



# Non-Governmental Entity Support for Public/Private Sector Data Sharing

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19 April 2024



## Agenda

- Need for Data Sharing to Promote Space Sustainability
- Key Legal & Operational Risks
- Public/Private Support for LTSS Guidelines: B.1, B.2, B.3, B.4, C.4.1.c, C.4.4
- Conclusions



# Need for Space Operator Data Sharing

- Effective, timely data sharing is essential for long term space sustainability, including precursors of space traffic coordination
  - **Avoid:** space hazards / conjunctions & creation of additional space debris
  - **Resolve:** Anomalies (operational, including cyber), disputes
  - **Predict:** Orbital state for satellites, incorporating planned maneuvers
  - **Maintain:** space surveillance sensors, useful space catalogues, positive control of spacecraft, information flows



## Data Sharing: Key Legal & Operational Risks

- Data: How can data owners such as satellite operators ensure their data are not misused once provided to others?
- Regulatory: How do I balance information disclosure (safety) against the risk to reputation or my authorization/license?
- Reputational: How can we share data with competitors while protecting our own national or commercial interests?
- Dispute resolution: If a dispute over data sharing occurs, is there an effective and efficient means to resolve it?



# An NGE Approach: The SDA

- The SDA is a **not-for-profit non-governmental entity (NGE)** of 30+ **public** and **private** satellite operators focused on **space safety**.
- SDA Members collaborate and pool operational data including **Points of Contact** to enable better **Conjunction Assessment (CA)** and **Space Traffic Coordination (STC)**, to mitigate the risks of satellite operations and preserve the space environment.
- The SDA's Isle of Man-based **legal structure and binding agreements** enables secure pooling of operational data and ensures that these data are used exclusively for the intended purpose.
- The SDA's **Space Data Centre (SDC)** provides services securely.



# SPACE DATA ASSOCIATION





# NGE Approach: Agreements

- SDA Approach: collect & protect participant data
  - Cultural: Benefits seen for data contribution/exchange of defined elements
  - Technical: web-based; multiple technical / cybersecurity controls within SDC
  - Legal: Bilateral legal agreements between SDA and its Members
    - Permitted Uses for SDC data/products
    - Prohibited Uses for SDC data/products
    - Retransmission to third parties prohibited
    - Obligations for member data contribution
    - Legal liability issues are addressed by *enforceable contract*
    - Third-party beneficiary rights available for direct resolution by participants
    - Jurisdiction: Isle of Man



# Conclusions

- NGEs like SDA offer immediate, concrete means for States and satellite operators to promote the LTS Guidelines, including:
  - **B.1 - Provide updated contact information and share information on space objects and orbital events**
  - **B.2 - Improve accuracy of orbital data on space objects and enhance the practice and utility of sharing orbital information on space objects**
  - **B.3 - Promote the collection, sharing and dissemination of space debris monitoring information**
  - **B.4 - Perform conjunction assessment during all orbital phases of controlled flight**
- SDA encourages UN Member States to take actions to implement LTS Guidelines B.1, B.2, B.3., and B.4 by requiring satellite operator data sharing for space safety.