Swiss perspectives on space security and related initiatives

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Outline

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  o the EU proposal for a draft international Code of Conduct on space activities
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Switzerland’s situation w.r.t. space activities

- Founding Member State of ESA (7th contributor)
- Invests ca. 165 Mio CHF per year in R&D space activities (95% of which to ESA, 5% for national activities)
- Swiss industry and universities participate in almost all ongoing ESA activities.
- No national space agency
- **Swiss Space Office**: responsible for overall Swiss space policy and representation of Switzerland to ESA
- **Swiss Space Centre**: located at EPFL, created in 2012 to federate space actors from academic and private sectors.
- Member of other space-related organisations: Eumetsat, Eutelsat IGO, WMO, ITU, etc.
Examples of Swiss space activities

Scientific and technological contributions to almost all ESA programmes:

- Precision mechanisms
- Structures for satellites
- Scientific instruments
- etc.

**CHEOPS**: 1st ESA S-class mission, led by the University of Berne

**CleanSpace One**: an EPFL project to deorbit their SwissCube pico-satellite

Note: These projects are not governmental, but from academic and private sectors.
Use of space-based applications in Switzerland

• Switzerland’s dependence on space is similar to that of other industrialized countries with competitive economy.

• It covers all classical applications:
  o Meteorology and climate monitoring
  o Telecommunications
  o Navigation and positioning
  o Security-related applications

• Switzerland accesses these technologies through its membership in international organisations, its association to international projects (e.g. Galileo) and by buying commercial services.
Main threats on outer space activities

- Placement of weapons in outer space
- Aggressive actions against space systems (ground to space and space to space)
- Interference with uplink/downlink and control signals
- Space debris and space weather

Switzerland is of the view that:

- New international instruments appear to be necessary.
- The parallel development of legally binding, non-legally binding and politically binding instruments can help the overall process make progress.
- Coherence is needed among the various instruments.
Swiss views on the prevention of an arms race in outer space (1/2)

• Switzerland stands against the placement of weapons in outer space and supports the development of legally binding instruments in this respect.
• The development of legally binding instruments could go hand in hand with the development of TCBMs and politically binding instruments. They can build on each other.
• Switzerland is open to discuss all proposals and willing to make progress at CD and UNGA on this subject.

TCBMs: Transparency and Confidence-Building Measures  
CD: Conference on Disarmament  
UNGA: United Nations General Assembly
Swiss views on the prevention of an arms race in outer space (2/2)

• Concerning a treaty on the prevention of placement of weapons in outer space:
  o Welcomed the 2007 draft PPWT which enabled initial discussion.
  o Idea of addressing both capacity and principle is interesting.
  o A lot of additional work is necessary.
  o Looks forward to discussing updated draft.

• UNGA Group of Governmental Experts (GGE) on space TCBMs:
  o There are interesting proposals in the GGE report.
  o Expects to discuss it this year at the CD.
Swiss views on the long-term sustainability of space activities (LTSSA) works at UN COPUOS

- The work accomplished by the four Expert Groups is of great value, including their proposals for non-binding guidelines.
- Next: consolidate draft guidelines, consider GGE report and reach consensus among UN COPUOS Member States
- The set should be *homogenous, coherent and bring added-value* to existing international instruments (UN, IADC, ISO, etc.)
- Guidelines should be *concrete and applicable.*
- Switzerland will support constructive developments at the next session in June and expects adoption by UNGA by 2015.
Swiss views on the draft International Code of Conduct on space activities (iCoC)

- The Code should be holistic and address all space activities.
- It should be *coherent and complementary with* existing international instruments and *not* create duplications.
- The respect of the legal personality of international organisations should be ensured, with the *same rights and obligations* for all of them.
- The right of self-defence as mentioned in the Code should *not, in any case, justify any retaliation in space* for a conflict on the ground.
- The electronic data base should be accessible to *all* States and relevant intergovernmental organisations.
Conclusions

• Switzerland will continue to engage in the elaboration of international instruments to ensure the stability, security, safety and sustainability of outer space.
• It hopes for significant progress at the CD, the UNGA and the UN COPUOS on these subjects.
• The recommendations of the GGE on space TCBMs should be taken into account in the elaboration of these instruments.
• Bridges should be established between the two communities: CD (“disarmament”) and UN COPUOS (“peaceful uses”).
• The iCoC project is contributing to this effort.

Thank you for your kind attention!