COWEN

INVESTMENT BANKING

AEROSPACE & DEFENSE

2021 YEAR IN REVIEW

COWEN.COM

INDUSTRY OVERVIEW

AEROSPACE

SIGNS OF REBOUND ARE APPARENT AS AIR TRAFFIC BEGINS TO RETURN TO PRE-PANDEMIC LEVELS; HOWEVER, PACE OF RECOVERY IS STILL UNCERTAIN

1 RECOVERY Continued Throughout the Year

219% INCREASE[a]
IN 2021 TSA THROUGHPUT VS 2020

32% DECREASE[a]
IN 2021 TSA THROUGHPUT VS 2019

U.S. air-traffic recovery accelerated throughout the first half of 2021. However, the emergence of the Omicron variant may affect the pace of recovery in 2022

2 DELIVERIES Are Picking Up and Stored Aircraft Levels Continue to Decrease

343 BOEING DELIVERIES[b]
CYE '21 VS 322 IN '19 AND 108 IN '20

610 AIRBUS DELIVERIES[b]
CYE '21 VS 648 IN '19 AND 413 IN '20

Through November 2021, Boeing saw a 6% decrease in deliveries vs 2019 and a 180% increase vs 2020. Airbus saw a 20% decrease vs 2019, and an 25% increase vs 2020

3 PACE OF RECOVERY Dampened By Continued Headwinds

47% PRICE INCREASE[c]
PROJECTED IN OIL FROM 2021A TO 2024E

$1 BILLION REWORK
SLOWS BOEING 787 PRODUCTION

Revenues across aerospace manufacturing were adversely impacted by delayed production rates (737/787) due to supply chain issues and rising input costs

COMMERCIAL AFTERMARKET AND MRO MARKET

Rebound of air traffic demand driving aftermarket and MRO market recovery

Pace of recovery faces potential headwinds, including:

1. **Weak widebody provisioning** and **sales of seating/first class interiors**
2. **Increasing retirements**, which will make **more USM available** as alternative to OEM spares

~30% **Increase** in Aftermarket sales in 2Q'21 and 3Q'21

1.9% **Decrease** in MRO market CAGR forecast post-COVID

AIRCRAFT ENGINE MARKET

1,497 in service

CFM LEAP

841 in service

GTF

Global Aircraft Engine Market Size

$79.9B in 2019

$85.4B by 2027

11.3% Growth

38% Of **industry revenue** in 2021 is expected to be **engine MRO**

16% **Decrease** in **fuel consumption** estimated with **LEAP and GTF**

AIR CARGO AND FREIGHTER MARKET

70% Growth
in Freighter fleet by 2040

$175 Billion[d]
2021E Cargo Revenue

Rapid expansion in global e-commerce has **increased air cargo demand** and **fleet growth**

Global Freighter Fleet is expected to see a
70% INCREASE **by 2040**

2021 Global Air Cargo saw a
4% INCREASE **vs 2019**

BUSINESS JET MARKET THROUGH 2021

Surge in first time U.S. buyers continues to uplift bizjet demand, which is early in a long sector upswing

20% Increase In Business Jet Deliveries **expected in 2022** compared to COVID-19 impacted levels

51% Decrease in Used Jet Inventories in 2021, showing **a shift from previous trend of new aircraft**

Recovery to 80% Of 2019 Business Travel Levels **expected by Summer 2022**

Dassault Falcon 6X

2022

Challenger 3500

2022

Source: Company Websites, Capital IQ, Wall Street Research, and IATA Market Analysis.
(a) Represents average monthly increase through December 23, 2021
(b) Year end estimates as of December 14, 2021
(c) Assumes price per oil barrel of $70.4 in 2021A, and $104 in 2024E.
(d) IATA Economics estimates as of October 4, 2021.

DEFENSE

DEFENSE BUDGET OUTLOOK

- Congress authorized a **$5.8 billion increase** above the President's Budget Request in funding for **research, development, testing, and evaluation**
- **Increased spending** to address peer threats; **China remains a major threat** with advances in key capabilities
- The Pentagon's **FY22 hypersonics** budget request of **$3.8 billion** is up **19%** from the FY21 request of **$3.2B**
- **U.S. Competition and Innovation Act** authorizes **$52B** of funds to **boost R&D spending** and provide resources for **semiconductor re-shoring**

$778 Billion
FY22 U.S. National Defense Authorization Act

$25 Billion
Plus-up to Biden's requested FY22 U.S. National Defense Budget

FY22 U.S. National Defense Budget of **$778B** reflects **+5.1% YoY** from **FY2021 enacted**

"The debate about defense is the most uncertain it has been since 2011. We believe the outlook will turn promising but won't be sure until several important indicators are settled. There is a backdrop of risks/negatives that may not be fully appreciated. We see 90-days (at least) of uncertainty on big issues."

