





















Research & Innovation: A trilateral research partnership would unite the brightest minds from three continents. Despite the fact that each nation has its own strengths, consider the quantum advances that are possible when these strengths converge. Innovative breakthroughs in aerospace and astrobiology are no longer merely possible, but probable.

Under AUKUS, economic diversification would give the Australian economy new wings. We could diversify our industrial base by becoming part of a complex supply chain tailored to satellite and rocket manufacturing. In addition, do you offer launch services on a global scale? It's not just about money; it's a strategic move.

Foreign Investments: The AUKUS seal may serve as a beacon for foreign investors. Ultimately, initiatives supported by not one, but three nations exude confidence. Such cooperation also paves the way for even more extensive international alliances.

A partnership in space involves not only exploration, but also protection. The integration of joint space defense initiatives with AUKUS's extant defense strategies ensures that our nation is protected both on the ground and in space.

National Pride: Finally, each accomplishment, satellite launch, and mission fulfilled as a result of this partnership increases our national pride. Such endeavors can motivate our youth, painting a picture of a nation that is not merely a part of the future, but is actively molding it.

As we stand on the cusp of a new space age, the AUKUS partnership holds the promise of not only reaching for the stars, but also ensuring that every Australian will benefit from the voyage. It is not only about space, but also about a brighter, more prosperous future on Earth. So, as we gaze upwards, let's dream large, for in unison with our AUKUS allies, the universe is not the limit; it is merely the starting point.

## **6.5 AUKUS's Instrument for Space De-escalation Used to Facilitate Clear Communication**

Lessons from historical precedents demonstrate the importance of open and honest communication. Recent events, such as the launch of the Kosmos-2558 satellite, demonstrate that AUKUS can meet both the obligation and the role of a leading body in the face of the increasing complexity of space. If a space-related AUKUS successfully establishes open communication frameworks and advocates for comprehensive space information ecosystems, it could establish a safer and more collaborative outer space domain.

At its core, the agreement represents a commitment to a safer, more transparent, and more collaborative future. If it embraces concepts such as MVI and implements systems such as SISE, AUKUS has the potential to be a leader in promoting responsible behavior in space. As space missions and satellites increase, the AUKUS framework provides a guiding light for normative behavior. This framework emphasizes transparency, trust, and collaboration, all essential to continuing space exploration.

## **7 SNARE: A PARADIGM SHIFT IN SDA**

### *Traditional vs. SNARE Tasking*

Traditionally, the U.S. Space Force Space Sensor Network (USSF SSN) tasks its sensors once per day. However, the SNARE method introduces dynamic and decentralized tasking, now in the prototype phase, which can significantly enhance SDA's tactical relevance.

### *Limitations of Current Sensor Placement*

The geographical placement of sensors poses challenges in observing certain orbital areas. This limitation emphasizes the need for additional cooperative methods to achieve comprehensive SDA.

## **8 GLOBAL SPACE DOMAIN AWARENESS (GSDA) CONCEPT**

GSDA introduces a decentralized, modular approach that encourages an expansive SDA network covering Earth and Cislunar regions.

### **8.1 Core Features of GSDA**

- Decentralized tasking (leveraging SNARE & ad-hoc methods)
- Decentralized data technologies for information sharing and storage
- A GSDA-compliant ecosystem plug-in for global integration
- Interconnected GSDA ecosystems

## **9 CULTIVATING ENDURING PARTNERSHIPS**

### *Incremental Growth of the GSDA Network*

The primary drive for initial GSDA ecosystems is expected to come from spacefaring nation governments. Yet, commercial and academic interests could play pivotal roles in the evolution of GSDA ecosystems.

### *AUKUS as a Catalyst for GSDA Growth*

Beginning with AUKUS, the GSDA concept can be expanded to include other nations and stakeholders. The AUKUS partnership provides an ideal foundation for geopolitical growth in SSA, fostering cooperation, data sharing, and technology development.

## **10 CONCLUSION**

The vastness of space has always stimulated human imagination, exploration, and innovation. As technology propels us faster than policy and further into orbit, however, a renewed emphasis on cooperation and shared standards is essential. If it included an emphasis on Minimum Viable Information (MVI) and transparent exchange, a new AUKUS treaty for space has the potential to fundamentally alter the nature of international space relations. But AUKUS is not just about space; it represents a new epoch of global collaboration. The incorporation of sophisticated systems such as SISE and the adoption of dynamic initiatives such as SNARE highlight the alliance's dedication to responsible, sustainable space exploration.

With its distinct geographical position, Australia has the potential to become a hub for space activity, ushering in not only technological benefits but also profound socioeconomic transformations. The cascading effects of space activities will shape infrastructure, education, tourism, and national pride on the ground. It is a vision in which space is not merely a frontier for the privileged, but a realm from which all Australians benefit.

Beyond AUKUS, the Global Space Domain Awareness (GSDA) establishes a framework by which all nations, regardless of their technological prowess, can participate in the enormous space network. GSDA's decentralized, modular structure exemplifies a world where space is not dominated by a select few, but rather a domain of shared responsibility and collective ambition.

