OUR VALUES

We, the women and men of Northrop Grumman, are guided by the following Values. We want our decisions and actions to demonstrate these Values. We believe that putting our Values into practice creates long-term benefits for shareholders, customers, employees, suppliers and the communities we serve.

WE TAKE RESPONSIBILITY FOR QUALITY

Our products and services are best-in-class in terms of value received for dollars paid. We deliver excellence, strive for continuous improvement and respond vigorously to change. Each of us is responsible for the quality of whatever we do.

WE DELIVER CUSTOMER SATISFACTION

We are dedicated to satisfying our customers. We believe in respecting our customers, listening to their requests and understanding their expectations. We strive to exceed their expectations in affordability, mission capability, quality and on-time delivery.

WE PROVIDE LEADERSHIP AS A COMPANY AND AS INDIVIDUALS

Northrop Grumman’s leadership is founded on talented employees effectively applying advanced technology, innovative manufacturing and sound business management. We add more value at lower cost with faster response. We each lead through our competence, creativity and teamwork.

WE ACT WITH INTEGRITY IN ALL WE DO

We are each personally accountable for the highest standards of behavior, including honesty and fairness in all aspects of our work. We fulfill our commitments as responsible citizens and employees. We treat customers and company resources with the respect they deserve. We comply with all applicable laws and regulations.

WE VALUE PEOPLE

We treat one another with respect and take pride in the significant contributions that come from our diversity of individuals and ideas. Our continued success requires us to provide the education and development needed to help our people grow. We are committed to openness and trust in all relationships.

WE REGARD OUR SUPPLIERS AS ESSENTIAL TEAM MEMBERS

We owe our suppliers the same respect we show our customers. Our suppliers deserve fair and equitable treatment, clear agreements, and honest feedback on performance. We consider our suppliers’ needs in conducting our business.
02 LEADERSHIP

06 OUR BUSINESS

16 GOVERNANCE

26 INNOVATION

30 ENVIRONMENT

37 PEOPLE AND CULTURE

APPENDIX

A G4 GRI CONTENT INDEX

Environmental, Social and Governance

B PERFORMANCE DATA MATRIX

Students compete during the 2017 CyberCenturion competition in the United Kingdom.
2017 HIGHLIGHTS

DIVERSITY We continue to make progress toward achieving the goals of our five-year diversity plan. Female leaders increased from 25.2 percent in 2016 to 26.3 percent in 2017. People of Color in leadership increased from 23.7 percent in 2016 to 25.2 percent in 2017. And in 2017, more than 50 percent of college hires were diverse, strengthening our future leadership pipeline. People with Disabilities increased from six percent in 2016 to 7.1 percent in 2017. People with Disabilities were 10.8 percent of all hires in 2017, and veterans were 24.6 percent.

ENVIRONMENT As we grow our business, we do so with sustainability in mind. In 2017, we exceeded our greenhouse gas emissions reduction goal, and we maintained our commitment to achieve a 30 percent reduction by 2020. Additionally, we achieved Leadership in Energy and Environmental Design certification for two additional buildings.

ETHICS Our annual training and ethics communications support our values-based ethics program that allows our Northrop Grumman employees to maximize both individual and company success.

SUPPLY CHAIN Northrop Grumman has exceeded the 23 percent statutory small business goal for more than 10 straight years, and more than 32 percent of our suppliers are small, women-, veteran- and minority-owned firms. For example, through the Department of Defense Mentor-Protégé program, we partnered with Digit All City, a small minority business located in Baltimore, Maryland, to certify students from Morgan State University and Coppin State University in cybersecurity. We also entered into a partnership to provide training and certifications for using 3-D printers with S&K Electronics, a Native American-owned company that collaborated with Salish Kootenai College, a tribal college in Pablo, Montana.

STEM EDUCATION Northrop Grumman and the Northrop Grumman Foundation continued their commitment to education by investing more than $20 million in STEM programs. For the first time, the Northrop Grumman Foundation partnered with EarthEcho International, whose mission is to inspire young people worldwide to act now for a sustainable future. We sponsored 25 U.S. middle school teachers to complete a week-long expedition examining water scarcity. Led by Philippe Cousteau Jr., grandson of Jacques Cousteau, the teachers received field experience in engineering and technology solutions addressing water scarcity issues. From there, the teachers created lesson plans, videos and other classroom resources to share with students and other teachers.

Building a best culture remains our objective and we achieve this by making continual progress on engagement, diversity and inclusion; staying true to our corporate values; and maintaining our steadfast commitment to high standards of ethics, integrity, compliance and exemplary corporate governance. I am proud of our progress documented in this report, and grateful for the significant contributions of our employees, who make it all possible.

WES BUSH | Chairman and Chief Executive Officer
LEADERSHIP

Stakeholder engagement is a key priority at Northrop Grumman. Each of our stakeholders has distinct priorities and comprises a broad and vibrant range of audiences for this report. To engage each audience effectively, we aim to provide relevant and accurate information regarding our corporate goals and performance. We use a variety of methods to effectively engage with our stakeholders and obtain valuable feedback. This process helps us to prioritize issues in our materiality assessment, allowing us to focus on actions and programs that are important to our stakeholders and that lead directly to improvement in our performance.
OUR KEY STAKEHOLDERS
ACADEMIA, COMMUNITY, CUSTOMERS, EMPLOYEES, GOVERNMENT, INDUSTRY PARTNERS, POLICYMAKERS, PROFESSIONAL ASSOCIATIONS, SHAREHOLDERS, SCIENTISTS AND SUPPLIERS.

When engaging with stakeholders, our primary objective is to prioritize their concerns. As in previous years, we adapted the content of this report to meet the needs of our stakeholders. Specifically, we evaluated our performance based on input from customers, investors, employees, government and industry, business partners, professional associations and suppliers.

