



DEFENSE & SECURITY SOLUTIONS

KRATOS®
FROM STRENGTH TO SUCCESS

Kratos Defense & Security Solutions, Inc.

Investor Briefing

March 2020





***Product and System Focused Technology
Company in National Security Industry***

***Leader in Rapidly Developing,
Demonstrating and Fielding Affordable,
Leading Technology Systems***

***Disruptive Innovator and Leader in Drones,
Missile Defense, Satellite Communications
and C5ISR Systems***

Kratos Defense & Security Solutions Overview



Unmanned Systems



- High performance jet powered unmanned aerial drone systems
 - Aerial drone target systems
 - Tactical combat drones
- Rail launched and parachute recovered (runway independent)
- Rapid mission turn around
- Low Cost / Affordable

Satellite Communications



- Leader in providing secure management, delivery and distribution of data and information from space and land
- Used by more than 75% of the world's satellite operators and 85% of U.S.-based space missions
- C³, RFI detection and mitigation products

Training Systems



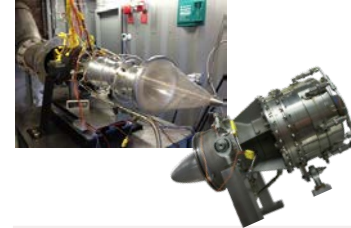
- Offers systems & solutions across the entire training continuum
- Exhibit knowledge and skills to develop a lifecycle training program to support specific training needs
- Leading training systems & solutions provider for ground, air and sea platforms

Microwave Electronics



- One of the largest international independent microwave solutions developers
- Products used in a variety of demanding environments, including airborne, ground and naval systems; missiles, radar, aircraft, guided munitions

Turbine Technologies



- Leading technology and innovation leader in advanced turbine engines
- Development and production of small, affordable, high-performance, jet engines for next generation of tactical weapon systems and tactical jet unmanned aerial systems (UAS)

Ballistic Missile Defense Targets



Laser Systems



Patriot System



THAAD System



Hypersonic Systems



Disruptive Defense Technologies for Drones, Space, Missile Defense and Hypersonics



Kratos owns substantially all of the key IP related to its core portfolio of products

Tactical & Target Drones

Kratos has invested over \$100mm in the last several years developing a robust suite of high-performance, jet powered UAVs, leading to the ownership of critical IP that provides competitive advantages and creates high barriers to entry

- ✓ Autonomous capabilities
- ✓ Ability to rapidly develop / deliver working systems
- ✓ Vertical integration
- ✓ Rail launched (runway independent)
- ✓ Low cost / affordable
- ✓ Open architecture for seamless payload integration



Ballistic Missile Targets



- ✓ Exclusive perpetual rights to Oriole solid rocket motor
- ✓ Designs affordable control systems, countermeasures, decoys and other classified systems
- ✓ Integrates existing solid rocket motors to meet customer requirements

Satellite & Space Ground Systems



- ✓ Integrated Common Data Link technology
- ✓ Only commercially available RF over IP transport with data restoration solution
- ✓ Space Situational Awareness Network
- ✓ Proprietary space network roaming capability across satellites and bands

Hypersonic Systems

- ✓ Multiple stack hypersonic motor technology
- ✓ Hypersonic vehicle testing
- ✓ MDA hypersonic target vehicle development



Kratos – Aligned with National Security Priority Areas



- *After Years of Decline, Defense and Security Budgets are Increasing Globally*
- *A Recapitalization of Strategic Weapon Systems to Address Peer Threats is Underway for the U.S. and our Allies*
- *Priority Areas for Increased Budgets and Technology Advancement Include:*
 - *Unmanned Systems & Artificial Intelligence*
 - *Satellite Systems and the Space Segment*
 - *Electronic Warfare, Missile and Radar Systems*
 - *Missile Defense, Hypersonic Systems and Directed Energy*
 - *Lethality, Operational Readiness and Training*
 - *Science and Technology*
 - *Strategic Triad*

*Kratos is
Well
Positioned
in Virtually
All of These
Priority
Areas!*

Kratos – Unmanned Systems



Industry Leader in High Performance Unmanned Aerial Target Drone Systems



BQM-177



BQM-167



MQM-178

- Kratos is the Leader in Development and Production of High Performance Unmanned Aerial Drone Target Systems
- Kratos' Target Drone Systems Represent the Most Advanced Aerial Threats of Our Adversaries and Operationally Test U.S. and Allies' Weapon Systems
- Kratos' High Performance Jet Powered Unmanned Aerial Drone Systems are The Highest Performance UAVs In the World
- Kratos' UASs are Rail Launched and Parachute Recovered, i.e., Runway Independent

Proven and Disruptive Approach to Rapid-Development Of Affordable, Working Systems



Kratos distinguishes itself from competitors with its demonstrated ability to rapidly design, develop and deliver working systems and platforms to its customers at an affordable cost

Kratos Leverages its Unique Culture to Rapidly Deliver Affordable, Complete Systems

Iterative Approach

- ✓ Leverages **past program experience** to deliver continuous and **incremental improvements**
- ✓ Success on early programs **builds trust** in capabilities and helps **win subsequent awards**

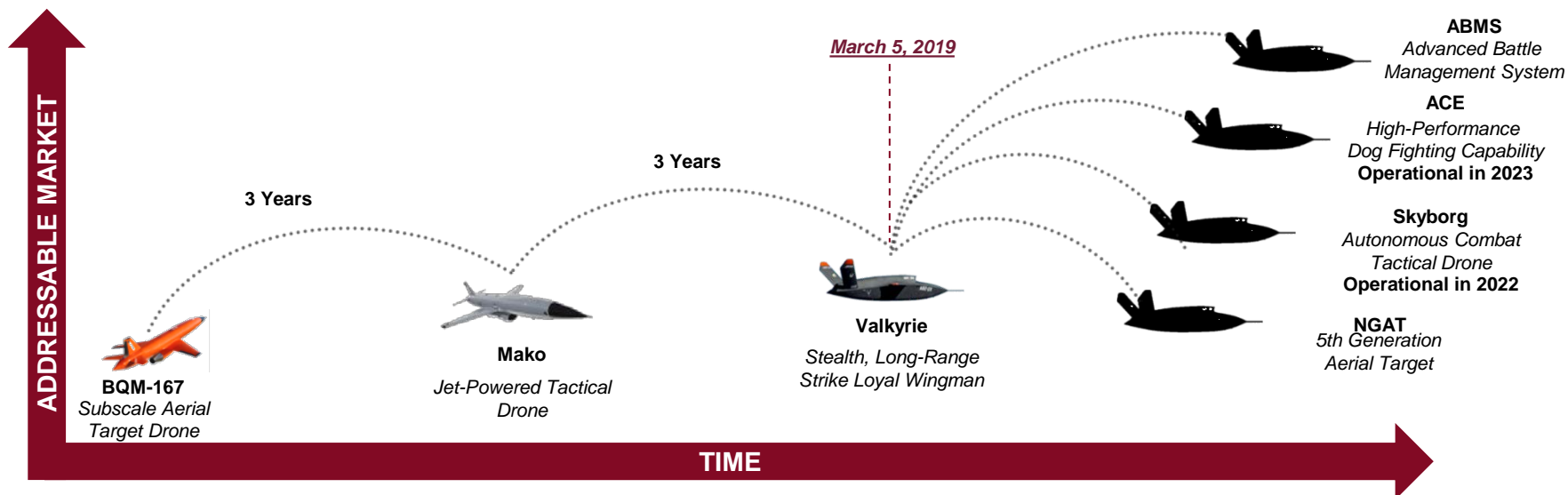
Leading v. Bleeding Edge

- ✓ Emphasizes **use of proven technologies** to **reduce cost and risk** without compromising capabilities
- ✓ Years of experience across its portfolio has made **leveraging commercial technologies** a core competency

Supply Chain Efficiency

- ✓ **Commonality in supply chain** across avionics, electronics and other subsystems and components further **reduces cost**
- ✓ Vertically integrated manufacturing **reduces development time** for **new iterations** and further **reduces cost**

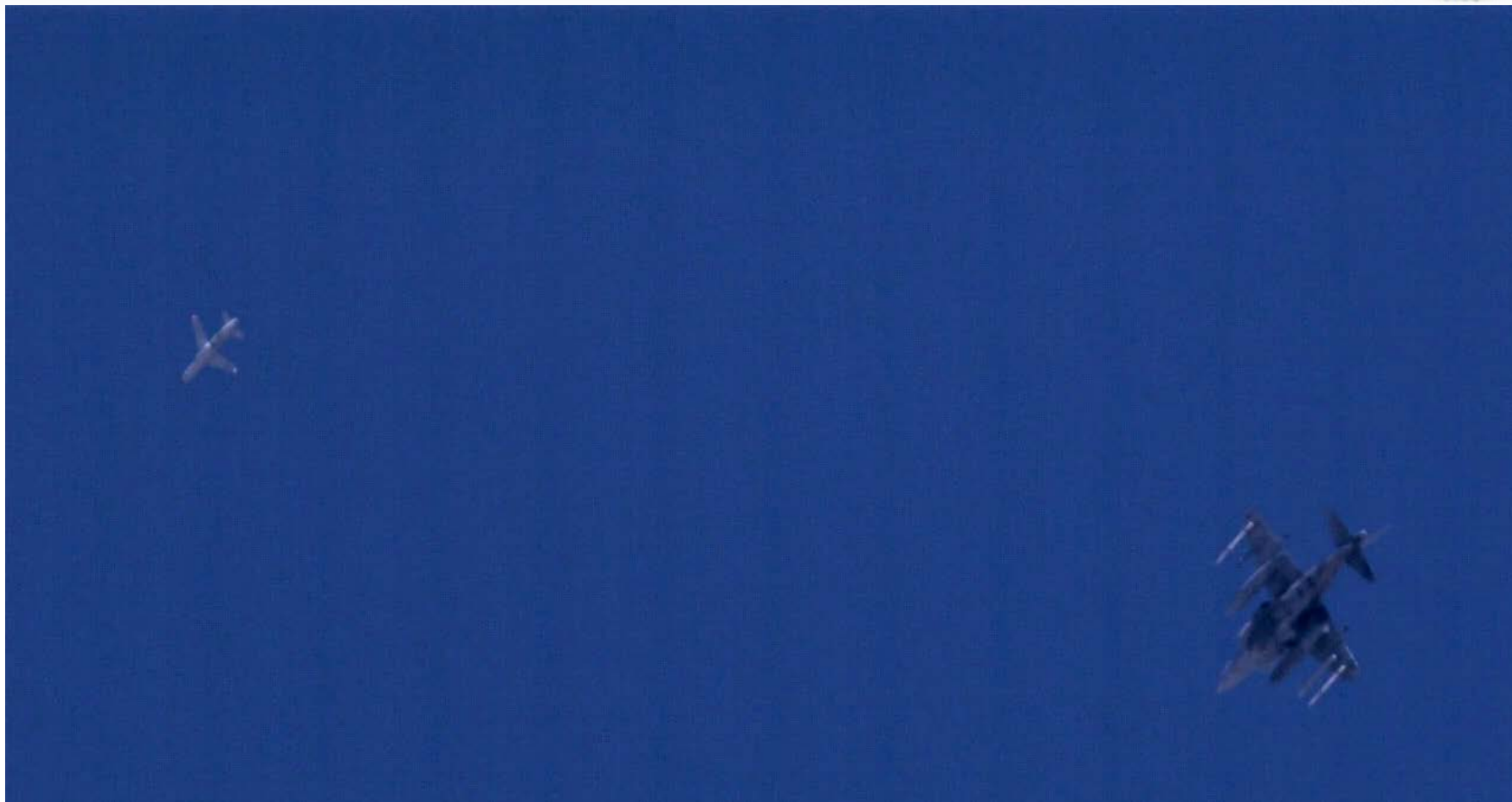
Rapid-Development Case Study: Kratos' Leading Unmanned Platforms



Kratos – High Performance, Jet Powered Unmanned Combat Aerial Systems



Kratos – MAKO “Loyal Wingman” to Manned Aircraft – Low Cost, High Performance Force Multiplier-2015



See YouTube Video – Search “UTAP-22” and enjoy

Kratos/AFRL XQ-58A Valkyrie



Kratos/DARPA Gremlin UAV



Industry Leader in High Performance Tactical Drones – 4 Drones Flying Today (Public Release)



Kratos' unmanned tactical drones align with defense mission requirements and budget trends and would resolve the U.S. Air Force's current constraints

Current Landscape

- U.S. fighter and attack aircraft fleet has been shrinking for decades and has been focused on asymmetric warfare and terrorism
- Shortage of highly trained pilots to address peer threats, as well as maintenance and repair shortfalls, has pressured readiness
- A2/AD environments and increasing adversary lethality pose an increasing risk to U.S. assets, including manned aircraft and ships
- DoD focused on attritable, unmanned systems to increase force quantity, defeat enemy air defenses and aircraft, and bolster the capabilities of its limited number of manned aircraft

Representative Kratos' Solutions

Valkyrie is a Step Change in Aerial Fighter Jet Capability

- ✓ Loyal wingman to F-35 and F-15EX
- ✓ High subsonic flight at long distances without refueling
- ✓ Rail take-offs and parachute landings do not require runway or aircraft carrier
- ✓ Launchable by fighter, bomber, cargo and other platforms from outside combat zone
- ✓ High altitude and nap-of-the-earth flight
- ✓ Higher, sustained g-force tolerance than manned jets

Significantly Lower Cost than Alternatives

- ✓ Proven rapid, low-cost design and manufacturing capabilities derived from production of low-cost aerial target drones and successful tests of next-gen tactical platforms
- ✓ Vertically integrated manufacturing further increases speed, and reduces cost & risks
- ✓ Tactical drones priced for as little as \$1-3mm, making them "attritable" – inexpensive enough in both dollars and lives to risk losing in dangerous missions

Kratos' Solutions – Kratos' Drones Only In-Class UAS Flying Today



XQ-58A "Valkyrie"

Cost-effective way to augment the USAF's fleet with additional quantities, firepower and sensors by serving as a Loyal Wingman. Valkyrie has been approved for potential marketing to the U.K., Australia, Japan and Canada

"Gremlins"

Intended to operate in a swarm, Gremlin is capable of ISR, arms delivery, jamming / SEAD and more. Gremlin is air deployed and recovered, driving down mission cost and increasing range



UTAP-22 "Mako" (Unmanned Tactical Aerial Platform)

Operational tactical drone and testbed for tactical unmanned capabilities. Approved for potential sale to 8 allied countries.



"AirWolf"

AirWolf is executing a series of test flights, and a production order is expected in 2020 after successful completion of demonstration program

Four UAS Platforms Now in Fighter Envelope – Both Kratos (Public Release)



KRATOS PROPRIETARY INFORMATION – COMPETITION SENSITIVE DATA.

