system. After describing the threat from Iran and North Korea, he reviewed recent successes in tests of the MD system (16 of 17 tests were considered successes). He described the logic behind placing the proposed European sites in Poland and the Czech Republic, and stated that the proposed system would, in 2011, cover all European States that were at risk from long-range ballistic missiles and would complement a potential NATO system that could counter shorter range threats.

5. In the lively debate that followed, Mr Mays confirmed to **Cheryl Gallant** (CA) that the US already used space-based sensors in their testing. Ms Gallant also asked whether NATO would

be expected to shoulder some of the costs of the proposed installations; Mr Fata responded that the US anticipated funding the entire system.

6. **Victor Ozerov** (RU) insisted that the Russian Federation was ready to dialogue on this issue. Russia had been assured by NATO and the US at the end of the Cold War that neither troops nor NATO infrastructures would be deployed close to Russian borders, he stated, and those promises were not being kept. Russia had not been sufficiently consulted at the expert level, he asserted, and warned that Russia must take action in response to the US deployments, for instance by withdrawing from the Intermediate-Range Nuclear Forces (INF) treaty. Mr Fata stated the only disagreement with Russia on whether Iran was a threat was only in its immediacy, and that the US had repeatedly offered partnerships on missile defenses. He also suggested that the proposed system could actually provide protection for some Russian territory.

7. **Frank Cook** (UK), **Hélène Luc** (FR) and **Ainars Latkovskis** (LV) emphasized the need to address the concerns of the people that live in the vicinity of the missile defence sites and the utility of communication directly with the general public. **Tómas Dub** (CZ) said that the MD system, which was a high priority for the Czech Republic, would be approved through Parliament rather than a referendum. **Jordi Marsal** (ES) asked whether the system would cover all Mediterranean countries, or if NATO will provide protection for these countries. **Heikki Holmas** (NO) requested clarifications regarding the system's ability to knock down missiles (kill rate); whether an MD system offered a sense of invulnerability to the US and potentially dangerous freedom of action; and whether the major US parties were united on MD.

8. Mr Fata reaffirmed that NATO members as Turkey are threatened not by long-range missiles but by short-range missiles; a NATO MD system in South-East Europe could serve this purpose. He underlined that Czech or Polish refusal of installations would preclude and US deployments in those countries. Mays explained that the kill rate of the system is greater than 80% against a single incoming missile and could reach 90% if two interceptors are launched against one target. Mr Fata added that no defense is perfect, and only 10 interceptors could not stop all adversaries. In this sense, the US is not seeking invulnerability.

9. **Ellen Tauscher** (US), Chair of the US Congressional Committee with responsibility over these systems, described the current Congressional majority's views on MD. She agreed that there was a very significant threat that also affected Europe. She stated that the Democrats have historically supported a comprehensive missile defence strategy, but suggested that the current proposals needed to include dramatic engagement through NATO, including ensuring interoperability and wider public support. The US Congress had therefore cut funding for the construction of sites in the Czech Republic and Poland, although funding was provided for the purchase of the necessary interceptors and radars. She advocated wider parliamentary and public discussion of this issue, and called for a stronger commitment from NATO to develop its MD system.

10. **Raymond Knops** (NL) asked how could one guarantee that the US could not equip the interceptor missiles with offensive warheads. **Bato-Zhargal Zhambalnimbuev** (RU) also related the widespread belief in Russia that the proposed interceptors in Poland could be transformed into offensive weapons. Mr Fata replied that the MD sites would be easily monitored and could not be secretly converted, and that any funding to do so would require Congressional approval. He also stated that the silos are designed for 2-stage missiles rather than the 3-stage, offensive missiles. He also suggested Russian officials could inspect the facilities.

11. **Anna-Maria R.M. Gomes** (European Parliament) wondered why the system was being developed outside the NATO context. Mr Fata responded that the US felt it could proceed more quickly on a national basis to counter an emerging threat than if it had pursued a NATO solution.

However, he suggested that the US was seeking full integration and complementarity with a NATO system, and suggested expediting development of that system.

## II. MEETING OF THE SCIENCE AND TECHNOLOGY COMMITTEE

12. **Michael Mates** (UK) started the meeting by welcoming the delegates and giving a few introductory remarks.

13. The draft Agenda [090 STC 07 E rev. 1] and the Summary of the Committee meeting in Québec City, Canada [209 STC 06 E] were adopted.