For more information see the ENVIRONMENTAL, SOCIAL AND GOVERNANCE PERFORMANCE DATA MATRIX in Appendix B.

PARTNERS AND PROFESSIONAL ASSOCIATIONS
We maintain affiliations with a variety of organizations to enhance business performance, collaboration, community involvement, diversity and inclusion, employee relations, environmental sustainability, health and safety, innovation and supplier relationships. A partial list of these organizations is below.

- AbilityOne
- Aerospace Industries Association
- American Bar Foundation (ABF) Center on Diversity and Law
- American Indian Science and Engineering Society
- Asian American Engineer of the Year
- Asian Business Association
- Association of Climate Change Officers
- Association of Corporate Contributions Professionals
- Black Business Association
- Black Engineer of the Year
- Boston College Center for Corporate Citizenship
- Capital Area Gay and Lesbian Chamber of Commerce
- Conservation International Business & Sustainability Council
- Corporate Counsel Women of Color 13th Annual Career Strategies Conference
- Corporate Eco Forum
- Corporate Environmental Enforcement Council
- Defense Industry Initiative on Business Ethics and Conduct
- Department of Veterans Affairs Center for Verification and Evaluation
- Ethics & Compliance Initiative
- Equal Justice Works
- Great Minds in STEM
- Gartner
- GRI GOLD Community
- Institute of Business Ethics
- Institute for Supply Management
- International Aerospace Environmental Group
- International Audit Protocol Consortium
- International Forum on Business Ethical Conduct
- Latin Business Association
- Legal Aid Society
- Military Spouse Employment Partnership
- Minority Corporate Counsel Association
- National Association of Asian American Professionals
- National Association for Environmental Management
- National Association of Women Business Owners
- National Center for American Indian Enterprise Development
- National Minority Supplier Development Council
- National Society of Black Engineers
- ORC Health, Safety and Environmental Strategies
- Out & Equal Workplace Summit
- Small Business Innovation Research and Small Business Technology Transfer programs
- Society of Corporate Compliance and Ethics
- Society of Hispanic Professional Engineers
- Society of Women Engineers
- South Asian Bar Association of North America
- U.S. Business Leadership Network
- U.S. Hispanic Chamber of Commerce
- Women of Color in Technology
2017 **KEY STAKEHOLDER ENGAGEMENT**

**CORPORATE CITIZENSHIP**
- Meet/collaborate with leadership to develop community outreach plans and review programs and initiatives.
- Engage with community partners at nonprofit organizations to facilitate funding and grant requests.
- Collaborate with educational thought leaders to develop and provide relevant professional development programming to middle school science, technology, engineering and mathematics (STEM) teachers.
- Collaborate with organizations focused on military and veterans to understand key issues and needs.

**DIVERSITY AND INCLUSION**
- Evaluate strategies/develop new approaches to ensure adequate sources of diverse talent for all hiring requirements.
- Analyze employment/turnover trends of veterans and People with Disabilities to identify programs to improve our reputation as an employer of choice.
- Create/collaborate with Employee Resource Groups.
- Host Leadership Council meetings.
- Host Sector Diversity and Inclusion Council meetings.
- Participate in meetings with external diversity organizations/partners.
- Review Equal Employment Opportunity and diversity metrics with senior management.
- Consult/collaborate with our 12 Employee Resource Groups (ERGs) on numerous issues.

**ETHICS AND INTEGRITY**
- Foster a workforce that takes ownership of our ethical culture, conducts itself with integrity and lives our company values.
- Hold ourselves to the highest standards at all times and ensure global compliance with laws, regulations, policies and procedures.
- Encourage a “speak up” culture that supports and promotes open and honest communications and an environment where everyone is included and comfortable challenging one another.
- Train Northrop Grumman employees on ethics and compliance awareness to support a culture based on strong values and open communication.

**ENVIRONMENTAL, HEALTH AND SAFETY**
- Ensure compliance with all regulations while reducing the frequency of injuries by assessing job practices, improving ergonomics and increasing employee awareness.
- Include customer goals/priorities to establish environmental sustainability goals.
- Establish environmental stakeholder and company sustainability goals, which are based on stakeholder goals/priorities.
- Host environmental sustainability data management team meetings.
- Host Environmental, Health and Safety (EHS) regulatory update meetings.
- Host EHS Leadership Council meetings to evaluate internal governance programs/strategic plans, identify regulatory policy changes and develop health/safety targets.
- Benchmark goals/perform by evaluating environmental sustainability practices of our customers and industry peers.
- Host industry compliance meetings with various nonprofit and government organizations.
- Participate in meetings with external stakeholders.

**SUPPLIER RESPONSIBILITY**
- Perform and comply with all regulatory requirements.
- Ensure adherence to Supplier Standards of Business Conduct.

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**FREQUENCY OF ENGAGEMENT**

<table>
<thead>
<tr>
<th>Ongoing</th>
<th>Monthly</th>
<th>Annually</th>
<th>Other Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>●</td>
<td>●</td>
<td>○</td>
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</tr>
</tbody>
</table>
REPORT STRUCTURE AND MATERIAL ASPECTS

This report highlights successes, challenges and performance data for the company in priority sustainability areas. It is prepared in accordance with Global Reporting Initiatives (GRI) G4 guidelines, and we self-declare the report “in accordance” with the guidelines at the core option, noting the Disclosures on Management Approach and at least one indicator for each identified material aspect.

Materiality assessments guide our report content by identifying aspects that are important to our company and our stakeholders. Material aspects, as defined by GRI, are those that “…reflect the organization’s significant economic, environmental, and social impacts; or substantively influence the assessments and decisions of stakeholders.” Throughout this report we use the word “material” as defined by GRI, rather than as defined by the U.S. Securities and Exchange Commission or under securities laws.