Washington Research Group Macro Commentary — December 2021

GROWING GEOPOLITICAL TENSIONS

- **Increasing capabilities of near peer / peer competitors** are driving increased demand for **sophisticated military equipment**, particularly unmanned military fighter aircraft, cyber & intelligence solutions, and hypersonics
- **Weakened U.S. supply chain poses risk** to economic and national security; DoD is likely to allocate funding towards predictive insights
- **Growing geopolitical tensions** are forcing major world powers to increase defense spending

2.5% 2022 PROJECTED INCREASE IN GLOBAL DEFENSE SPENDING

$7.1B FUNDING FOR THE PACIFIC DETERRENCE INITIATIVE (PDI) IN FY2022 DOD BUDGET PROPOSAL

INCREASING INVESTMENT IN R&D

$118B DOD FY22 RDT&E BUDGET REQUEST

- Increased funding investment is increasingly **shifting from procurement to R&D,** in hopes of transforming legacy systems into cutting-edge systems
- **B-21:** budget request of **$3.3B in FY22** for further development and initial production
- **Next Generation Air Dominance (NGAD):** The USAF has secretly flown a full-scale prototype
- Rapidly growing **importance of AI in every facet of DoD** operations with **over 600 programs, up about 50%** over FY21 (FY22 budget request for AI of **$874M**)
- DoD is **shifting funding** to **Future Vertical Lift programs;** demonstrated **V-280** range capabilities

FARA Funding:	$481M FY21 Enacted	----→	$677M FY22 Requested	41% Increase
FLRAA Funding:	$214M FY21 Enacted	----→	$448M FY22 Requested	109% Increase

REVENUE HEADWINDS

In Q3'21 many defense and government services businesses reported missed earnings due to emerging revenue headwinds

1. **Supply chain constraints (F-35)**
2. **FMS expected to decline due to heightened restrictions and country-specific issues**
3. **Labor constraints (higher voluntary turnover and vaccine mandates)**

FMS

Slowdown during the Biden Administration has dampened FY22 spending expectations

- Average of **$2.5B in new monthly case announcements** under the Biden Administration **compared to $6B / month** under Trump
- Drivers include a **more restrictive arms transfer policy and country-specific issues** with big U.S. weapons buyers
- **Headwinds expected** for FMS-heavy primes
  - However, due to the long pipeline on FMS deals, impacts are not likely to be seen until the **second half of 2022 or later**

$87.6B	$86.9B	$12.6B
FY20 FMS Notifications	FY21 FMS Notifications	Q1 FY22 FMS Notifications[a]

Source: Capital IQ, Wall Street Research, Public Filings, National Defense Authorization Act, and U.S. Department of Defense.
Note: Individual FY22 budget amounts for B-21, hypersonics, and missile defense based on initial FY22 budget request
(a) As of December 31, 2021.

EMERGING THEMES

SPACE IS BECOMING INCREASINGLY ACCESSIBLE

Emergence of space SPACs and influx of a significant amount of capital is driving exponential innovation and growth, which supports the continued decrease in cost to enter LEO

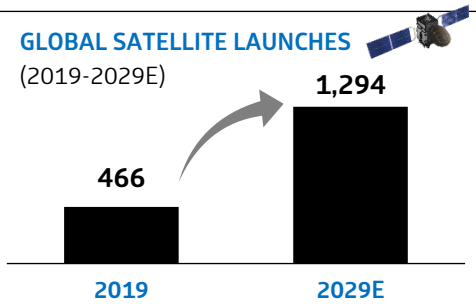
1. **Private sector R&D** will continue to bolster the **launch industry**
2. Continued investment in **satellite R&D** is driving reductions in **size, cost and production times**

AI/ML Data Analytics generated from space is becoming more accessible and more rapidly available for businesses, governments, and corporations to use for decision making

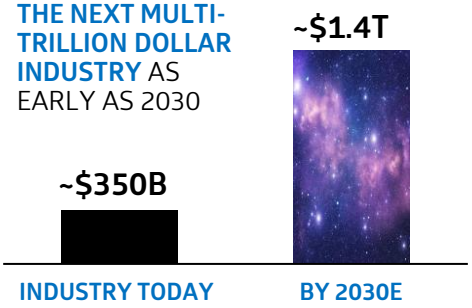
20X
COST REDUCTION
For Low Earth Orbit (LEO) launches

25K+
LEO SATELLITE LAUNCHES
Over the next 10 years

GLOBAL SATELLITE LAUNCHES
(2019-2029E)



