

**ACSER Cubesat Innovation Workshop 2017**  
**Sydney 19 April 2017**

# **Space Insurance 101: Financial Risk Management Tool for Satellites**

**William E Barrett Senior Vice President**  
**Kirby Ikin Managing Director**



**Asia-Pacific Aerospace Consultants**  
**(APAC)**

# Background

- APAC - Sydney based consulting firm specialising in space and telecommunications industries
- Conducted a number of studies for Australian Govt to characterise Australian space including:
  - 2010 Australian Space Activities study
  - 2011 Australian Space Activities study
  - 2012 - 2014 study on Space Capabilities in 17 Asia Pacific countries for ESA
  - 2015 – 2016 Australian Space Capabilities Study
- Experts in Space Insurance
  - APAC principals ran one of the top-ten ranked global space insurance companies generating A\$175 million p.a.

# Insurance for Space Activities – Necessary Evil???

- Australian cubesat innovators have tended to see insurance as a mandated evil due to the liability insurance required by the Space Activities Act
- Frame of reference needs to be reset to recognise that insurance is actually a financial risk management tool covering much more than liability
- Insurance can address varying levels of financial exposure during different phases of business risk
- Insurance can be a financial tool to help new space businesses get established

# Insurance as a Financial Tool

- Insurance is a financial tool that can be used to address and overcome financial / business risks not just mitigate technical risks
- Used wisely insurance can be used to help build the business by covering risks perceived by other parties such as potential customers (e.g. start-up launch service providers)
- As such insurance and risk management must be considered very early and built into contractual arrangements

# The Nature of Space Insurance

- It is a common misperception to think about insurance as insuring specific assets i.e. insuring “the satellite” or “the launch”
- In fact it is really about insuring the business against the consequences of certain potential events occurring.
- The essence of insurance is to place the insured party back in the financial position they would have been in if the relevant event did not occur.
- In this context it is vital to understand potential impacts on your business throughout the entire business cycle

# Insurance Addresses Stakeholder Concerns

- A space business will have many stakeholders with a financial interest in the success of the business:
  - Shareholders / equity providers
  - Debt providers
  - Customers
  - Management & Staff
- A space insurance program can be designed to cover the different financial concerns of stakeholders to facilitate the establishment and assist in the financial survival of the business
- E.g. debt providers will not lend without insurance

# Types of Insurance For Space Activities

- Insurance can provide coverage for different phases of risk in space activities
  1. Satellite Manufacturing & Testing
  2. Transportation of Satellite to Test Site or Launch Site
  3. Satellite Integration & Testing at the Launch Site
  4. Launch
  5. In-Orbit Commissioning
  6. In-Orbit Operational Life
  7. Satellite Decommissioning
  8. **Third Party Liability**
  9. Business Interruption Insurance
- In this light it is important to have continuity of insurance coverage through all phases of risk.

# Types of Exposure

- Exposures might include:
  - Cost of replacing the satellite (which may be different to the cost of the first satellite)
  - Cost of a replacement launch (if not covered by a reflight guarantee)
  - Costs to keep the business running while replacement plans are made
  - Increased costs of debt / equity
  - Loss of market to rivals
  - Increased insurance costs



# Insurance as a Start-up Tool

- Intelligent use of insurance can also help a start-up space business actually become established.
- Often uncertainty about technology and development plans prevents prospective customers from signing on for the proposed service.
- Using insurance to manage these concerns can be the difference between raising money with customers in hand (a much easier task) versus raising money without customers.

# Protecting Debt & Equity

- A well-structured insurance plan can also be used to ensure the business can reach strategic milestones
- Equity providers will take comfort in knowing their investment is insured through critical milestones necessary for them to earn a return on their investment
- Similarly debt providers need to know the business can reach the point that it can service debt

# Conclusion

- Space insurance is not a necessary evil – it is a powerful financial tool to assist a new space business
- Space insurance is about protecting your business, not specific assets
- It is vital that insurance protect your business through all phases of risk against changing exposures
- It is therefore vital to understand all the potential impacts that events may have on your business
- Insurance coverage should be seamless and continuous through all phases of risk