



**LOCKHEED MARTIN**

2019 Sustainability  
Highlight Stories

# Business Integrity

## Ethical Governance and Leadership

### Case Study: Ethics in Engineering Case Competition

#### WHAT WE DID

In 2018, the Lockheed Martin Ethics Office partnered with the University of Illinois' Center for Professional Responsibility in Business and Society to host the first-ever Lockheed Martin Ethics in Engineering Case Competition. Twenty-four undergraduate students from 12 universities across America participated in the competition at Lockheed Martin Aeronautics in Fort Worth, Texas.

Several weeks in advance, student teams received a hypothetical business case written by Lockheed Martin's Corporate Engineering Technology and Operations (CETO) organization. The case described the ethical, engineering and business dilemmas of a fictional company that developed a wearable device for police officers to improve situational awareness and help prevent terrorist attacks. Just before the product launch, engineers discovered the devices' non-ionizing radiation could negatively impact wearers' health. Student teams, acting as consultants to the fictional company, presented their recommendations to Lockheed Martin judges playing the role of the fictional company's board of directors. Winning teams were selected based on how well they addressed all three dilemmas.

#### WHY THIS MATTERS

As one of the largest engineering and technology companies in the world, Lockheed Martin has a responsibility to contribute to the ethical development of future STEM talent. Considering the rate at which new technologies and science are advancing, we want to increase future employees' perceptions of ethical behaviors in leaders to support sustainability at Lockheed Martin or wherever students are employed. Through the Ethics in Engineering Case Competition, we help academic institutions teach prospective engineers to always consider how their decisions may impact individuals, the community, the country and the world. Our Ethics Office also speaks regularly to business ethics classes and licenses our "Integrity Minute" and ethics awareness training videos at no charge to academic institutions and for a small fee to corporations and other organizations. This reinforces our commitment to ethics education and our reputation as an ethical employer of choice.

# Anti-Bribery and Corruption Controls

## Case Study: Training Employees to Handle Ethical Dilemmas

### WHAT WE DID

To help keep ethics and integrity top-of-mind at Lockheed Martin, our Ethics Office produces “[Integrity Minute](#),” a video series spotlighting ethical dilemmas. Stories are drawn from real investigations and employee input to educate our workforce on the most pressing topics and how to deal with them. In one episode, for example, a Lockheed Martin employee was asked to bribe a customer security officer in order to gain entry into overseas facility.

“Integrity Minute” is a central element of our ethics engagement program. As we do each year, in 2018, we released three new series on the our Ethics webpage and YouTube channel. Each series includes two short episodes to set up the dilemma and a third showing the resolution. We license the series free of charge to academic institutions and for a small fee to corporations for business ethics and other classes.

Employees are not required to watch “Integrity Minute,” and it does not replace Lockheed Martin’s annual ethics awareness or compliance training. Yet, employees look forward to each new series, which draw up to 25,000 views. People are intrigued by the stories and can relate to the characters, creating more engagement. Eighty percent of viewers rate the series “very good” or “excellent.” “Integrity Minute” has won more than 18 awards since it debuted in 2006.

### WHY THIS MATTERS

Acting with integrity reflects who Lockheed Martin is as a corporate citizen and how we operate. It is essential that our employees understand and conduct business according to our core values and speak up if they see or hear of unethical behavior. Using an engaging story approach that employees can relate to, “Integrity Minute” brings sensitive and highly relevant ethics issues to the forefront and encourages employees to discuss them with supervisors, managers or others. The streaming video format allows us to create relevant content as ethical challenges in our complex operating environment evolve, ensuring we uphold our high standards in working with suppliers, customers and each other.

## Supplier Conduct

### Case Study: Increasing Transparency in Chemical Reporting

#### WHAT WE DID

In the aerospace and defense industry, product development cycles and product lifespans can last for decades. This means the materials we select today must be viable for many years in the future.