In 2017, we conducted a materiality assessment survey with employees representing different levels within the organization. The objective of the survey was to determine the relative importance and impact of certain topics and how well we manage them at Northrop Grumman from the perspective of employees. For each topic that was previously identified as material, the respondents rated (on a scale of 1 to 5) the importance of each topic to four different stakeholder groups: customers, investors, employees and society.

Respondents also rated each topic for:
- Importance to the long-term success of the business.
- Significance of impact on the environment, economy and society.
- Management effectiveness.

Our incentive compensation metrics and goals, both financial and nonfinancial, measure our success in demonstrating the underlying behaviors that drive strong, sustainable program performance. In 2018, we intend to broaden our materiality survey to include external stakeholders, which will help ensure that our reporting efforts reflect environmental, social and governance priorities. Our materiality assessments will continue to inform our selection of metrics and establishment of goals that support value creation for all our stakeholders and reflect our stakeholders’ priorities.

TOPICS IMPORTANT TO NORTHROP GRUMMAN AND OUR STAKEHOLDERS

- Corporate Citizenship
- Customer Satisfaction
- Data Privacy and Security
- Diversity and Inclusion
- Engagement
- Environmental Sustainability
- Ethics and Integrity
- Financial Performance
- Health and Safety
- Product and Service Quality
- Program Performance
- Regulatory and Legal Compliance
- Research and Development and Innovation
- Supply Chain
- Talent Management

EMPLOYEE PERSPECTIVES ON MATERIALITY

1. Strong, sustainable **PROGRAM PERFORMANCE** is a key value creation driver for all our stakeholders.

2. **HEALTH AND SAFETY** is considered a top-five issue for employees.

3. **ENVIRONMENT** is in the top five issues for which the company can have significant impacts.

4. **ETHICS AND INTEGRITY, DATA PRIVACY AND SECURITY, AND REGULATORY AND LEGAL COMPLIANCE** continue to be important to respondents across the board.

5. **TALENT MANAGEMENT AND R&D AND INNOVATION** is highlighted as important to business success. Investments in “Talent management” and “R&D and innovation” strategies are key to our near- and long-term growth.
Northrop Grumman is a publicly traded company headquartered in Falls Church, Virginia.

We are a leading global security company providing innovative systems, products and solutions in autonomous systems, cyber, C4ISR, strike, and logistics and modernization to customers worldwide.

As a prime contractor, principal subcontractor, partner and preferred supplier, we participate in many high-priority defense and government programs globally.

We conduct most of our business with the U.S. government, principally the Department of Defense and intelligence community. We also conduct business with foreign, state and local governments, as well as commercial customers.
OUR MISSION

GOAL
Provide high-quality, innovative and affordable products and systems to support the U.S. government and allies in successful missions around the world, with a focus on: Autonomous Systems; Cyber; Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR); Strike; and Logistics and Modernization.

PERFORMANCE
Throughout 2017, our team delivered another year of strong performance. We continued to embrace our partnership with U.S. and allied defense, intelligence and security partners to provide high-quality, affordable products and systems through a robust mission-assurance process that emphasizes our company-wide focus on quality, innovation and superior program performance. We are excited about our many future opportunities and remain committed to generating value through sustainable top performance.

CORPORATE RESPONSIBILITY AND GLOBAL SECURITY
We remain committed to corporate social responsibility and environmental sustainability. Northrop Grumman does not currently manufacture cluster munitions, depleted-uranium munitions, chemical or biological weapons. Our focus globally is on doing business in a manner consistent with our values and a commitment to sustainability. We work to incorporate social responsibility and customer support into decision-making, including the products we design, develop, manufacture and sustain.

DATA PRIVACY AND SECURITY
At Northrop Grumman, we have a comprehensive information security program. Our Corporate Privacy Office manages our global commitment to respect the personal information of our employees, customers and other individuals with whom we conduct business. We continue to enhance our Privacy Governance Framework that includes privacy training and awareness initiatives, effective privacy notices, frequent audits and self-assessments, access controls, international and third-party supplier risk assessments, compliant cross-border transfers of data, and other risk mitigation measures.
As a public company, we communicate regularly with our shareholders, including through our quarterly financial reports and other filings with the Securities and Exchange Commission, our annual shareholder meeting, postings on the Investor Relations section of our website, regular public announcements and in-person meetings.

**RECOGNITION**
- Included in the Dow Jones Sustainability Index for North America for the second year in a row.
- Maintained a leadership score on the CDP climate change program for the sixth consecutive year.
- Named on DiversityInc’s annual Top 50 Companies for Diversity list for an eighth consecutive year.

We measure our performance against financial and nonfinancial metrics of importance to our shareholders, customers and employees. These metrics also factor into executive compensation. Our 2017 financial performance metrics were measures of operating margin rate, cash from operations conversion and net income growth. Our nonfinancial metrics were customer satisfaction, quality, employee engagement and inclusion, diversity, safety and environmental sustainability.

**NORTHROP GRUMMAN AT A GLANCE 2017**
- NYSE Symbol: NOC
- Employees: Approximately 70,000
- Net Earnings: $2.0 billion
- Diluted Earnings Per Share: $11.47
- Floor Space: 35 million square feet
- Total Shareholder Return: 33.9%

**TOTAL REVENUE IN 2017**
- $25.8 BILLION
  - 87% U.S. Sales
  - 13% International Sales
In February 2017, we hosted a two-day Global Partner Forum event in Chantilly, Virginia, to bring together our top suppliers, Global Supply Chain leaders, executives, government representatives and Northrop Grumman leaders. Events at the forum focused on key business areas of performance, ethics, risk management, affordability, growth and innovation. The forum culminated with the recognition of 40 suppliers with our “Supplier Excellence Award” that honors exceptional performance and value creation.

