

# The removal of non-functioning satellites and the ITU

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Leuven Centre  
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Governance Studies



# 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](mailto:philip.deman@ggs.kuleuven.be)

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