THE NEXT MULTI-TRILLION DOLLAR INDUSTRY AS EARLY AS 2030



$14B **BY 2028E**
In Cumulative Commercial Space Tourism Revenues

$17B **IN FY22**
DoD Space Based Systems Funding Up 8% YoY

E-VTOL COMPANIES SAW AN INFLUX OF CAPITAL IN 2021 AFTER VARIOUS SPAC MERGERS

- **Joby** completed **a flight test** of their e-VTOL prototype **with NASA** in September 2021
- **Archer** secured **G-1 FAA Certification** for their e-VTOL aircraft in September 2021
- **Airport operators** in Rome, Venice, Bologna and Nice created the Urban Blue company to **oversee construction and management of veliports for e-VTOLs** in October 2021
- **EVE Air Mobility** started **operating a UAM simulation** in Brazil, in November 2021

70-250 mph
Speed Range

20-250 miles
Distance Range

2024-26
Target years for Entry into Service

DEFENSE TECHNOLOGY

MISSILE DEFENSE	HYPERSONICS	CYBER	RADAR & COMMUNICATIONS
$23.9B SYSTEMS MARKET INDUSTRY TODAY → **$29.7B** BY 2026E	Over the summer, **China** tested a **nuclear-capable** hypersonic glide vehicle **$6.6B** FY22 budget request to develop and field **hypersonics and multi-domain offensive Long-Range Fires**	**$2.4B** contract awarded to **BAE Systems** for **Cyber Range Ops** Cyber-attacks estimated to be every **2 seconds** by 2031	**Push to advance 5G** for mission-critical A&D communications **U.S.** recently **installed Long-Range Discrimination Radar** to bolster homeland missile defense

SUSTAINABILITY

Over the next 5 years, sustainability will become a **critical action item** for all market participants across the A&D landscape

Reusable Rockets

Sustainable Fuels

Hybrid/Electric Aircraft

Carbon Capture Technology

Source: Capital IQ, Wall Street Research, Public Filings.

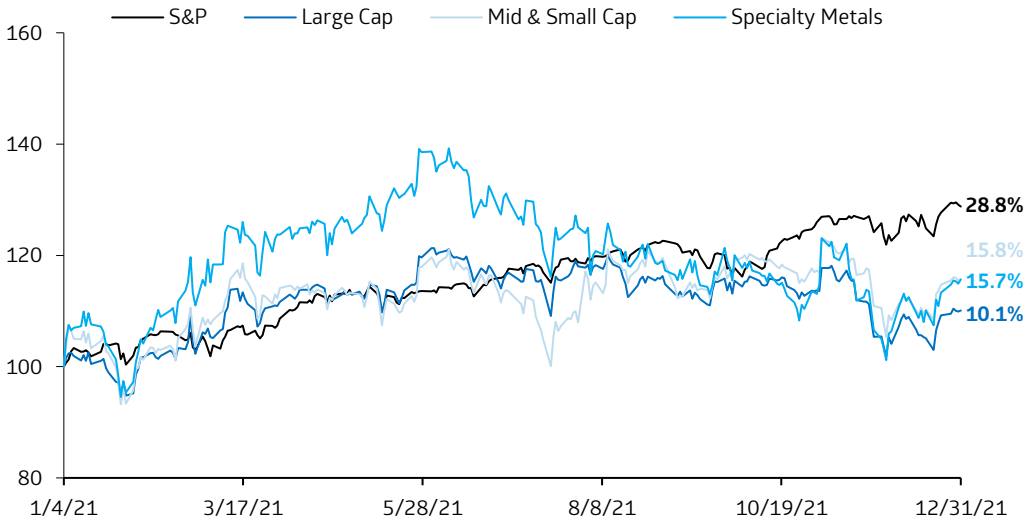
MARKET ACTIVITY & VALUATIONS

Aerospace stocks gained ground in 2021 after their underperformance in 2020, with air traffic steadily climbing back to within ~15% of pre-pandemic levels

AEROSPACE

YEAR TO DATE RELATIVE PRICE PERFORMANCE

(Indexed)