At the Global Partner Forum 2017 we highlighted the Supplier Standards of Business Conduct rollout during special training sessions for all supplier attendees. Following the forum, we initiated a communications campaign that included publishing the Supplier Standards of Business Conduct in 12 languages to Northrop Grumman internet sites worldwide.
BEING RESPONSIBLE
GLOBAL SUPPLY CHAIN MANAGEMENT

Global Supply Base
As we expand Northrop Grumman further into global markets, we continue to enhance our efforts to prevent human trafficking and other misconduct within our global supply base. We have a robust anti-corruption program to help ensure that we are doing business only with parties that share our corporate values for integrity and adhere to transparent and ethical business practices.

Human Rights
We are focused on identifying, managing and minimizing the potential of human rights violations occurring within our supply base. Within our Supplier Standards of Business Conduct, we outline our expectations for suppliers to treat people with dignity and respect.

Conflict Minerals
We submitted our 2017 Conflict Minerals Report on Form SD on May 25, 2018. We are committed to the responsible sourcing of minerals through our Global Supply Chain. As stated in the Northrop Grumman Supplier Standards of Business Conduct, suppliers must comply with any applicable laws and regulations regarding conflict minerals and assist us in meeting our obligations under law and regulation. We report annually to the United States Securities and Exchange Commission on the potential of conflict minerals in our supply chain (tantalum, tin, tungsten and gold) originating in the Democratic Republic of Congo (DRC) or any of the DRC’s adjoining countries.

Our suppliers must support our efforts to conduct due diligence on the use of conflict minerals in our supply chain, including the identification of products in their supply chain that contain conflict minerals and validating the country of origin of these minerals. Northrop Grumman is a member company of the Responsible Minerals Initiative, and we have issued a Conflict Minerals statement. This statement sets forth our commitment to the responsible sourcing of minerals in our Global Supply Chain and is available on our website at www.northropgrumman.com.

COMMUNITIES OF PRACTICE (CoP)
To effectively integrate supply chain activities across the company, we utilize an enterprise CoP construct. Each CoP defines and executes initiatives to optimize and harmonize cross-company efforts. For more information see our microsite.
QUALITY MANAGEMENT
At Northrop Grumman, our commitment to our customers and enhancing global security is steadfast. In 2017, we maintained our global focus on quality as one of our key strategic priorities. We continued using quality measures company-wide that reflect the performance of our key programs against quality expectations across the program life cycle including engineering, manufacturing, supply chain and services. We promote a company culture that infuses quality throughout Northrop Grumman. By highlighting the relationship between individual employees’ work and customer success, we create sustained performance improvement. We recognize that a holistic view of our quality performance and engaging all key stakeholders drives successful performance outcomes for our customers. To identify and prioritize areas for improvement in quality and customer satisfaction, we utilize a rigorous self-assessment process at both the business unit and corporate level.

QUALITY IS PERSONAL
Each year we recognize employees for taking personal responsibility for top-quality outcomes and striving for first-time excellence and continuous improvements. We had a record number of nominations in 2017 with more than 300 employees recognized with a Quality is Personal Award.

For more information see our microsite.

GLOBAL SUPPLY CHAIN
OUR SUPPLIERS ARE ESSENTIAL TEAM MEMBERS
As part of our company values, suppliers receive the same respect we show to our customers, including fair and equitable treatment, clear agreements and honest feedback on performance. As teammates, we consider the needs of our suppliers in conducting our business.

DIVERSE SUPPLIER SPEND

GOVERNMENT FISCAL YEAR

<table>
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<tr>
<th>Supplier Type</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
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<tbody>
<tr>
<td>SMALL BUSINESS</td>
<td>37.8%</td>
<td>38.0%</td>
<td>39.7%</td>
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<tr>
<td>SDB</td>
<td>4.7%</td>
<td>5.0%</td>
<td>5.8%</td>
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<tr>
<td>WOSB</td>
<td>8.6%</td>
<td>8.3%</td>
<td>9.7%</td>
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<tr>
<td>HUBZONE</td>
<td>1.9%</td>
<td>2.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>VOSB</td>
<td>5.9%</td>
<td>5.5%</td>
<td>5.0%</td>
</tr>
<tr>
<td>SDVOSB</td>
<td>2.8%</td>
<td>2.6%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>
SMALL BUSINESS PERFORMANCE

We embrace supplier diversity and inclusion as a business imperative. Numerous organizations have recognized the company with awards for the success of our global supplier diversity programs.

- **$6.8 billion** subcontracted to a broad base of suppliers

- **39.7%** went to small business suppliers

- **$6.8 billion**

- **$2.7 billion**

Consecutive years Northrop Grumman has exceeded the U.S. small business goal of 23%.

SUPPLIER ALIGNMENT WITH NORTHPROP GRUMMAN VALUES

In 2017, we published the new Supplier Standards of Business Conduct that further reflect our commitment to ethical conduct and social responsibility at all tiers of our supply base. Our supplier standards are based, in part, on the supplier codes from the Defense Industry Initiative (DII), as well as the International Forum on Business Ethical Conduct (IFBEC). To further define our commitment to ethical principles and practices, suppliers receive an annual notification about policies and values. We expect our suppliers (and those who work for them, including employees and subcontractors) to comply with our Supplier Standards of Business Conduct. A strict adherence to ethical practices is a priority at Northrop Grumman and an essential element of our supplier relationships.

We regularly communicate our commitments to our suppliers regarding social responsibility and regulatory areas including Equal Employment Opportunity/Affirmative Action, conflict minerals, counterfeit parts, anti-human trafficking and cybersecurity.

Elected state leaders from Maryland attend the Northrop Grumman Mentor-Protégé signing ceremony for Digit All City, Coppin State University and Morgan State University.

WE EMBRACE SUPPLIER RESPONSIBILITY AND DIVERSITY

At Northrop Grumman, our vision is to be the leader in delivering integrated and effective supply chain solutions by harmonizing and leveraging shared strategy, processes, people and systems to generate value.

