

# WHAT'S IN A NAME...?

## The Definition of a 'Space Object'

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# WHY DOES IT MATTER?



◆ ‘Space object’ causing damage triggers international third-party liability under the 1972 Liability Convention



◆ ‘Space object’ requires registration as per the 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”

# SPACE OBJECT VERSUS AIRCRAFT



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- ◆ The one hybrid real-life case...?
- US unilaterally defined space shuttle as ‘space object’ – & other states remained silent [Nebraska Law](#)

# 'SPOT THE SPACE OBJECT'

XCOR Lynx

Blue Origin New Shepard

Virgin Galactic WhiteKnightTwo plus

Blue Origin

Boeing CST-100 – docking  
with ISS

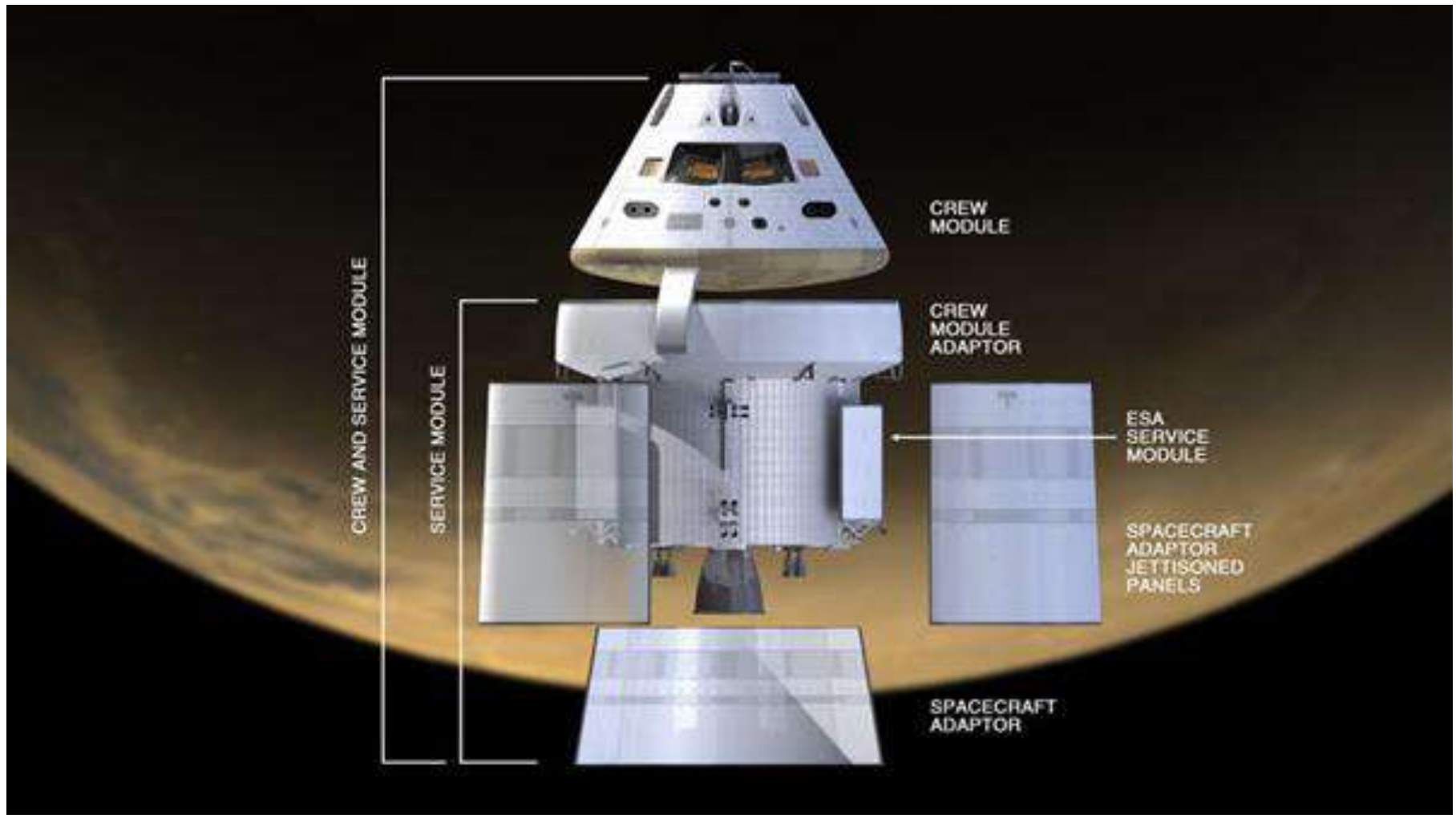




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- ◆ By inference from Outer Space Treaty / Rescue Agreement
  - Objects launched ...