To help us identify chemicals of potential concern used in our supply chain, Lockheed Martin collaborated with industry partners to develop the standard IPC-1754: Materials and Substances Declaration for the Aerospace, Defense and Other Industries, which is a brand new, voluntary standard published in 2018. IPC-1754 establishes requirements for exchanging product and process material and substance data between suppliers and customers in aerospace, defense, and other industries. Lockheed Martin is working through IAEG (International Aerospace Environmental Group), of which Lockheed Martin is a member, and IPC® (Association Connecting Electronics Industries) to develop resources to support the use of the standard, thus promoting improved efficiencies and data quality. Implementing IPC-1754 into our internal business processes is part of our broader chemical stewardship strategy and supports increased visibility of chemicals used in our supply chain to meet regulatory and customer reporting obligations.

#### WHY THIS MATTERS

Chemical regulations and restrictions continue to expand globally in light of increased scrutiny of their environmental and safety impacts. Lockheed Martin strives to choose **more sustainable materials** to meet our customers' needs while protecting human health and the environment. We proactively pursue replacement technologies, partner with suppliers to stay ahead of potential supply chain disruptions if materials become unavailable and collaborate on external reporting standards such as IPC-1754 to facilitate chemicals disclosure. Transparency helps ensure effective stewardship of chemicals risk in any industry, and many are seeing a growing trend in supply chain disclosure. Lockheed Martin's efforts contribute to a comprehensive chemical stewardship program to mitigate risks, comply with regulations and consider environmental, safety and health impacts across our products' value chain now and for years to come.

## Responsible Sales

### Case Study: Lockheed Martin Space International Trade Compliance

#### WHAT WE DID

Lockheed Martin's pursuit of mission success requires collaboration with a wide array of companies. We partner to produce world-class systems such as the **InSight Mars Lander** where, as the prime contractor to the Jet Propulsion Laboratory, we secured 19 licenses and agreements to support collaboration with the French National Centre for Space Studies (CNES) on the Seismic Experiment for Investigating the Subsurface (SEIS) instrument. Licenses and agreements were also in place to work with the German Aerospace Center (DLR) for the Heat Flow and Physical Properties Package (HP3), a self-penetrating probe to burrow beneath Mars' surface. The Centre for Astrobiology (CAB) in Spain provided the Temperature Wind for InSight (TWINS) to measure air temperature, wind speed and direction on Mars. The Italian National Institute for Nuclear Physics (INFN-LNF) provided the Laser Retroreflector for InSight (LaRRI), which acts as a locating device by reflecting signals. Lockheed Martin's licensing efforts also included international supplier licenses and agreements.

#### WHY THIS MATTERS

We are committed to International Trade Compliance, including obtaining all necessary licenses and agreements for international collaboration. This supports our global partnerships that increase civilian safety, strengthen our country's collaboration with allies around the world and, at times, enable programs beyond our planet. Our commitment to 100 percent compliance with regulations such as the International Traffic in Arms Regulations and Export Administration Regulations is foundational to our international business.

# Product Impact

## Global Infrastructure Needs

### Case Study: Quiet Supersonic Technology X-Planet

#### WHAT WE DID

For more than a decade, Lockheed Martin has worked with NASA on the next generation of environmentally responsible commercial supersonic aircraft. In 2018, NASA awarded Lockheed Martin Skunk Works® a contract to design, build and flight-test the Low-Boom Flight Demonstrator, an **X-plane** with the technology to solve a persistent challenge of supersonic flight: the sonic boom. Sonic booms are bothersome, loud, thunder-like sounds that can disturb people and occasionally cause property damage when military aircraft fly at very low altitudes.

In line with our goal to reduce impacts on health and the environment, we will build the Quiet Supersonic Technology (**QueSST**) X-plane at our Skunk Works facility in Palmdale, California. The first flight, expected to cruise at 55,000 feet at about 940 miles per hour, is scheduled for 2021.

#### WHY THIS MATTERS

Commercial supersonic flights are currently prohibited over land because of the noisy sonic booms they create. The X-plane will have a dramatically quieter supersonic “heartbeat” that, instead of a sonic boom, will make a sound about as loud as a car door closing. This will help NASA establish an acceptable commercial supersonic noise standard to overturn current regulations.

Starting in mid-2022, NASA will fly the X-plane over certain U.S. cities and collect data on community responses to the flights. U.S. and international regulators will review the data as they consider new sound-based rules for supersonic flight over land, which could enable faster-than-sound air travel. This would open the door to a new global market for aircraft manufacturers, enabling passengers to travel anywhere in the world in half the time it takes today.