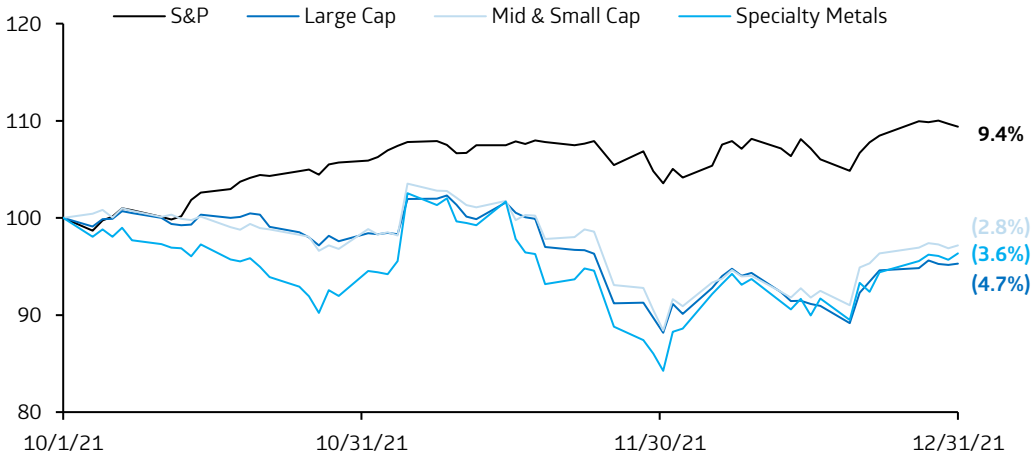


TOP PERFORMERS

	Company	% Change Since 1/4/21	% Change Since 10/1/21
1	HAYNES International	72.6%	6.2%
2	TEXTRON	66.5%	8.7%
3	MEGGITT	65.2%	(0.8%)
4	Triumph Group, Inc.	57.8%	(11.6%)
	S&P 500	28.8%	9.4%
5	Raytheon Technologies	25.8%	(1.6%)
6	CURTISS-WRIGHT	24.6%	8.1%
7	HOWMET AEROSPACE	18.5%	(1.9%)
8	SPIRIT AEROSYSTEMS	17.5%	(6.0%)

AEROSPACE SECTOR VALUATIONS & TRENDS

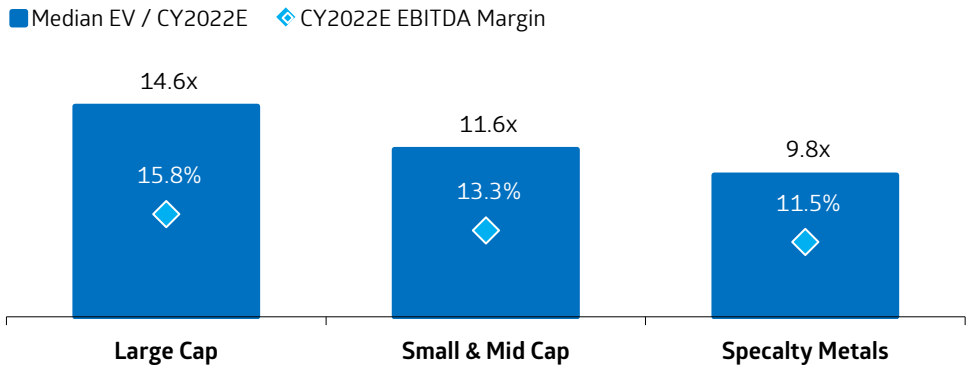
Q4 Relative Price Performance



STOCKS ERASED PREVIOUS GAINS IN Q4 2021

- ✓ Major Aero stocks were in line with the S&P 500 for most of the year, then diverged in September due to increasing concerns about labor shortages

Median EV / CY22E EBITDA & EBITDA Margins



TRADING MULTIPLES MIRROR GROWING CONCERNS OVER INPUT COSTS

- ✓ Airlines have a somewhat cautious outlook for FY22, with hopes for a strong recovery in travel by Summer 2022

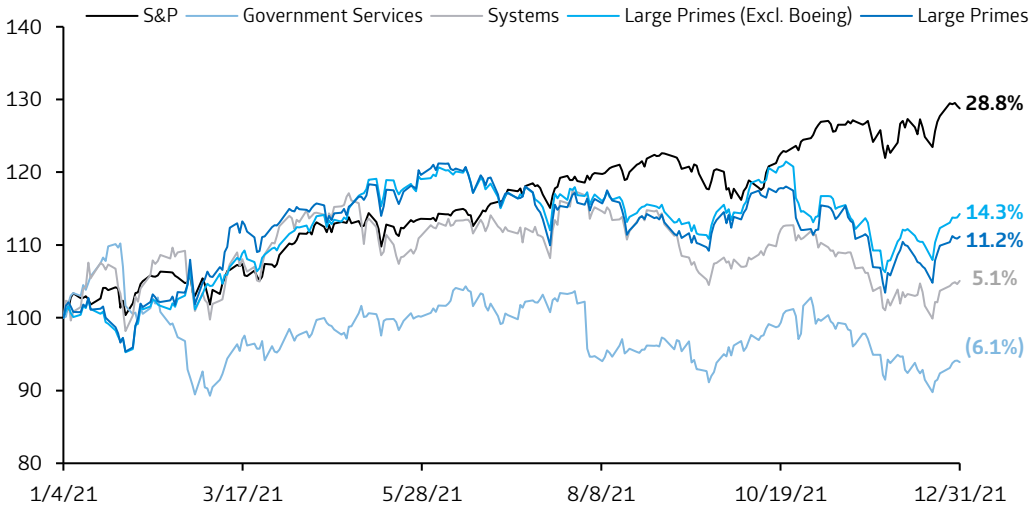
Source: Capital IQ as of December 31, 2021.
Note: Large Cap index includes: BA, ENXTPA:AIR, HON, RTX, TDG, TXT.
Small & Mid Cap index includes: AIR, ATRO, CVU, CW, DCO, HXL, KAMN, LSE:MGGT, MOG.A, SPR, TGI, WWD.
Specialty Metals index includes: ATI, CRS, HAYN, HWN, USAP.