In the past, space was a contest to see who could plant their flag in space first. Today, as threats multiply and the stakes rise, space travel is a collective endeavor. With initiatives such as AUKUS paving the way, it is anticipated that nations will realize that in the vastness of space, cooperation is not a luxury, but a necessity. In the end, as we reach for the stars, it will be the relationships formed on Earth that determine our success in the cosmos.

## 11 BIBLIOGRAPHY

Citowicki, P. (2022). *AUKUS: Stepping boldly into space.* . PacNet63.

Citowicki, P. (2022). *Triple constellation.* Australian National University National Security College.

House, T. W. (2022). *FACT SHEET: Implementation of the Australia – United Kingdom – United States Partnership (AUKUS).* Washington D.C.: The White House.

Carden, Burchett, Reed, "SNARE (Sensor Network Autonomous Resilient Extensible): Decentralized Sensor Tasking Improves SDA Tactical Relevance," AMOS 2021.

Australian Defence Space Command Reports, 2022.

Davis, M. (2023) Special Report: Australia's North and Space. Australian Space Policy Institute ASPI

## **12 APPENDIX A: DRAFT AUKUS PACT SPACE EXTENSION (FOR EXPOSITION ONLY)**

### **Space Information Sharing Ecosystem (SISE) Pact**

The Government of Australia (“Australia”), the Government of the United Kingdom of Great Britain and Northern Ireland (the “United Kingdom”), and the Government of the United States of America (the “United States”) (collectively, the “Parties”),

Highlighting the previously established trilateral security collaboration under the banner of AUKUS, emphasizing the shared ambition to promote space exploration, research, and security;

Acknowledging that as part of this esteemed partnership, a collective endeavor has been initiated to identify and implement the best methodologies for the establishment and expansion of the Space Information Sharing Ecosystem (SISE);

Understanding that the United Kingdom and Australia, in alignment with the United States, are entering an era of enhanced international cooperation, significantly advancing the collective space knowledge, capabilities, and defense mechanisms;

Recognizing that the enrichment of a common understanding and promotion of space security will be propelled forward by the unreserved sharing of space information, research, and technologies;

Confident that such a generous exchange of space information will not jeopardize the individual or collective security and defense priorities of the Parties;

Reaffirming their collective commitment to the peaceful exploration and use of outer space, in compliance with international treaties and conventions; and

Incorporating relevant stipulations from the United States Space Act and other pertinent legislations, where applicable.

Have agreed as follows:

#### **ARTICLE I Provisions General**

In the context of the United States, the United Kingdom, and Australia cooperating in international frameworks for mutual space awareness and security, each Party may share and exchange information pertaining to the space domain with the other Parties in accordance with the terms of this Agreement. Such sharing is contingent on the understanding that it increases mutual space awareness without jeopardizing the defense or security of the communicating Party.

#### **ARTICLE II Space Information Exchange**

Each Party may share or exchange information deemed essential for the development, deployment, operation, regulation, and decommissioning of space systems and technologies. Upon mutual accord, parties may facilitate support to ensure efficient communication.

#### **ARTICLE III Accountability for Information Use**

Any information shared or exchanged pursuant to this Agreement (including design schematics and technical specifications) is the sole responsibility of the receiving Party. The original Party neither indemnifies nor guarantees the accuracy, completeness, or applicability of such information for particular purposes.

#### ARTICLE IV Requirements

- A. Each Party shall comply with its own laws when cooperating under the terms of this Agreement.
- B. This Agreement does not supersede or nullify any potential exchange of space domain information authorized by other arrangements or agreements between the Parties.
- C. Cooperation under this Agreement shall adhere to International Space Safety standards and guidelines, ensuring that space activities remain benign and secure. In this context, relevant international agreements signed by Australia, such as the Outer Space Treaty, will be recognized.

#### Article Five Assurances

- A. Parties shall implement stringent security measures for classified space data shared or exchanged in accordance with this Agreement. This protection conforms to the Annexes of the Agreement and the national statutes of the Parties. Under no circumstances shall any Party's security standards be less stringent than those enumerated in the Annexes in effect upon ratification of this Agreement.
- B. Unclassified space domain information shared pursuant to this Agreement shall be afforded comparable protection to that provided by the disclosing Party. Parties shall discuss the appropriate safeguards for such data.
- C. Information pertaining to the space domain that is shared or exchanged in accordance with the terms of this agreement shall be transmitted via existing or to-be-established exchange channels.
- D. The receiving Party or its jurisdiction shall not disclose or transfer to unauthorized entities any space domain information received pursuant to this Agreement. A Party may limit the scope of information dissemination, designate categories of individuals with access rights, and impose any other necessary restrictions on information dissemination.

#### ARTICLE VI Information Dissemination

This Agreement shall not inhibit or restrict any Party's consultations or cooperation with other nations or international organizations on defense-related matters. Nonetheless, no Party shall share space domain information provided by another Party pursuant to this Agreement with other nations, foreign entities, or non-Party nationals. In addition, no Party shall share such information with a national of another Party without the consent of that Party.

#### ARTICLE VII Classification Policies

#### ARTICLE VIII Intellectual Property

#### ARTICLE IX Definitions

#### ARTICLE X Final Provisions

Agreement.

Done at \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_, in three originals.

For the Government of Australia:

For the Government of the United Kingdom of Great Britain and Northern Ireland:

For the Government of the United States of America: