



**KAL**  
**Capital**

# SPACE DOMAIN AWARENESS

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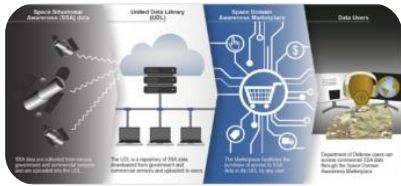
SECTOR UPDATE



NOVEMBER 2023

# MARKET MOTIONS & TRENDS

## RECENT HEADLINES IN SPACE DOMAIN AWARENESS



### Enhanced UDL Architecture

Unified Data Library

BREAKING  
**DEFENSE**

### Space Force plans FY24 update for space monitoring data 'library'

The Space Force wants to move the 2018-conceived Unified Data Library from a card catalog system to a machine-to-machine search engine using artificial intelligence tools.



### PLA Strategic Support Force's (SSF) new Base 37

Near-Peer Threats

**SPACENEWS**  
BUSINESS | POLITICS | PERSPECTIVE

### China's military sets up new base for space domain awareness

"The new base will improve the PLA's ability to provide early warning of incoming ballistic missiles to joint forces, and track and identify space objects' location, maneuvers, and operating environment," according to the report.



### Demand For Sensors & Data Processing

Sensor Technology

BREAKING  
**DEFENSE**

### Space Force looking to fill tech 'gaps,' and 'evolve' space domain awareness: Saltzman

The space operations chief wants systems that can gather "exquisite, high fidelity information about what's going on" in geosynchronous Earth orbit "and beyond," more sensors in the Southern Hemisphere to keep an eye on low Earth orbit and — critically — a better way to fuse data.



### Increasing Visibility & Reducing Space Debris

Space Force

**Defense One**

SCIENCE & TECH

### Space Force hunts for mature technology in 'Hyperspace Challenge' program

Expanding its reach from startups to established players, this year's event seeks satellites that are more autonomous, maneuverable, and safer from debris.



# KAL ADVISES FORWARD SLOPE IN ITS ACQUISITION OF HYPERGIANT

## HYPERGIANT ACQUIRED BY FORWARD SLOPE INC.



- » Hypergiant, a leader in AI-enabled, cloud-based command and control technologies and deployed solutions, has been acquired by Forward Slope
- » The company offers a world-class core geospatial data visualization and actions platform, Command Center, which makes AI-generated recommendations and delivers intelligent insights and actions across all domains
- » The acquisition is a natural partnership for the two organizations who believe in the future of next-gen, AI-enabled technology solutions to secure both America's defenses across all military domains and critical infrastructure

## COMMAND CENTER – KEY CAPABILITIES

- » **Command Center is a Common Battle Management Interface (CBI) where data informs real-time decision-making and is shared instantly between multiple sources across all domains**



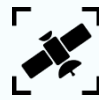
### Air Force – JADC2

- » The Joint Effects for Real-time Integrated Command & Control Operations (JERIC2O) is the DoD's only modern, cloud-enabled, tactical level command-and-control (C2) software developed for the USAF's Advanced Battle Management System (ABMS) effort



### Army

- » Hypergiant assisted the U.S. Army with advanced predictive maintenance and sustainment for its fleet, using Command Center to maximize the lifecycle of a remote fleet



### Space Force

- » As a map-based geospatial solution, Command Center can be leveraged to track satellites in orbit or beyond into the furthest reaches of mapped space, displaying all available information in context to empower decision making



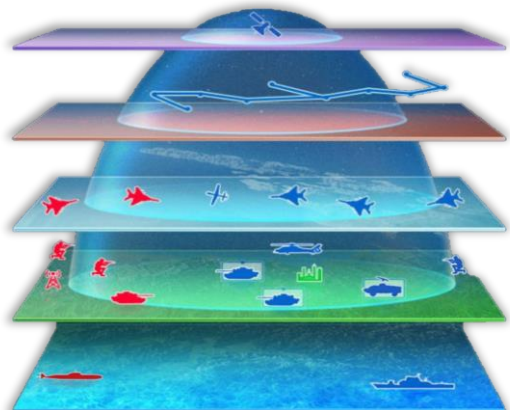
### Physical Security

- » Leverages data fusion to see and understand applicable activity in real time. Operators can have unparalleled situational awareness of facilities, leveraging multiple data feeds like weather, crime statistics, live camera access, social media, and traffic data

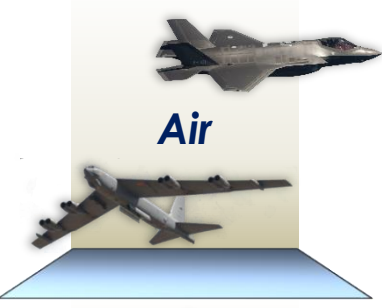
## WARFIGHTERS AT THE CORE OF DESIGN AND DEVELOPMENT

**To ensure design system effectiveness, Hypergiant collaborates closely with warfighters. Through regular feedback sessions, warfighters are integrated into the design, development, and new feature scoping processes**

**By involving them early and often, Hypergiant builds a system specifically designed to address their unique challenges, human factors, and requirements**



# SPACE DOMAIN AWARENESS & JADC2 INTEGRATION




















## USSF Space Domain Awareness & Combat Power

### Program Executive Offices



- » Focus areas include space domain awareness, and offensive/defensive counterspace capabilities
- » Special focus on protecting and defending against kinetic, non-kinetic, electronic and cyber attacks aimed at satellites and ground stations

Branch	PEO/Program	Focus Area	Description
Joint Programs	JICO	JADC2	» Integrates capabilities across military branches
Joint Programs	JADC2 Initiative	JADC2	» Connects sensors from all branches into a single network
 		JADC2	» Delivers resilient communications and data-sharing capabilities
 	Space Domain Awareness & Combat Power	SDA	» Manages development and acquisition of space systems
 	PEO for Digital, AFLCMC	JADC2	» Provides software solutions and digital services
 	PEO for C2BM	JADC2	» Oversees command and control systems
	PEO CBT	JADC2	» Develops the Army's tactical network
	PEO IEW&S	JADC2	» Manages battlefield awareness technologies
 		JADC2	» Delivers integrated communication and intelligence systems
 		JADC2	» Provides naval combat systems for network-centric warfare
Other Initiatives		SDA	» Builds the National Defense Space Architecture
Other Initiatives		JADC2 & SDA	» Engages in projects supporting JADC2 and SDA

# SPACE DOMAIN AWARENESS – RECENT M&A ACTIVITY

## RECENT TRANSACTIONS

Target	Buyer	Announced	Transaction Description
 DATA PATH™	 Gilat™	Nov-23	» DataPath designs and manufactures remote field communications including fixed and deployable Earth Satellite Terminals
 e2E	 <b>TELESPAZIO</b> a LEONARDO and THALES company	Nov-23	» e2E is a provider of satellite communications, systems, and software engineering solutions for aerospace, defense, and SatCom markets
 SRT GROUP™	 eclipse	Nov-23	» SRT Group provides signals intelligence (SIGINT) and electronic warfare technologies
 bliley technologies	 KYOCERA	Oct-23	» Bliley manufactures low-noise crystal & oscillator products for use in avionics, LEO, and GEO applications
 EO Vista	 <b>GENERAL ATOMICS</b>	Sep-23	» EO Vista provides advanced EO/IR weather sensors to the U.S. Space Force to support next-gen, small weather sats
 SCIURUS	 INTEGRASYS	Sep-23	» Sciurus develops software for satellite constellation prototypes
 FREE SPACE	 SCOUT	Aug-23	» Developer of space domain awareness and space security solutions
 EXO-SPACE	 SIDUS SPACE	Aug-23	» Exo-Space provides software for custom image classification and object detection algorithm solutions in space
 HYPER GIANT INDUSTRIES	 <b>FSI</b> FORWARD SLOPE INC.	Aug-23	» Geospatial data visualization platform which applies real-time threat analysis, makes AI-generated recommendations
 TRIDENT	 LIGHTRIDGE SOLUTIONS	Jul-23	» High-performance space electronics and C4ISR solutions
 <b>EMERGENT</b> Space Technologies	 <b>YORK</b> SPACE SYSTEMS	Jun-23	» Developer of advanced systems and flight software for multi-spacecraft missions
 MAXAR	 Advent International GLOBAL PRIVATE EQUITY	May-23	» Provider of advanced space technology solutions including satellites, earth imagery, geospatial data and analytics
  numerica CORPORATION	 <b>SLINGSHOT</b> AEROSPACE	Aug-22	» Numerica Space Domain Awareness (SDA) Division includes an autonomous global network of proprietary sensors and software
 Jacobs	 HawkEye <sup>360</sup>	Nov-21	» HawkEye 360, Inc. specializes in radio frequency geoanalytics
 ATA AEROSPACE	 BLUEHALO	Oct-20	» ATA is an engineering services company specializing in solutions and services for small satellites and space situational awareness
 centauri	 KBR	Oct-20	» Centauri is a pure-play space and intelligence solutions provider of space domain awareness classified operations








