Despite strong stock price performance in Q2'22, defense stocks have underperformed major indices throughout the second half of the year, with a divergence beginning in June / July

DEFENSE

YEAR TO DATE RELATIVE PRICE PERFORMANCE

(Indexed)

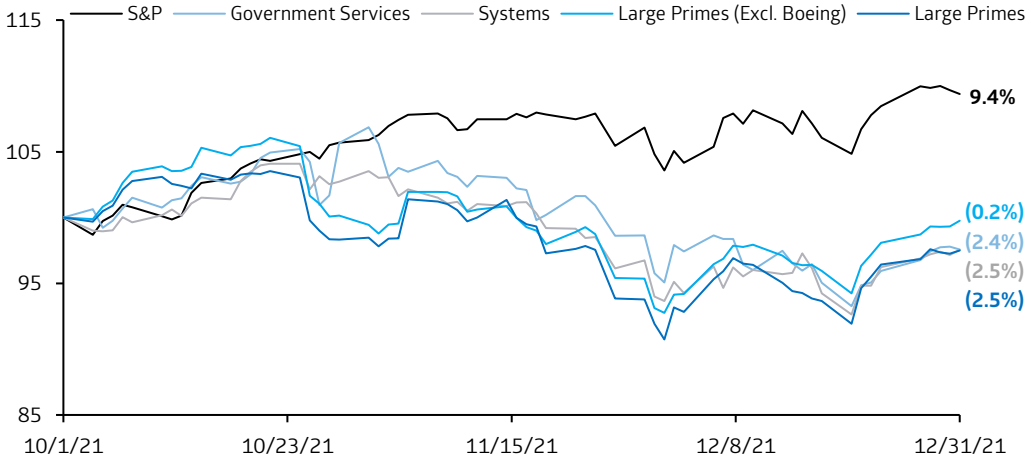


TOP PERFORMERS

	Company	% Change Since 1/4/21	% Change Since 10/1/21
1	ULTRA	50.6%	(1.6%)
2	GENERAL DYNAMICS	42.8%	5.2%
3	NORTHROP GRUMMAN	31.3%	7.2%
	S&P 500	28.8%	9.4%
4	Raytheon Technologies	25.8%	(1.6%)
5	TELEDYNE	20.6%	0.0%
6	L3HARRIS FAST. FORWARD.	18.2%	(2.8%)
7	Huntington Ingalls Industries	13.8%	(3.8%)
8	CACI	11.6%	1.5%

DEFENSE SECTOR VALUATIONS & TRENDS

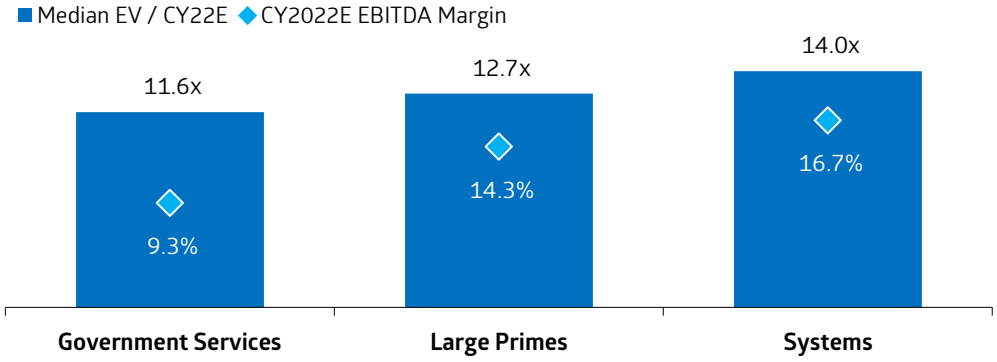
Q4 Relative Price Performance



DEFENSE STOCKS HAVE ALREADY BEGUN TO RECOVER FOLLOWING THE RECENT DECLINE

- ✓ Q3 earnings revealed slowing growth and mixed performance, driven by revenue headwinds
- ✓ In Q4, fears surrounding the Omicron variant drove a sharp downturn

Median EV / CY22E EBITDA & EBITDA Margins



DESPITE LACKLUSTER PERFORMANCE AGAINST BROADER INDICES, DEFENSE MULTIPLES REMAIN STRONG

- ✓ Increased spending focus on innovative technologies continues to drive robust valuations in the defense sector

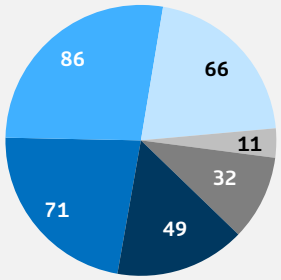
Source: Capital IQ as of December 31, 2021.
Note: Large Primes index includes: BA, GD, LHX, LMT, NOC, RTX, LSE:BA., BIT:LDO, ENXTPA:SAF, ENXTPA:HO. Large Primes (Excl. Boeing) excludes Boeing from the index.
Services index includes: BAH, CACI, LDOS, MANT, SAIC, VEC.
Systems index includes: AVAV, HII, KTOS, MRCY, TDY, LSE:ULE.

