The removal of non-functioning satellites and the ITU

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Space debris regulation

• Space debris?
  – Fragments
  – Physically intact space objects
  – Criterion?
    • Debris guidelines, STSC UNCOPUOS
    • Non-functional and without reasonable expectation to resume intended function
    • ‘Functional’, period of non-functionality?

• UN treaty regime
  – Applicable?
  – Space object
  – Art. VII OST, LIAB: liability for damages
  – Art. VIII OST: removal of non-functional satellites

• Guidelines
  – Remove LEO/GEO satellites from orbit in controlled fashion
  – Non-binding
  – Many satellites not de-orbited
ITU

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  – Detailed, technical, regularly reviewed and updated
  – Binding upon 193 member states
  – Avoids space object language

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  – Does not mention space debris
  – Allocation and use of radio frequencies and associated orbits
  – Focus on physically intact satellite systems and networks

• Aim of ITU: avoid harmful interference
  – Registration in MIFR
  – International recognition and protection from harmful interference
  – Protection lost if removed from MIFR
  – Removed from MIFR if
    • Never brought into use
      – Paper/virtual satellites
    • No longer in use
      – Space debris
Actual and continued use

• Registration and protection hinges on actual and continued use

• Actual use
  – Notice: date of bringing into use
  – Date at which assignment is brought into regular operation to provide published service with notified technical characteristics
  – WRC-12: deployed and maintained at the notified orbital position for a continuous period of ninety days

• Continued use
  – In case of suspension of use, administration must notify
    • Date assignment was suspended (max. 18 months)
    • Date assignment will be brought back into regular operation (max. 2 years after suspension)
  – Maximum two years of inactivity

• Implications
  – Removed from MIFR
  – Loss of protection from harmful interference
  – No longer taken into account when considering notices from other administrations
Clarifications

• Space debris criterion
  – Functionality: regular operation providing intended service with notified technical characteristics
  – No reasonable expectation to resume intended function when no regular operation for more than two years

• Removal of non-functional satellite from orbit
  – Non-functional satellite removed from MIFR
  – Not taken into account in registration procedure other satellite
  – New satellite may be granted protected right to use orbit occupied by non-functional satellite
  – Appears to imply that State must remove non-functional space object from orbit

• Art. VIII?
  – Exclusive jurisdiction over space object irrelevant
  – Still has to comply with other rules of international law: ITU regulations
Thank you for your attention

philip.deman@ggs.kuleuven.be
Leuven Centre for Global Governance Studies