## Total Cost of Ownership

### Case Study: Next-Generation Package Processing System

#### WHAT WE DID

Lockheed Martin won a \$215 million contract from the U.S. Postal Service (USPS) for a next-generation mail processing system. The **Enhanced Package Processing System** (EPPS) automatically separates mail, reads printed and handwritten addresses and sorts packages, priority and bundled mail, such as magazines and catalogs. The EPPS was deployed in October 2018 during peak mailing season in the new USPS Processing and Distribution Center in Portland, Oregon.

As a prime systems integrator, we develop, deploy and maintain a range of complex solutions for the USPS, the United Kingdom’s Royal Mail, Australia Post and PostNord in Sweden. Lockheed Martin also delivered upgraded postal sorting technology to the Swedish agency in January 2018. More than a quarter of the world’s automated letter mail is read by Lockheed Martin recognition systems. We have delivered more than 500 mail and material handling systems worldwide.

#### WHY THIS MATTERS

Lockheed Martin has more than 40 years of experience working with postal and logistics operators around the world to provide innovative, cost-effective technology. Whether scaling efficiency for global postal delivery or improving GPS for navigation, we innovate and sustain infrastructure that makes communities safer and more efficient.

## Product Safety

### Case Study: The P-3 Program: 50+ Years of Excellence

#### WHAT WE DID

The Field Team Operations (FTO) Team provides aircraft maintenance, sustainment and logistics support to the U.S. Customs and Border Protection (CBP) [P-3 Program](#) in Jacksonville, Florida. Sustainment operations include the P-3 Mid-Life Upgrade Program (MLU), which revitalizes the life to the aging aircraft by giving it mechanical and other critical infrastructure upgrades. This sustainment service provides an opportunity to improve an existing product and make it safer and more enduring for the customer.

#### WHY THIS MATTERS

CBP operates P-3 aircraft originally manufactured by Lockheed Martin from 1966-68. In 2006, Lockheed Martin performed a Service Life Assessment Study for CBP and assessed that their aircraft wings were reaching their fatigue life, as was occurring with a number of other P-3 operators. Lockheed Martin subsequently opened a wing manufacturing production line and began manufacture and delivery of new wings to CBP. Lockheed Martin was awarded a 10 year P-3 aircraft maintenance contract in 2009 and began installation of the wings on the CBP P-3 fleet. CBP now continues to successfully operate their P-3 aircraft on a safe footing. The MLU program improves the aircraft's extended service life and will help ensure the P-3 is mission-ready for decades to come.

## Counterfeit Parts Prevention

### Case Study: Counterfeit Avoidance Accreditation Program

#### WHAT WE DID

The Lockheed Martin supply chain is a complex network of thousands of suppliers providing parts and components from all over the world. The inclusion of counterfeit parts in our mission-critical products can present serious risks to military, government and commercial customers. To reach our goal to maintain or reduce instances of counterfeit parts in delivered systems confirmed as our responsibility, Lockheed Martin recommends suppliers take steps to eliminate this risk, including participation in the [Counterfeit Avoidance Accreditation Program](#) (CAAP).

Lockheed Martin was the first company to subscribe to CAAP, a cooperative industry effort launched in 2015. The program is intended to mitigate the risk of introducing counterfeit parts into the supply chain and reduce the cost of compliance in the aviation, space and defense industries. In 2018 and earlier, Lockheed Martin chaired the CAAP Management Council, which oversees CAAP operations, develops policies and procedures and establishes best practices for counterfeit parts prevention. The council is made up of representatives from industry and government, with task groups for each area of accreditation.

In July 2018, CAAP released AC7403, a [new distributors checklist](#) to combat counterfeit parts in the aerospace and defense supply chain. The checklist was created by the CAAP Distributors Task Group, on which Lockheed Martin serves. In October 2018, CAAP approved its [first accreditation](#) of the new standard.

#### WHY THIS MATTERS

The aerospace and defense industry is particularly vulnerable to counterfeiting because our product longevity often exceeds the lifecycle of commercially available parts. When obsolescence issues surface, mitigation measures must be taken to reduce supply chain risks and assure authenticity. If needed parts are out of production and no longer available from manufacturers, counterfeiters may attempt to step in and fill the gap.