MERGERS & ACQUISITIONS ACTIVITY

M&A activity continues to accelerate in the Defense & Government Services sectors; the Aerospace sector experienced a period of recovery with increases in both the number of transactions and total deal value compared to 2019

M&A ACTIVITY

(Number of Transactions)



- Traditional Commercial Aerospace: $14B
- Defense: $26B
- Government Services: $14B
- Mobility / e-VTOL: $15B
- Space: $26B
- Cross Sector: $5B

M&A ACTIVITY CONTINUED TO INCREASE THROUGHOUT 2021

- ✓ The number of transactions increased from 209 in 2020 to **315 transactions in 2021**, representing a **51% YoY increase**
- ✓ Furthermore, total deal value **increased 242% YoY**, from $29B in 2020 to **$100B in 2021**
- ✓ **19 SPAC deals** in the A&D sector contributed to **~$36B of the total deal value**

2021: NOTABLE ACTIVITY & TRENDS

1 Heightened M&A activity across **Defense Technology & Government Services** sectors as corporates look to **acquire new technology**

Bohemia Interactive Simulations; Novetta; SA Photonics; Gryphon Technologies; BAE Systems; accenture; CACI; ManTech Securing the Future; ALION; FLIR; Black Horse; Huntington Ingalls Industries; Teledyne Technologies Everywhereyoulook; Parsons

2 Continued **PE activity throughout the sector** as companies benefit from funding tailwinds

PAE; Vion Cloud Services Business; Northrop Grumman IT Services Business; perspecta; amentum; American Securities; LIG; Peraton; Veritas Capital; Veritas Capital; CUBIC; Atlantic; Cobham; Veritas Capital; Affiliates of Elliott; KKR; Advent International Global Private Equity

3 Demand for **Space-related assets** increased significantly throughout 2021

VanderSat; inmarsat; techshot; planet; Viasat; Redwire; SolAero Technologies; ASI Planetary Systems Corporation; VLS Valley Tech Systems; Apollo Fusion; Rocket Lab; Voyager Space; Astra

4 **Divestitures among corporates** continue to drive activity following large scale consolidation

Peraton SES Business; L3Harris Fast. Forward. Military Training Business; Cobham Aero Connectivity; Raytheon Defense Training and Mission Critical Solutions; CTFV Acquisition Corp.; A portfolio company of Veritas Capital; Vantage Fund; CAE; TransDigm Group Inc; Vertex Aerospace

2022 OUTLOOK

- ✓ Numerous companies are **well-positioned to be highly acquisitive** given the significant **influx of capital throughout 2021**
- ✓ Deal activity will **continue to accelerate** as companies **adapt to the emergence of disruptive technologies** within the A&D sector
- ✓ Despite the recent downturn in the SPAC market, **SPAC activity is expected to continue due to the 576+ SPACs** (with ~$156B cash in trust) actively seeking for targets

Source: Wall Street Research, Capital IQ, Public Filings, and Press Releases.

SPAC ACTIVITY & VALUATIONS

A&D EMERGING SPAC LANDSCAPE

A&D / E-VTOL SPAC BUSINESS COMBINATIONS

Date	SPAC / Target	Target Description	EV @ Price	Transaction Highlights
12/21/21	ZANITE / EVE	e-VTOL Urban Air Mobility	$2.4B	$507M in projected net proceeds[a]
6/10/21	BROADSTONE ACQUISITION CORP / VERTICAL	e-VTOL Flying Taxi	$1.8B	$241M in net proceeds[b]
6/4/21	GigCapital4 / BIGBEAR.AI	Government Catered AI	$1.4B	$181M in net proceeds[b]
3/30/21	Qell Acquisition Corp / Lilium	e-VTOL Jet	$2.4B	$532M in net proceeds[b]
3/15/21	DFNS LGL Systems Acquisition Corp / IronNet Cybersecurity	NDR Cybersecurity	$927M	$103M in net proceeds[b]
3/8/21	NEWHOLD / evolv technology	Security / Weapon Scanners	$1.3B	$367M in net proceeds[b]
2/11/21	Reinvent Technology Partners / Joby Aviation	e-VTOL Flying Taxi	$4.6B	$1.1B in net proceeds[b]
2/10/21	Atlas Crest Investment Corp / ARCHER	e-VTOL Urban Air Mobility	$1.6B	$801M in net proceeds[b]
2/1/21	ASCONSUMER / WHEELS UP	Private Charter Booking	$2.1B	$586M in net proceeds[b]