To help align goals with our values, employees with procurement authority are required to complete annual specialized ethics training. Our employees are also required to certify their understanding of, and compliance with, our Standards of Business Conduct and disclose any known or potential conflicts of interest.
SUPPLIER DIVERSITY

The Northrop Grumman Global Supplier Diversity Program office is a link to small and disadvantaged business owners, as well as to our partners at Historically Black Colleges and Universities, Hispanic-Serving Institutions and Tribal Colleges and Universities. We host outreach events for members of the small business community, offer mentoring programs and sponsor academic, customer and industry activities that support small business growth and development.

DEPARTMENT OF DEFENSE (DOD) MENTOR-PROTÉGÉ PROGRAM

This program encourages major DOD prime contractors to develop the technical and business capabilities of:

- Small Disadvantaged Businesses.
- Women-Owned Small Businesses.
- Service-Disabled Veteran and Veteran-Owned Small Businesses.
- Historically Underutilized Business (HUB) Zone Small Businesses.
- Organizations Employing Severely Disabled Individuals.

For more information see our microsite.

SMALL BUSINESS INNOVATION RESEARCH (SBIR)

Throughout 2017, we continued to investigate innovative ways to address government customers and technology needs at Northrop Grumman. The Small Business Administration funds the SBIR program to engage small firms in federal research and development projects with commercialization potential. The SBIR program is a three-phase process of transitioning new, small-business technology from proof-of-concept to prototype development, and ultimately to commercialization within industry and government platforms.

For more information see our microsite.

2017 SMALL BUSINESS HIGHLIGHTS

Mentor-Protégé Program

We managed six Mentor-Protégé Agreements, and in 2017 subcontracted $13.2 million to protégé organizations.

Small Business

In 2017, for the seventh consecutive year, we hosted a joint technology interchange workshop encouraging synergy among small business owners, military representatives and Northrop Grumman employees. As part of this forum, Missile Defense Agency (MDA) SBIR Phase I firms participated in an independent SBIR Technical Interchange Meeting with Northrop Grumman technical representatives to identify new, innovative technologies for MDA programs.

Northrop Grumman ranked

- #1 “Top 10 Companies for Veterans” (by DiversityInc).
- #2 “America’s Top 50 Organizations for Multicultural Business Opportunities” (by DiversityBusiness.com).
- TOP 100 Corporations for Women’s Business Enterprises (by Women’s Enterprise magazine).
- SUPPLIER DIVERSITY ADVOCATE OF THE YEAR 2017 (by National LGBT Chamber of Commerce).

For more information see our microsite.
GOAL AND PERFORMANCE SUMMARY

GOAL
Engage various external stakeholder groups that support and serve our values and interests in identifying, developing and recognizing a diverse supply base.

PERFORMANCE
We partnered with many external organizations to develop our diverse supply base. These organizations provided forums for our employees to create long-lasting connections, volunteer in their communities and contribute to the company’s success through recruiting and developing employees and suppliers. Several of our employee resource groups aligned their meetings with annual partner conferences and supplier diversity outreach events to identify potential diverse suppliers.

GOAL
Ensure performance of our supply base is consistent and compliant with our values, Supplier Standards of Business Conduct, regulations and our customers’ expectations.

PERFORMANCE
We expect a commitment from our suppliers and their supply base to achieve the highest standards of ethics, integrity and performance. In 2017, we revised our standard supplier terms and conditions to add a provision requiring compliance with our Supplier Standards of Business Conduct.

We have a harmonized supplier performance and ratings procedure that defines common elements for evaluating, monitoring and rating performance within our supply chain.

We proactively engage in verification of product supply chains to evaluate and address various risks, such as counterfeit prevention, as well as conduct supplier audits to evaluate compliance with regulatory, contractual requirements and company policies and procedures. Rigorous corrective action plans are issued for any non-compliance and monitored closely until closure.

CRITICAL SUPPLIERS CRITERIA INCLUDE:
- Level of criticality of program.
- Past performance.
- Dollar value and total spending.
- Open purchase order value and volume.
- Sole-source versus single-source.
- Multiple programs.
- Affordability.
- Risk/financial health.
- Investments, business agreements and small business categories.
- Unique technology and strategic partnering.

SUPPLIER PERFORMANCE
Suppliers to Northrop Grumman are valued team members. We expect each to understand the critical need for top performance while achieving the highest standards of ethics and integrity. We have processes for assessing, monitoring, rating and improving performance and risk levels in our supply chain. We routinely evaluate the performance of our suppliers using standard industry supply chain criteria for schedule, cost and quality of performance. We also use additional evaluations for more complex requirements.

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- Affordability.
- Risk/financial health.
- Investments, business agreements and small business categories.
- Unique technology and strategic partnering.
GOAL
Promote best practices in sustainability with our supply base and customers.

PERFORMANCE
We continued the advancement of our supply chain sustainability program to improve risk management, performance and transparency. As part of the ongoing efforts, we support the International Aerospace Environmental Group and Workgroup 6 that develops surveys for aerospace and defense companies to collect information about environmental sustainability within their supply chain.

GOAL
Continue to ensure commitment to ethical conduct and identify any conflicts of interest with current and potential suppliers.

PERFORMANCE
During 2017, Global Supply Chain employees reviewed the procurement integrity policy and signed a certification specifying that they will not accept supplier gifts, bribes or kickbacks. We also regularly performed due diligence to monitor and assess our suppliers and potential suppliers for a variety of risk, including anti-corruption as well as debarment or suspension from U.S. government contracting.

GOAL
Protect our products and sensitive information throughout Northrop Grumman by avoiding counterfeit parts and exposure to cyber attacks within our supply chain.