The nature of our products demands that we be extra diligent in identifying, tracking, inspecting and managing parts and materials throughout the supply chain. CAAP and other efforts help us validate parts' authenticity, assure product integrity and strengthen customer trust. This vigilance reduces costs, redundancies and risk, increases compliance with regulations and helps us deliver high-quality, reliable and safe products to customers, users and society at large.

# Employee Wellbeing

## Workplace Safety and Wellness

### Case Study: Proactive Safety Focus

#### WHAT WE DID

Through significant collaboration with our business areas, Target Zero Structured Improvement Activity (TZ SIA) events empower multifunctional teams to identify and mitigate workplace hazards and process inefficiencies. Teams use training modules, templates, techniques and resources to develop low cost, high impact innovative solutions. Events leverage mitigation methods in design and process change, safeguarding and preventive work practices and health and wellness resilience framework to address ergonomic, safety and health risk factors.

#### WHY THIS MATTERS

Since 2014, the safety teams have enhanced the TZ SIA process, conducted 31 events across the corporation including four international locations and received recognition from ORC HSE, a health and safety networking firm, and the New Zealand Defence Force. These events led to a 44 percent decrease in our incident rate and a 46 percent decrease in our recordable rate for the instructed population. We identified more than 1,500 unique opportunities for improvement and implemented 54 percent of improvements before events concluded. This high completion rate is instrumental in driving our injury reduction culture. High demand for these events led to a train-the-trainer program to expand our outreach.

## Talent Development

### Case Study: Bringing New Skills to the Workforce

#### WHAT WE DID

Addressing **skills shortages** often begins at the local level. At Lockheed Martin, business units across the U.S. partner with local community colleges, technical training programs and statewide career centers to train the workforce for critical jobs.

In Central Florida, Lockheed Martin is a strategic partner with the Valencia College Advanced Manufacturing Training Center to deliver hands-on manufacturing training and experience in career tracks such as welding, quality assembly and machining. Students are also exposed to simulations and opportunities to learn coding. A retired Lockheed Martin employee is an instructor at the Center teaching electrical board assembly and helping students gain the skills for employment with Lockheed Martin and other employers.

#### WHY THIS MATTERS

Aerospace and defense faces a shortage of skilled labor for today's advanced manufacturing environment. Initiatives like the one at Valencia College give us opportunities to contribute to our communities and bring needed skills to the talent pipeline.

## Talent Recruitment

### Case Study: Talent Communities Support Career Growth and Development

#### WHAT WE DID

To create more career opportunities for current and prospective employees, we created online communities to engage talent with Lockheed Martin employees, career advisors and partner organizations. Our first community was Military Connect, which helps military members transition to civilian careers. Two new communities – Engineering Connect and Cyber Connect – were added in 2018.

**Military Connect**, with more than 15,000 members, quickly became an industry best practice. Our team of military relations managers and other veterans provides career advice, job search coaching and personalized insights from veterans.

**Engineering Connect** is geared toward early-career engineers and has more than 3,000 members. Anyone in the company with an engineering background is welcome to participate as a subject matter expert, mentor or ambassador.

**Cyber Connect** offers access to company cyber experts, information on current cyber job openings, continuous trainings, webinars, tech-talks, mentoring and learning.

#### WHY THIS MATTERS

Lockheed Martin is an industry leader in building interactive talent communities. These online communities offer opportunities for current and future employees to build skills and increase their professional networks. They also help us engage and build our STEM talent pipeline.

## Diversity and Inclusion

### Case Study: The Science of Black Panther

#### WHAT WE DID

**Awesome Con** is a celebration of geek culture, bringing more than 70,000 fans and stars of comics, movies, television, toys and games to Washington D.C. for an annual convention. In 2018, Awesome Con featured a Science of Black Panther panel, where Lockheed Martin engineers presented a STEM roadmap to the mythical country of Wakanda to more than 300 costumed superheroes, villains and geek culture enthusiasts. Along with subject matter experts from the Smithsonian and The Washington Post, our engineers discussed a range of STEM topics, including wearable technology, autonomous vehicles and magnetic levitation trains, cities of the future, nano materials and the environmental impact of mining. They also highlighted the critical importance of representation in the Black Panther movie, which spotlights people of color and women as STEM leaders and innovators.