Status of Representative Kratos Tactical Drone Programs



XQ-58A Valkyrie - Air Force Research Lab (AFRL)

- Demonstration/Capability Flights with USAF/AFRL Continuing
- Identified ~\$100M of FY'20 Funding in place
- Procuring long lead materials for 12 Valkyries, initial deliveries ~March 2021
- Skyborg Drone, Vanguard Program Drone, ABMS Program Drone
- Awaiting customer award(s)

Gremlins - Dynetics/Defense Advanced Research Project Agency (DARPA)

- In Demonstration/Capability Flights with DARPA
- Working to transition to Service

Air Wolf - Confidential

- In Demonstration/Capability Flights throughout 2020
- Rough Order of Magnitude (ROM) for Quantity Production requested by customer
- Working for initial unit orders in 2021

Mako - Confidential

- Demonstration Flights with multiple customers flying multiple “payloads” continuing

Tactical FireJet - Partnered with AeroVironment (self funded)

- Initiative to deploy “Switchblade” Tactical Drone Munition from FireJet Drone
- System integration of Switchblades in process
- Demonstration Flights 2020

High Performance Drones to be Loyal Wingman to Manned Fighters



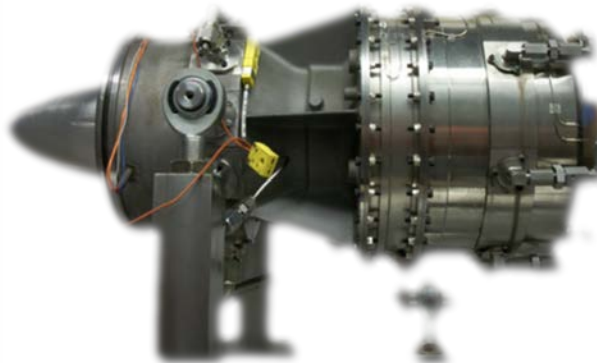
BUSINESS INSIDER



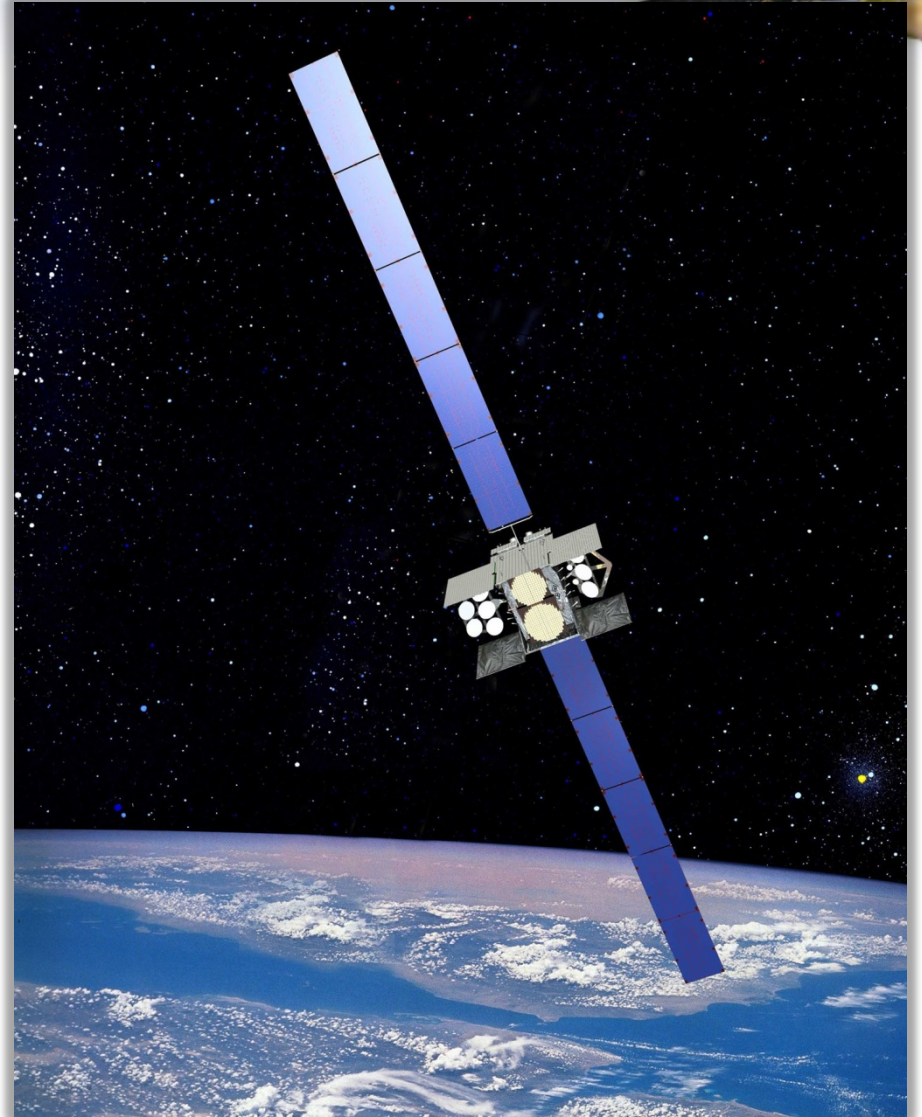
- **Elon Musk said the US military's vaunted F-35 stealth jet "would have no chance" against a drone remotely piloted by a human.**
- **"The competitor should be a drone fighter plane that's remote controlled by a human, but with its maneuvers augmented by autonomy," Musk tweeted on Friday.**
- **"It's not that I want the future to be this. That's just what the future will be," Musk said in separate comments. "The fighter jet era has passed. Yeah, the fighter jet era has passed. It's drones."**

[David Choi](#) Feb 28, 2020, 1:03 PM

Kratos Turbine Technologies is Focused on the Development and Production of Small, Affordable, High Performance Jet Engines for the Next Generation of Tactical Weapon Systems and Tactical Jet Powered UAS