PERFORMANCE
During 2017, we continued our comprehensive approach to protecting our products and sensitive information from supplier-based cybersecurity attacks and from counterfeit parts. We provided cyber awareness and online resources to aid Northrop Grumman suppliers in implementing advanced information security. We fortified our own core network, incorporating the latest industry best practices. We issued specific guidance on cyber and counterfeit parts to internal procurement personnel. We conducted a baseline risk assessment of suppliers with which we exchange sensitive data and developed, as warranted, individual supplier corrective action plans. Also, we participated in government-industry working groups, several in leading roles, to support and advise customers and to develop common supplier cybersecurity processes and tools for improved quality and affordability.
We are committed to maintaining the highest standards in corporate governance, ensuring our interests at Northrop Grumman are aligned throughout the company, increasing accountability to shareholders and demonstrating our commitment to compliance, ethics and integrity. We regularly engage with our shareholders to better understand their perspectives regarding Northrop Grumman. That ongoing dialogue with shareholders informs decisions by the Board of Directors and shapes our governance and compensation to help ensure our interests remain aligned with the owners of our company.

Board of Directors
The Board of Directors fosters the long-term success of Northrop Grumman, promoting the interests of our shareholders.
2017 GOVERNANCE GOAL AND PERFORMANCE SUMMARY

GOAL
Effective corporate governance to ensure long-term value creation.

PERFORMANCE
The Board has adopted corporate governance policies and programs, including the Principles of Corporate Governance, which reinforce our values and provide for effective management, oversight and responsible business practices.

See the Principles of Corporate Governance on the Northrop Grumman website.

HIGHLIGHTS OF OUR GOVERNANCE PRACTICES
- Number of independent directors: 12 of 13 as of December 31, 2017.
- All Board committees comprised entirely of independent directors.
- Annual election of all directors.
- Lead independent director with significant and clearly defined responsibility.
- Majority voting for directors in uncontested elections.
- Proxy access bylaw.
- Annual Board and committee self-evaluations.
- Ability of shareholders to act by written consent.
- Ability of shareholders to call a special meeting.
- Annual advisory vote on executive compensation.
- Recoupment policy for incentive compensation.
- Stock ownership guidelines for directors and executive officers.
- Policy prohibiting hedging and pledging of Northrop Grumman stock by directors and executive officers.

BOARD COMPOSITION AND TENURE
As of December 31, 2017, the Board included 13 directors, 12 of whom are independent. The Board represents a diverse group of accomplished directors who bring a wide range of experience to the company. The average tenure is 6.8 years. Three of the directors are women, and three are People of Color. We believe our directors possess the reputation, education, professional background and skills highly beneficial to the Board and to our shareholders.

Each year the full Board, as well as each of its committees, conducts an assessment of performance and discusses in executive session the results and opportunities for improvement. In addition, the directors conduct an annual assessment of each individual director’s performance. The Lead Independent Director or Chairperson discusses the results of this assessment with each director individually.

Our directors are required to have a significant financial interest in Northrop Grumman through stock ownership to help reaffirm their interests align with those of the company’s shareholders.
AUDIT COMMITTEE
- Focuses on risks that could affect financial performance.
- Reviews management reports on material financial risks and how we respond to, and mitigate, these risks.
- Reviews periodic Northrop Grumman reports filed with the Securities and Exchange Commission.
- Annually reviews the company’s compliance program and discusses with management implementation of the company’s global compliance policies, practices and programs.

COMPENSATION COMMITTEE
- Reviews risk assessment of Northrop Grumman compensation programs.
- With input from its independent compensation consultant, evaluates the mix of at-risk compensation linked to stock performance and the alignment of compensation programs with shareholder value creation.

GOVERNANCE COMMITTEE
- Regularly reviews corporate governance policies and practices.
- Makes recommendations to the Board regarding composition and Board succession planning.

POLICY COMMITTEE
- Assists the Board in identifying and evaluating global security; political, budgetary, environmental and sustainability issues; health and safety matters; and trends that could impact Northrop Grumman business.
- Reviews management reports on ethics and corporate responsibility programs.

BOARD OVERSIGHT OF RISK
The Board has four standing committees*: audit, compensation, governance and policy. Among other duties, the Board oversees our risk management activities. Each of our Board committees assists the Board in this role. The Board also receives regular reports on the activities of our Enterprise Risk Management Council, which seeks to ensure effective mitigation programs are in place for each of the most significant risks to our business.

*Our 2018 Proxy Statement provides a summary of the duties of each committee. The committee charters are posted on the Northrop Grumman website.

HUMAN RIGHTS
At Northrop Grumman, our business practices reflect our strong commitment to human rights. Our Human Rights policy highlights our commitment to treat employees, suppliers, customers and competitors with dignity and respect and prohibits unlawful discrimination, harassment or retaliation. Additionally, our policy covers freedom of association, fair working conditions, ethical procurement practices, health and safety and protection of the environment. We also have established policies to combat human trafficking.

POLITICAL PARTICIPATION DISCLOSURE
Political activities at Northrop Grumman are consistent with Northrop Grumman principles of good governance and the highest standard of ethics. We publish an annual report detailing political contributions on the Northrop Grumman website.
REGULATORY AND LEGAL COMPLIANCE KEY ELEMENTS

MANAGEMENT COMMITMENT: The unwavering commitment of our management to a strong culture of integrity lies at the foundation of our ethics and compliance program. Our leadership demonstrates its commitment regularly through communications and actions.

STANDARDS AND POLICIES: Beyond our Standards of Business Conduct, we have a comprehensive set of policies and procedures that clearly establishes and communicates standards to which we hold employees accountable, and establishes roles and responsibilities for strong internal controls.

OVERSIGHT AND RESOURCES: We use internal teams that work together to provide the needed oversight and resources to drive our compliance program including our Office of the Chief Compliance Officer; Corporate Compliance Council; Law Department; Global Corporate Responsibility; Ethics; and Internal Audit.

RISK ASSESSMENT: Our Enterprise Risk Management Council evaluates the significant risks facing our company and the strategies to mitigate and address those risks.