### A. Consideration of the draft Report of the Sub-Committee on the Proliferation of Military Technology *Proliferation of Missiles and Missile technology* [048 STCMT 07 E] by **Cristian Valeriu Buzea** (RO), Rapporteur.

14. The Rapporteur underlined that the relevance of ballistic and cruise missiles has not diminished since the end of the Cold War, although the nature of the threat has changed. While the United States and the former USSR/Russia have significantly reduced their arsenals of long-range ballistic missiles and eliminated all of their intermediate- and medium-range missiles, the number of countries with short- and medium-range missiles is still increasing. Even non-state actors, such as Hezbollah, have acquired missile capability. In the wrong hands, missiles not only pose a direct threat, but also contribute to more aggressive behaviour and increased tension in already vulnerable regions.

15. The international mechanisms to control missile proliferation are rather loose. They need to be reinforced through strengthening the coordination of export policies, creating missiles-free zones and expanding the membership of the Missile Technology Control Regime. National export rules must be tightened to curb the proliferation of cruise missiles as well as shoulder-launched missiles that pose a serious terrorist threat. Prevention alone might not be enough, as the proliferation of missiles cannot be completely stopped. Therefore, the missile defence debate should be placed high on NATO's agenda.

### B. Presentation by **Dr. Waheguru Pal Singh Sidhu**, Course Director, New Issues in Security Course (NISC), Geneva Centre for Security Policy (GCSP), on *Dealing with Proliferation of Missiles*

16. **Dr. Waheguru Pal Singh Sidhu** commended the Sub-Committee report, which has covered a lot of key issues. Today missiles and efforts to manage and control them are seen as a blind spot, a crucial gap in the panoply of existing arms control that need to be illuminated. Missiles armed with weapons of mass destruction (WMD) are a cause of concern, but even conventionally armed missiles or unarmed missiles pose a clear and present danger. Indeed, all missiles could possibly have strategic implications, as "strategic" is no longer related to the distance that missiles can fly. So, all missiles with strategic implications, whether rockets capable of striking populations centres, shoulder-fired missiles that can bring down passenger airliners, cruise missiles that can devastate military installations and civilian infrastructures with equal ease, unarmed missiles that can knock-out satellites and missiles that are supposed to defend against other missiles, have the potential of becoming security nightmares.

17. Also, unlike the nuclear, biological and chemical weapons that are associated with there is no universal treaty or agreement governing the development, testing, production, acquisition, transfer, deployment or use of missiles. Even more significantly, there is absolutely no universal

norm or agreement to rid the world of missiles. Indeed, in the rare cases of missiles disarmament (Intermediate-Range Nuclear Forces (INF) Treaty, Iraq, South-Africa and Libya), all of these were the result of particular circumstances and not in adherence to any global norm or regime.

18. Mr Sidhu also underlined two trends which have become evident among the international community. The first focuses on political and diplomatic initiatives ranging from the Hague code of conduct, to the Russian proposal for the global control system and to the UN Panel of governmental experts on missiles. The second is the military and technological approach, which includes the missile defense dimension and the proliferation security initiatives.

19. Mr Sidhu reviewed the three regions of greatest concern: the Middle East, Northeast Asia, and South Asia. He concluded by saying that while efforts addressing missiles at both the global and the individual country level are commendable, they unlikely to be effective alone in the short-term. In contrast, regional approaches to addressing missile issues hold more promise, nonetheless a one-size-fit-all approach is unlikely to work. Each regional arrangement would have to be tailor-made in the context of history, geography, technology and politics of the region before it can move forward.

20. Hon. Ellen Tauscher asked whether there is a disconnect between the existential threat and the real threat? And if there is a significant threat, how do we get the political support necessary to have a convention on disarmament or arms control? Mr Sidhu noted the different approaches between the Russian and the US perception of the threat. It seems that there is a consensus: the threat is the same, the views only differ on the timeline and the response. The timeline has to be determined by intelligence. Mr Fata was honest enough to admit that intelligence is far from perfect. Moreover, there has been a kind of blowback effect in the post Iraq scenario: how credible is intelligence? How do we share intelligence with allies? Second issue: even if there is a consensus on a threat there is, no consensus on the way to deal with the threat. Missile defence is an option, but there is no such thing as a purely defensive missile. The Chinese anti-satellite missile is a perfect example of ambiguity between offensive and defensive missiles. A missile defense may seem attractive in the short run, but in the long run, the MD may complicate security issues dramatically rather than resolving them.