#### WHY THIS MATTERS

At Lockheed Martin, the future of work will be defined by AI, human-machine teaming and data as a strategic commodity. Awesome Con provided a fun and unique way for Lockheed Martin to engage with diverse talent on the possibilities of turning movie science into exciting, real-world STEM careers. Through the event, we helped close the distance between big-screen imagination and technology people use every day and showcased opportunities open to everyone.



# Resource Efficiency

## Energy And Carbon Management

### Case Study: Energy Star Certification for Our Fort Worth, Texas Facility

#### WHAT WE DID

In 2018, the administrative and engineering building at our Aeronautics campus in Fort Worth, Texas, achieved **ENERGY STAR**® certification from the U.S. Environmental Protection Agency (EPA), demonstrating it performs better than 93 percent of peer buildings. Built in 1968, this building 200 is owned by the U.S. Air Force and managed by Lockheed Martin. At more than 840,000 square feet, it is our largest ENERGY STAR-certified building.

#### WHY THIS MATTERS

Our energy management approach leverages our energy engineers' expertise to achieve year-over-year reductions. To achieve certification, engineers implement energy efficiency measures at the site each year to keep pace with our Go Green program goal of a 25 percent energy reduction by 2020. Example measures include lighting, heating, ventilation and air conditioning (HVAC) and green IT. The building is part of a vast and sophisticated energy management control system with more than 300,000 control points to optimize performance. The system within this building has saved a cumulative \$2.3 million and more than 40,000,000 kilowatt hours (kWh) in energy since 2008.

# Information Security

## Sensitive Data and Intellectual Property Protection

### Case Study: Capture the Flag Cyber Competition

#### WHAT WE DID

For the second year, Lockheed Martin cybersecurity professionals participated in a [Capture the Flag](#) (CTF) event; a cyber competition to help sharpen their skills and identify techniques and solutions to difficult challenges.

Several Lockheed Martin business areas chose experts from their cyber teams who had experience in both defending and attacking technology systems. Through this process, we tap key talent across the corporation to identify techniques and solutions to address cybersecurity challenges. Teams prepared for about six months for the competition, which took place over three days. We networked several Lockheed Martin facilities together to allow teams to compete from their home locations. This approach accommodated more participants and served as a trial run for expanding the event globally next year.

The CTF competition revolved around hacking a fictitious user and capturing "flags" formatted as Social Security numbers, Facebook accounts, bank accounts and other personally identifiable information. Starting with nothing but Internet protocol (IP) addresses, teams worked together to perform reconnaissance and find the user's vulnerabilities.

#### WHY THIS MATTERS

The growing volume, intensity and ingenuity of new cyber threats mean cybersecurity experts must constantly hone, update and expand their skills. Our teams must be able to think like the enemy to identify adversary activity and anticipate advanced persistent threats to strengthen platform defenses, inside and outside our networks.

CTF competitions are one of many ways our cybersecurity experts build their skills, stimulate their creativity and learn from their peers to help our customers move faster, operate more safely, improve quality and contain costs of critical cyber missions. The competition helps employees move us toward our strategic goal to monitor data loss incidents that occur within core IT networks for business operations.

## Customer Information Systems and Network Security

### Case Study: Engaging Employees in Cybersecurity

#### WHAT WE DID

To celebrate National Cyber Security Awareness Month in October, we developed a [quiz](#) to test people's cybersecurity knowledge. Available on our website for Lockheed Martin employees and the general public, the quiz asks multiple choice questions about harmful programs, computer viruses, encryption standards and other cybersecurity risks and tools. At the end, users receive a score ranging from Cybersecurity Ninja to n00b (newbie), along with a list of resources they can access to improve their skills. Resources include cybrary.it, Skillsoft (free for Lockheed Martin employees), CTF challenges and reading materials on common vulnerabilities and cyber practices from the SANs Institute, the largest and most trusted source of information security training and security certification in the world.