Satellite Communications



Global RF Space Domain Awareness Network



19 worldwide sites
80+ antennas
300+ transponders
2500+ carriers

- Global network delivering persistent, day/night, real-time data
- Commercially owned and operated using Kratos proprietary sensors and software
- Taskable, automated assets
- Defense, regulators & commercial customers



SPACE DOMAIN/SITUATIONAL AWARENESS SERVICES:

- Anomaly Detection
- Maneuver Detection
- Interference Detection & Geolocation
- Custody Operations
- Satellite Health & Status
- Bandwidth & Transponder Usage
- Trending & Analytics

Leader in Satellite Communications, Command, Control and Space Situational Awareness



Core Capabilities

- Group-based command and control systems
- Satellite monitoring systems
- Signal intelligence systems
- Radio Frequency Identification ("RFID") systems
- Identification of and Geosynchronous Orbit ("GEO") location of Rapid Fielding Initiative ("RFI") threats
- Telemetry processing systems
 - Specialized cyber products for govt. agency customers

Attractive Growth Drivers

- U.S. Air Force space funding request is expected to increase
- Emerging space and cyber threats from adversaries
- Hundreds / thousands of new nano, cube and small satellites planned launches
- Drive to commercialization for cost, resiliency and capacity
- Increasing demand for bandwidth from Unmanned Aerial Vehicles ("UAVs"), intelligence, surveillance and reconnaissance

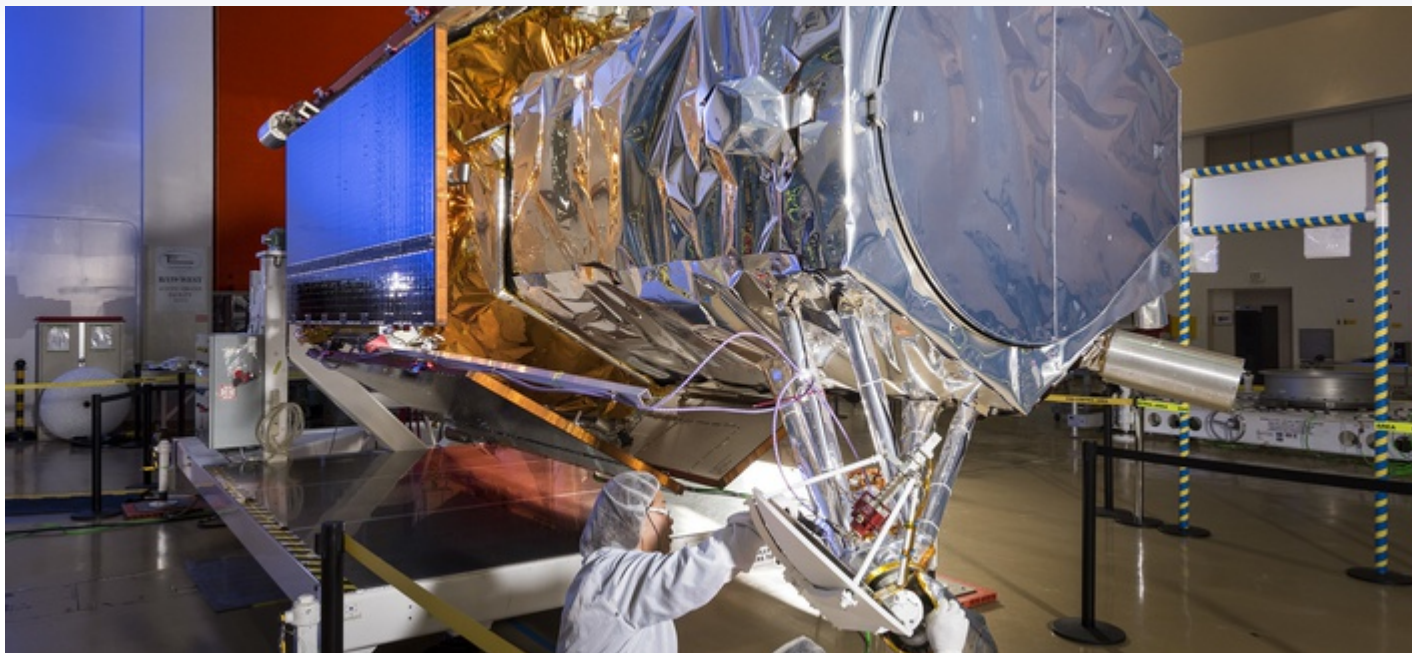
Market Leading Solution

- Used by more than 75% of the largest satellite operators and 85% of U.S. space missions
- Market leading Commercial-off-the-shelf products ("COTS"), best-of-breed industry tools, custom developed modular software, and top notch engineering services
- An industry leader in RF interference identification, monitoring, GEO location and related cyber security solutions including Kratos owned and operated global surveillance network
- Enhanced protection through continuous monitoring, cloud security and operational and risk management



Among the leaders in spot beam monitoring & signal acquisition

Pentagon Plans to Orbit Seven New Constellations and Build One Satellite Per Week



By Marcus Weisgerber
Global Business Editor
– Defense one
January 21, 2020

One satellite per week. That's what the Pentagon wants industry to provide under its plans to orbit seven new constellations — each with a different function — by the end of 2020.

The satellites would be smaller (“a few hundred kilograms”), cheaper (about \$10 million each), and shorter-lived (about five years) than today's typical military satellites, which can weigh tons and consume billions of dollars but which are expected to operate for decades.