21. **Anatoliy Semchenko** (RU) highlighted the fact that the installation of a missile defence could create a new arms race, as it is difficult to perceive the difference between an offence and defence in this case. Russia will be encouraged to modernize its arsenal and it could trigger a new arms race. Mr Sidhu agreed that the US plan will trigger an arms race in Europe, however, the nature of this arms race has to be seen, and could do many different directions. Another fear is that we might see proliferation of defensive systems around the world. An interesting question could be: what if Iran wants to deploy a similar defensive system on its own soil? Iran nuclear intentions are still unclear. However, Iran's peculiar approach to missiles is clear - they are seen as substitute for aircrafts. One should observe the reason why Iran looks for missiles; it is something to keep in mind.

22. Mrs Luc noted that the world has others problems and risks such as hunger, poverty, and water shortages. If nuclear bombs were used now, they would be much more devastating than Hiroshima. In her opinion, there is a contradiction when we say that we want to curb the proliferation of missiles while at the same time deploying a bunch of new missiles.

**C. Presentation by Professor Ricardo Serrão Santos, Director, Department of Oceanography and Fisheries, Pro-Rector, University of the Azores, on *Deeper than Light: Life at the Edge of Expanding Seafloors.***



23. **Professor Ricardo Serrão Santos** spoke to the Committee about the importance of deep sea floors and marine life as well as the current and future threats that are putting them in danger. In particular, Mr Serrão Santos' presentation focused on four key elements that can significantly affect the deep-sea regions. First, deep-sea fisheries have negative effects in both target species and to habitats. This is the result of the application of old fishery techniques that produce extensive collateral damage on the sea floors thus producing a decrease in the overall levels of marine biodiversity and biomass. Second, major negative impacts and large-scale disturbances can be expected from the extraction of minerals, gas and oil from the deep-sea beds. Third, the use of the deep-sea regions as a waste disposal location can lead to serious contamination of the sea water, with major risks deriving from radioactive materials and heavy metals. Finally, Mr Serrão Santos underscored the tremendous consequences global warming can produce on the world's sea regions. The rise of surface temperatures, in particular, may lead to the disruption of the so called "Great Conveyor Belt" thus altering the distribution of heat in the global ocean. Furthermore, vast methane reservoir along the continental margins can be destabilised as a result of the warming of bottom waters by 3° C. This in turn could cause a massive injection of greenhouses gases into the atmosphere thus inducing further warming. Mr Serrão Santos concluded his presentation by highlighting the intrinsic vulnerability of the deep-sea species in front of these current and future changes.

24. Mr Holmas asked what has been done so far at the international level to regulate deep-sea fisheries in the international sea zones. In his reply, Mr Serrão Santos pointed out that Exclusive Economic Zones are extremely useful in order to regulate fisheries and other economic activities. However, specific rules do not exist for most of the international zones. For this reason, many scientists support the idea of a UN moratorium on fisheries for international waters.

25. **The Rt Hon. Lord Jopling (UK)** underlined the difficulties connected with any organisational arrangement for fishery activities and for the control of fish stocks. In addition, Lord Jopling expressed his concerns regarding any possible genetic modifications of the marine fauna that could alter the delicate equilibria sea life depends. For this reason, Lord Jopling stressed the need to maintain strict controls over any experiment or human activity that could lead to such alterations.

26. Mr Serrão Santos agreed with Lord Jopling and emphasised the need to go back to more traditional forms of fishing. More importantly, it is necessary to better enforce the existing laws regarding illegal forms of fishing. Mr Serrão Santos also underlined the danger represented by genetically modified species if allowed to live in the natural environment.

**D. Consideration of the draft General Report *Transforming the Future of Warfare: Network-enabled Capabilities and unmanned Systems* [047 STC 07 E], by Pierre Claude Nolin (CA), General Rapporteur.**

27. The report focuses on the two most prominent emerging high-tech capabilities - network-enabled and unmanned systems – which promise to revolutionize the way military operations are carried out in the 21<sup>st</sup> century. The new technologies raise a number of important questions for policy-makers, in particular, how these technologies will affect the functioning of military alliances.

28. Network-enabled capability (NEC) is the military expression of the Information Age. Networked forces are more agile, survivable and effective by translating information superiority into combat power. The United States is an undisputed global leader in developing NEC. The UK, Germany and France, as well as NATO agencies are looking into developing such capabilities. Technological (compatibility) challenges involved in NEC do not seem insurmountable. The real problem is the willingness of coalition partners to share information and provide access to their networks. Without this high level of trust, joint operations in the era of NEC will be ineffective.