e-VTOL / Air Moblity SPAC deals raised net proceeds of

$3.8B In 2021

A&D-related SPAC deals raised net proceeds of

$651M In 2021

6

e-VTOL related combinations in 2021

SPACE SPAC BUSINESS COMBINATIONS

Date	SPAC / Target	Target Description	EV @ Price	Transaction Highlights
12/7/21	Pine Technology Acquisition Corp. / tomorrow.io	Weather-Monitoring Satellites	$729M	$375M in projected net proceeds[a]
10/28/21	TAILWIND II ACQUISITION / TERRAN ORBITAL	Nano- and Micro-Satellites	$1.6B	$324M in projected net proceeds[c]
8/22/21	NextGen Acquisition Corporation / Virgin Orbit	Launch Services	$3.2B	$163M in net proceeds[d]
7/7/21	dMY Technology Group / planet.	Satellite Imagery	$2.3B	$468M in net proceeds[b]
7/6/21	CF Acquisition Corp. V / SATELLOGIC	Earth-Observation Satellites	$850M	$274M in projected net proceeds[c]
3/25/21	GENESIS PARK / REDWIRE	Space Infrastructure	$615M	$82M in net proceeds[b]
3/1/21	NAVSIGHT / spire	Smart Satellite	$1.2B	$237M in net proceeds[b]
3/1/21	VECTOR CAPITAL / ROCKET LAB	Launch Services and Space Systems	$4.1B	$735M in net proceeds[b]
2/18/21	OSPREY TECHNOLOGY / BLACKSKY	Satellite Intelligence	$1.1B	$221M in net proceeds[b]
2/2/21	HOLICITY / ASTRA	Space Launch	$2.1B	$494M in net proceeds[b]

Space SPAC deals raised net proceeds of

$3.4B In 2021

10

Space related combinations in 2021

Source: Capital IQ, Wall Street Research, Public Filings.
(a) Represents total cash to balance sheet less existing cash on balance sheet, per publicly filed investor presentation. (b) Represents total cash proceeds net of redemptions, transaction expenses, cash paid out to selling shareholders, and repayments of debt. Vertical Aerospace net proceeds include $192M in convertible notes purchased in conjunction with the closing of the transaction. BigBear.AI net proceeds include $200M in convertible notes purchased in conjunction with the closing of the transaction. Joby Aviation net proceeds include $75M in Series C convertible notes purchased in conjunction with the closing of the transaction. (c) Represents total cash to balance sheet per publicly filed investor presentation. (d) Represents total cash proceeds net of redemptions and transaction expenses. Estimated transaction expenses per publicly filed investor presentation.

COWEN A&D RESEARCH

Cowen research has continued to provide detailed, thoughtful coverage of disruptive technology and developments within the aerospace, defense and government services sectors

Featured Reports

AEROSPACE

Ahead of the Curve — Is the Bizjet Demand Equation Changing? (09.09.21)

The spike in bizjet demand has been driven by Covid-related safety concerns and the increase in the number of high-net-worth individuals.

LINK TO REPORT

Ahead of the Curve — When will e-VTOL Disruption Pay Off? (06.17.21)

E-VTOLs offer disruptive performance / ESG advances well-suited for UAM, air taxi & short-haul cargo applications, with an estimated $1T+ TAM.

LINK TO REPORT

Ahead of the Curve — Disruption in the Aviation Industry (06.09.21)

Disruption has shaped the aviation industry since inception. We believe the significant disruptors of the next 20 years will be start-up airlines and emerging technology aircraft.

LINK TO REPORT

DEFENSE

A&D Recon: Weighing Positives & Negatives (12.06.21)

We understand growing enthusiasm about the outlook for defense heading into next year (for reasons we think are valid). But there's also a backdrop of risk.

LINK TO REPORT

FMS Update: FY22's Incredibly Slow Start (12.01.21)

We've been concerned about low FMS approvals, and it looks like that's the case. November had only one deal, similar to October, and September had two..

LINK TO REPORT

Ahead of the Curve — U.S.-China: Next Phase of Decoupling & Competition About to Start (09.17.21)

The volatile U.S.-China relationship is reshaping geopolitics and security, international trade, financial markets, and technology ecosystems.