#### WHY THIS MATTERS

Cybercrime continues to grow globally, with related costs jumping more than 25 percent from \$445 billion to \$600 billion between 2014 and 2017.<sup>1</sup> We have an opportunity to make our employees and stakeholders, including the general public, more aware of evolving cyber risks and how to protect themselves. By increasing cybersecurity knowledge, promoting safe practices and focusing on our goal to monitor employee cybersecurity engagement to counter malicious threats, we help safeguard our products, networks, customers, society and the world.

# Employee Privacy and Data Protection

## Case Study: Guarding Against Fake Social Media Accounts

### WHAT WE DID

The use of fake social media accounts to steal or otherwise compromise sensitive, high-value information is on the rise. As a global security and aerospace company with 105,000 employees, Lockheed Martin is an active target. Our Lockheed Martin security teams work with industry and intelligence community partners to identify and defend against social media campaigns targeting our employees.

In 2018, our teams identified a malicious campaign on a professional networking platform where actors posing as recruiters attempted to contact several Lockheed Martin employees. Our experts immediately secured our information security network against risk, interviewed the employees to determine why they were targeted and who else might be connected to the adversaries, and worked with targeted employees to avoid future threats. The team then notified all Lockheed Martin employees of the campaign, describing in detail what to look for and how to protect themselves against these fake social media personas.

Educating employees on fake social media accounts is part of Lockheed Martin's comprehensive information security strategy. In addition to alerting employees of specific social media campaigns, we monitor threats as they evolve and conduct ongoing training, awareness campaigns and other initiatives to achieve our goal to identify vulnerabilities to personal information exposure in our IT systems.

### WHY THIS MATTERS

Inadvertently giving adversaries access to our data has profound implications on public safety, infrastructure resiliency and information protection. The loss of intellectual property, proprietary technologies, classified government information, product specifications and other highly sensitive assets can affect our competitiveness and profitability, jeopardize customer trust and compromise national security. By strengthening our defenses against fake social media campaigns, we help protect our business, employees, customers and society.

# Forward-Looking Statements

This report contains statements which, to the extent not recitations of historical fact, constitute forward-looking statements within the meaning of the federal securities laws. The words "will," "enable," "expect," "plan," "forecast," "anticipate," "continue," "achieve," "scheduled," "estimate," "believe," "intend," "aim," "orient," "goal," and similar expressions are intended to identify forward-looking statements. Statements and assumptions with respect to achievement of goals and objectives; anticipated actions to meet goals and objectives; allocation of resources; planned, encouraged or anticipated actions; planned performance of technology; or other efforts are also examples of forward-looking statements.

Forward-looking statements are based on our current expectations and assumptions, are not guarantees of future performance, and are subject to risks and uncertainties. Actual results could differ materially due to factors such as (i) the availability of funding for the programs described in this report; (ii) our ability to achieve reductions in energy use, greenhouse gas emissions and other sustainability goals and objectives; (iii) changes in our priorities as well as changes in the priorities of our customers and suppliers; (iv) the amount of our future investments; (v) the accuracy of our estimates and assumptions; (vi) the future effect of legislation, rulemaking and changes in policy; (vii) the impact of acquisitions or divestitures or other changes in our employee or product and service base; (viii) the competitive environment; (ix) the ability to attract and retain personnel and suppliers with technical and other skills; (x) the success of our diversity and inclusion initiatives; (xi) the success of technologically developed solutions; (xii) the willingness of suppliers to adopt and comply with our programs; (xiii) the impact of cyber or other security threats or other disruptions to our business; and (xiv) global economic, business, political, and climate conditions.

These are only some of the factors that may affect the forward-looking statements contained in this report. For further information regarding risks and uncertainties associated with our business, please refer to our U.S. Securities and Exchange Commission (SEC) filings including our Annual Report on Form 10-K for the year ended December 31, 2021 and our subsequent Quarterly Reports on Form 10-Q, which can be obtained at our website [www.lockheedmartin.com/investor](http://www.lockheedmartin.com/investor) or through the website maintained by the SEC at [www.sec.gov](http://www.sec.gov). The forward-looking statements in this report are intended to be subject to the safe harbor protection provided by federal securities laws.