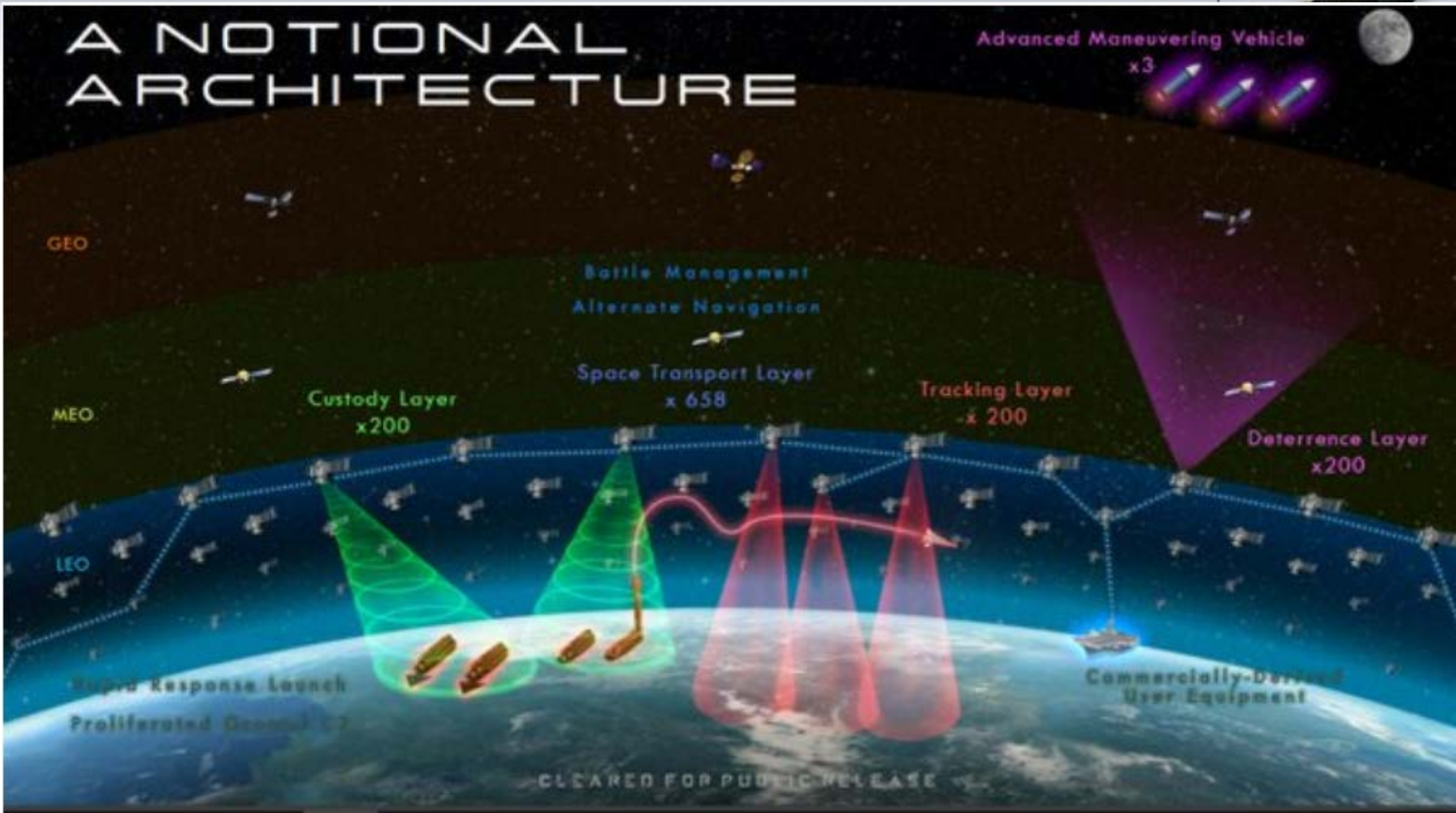
“We are talking [about] technology that is available to fly within 18 to 24 months,” Derek Tournear, director of the Space Development Agency, said during a Tuesday briefing at the Pentagon.

Dubbed the National Defense Space Architecture, the program is the first big initiative of Tournear's brand-new agency. It aims to orbit “several dozen satellites” through 2022, and then keep going, launching dozens of additional satellites every two years, he said.

1,000 New Satellites Planned to be Launched by Space Agency by 2026



A NOTIONAL ARCHITECTURE



Microwave Electronics



Kratos – Microwave Electronics

- One of the Largest Independent Microwave Businesses in the Industry
- Microwave Sub Systems and Components
- Key Customers Include Israeli Aerospace Industries (IAI), Rafael, SAAB, India, BAE, Etc.
- Supports a Significant Number of Israeli Radar and Missile Systems:

- Iron Dome
- Barak
- Arrow
- Sling of David
- Spyder
- Etc.

