Liability & insurance in air & space law;  
Regulation of suborbital flights in Europe

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Liability in air law

• 2\textsuperscript{nd} party liability of the carrier towards passengers well developed
  • Extensive system to protect passengers, incl. case law
  • Evolved from limited (Warsaw), to unlimited (Montreal)

• 3\textsuperscript{rd} party liability mostly governed by nat. law
  • Rome convention limits are low

• Treaty rules apply to international flights
  • Otherwise national law

• Extensive EU regime
Liability in space law

- Only 3rd party liability, no 2nd party liability in Treaties
  - No reference to personnel on board, crew, passengers
  - Only ‘astronauts’; ‘envoys of mankind’
  - Nationals of launching state/visitors not protected
- Only states may present a claim, not victims
- No limit on liability
  - National law can provide cap & obligatory insurance

- These rules apply to international flights
  - Otherwise national law

- No EU law
Art. VII OST/LIAB Convention

• 3rd party: launching state is internationally liable for damage caused by its space object or its component parts, on earth/in air (absolute) or in space (fault), to another state party or its natural or legal persons

• Compensable damages
  • Loss of life, personal injury or other impairment of health; or loss of or damage to property
National space legislation

• Translates the space treaties’ obligations in case of activities by private entities
• Sometimes puts a cap on liability
• Often requires insurance

• Only US has (temporary) provisions on private human spaceflight
  • 2\textsuperscript{nd} party: informed consent by passengers, waivers by partners
  • 3\textsuperscript{rd} party: protecting safety of the public
 Liability for suborbital flight?

• **Space** activity: state-based 3\textsuperscript{rd} party liability, few details, vague terms, not tested in court
  • Some national legislations introduce liability limits for private entities, with obligatory insurance
  • Only one so far addresses human spaceflight

• **Aviation**: detailed 2\textsuperscript{nd} and 3\textsuperscript{rd} party operator-based liability, case law
  • Certainty for parties, facilitates insurance
  • Moved to unlimited liability after industry matured
  • More rules in EU law
Liability for suborbital flight?

• We will need elements of both…

• In aviation, operators’ liability evolved from limited liability to unlimited liability, as industry matured

• In suborbital spaceflight the same approach could be taken: start with limited liability of operators, then evolve
Aviation & space insurance

- Aviation insurance
  - Statistics, History
  - Cover multiple take-off and landings
  - Competition, big market
  - Reasonable rates
  - Clear liability rules

- Space insurance
  - Less practice, less customers, less statistics
  - Difficult to access or repair objects
  - Coverage per launch
  - High severity/high frequency
  - High rates
  - Unclear liability rules
Insurance for suborbital flight?

- If seen as **space** activity:
  - No obligatory insurance in treaties
  - US: operators must insure 3rd party, and passengers sign informed consent
  - Europe: some laws oblige 3rd party liability but not 2nd party liability
    - Laws do not yet address human spaceflight
    - When they will, not certain if 2nd party liability insurance will be obligatory or informed consent?
Insurance for suborbital flight?

• If aviation:
  • 2\textsuperscript{nd} party liability coverage obligatory under Montreal (not Warsaw)
  • 3\textsuperscript{rd} party obliged in Rome Convention & General Risks Convention
  • EU: 2\textsuperscript{nd} & 3\textsuperscript{rd} party liability insurance obliged
  • Also in many national laws
Insurance for suborbital flight?

- Operators must get 3rd party liability insurance, whether considered as aviation or space
  - And it is available in both markets
- Europe: 2nd party liability insurance seems optional if considered space activity, but obligatory if aviation
- Only experience in aviation market, so if obliged, it will probably be placed in the aviation market
  - Not certain if similar rates and conditions, risk may be considered higher
What about Europe?

- S3, Virgin Galactic, SXC in UK, Sweden, Spain?
- SXC from Curacao, Neth. Antilles
- Effect in other jurisdictions possible
- Some states have national space legislation
  - BUT none addresses private human spaceflight
- EU law (art 189 Lisbon): No harmonization
- Risk: patchwork
- ‘Some EASA officials’ took position in 2008
  - ‘Anything with wings’ falls under its jurisdiction
  - Put on hold in 2011 by DG MOVE
EU increasingly interested

• EASA able to regulate SoA, with restricted type certificates, but no mandate (yet) from EC
• EC market study & legal study (Strategy&)
• Industry needs certainty
  • Different preferences: full certification or light touch licensing…

• EC should provide vision, direction; pioneer states must move ahead
How?

• Step-wise approach best
• Ideally, EASA’s mandate should be extended to spaceflight, to develop a coherent flexible framework  
  • Not probable in short term
• Develop national regimes first
• Coordination desirable
Conclusions

- Safe, efficient private human access to space at reasonable cost will boost space activity, global economy, and benefit mankind
- Platform for science, launch of small satellites, not just for the rich and happy few
- A clear, functional, harmonized legal framework is essential to safeguard State and private interests → AEROSPACE law?
- Probably first regulation at national level
- Europe needs to act to be a relevant player
Thank you

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