



In Orbit Servicing Insurance Aspects

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The story so far

■ Many projects ongoing

- Cooperative rendezvous / docking demonstrated by :
 - ETS-VII (Jaxa)
 - Orbital Express (Darpa)
- Docking target not designed for it remains to be flown.

■ What do we know of satellites in orbit?

- Limited to telemetries
- Can a F&D valve still be operated after 15years of thermal cycling?

■ The road is still long...

- Let's assume we have come to its end

Servicing Satellites

■ Potential risks of the operation

- Immediate effect (e.g. collision)
- Delayed effect (e.g. corrosion due to fuel leakage)

■ Who would pay for this ?

- Reusing marine market practice : The operator of the satellite being serviced would be responsible for everything.

■ Would assets / liability insurers accept this risk ?

Extending Satellites Lifetimes

- **Immediate increase of the book value.**

- **Requires insurance beyond the original qualification lifetime of the satellite.**
 - Will the rest of the satellite survive that long?
 - Insurance wise: little experience on satellites beyond their design life

- **Additional risks due to potential delayed effect of the servicing?**

Salvaging satellites

■ In case of Launcher or Satellite anomaly

- Not on the correct orbit / not controllable

■ In today's legal framework

- No obligation to salvage a satellite

■ In the future:

- Orbital debris likely to become an even more significant issue.
- Future legislation may require "wreck removal"
- Could impact liability insurers

Salvaging satellites today

■ **Would require the insured and ALL insurers to agree**

- There have been a few examples in the past
- Would require a large probability of success to be attractive
 - Might otherwise be seen as throwing good money after bad.
 - OR would need "no cure no pay" scheme
- In short: the cost vs. benefit must be beyond discussion.

■ **Might require some changes**

- In the way policies and claims are managed
- Is the market ready for such changes?

Thank you for
your attention