- Electronic Warfare Suite of Swedish Gripen Fighter

- Working on Various Indian Missile, Radar and Other Systems

- F-15 Electronic Warfare System

- F-16 Electronic Warfare System



Iron Dome



Barak



Arrow III



Gripen Fighter



Sling of David



F-15



RF Front Ends & DLVAs



SSPAs & Amplifiers



Frequency Converters



Sensors



Transceivers/Data Links



GPS Immune

MAJOR PRODUCTS



Sources

Control Components



Integrated Microwave Assemblies



Beam Forming Modules



Millimeter Wave



Defense & Rocket Support Solutions



“Kratos’ DRSS Division is Well Positioned for Increased Funding in Ballistic Missile Defense, High Power Directed Energy Laser Systems, Hypersonic Vehicles, Etc.”

C5ISR Major Programs



Patriot Missile System
Radar and C5ISR Units



LCS Combat Ship
Mission Modules



Q-53 Radar System
Operations Control Unit



CPP/ M-SHORAD
Command Post Platform



TPS-77 Radar
Modular Radar Equipment Units



THAAD AN/TPY-2 Radar
Electronic Equipment Unit (EEU)



U.S. DoS HATS
Blast Resistant Safe Havens



ROTHR Radar
Radar Equipment Complexes

Kratos Supports These Major Programs With Proven Solutions

Future GBSD Program Opportunity



Training Systems & Solutions



Leading in the Application of Immersive Technology

- Combining Virtual-, Augmented-, Mixed- and Cross-Reality Training
- Kratos' *MR Training Platform* delivers immersive training in the field anywhere, anytime
- Adapts advanced training technology for use *inside* cockpits, tank turrets and other actual defense platforms
- Pre-integration delivers sights, sounds, haptics and other inputs quickly and affordably for targeted training goals



Kratos – Fourth Quarter and Full Year 2019 Execution Highlights

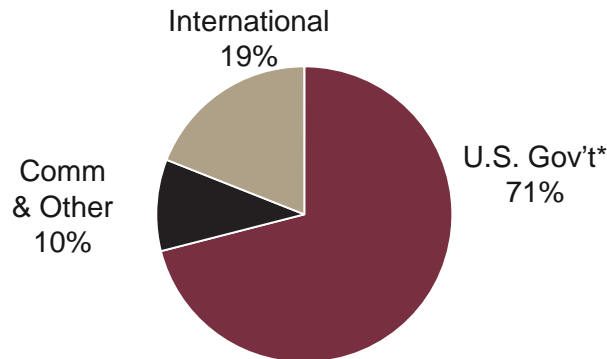


- Q4 19 Revenue growth of 12.6%; organic revenue growth of 3.6% Year over Year. Full Year 2019 Revenue growth of 16.1%, organic full year 2019 revenue growth of 7.6%.
- Q419 Adjusted EBITDA of \$20.2 Million, year over year Adjusted EBITDA Growth 12.2%. Full Year 2019 Adjusted EBITDA of \$77.3 million, year over year Adjusted EBITDA growth of 27.8%.
- FY19 Operating Income \$38.0 Million, up from Operating Income of \$30.5 Million Year-Over-Year 24.6%.
- Q419 Book-To-Bill Ratio 1.0 to 1.0, LTM Book-to-Bill Ratio 1.0 to 1.0.
- Qualified Bid and Proposal Pipeline Increased to \$7.7 Billion, up \$1 Billion from FY18.

Kratos – Recent Financial Highlights – FY19

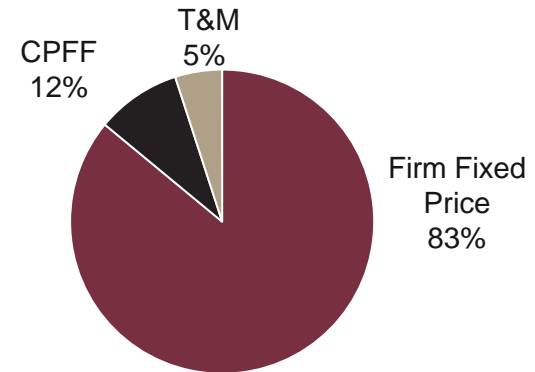


**Twelve Months ended 12/29/19
Revenue by Customer**

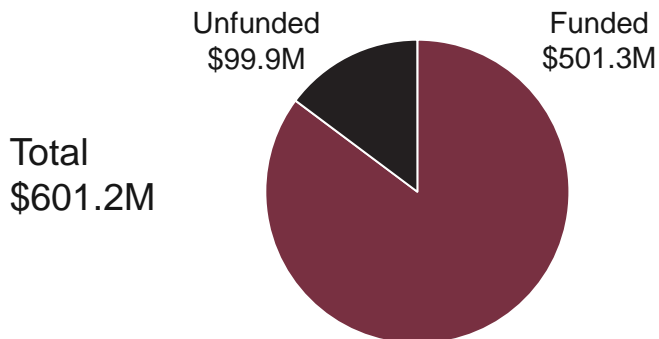


*Includes Foreign Military Sales (FMS)

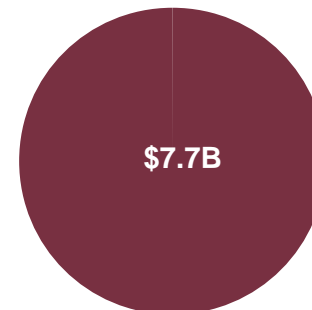
**Twelve Months ended 12/29/19
Contract Mix**