INCENTIVES AND DISCIPLINE: We publicly recognize employees who do the right thing. We also have effective processes for addressing allegations and disciplining employees who engage in misconduct.

DUE DILIGENCE: We devote significant resources to evaluating and carefully selecting third parties, including sales representatives, partners, consultants, suppliers and teammates. We clearly communicate our expectations that these third parties must share our commitment to doing business with the highest levels of ethics and integrity, and in compliance with all applicable laws and regulations.

REVIEW AND AUDITS: Through employee surveys and our well-established corporate audit program, the Corporate Compliance Council, and other feedback channels, we continuously review and identify areas for potential enhancement of our compliance program.

ANTI-CORRUPTION COMPLIANCE

We do not tolerate bribery or corrupt business practices. We conduct our business consistent with high ethical standards and in full compliance with all applicable anti-corruption laws.

We compete in the global marketplace based on the quality of our products and services and the value we create for our customers by offering those products and services at a competitive price. We have zero tolerance for bribes, kickbacks or any other illegal business practices.

We are always mindful that our culture for ethical behavior and reputation is among our most important assets. We maintain vigilance and care for both, avoiding transactions and relationships that could violate the law or otherwise compromise our ethics and integrity. Our ethical culture and reputation are foundational elements of being a trusted supplier for our customers, a reliable performer for our shareholders, and an employer of choice for our talented workforce.

- PROHIBITION ON BRIBERY: Our policies prohibit offering or paying a bribe, directly or indirectly, in connection with any business (commercial or government). We also prohibit the acceptance or promise of anything of value from any person or entity as an improper inducement or reward to perform or fail to perform a function or activity.

- MANAGEMENT COMMITMENT: Throughout our business and management ranks, our leadership demonstrates a proactive, visible and steadfast commitment to anti-corruption compliance.

- RISK ASSESSMENT: We conduct internal risk assessments and evaluate the strength of our anti-corruption compliance program against standards provided by government authorities and industry best practices.
• **RISK-BASED THIRD-PARTY DILIGENCE:** We have a dedicated and centralized due diligence collection and analysis organization to conduct risk-based vetting of third parties with whom we work.

• **AUTOMATION:** We use an automated diligence management system to facilitate our third-party diligence processes.

• **INDEPENDENT REVIEW BOARDS:** We utilize cross-functional teams for the review and approval of third-party relationships.

• **EMPLOYEE ENGAGEMENT:** Anti-corruption compliance is the responsibility of all Northrop Grumman personnel, and in meeting this responsibility, our employees are expected to:
  » Complete required anti-corruption training.
  » Be aware of the potential for corruption risk factors in the transactions and business relationships they are involved in on Northrop Grumman’s behalf, such as the perception of corruption in a particular country or organization, adverse information concerning the ethical reputation of our trading partners and other red flags that might arise.
  » Take measures to ensure that all contracts and business records accurately reflect the nature of each transaction and the relationship of the parties involved.
  » Complete an annual conflict of interest disclosure form to ensure job performance is not improperly influenced by outside interests.
  » Promptly report any potential or suspected violations, unethical or illegal activity in accordance with company policies.

• **BUSINESS COURTESIES AND CHARITABLE GIVING:** We maintain procedures for employees to follow in order to provide or accept business courtesies to or from nonemployee business associates. We also maintain procedures that govern participation in charitable giving to ensure honesty and fair dealing and minimize the risk that a donation will create a conflict of interest with regard to current or potential business.

• **EMPLOYMENT CONFLICTS:** We maintain procedures regarding conflicts of interest that might arise when hiring employees. Decisions regarding hiring an employment candidate may not be used to induce a party to provide any improper business advantage to the company.

• **INTERNAL REPORTING:** We expect our leadership to exhibit ethical behavior and to anticipate and respond appropriately to employees seeking to report misconduct. To encourage employees to report potential misconduct, we use management training and “train-the-trainer” modules. This preparation fosters a climate of trust where our employees are more likely to report potential misconduct.

• **INDUSTRY ENGAGEMENT:** Northrop Grumman is a long-standing and active member of the Defense Industry Initiative (DII) on Business Ethics and Conduct and the International Forum on Business Ethical Conduct (IFBEC), among other organizations that promote and benchmark best practices.
ETHICS AND INTEGRITY

At Northrop Grumman, we are guided by our company VALUES. They describe our company as we require it to be, and we want our decisions and actions to demonstrate these Values. We believe that putting our Values into practice creates long-term benefits for shareholders, customers, employees, suppliers and the communities we serve.

Our ethics vision is to foster a workforce that takes ownership of our ethical culture, operates with integrity and lives our company values. To support our ethics program, we have a strong network of global business conduct officers at strategic locations. These are full-time employees who have a strong ethical commitment to the company, are approachable and trained in Northrop Grumman policies and procedures. Additionally, many of our lead business conduct officers hold compliance and ethics professional certifications from the Society of Corporate Compliance and Ethics.

Our mission is to promote a culture where leaders create and encourage an open and ethical work climate, foster trust, and lead by example. We enable and require employees to act with integrity and in compliance with all ethical and legal responsibilities by providing the necessary tools and knowledge. We pledge to conduct ourselves with integrity to support an internal culture of innovation and trust. Our ethical obligations extend to all employees and those who represent the interests of Northrop Grumman anywhere in the world.

"Trust is not a given; it is earned and a vital part of our relationships with colleagues, business partners and customers. We earn their trust by living our company Values, abiding by our Standards of Business Conduct and consistently exhibiting ethical behavior. We must work hard every day to earn their trust through our actions and behavior."

WES BUSH | Chairman and Chief Executive Officer

WE PROVIDE LEADERSHIP AS A COMPANY AND AS INDIVIDUALS

Northrop Grumman leaders are talented employees effectively applying advanced technology, innovation and sound business management. We each lead through our competence, creativity and teamwork.