# SPACE DOMAIN AWARENESS – NOTABLE VC ACTIVITY

## RECENT TRANSACTIONS

Target	Lead Investors	Announced	Funding Type	Amount Raised
 HawkEye <sup>360</sup>	 LOCKHEED MARTIN VENTURES <small>LOCKHEED MARTIN</small>	Oct-23	Series D	\$ 10.0M
 COGNITIVE SPACE	 DOLBY FAMILY VENTURES	Oct-23	Seed	\$ 4.0M
 DIGIXTARA	 global brain	Sep-23	Series A	\$ 10.0M
 kayhan.space	 EVE ATLAS SPACE CAPITAL™	Sep-23	Seed	\$ 7.0M
 ANTARIS	 streamlined ventures	Sep-23	Seed	\$ 3.5M
 HEO	 Y Combinator	Aug-23	Series A	\$ 8.0M
 SPACEDATA	 global brain	Aug-23	Seed	\$ 10.6M
 BENCHMARK space systems	 freshTracks CAPITAL	Jul-23	Series B	\$ 33.3M
 pixxel	 G/	Jun-23	Series B	\$ 36.0M
 QUASAR SAT	 MAIN SEQUENCE	Mar-23	Seed	\$ 6.0M
 STARFISH SPACE	 Munich Re Ventures TOYOTA VENTURES	Mar-23	Series A	\$ 14.0M
 TURIONSPACE	 SOMA CAPITAL	Mar-22	Seed	\$ 1.5M
 CESIUM	 AIRBUS VENTURES Forever Ventures	Mar-22	Series B	\$ 40.0M
 EXOCLOSURE	 boostVC	Jan-22	Pre-Seed	\$ 1.0M
 LEOLABS	 INSIGHT	Jun-21	Series B	\$ 65.0M



# RECENT TRANSACTIONS

 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY PENDING</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY PENDING</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY</p>
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 <p>HAS BEEN ACQUIRED BY</p>  <p>A PORTFOLIO COMPANY OF TRIVE CAPITAL SALE OF COMPANY</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>A PORTFOLIO COMPANY OF BLUE SEA CAPITAL SALE OF COMPANY</p>	 <p>A PORTFOLIO COMPANY OF GENCAP AMERICA HAS BEEN ACQUIRED BY Calspan SALE OF COMPANY</p>	 <p>HAS BEEN ACQUIRED BY</p>  <p>SALE OF COMPANY</p>	 <p>HAS RECEIVED EQUITY INVESTMENT FROM GREENBRIAR EQUITY GROUP LLC EQUITY INVESTMENT</p>	 <p>A PORTFOLIO COMPANY OF TRIVE CAPITAL HAS BEEN ACQUIRED BY MDP SALE OF COMPANY</p>

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