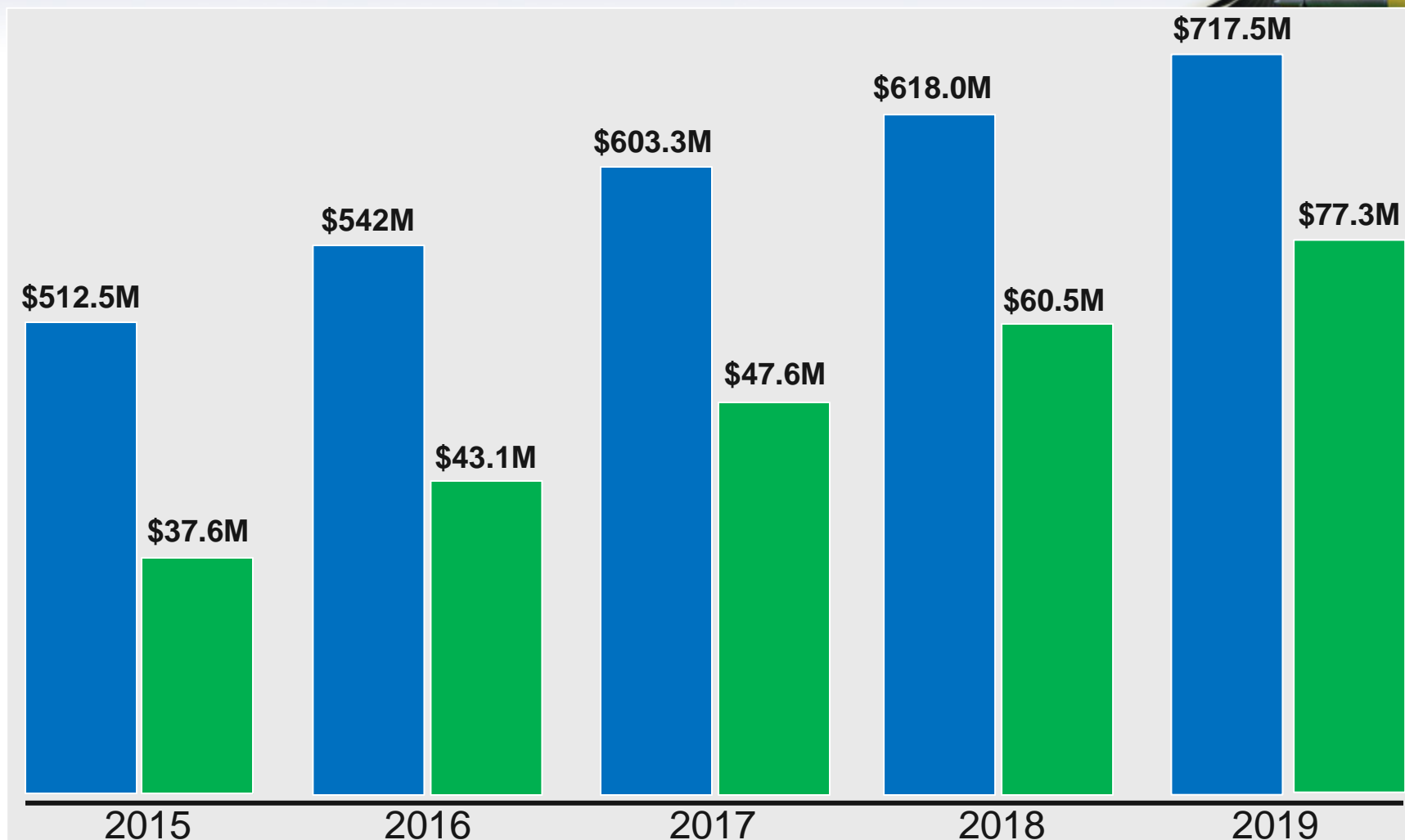
Backlog ended 12/29/19



Bid & Proposal Pipeline ended 12/29/19



Kratos – Growth Trajectory⁽¹⁾



Revenue
EBITDA

(1) Recast to Present PSS as Discontinued Operations

Kratos – Recent Financial Highlights – Q419



	<u>Q419</u>
Gross Debt	\$295.1M
Cash	\$172.6M
Net Debt	\$122.5M
LTM Adjusted EBITDA	\$ 77.3M
Net Leverage	~1.6X

Kratos' Balance Sheet Positioned to Support Expected Future Growth From Multiple New Program Awards

Net Leverage Expected to Continue to Decrease as Revenue and Adjusted EBITDA Increase Going Forward

Focused on Organic Growth with Existing Programs

No Major Acquisitions Planned, Only Potential Small "Tuck-Ins"



- *Substantial Organic Growth Trajectory as Numerous New Programs, Programs in Development and Expected Programs Enter Production and Ramp Up*
- *Increased GM\$\$, GM%, Operating Income, Adjusted EBITDA, EPS and Cash Flow as Business Scales*

Kratos – Investment Summary



- *Leading Technology National Security System and Product Company that is Aligned with U.S. DoD and Allies' National Security Priorities to Address Peer/Near Peer Threats*
- *Industry Leader: High Performance Drones, Missile Defense, Space, Satellite Communications, Microwave Electronics and Training Systems*
- *Recognized Leader in Rapidly Developing, Demonstrating & Fielding Affordable Leading Technology Systems*
- *Entering/Increasing Production on Several Large Programs Expected to Drive Significant Future Organic Revenue, Profit and Cash Flow Growth*