LINK TO REPORT

COWEN AHEAD OF THE CURVE RESEARCH PERSPECTIVES

" **New U.S.-PRC policies** continue to have a **broad impact** and long-term shaping effect on **international security, diplomacy and trade, domestic economies, financial markets, and technology.** While some in the U.S. continue to see reasons for optimism and opportunity in China, we believe **both governments will continue to implement policies that will disappoint pollyannaish hopes.** China's "Three Demands" and "Two Lists" set a very high bar for U.S. acquiescence and given Biden's Afghan pullout and subsequent domestic/international criticism, **there may be little room to ease.** "

Ahead of the Curve — U.S.-China: Next Phase of Decoupling & Competition About to Start

" **We believe aviation will see two major disruptors over the next 20 yrs:** new **start-up airlines** in the short term and **new technology aircraft** in the long term. **Tech changes** are being **driven by environmental concerns;** airlines are focused on using SAF to address concerns. **Low-cost airlines** are best positioned to withstand NT disruption while **first movers** will be better positioned for LT disruption. There are two major disruptors we foresee: 1) new start-ups as **structural changes caused by the pandemic create an opening for new entrants,** and 2) technology changes **disrupt the entire aviation sector** beginning mid-decade. "

Ahead of the Curve — Disruption in the Aviation Industry

AEROSPACE & DEFENSE / INDUSTRIALS INVESTMENT BANKING TEAM

John P. Nelson
Head of Aerospace & Defense / Industrials
646 562 1186
john.nelson@cowen.com

Bruce Thomas
Aerospace & Defense / Industrials
646 562 1270
bruce.thomas@cowen.com

Chris Anderson
Aerospace & Defense / Industrials
646 562 1185
chris.anderson@cowen.com

Kimberly Roland
Aerospace & Defense / Industrials
646 562 1139
kimberly.roland@cowen.com

COWEN PRODUCT PARTNERS

Chris Weekes
Managing Director
Equity Capital Markets,
Co-head of SPACs
646 562 1133
christopher.weekes@cowen.com

Michael Wildish
Managing Director,
Head of M&A
646 562 1141
michael.wildish@cowen.com

Scott Hague
Managing Director,
Head of Private Capital Solutions
646 562 1160
scott.hague@cowen.com

Zach Fisher
Managing Director
Co-head of SPACs
646 562 1140
zachary.fisher@cowen.com

Jonathan Cohn
Director
Mergers & Acquisitions
646 562 1292
jonathan.cohn@cowen.com

Parker Weil
Vice Chairman of Investment Banking,
Head of Strategic Capital
646 562 1212
parker.weil@cowen.com

COWEN A&D – COVERAGE & CONFERENCE

43RD ANNUAL **AEROSPACE/DEFENSE & INDUSTRIALS CONFERENCE**
FEBRUARY 8-10, 2022
VIRTUAL PRESENTATION SERIES

COWEN INDUSTRIALS-RELATED TRANSACTIONS IN 2021

62	~$15B	~$10B
Total Deals in 2021	2021 Total M&A Transaction Value	Total Capital Raised in 2021

COWEN ANNOUNCED SELECT INDUSTRIAL RELATED M&A AND FINANCING TRANSACTIONS IN 2021

$200 Million danimer scientific **Convertible Notes** Bookrunner	**$1.9 Billion** Spring Valley Acquisition Corp **Combination with** NUSCALE Financial Advisor & Lead Capital Markets Advisor	**$181 Million** Spring Valley Acquisition Corp **PIPE** Placement Agent	**$80 Million** SolAero TECHNOLOGIES **Sale to** ROCKET LAB Exclusive Financial Advisor	**$1.1 Billion** Novus Capital Corporation II **Combination with** ENERGY VAULT Enabling a Renewable World Sole Financial Advisor	**$100 Million** Novus Capital Corporation II **PIPE** Placement Agent
$100 Million Li-Cycle **Convertible Debt** KOCH Joint Advisor	**$4.1 Billion** ROCKET LAB **Combination with** VECTOR CAPITAL Capital Markets Advisor	**$625 Million** FISKER **Convertible Notes** Co-Manager	**$1.3 Billion** evolv technology **Combination with** NEWHOLD Exclusive Financial Advisor	**$300 Million** NEWHOLD **PIPE** Sole Placement Agent	**Undisclosed** Alliance TECHNICAL GROUP **Acquired by** Morgan Stanley Capital Partners Financial Advisor
$1..3 Billion CS Energy Building a Cleaner Future **Acquired by** AMERICAN SECURITIES Joint Financial Advisor	**$570 Million** FRONTIER AIRLINES **Initial Public Offering** Co-Manager	**$241 Million** MP MATERIALS **Follow-On Offering** Joint-Bookrunner	**$3.1 Billion** R3E **Combination with** 10X CAPITAL Exclusive Financial Advisor	**$300 Million** 10X CAPITAL **PIPE** Placement Agent	**$250 Million** Spartan Acquisition Corp. II Sunlight Financial **PIPE** Placement Agent

©2022 Cowen and Company, LLC. All Rights Reserved. Cowen and Company, LLC is a member of FINRA and SIPC.