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  - Launch = assumed to be (at least initially) vertical & using rocket propulsion...

# 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

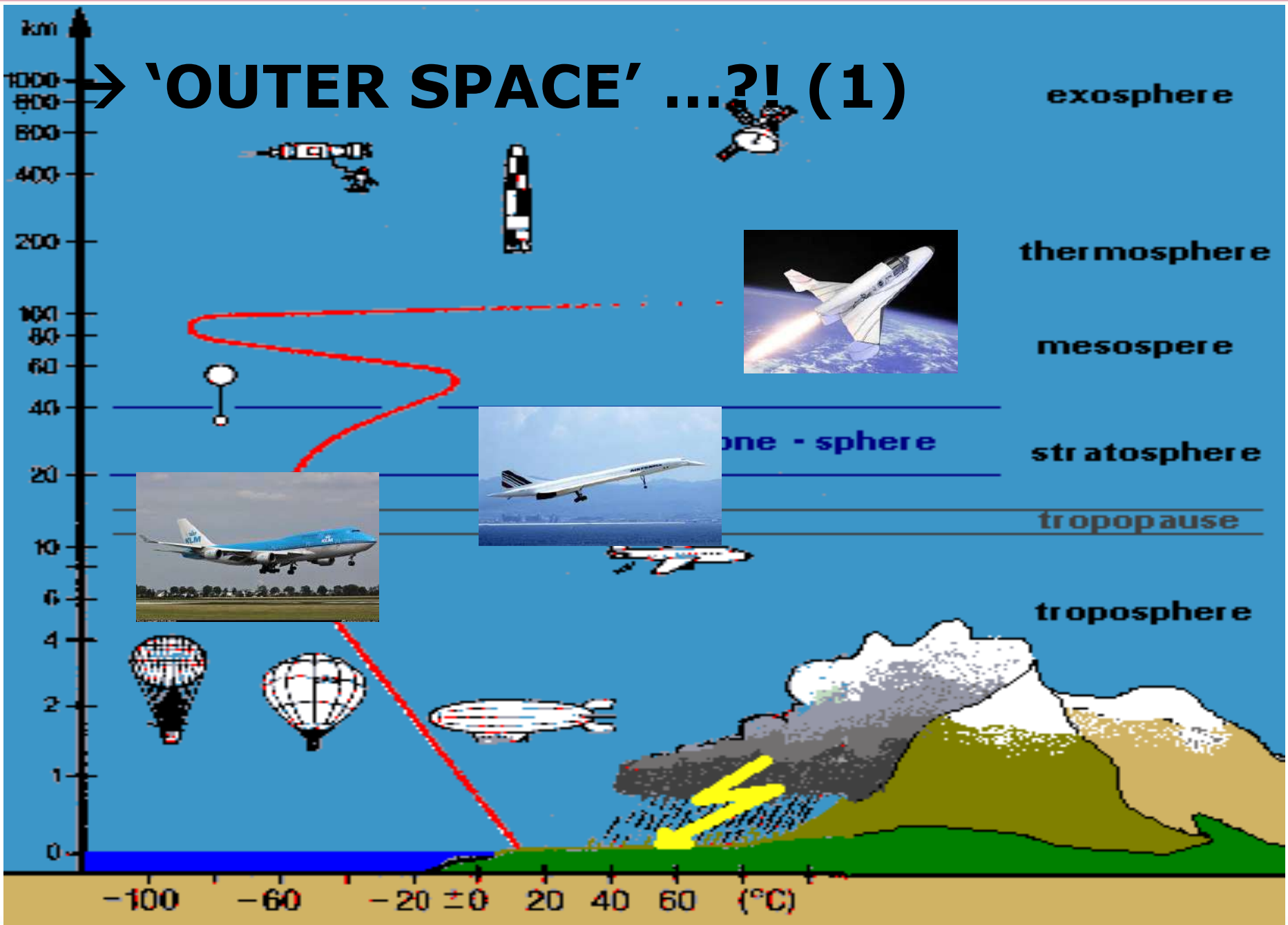
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# 'OUTER SPACE' ...?! (1)



## → '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



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# 'DO WE REALLY NEED A BORDER...?!'

1963



2010



# ***'DO WE REALLY NEED A BORDER...?!'***

**1963**

**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?