29. Emerging unmanned systems technology could be considered a physical extension of NEC. These systems reduce the need for manpower and significantly increase reconnaissance, surveillance and even attack capabilities. However, as systems become increasingly autonomous, moral issues emerge. To remain relevant, NATO and Member States need to take into account these new technological developments when drafting defence budgets and defining acquisition strategy and information-sharing policies.

**E. Consideration of the draft Special Report *Climate Change: Thinking Beyond Kyoto* [049 STC 07 E] by Pierre Claude Nolin (CA), Special Rapporteur.**

30. In recent years, the most authoritative scientific reports have left no doubt that climate change is occurring rapidly, and that it is very likely that it is caused by human activity. Climate change will affect, and is already affecting, nearly all areas of life, including security and the geopolitical situation. Urgent action is needed, since it makes more economic sense to engage in mitigation activities than to deal with the consequences.

31. The Kyoto agreement will expire in 2012 and there is an emerging consensus that the new framework should take shape by 2009. The post-Kyoto system must exceed the current framework both in scope and ambitions. It has to be universal, bringing the US and Australia to the table. While the industrialised world has to bear the lion's share of the responsibility, developing countries also need to have obligations. Adaptation efforts need to be strengthened considerably. Further investment in 'green' technologies, particularly renewables, is also critical.

32. Mr Holmas noted that the report's conclusion lacks a discussion on how far we should go with emission cuts. Mr Nolin disagreed and indicated paragraphs of the report that deal with this issue. He also stressed that it is unacceptable that industrialized countries buy quotas from poor ones, instead of embarking upon serious emission cuts themselves. The General Rapporteur said that it is hypocritical to ask poor countries to provide rich countries with the ability to continue polluting instead of reforming emission policies.

33. **Baroness Ramsay of Cartvale** (UK) made comments on the Sub-Committee's report. She considers it helpful and stressed that indeed, urgent collective action is needed. According to her, the Assembly must keep this topic on the agenda, as climate change will affect all our lives. She welcomes the references to the Stern Review. Finally she thanked the Rapporteur for the balanced position on US policy.

**F. Consideration of the draft Special Report on *Improvement on International Law for Space Policy* [050 STC 07 E] by Rafael Gimalov (RU), Special Associate Rapporteur.**

34. The report presented by the Russian delegation to the NATO PA stresses that current international space legislation does not correspond with reality. New actors of international law, such as private companies, now participate in space activities beyond legal restraints. Some countries have different approaches towards antimissile and anti-satellite defence, which prevents the creation of an actual international space treaty. The Rapporteur warned that the arms race in space will become dangerous in the near future. He also called for NATO and Russia to set a moratorium on the deployment of new missile defence elements in Europe.

35. Another extremely important space-related issue is that of space debris. Because of almost uncontrolled activities of launching states, the amount of space debris is increasing and may paralyze activities in space in the next 20-30 years to come. Weapons testing in space poses a particular risk in this regard. Currently, there are no effective methods of outer space purification

and the main attention must be paid to internationally coordinated efforts to prevent the further formation of debris.

36. Lord Jopling agreed that space debris is an important issue. There are some grey areas in space legislation. However he did not consider the existing treaties as obsolete. Lord Jopling admitted that some amendments may be needed but rejected the idea of denouncing them and restarting from *tabula rasa*. Besides, Lord Jopling considered the sentence contained in the Report about the Chinese anti-satellite test (“[...] we must pay respect to China”) to be completely unacceptable. With regard to Paragraph 15, he also affirmed that the comment of the Rapporteur on the European position *vis à vis* the US MD system is totally unconfirmed.

37. Concerning the second point, Mr Gimalov informed that many of the paragraphs dedicated to the missile defence issue will be deleted from the final draft of the report since the problem will be addressed in other reports. In his reply to Lord Jopling’s first remarks, Mr Gimalov did not argue against the use of the existing treaties, but, as demonstrated by the Chinese experiment, it is impossible to say how technology will evolve. Therefore, present and future realities oblige us to amend this treaty. In particular, the purpose of the new treaty should be to prohibit the deployment of weapons in space.

38. In her intervention, Baroness Ramsay of Cartvale raised the issue of dual use of technology. She pointed out that NATO countries are clear about the final use of their deployed technologies, whereas other countries manifest a certain ambiguity with this regard.

39. The Chairman of the Committee informed the members of the Committee of this year’s STC calendar. The members of the Committee also authorized Mr Mates to prepare a special report on missile defence for the Annual session in Reykjavik.

40. Mr Mates then thanked the delegates and concluded the meeting.

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