WHY DOES IT MATTER?

- ‘Space object’ causing damage triggers international third-party liability under the 1972 Liability Convention
- ‘Space object’ requires registration by 1975 Registration Convention
- ‘Space object’ effectively triggers application of much of the 1967 Outer Space Treaty & the 1968 Rescue Agreement
SPACE OBJECT VERSUS AIRCRAFT

- Qualification as ‘aircraft’ brings with it the application of major aviation treaties & national air law

- Aircraft = “any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface”

- The one hybrid real-life case…?

  → US defined space shuttle as ‘space object’
  – & other states remained silent
‘SPOT THE SPACE OBJECT’

XCOR Lynx

Blue Origin New Shepard

Virgin Galactic WhiteKnightTwo plus

Boeing CST-100 – docking with ISS
THE DEFINITION (1)

◆ Liability / Registration Convention:
  ▪ Includes component parts
  ▪ Includes launch vehicle …
  ▪ Includes unsuccessful launch → \textit{intention = key}

◆ By inference from Outer Space Treaty / Rescue Agreement
  ▪ Objects \textit{launched} …
  \implies Launch = assumed to be (at least initially) vertical & using rocket propulsion…
  ▪ … \textit{into outer space}
THE DEFINITION (2)

◆ National space law interpretation
  ▪ Some do not use it at all …
  ▪ … or do not define it
  ▪ Some simply refer / repeat
  ▪ Some define ‘space object’ …
  ▪ … or use differently-defined ‘object’ / ‘spacecraft’

→ Most proper / common interpretation experts:

*Anything* (aimed to be) *sent* into outer space
AIRCRAFT AND SPACE OBJECT?

Remember: the ‘launch vehicle’ of a ‘space object’ is also a ‘space object’…
‘OUTER SPACE’ …?! (1)
‘OUTER SPACE’ ...?! (2)

- Gradual convergence on 100 km ...?
  - Australian, Kazakh & draft Nigerian space law
  - EU & US export controls defining ‘space-qualified’
  - Russo-Chinese proposal de-weaponization treaty
  - Soviet/Russian proposals in COPUOS
  - Pakistani, German & Russian answers to COPUOS questionnaire
  - Astronaut wings US FAA
  - Private NGOs: FAI & IAA
  - Private operators...
'DO WE REALLY NEED A BORDER...?!'

1963

Courtesy Thomas Gangale, JSD-Candidate at the University of Nebraska-Lincoln:

2010
DEFINITION ‘SPACE OBJECT’?

- “Any man-made object intended to be sent into an area beyond 100 km altitude above mean sea level”
  - Triggers relevant requirements UN space treaties
  - In case also (potentially) qualifying as aircraft:
    - Air law only applies to the extent of use of airspace (possible interference with aviation) & use of airports (possible interference with aviation) = ATM/ATS/ATC
    - Air law may be used as reference for development specific space law for **manned** space objects
      - E.g. criminal air law; in the future certification?
DEFINITION 'SPACE OBJECT'?

Any man-made object intended to be sent into an area beyond 100 km altitude above mean sea level

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DEFINITION 'SPACE OBJECT'?  

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• E.g. criminal air law; in the future certification?
Thank you