Our ETHICS: LEAD IT messaging encourages inclusive, honest communications and an environment where everyone is included and comfortable challenging one another. In his 2017 annual CEO ethics message, our CEO reinforced that respect and trust are fundamental to an engaged and productive workforce.

In addition to our commitment within Northrop Grumman, our ethics and compliance staff and business conduct officers lead, partner, participate and support external ethics and compliance organizations. This effort includes leadership in the Defense Industry Initiative on Business Ethics and Conduct (DII); our executive team serves on both the steering committee and working group. DII activities in 2017 included ethics briefings to the Interagency Suspension and Debarment Committee and Small Business Procurement Advisory Council as well as outreach to multiple U.S. government procurement agencies including the Office of Federal Procurement Policy and Army and Navy Procurement offices.
In addition, executives in our Ethics office actively assisted our industry colleagues with content development of the DII Small Business Toolkit and establishing a webinar series to discuss implementing key elements of an effective ethics and compliance program. They also shared best practices and spearheaded the DII Benchmark Survey development and launch so signatories could compare their programs with their industry peers.

Northrop Grumman is a founding member and serves on the steering committee of the International Forum on Business Ethical Conduct (IFBEC). The mission of the Forum is to promote and foster, through Global Principles, development of industry-wide ethical standards for companies that are active in the aerospace and defense business sector.

We are members and actively participate with the Society of Corporate Compliance and Ethics, Institute of Business Ethics (UK), International Forum on Business Ethical Conduct, various university ethics competitions and the Aerospace Industries Association. Additionally, we have a Northrop Grumman Senior Fellow at the Ethics and Compliance Initiative.

**WE VALUE PEOPLE**

We treat one another with respect and take pride in the significant contributions that come from the diversity of individuals and ideas. We are committed to openness and trust in all relationships.

WE ACT WITH INTEGRITY IN ALL WE DO

We are each personally accountable for the highest standards of behavior, including honesty and fairness in all aspects of our work. We fulfill our commitments as responsible citizens and employees. We consistently treat customers and company resources with the respect they deserve.

In 2017, we provided enterprise training on building trust and respect, information security, import compliance and global trade security, and for U.S. employees, the importance of time- and labor-charging accuracy. For international employees, we included a module on anti-corruption and translated training content into German, French, Italian, Dutch and Arabic. The interactive format was engaging, and feedback from our training survey showed positive responses to continued improvements in the content format and structure.

Our corporate intranet site provides additional resources and guidance to assist with ethical dilemmas and decision-making. Furthermore, we provide a series entitled “Integrity Talks: Manager Led Discussions” that provides managers ethics and compliance content and relevant scenarios based on lessons learned, along with an implementation guide to assist them with discussing ethics with employees, building trust and creating an environment where employees feel comfortable speaking up.

In addition, we use positive reinforcement with our ongoing “ETHICS: OWN IT, LIVE IT, LEAD IT” award for employees who demonstrate integrity and inspire others to do the right thing. Twenty-six employees received this award in 2017. In addition to local recognition and an engraved crystal award, they receive a letter from our Chairman and Chief Executive Officer, Wes Bush.
BUSINESS CONDUCT OFFICERS

Provide ethics leadership to management and employees, implement enterprise ethics and compliance initiatives, raise concerns and potential risks, and respond to questions and concerns raised by employees about the company’s values, ethics and business conduct. We have 126 Business Conduct Officers across the globe, located in the United States, Europe, Asia, the Middle East and Australia.

In February 2017, more than 40 international business conduct officers and ethics partners representing 11 countries came together in Hamburg, Germany for the annual business conduct officer workshop. The two-day session included compliance hot topics and briefings on creating workplace culture, global data protections, emerging risk areas, OpenLine data and trends, and executive leaders sharing their views on ethics and integrity. Our business conduct officers had an opportunity to discuss challenges, share best practices and lessons learned, and develop strategic plans for program enhancements.

In April, the ethics organization hosted a similar workshop for U.S.-based business conduct officers in Dallas, Texas. More than 80 attendees participated in two days of training, sharing ideas, and regional networking. These events enabled our business conduct officers to drive the company’s Ethics and Business Conduct program and work to ensure successful implementation of ethics initiatives.

Both events were preceded with a full-day ethics “boot camp” training for new business conduct officers. The training included policies and procedures, Standards of Business Conduct and roles and responsibilities.

WE TAKE RESPONSIBILITY FOR QUALITY

Our products and services will be “best in class” in terms of value received for money paid. We deliver excellence, strive for continuous improvement and respond vigorously to change. Each of us is responsible for the quality of whatever we do.

We are responsible for knowing the rules and regulations that apply to the work we do and ensuring that we have the appropriate training and guidance to do our jobs with absolute integrity and quality.

Quality banners are proudly displayed at our manufacturing sites with slogans supporting this critical Value: QUALITY IS EVERYONE’S RESPONSIBILITY, QUALITY IS THE KEY TO SUCCESS, PROTECT OUR PEOPLE AND OUR PRODUCTS, and HOW DO I KNOW THAT QUALITY IS BUILT IN? - BECAUSE I BUILT IT! and more. This messaging enforces our employees’ pride, patriotism and commitment to quality.
WE REGARD OUR SUPPLIERS AS ESSENTIAL TEAM MEMBERS

We owe our suppliers the same type of respect that we show to our customers. Our suppliers deserve fair treatment, clear agreements and honest feedback on performance. We consider supplier needs in conducting our business.

In 2017, we translated and published the new SUPPLIER STANDARDS OF BUSINESS CONDUCT in Arabic, Chinese, English, Dutch, Danish, French, German, Italian, Japanese, Korean, Norwegian and Spanish. This document sets expectations and informs and assists our suppliers and business partners. We encourage our partners and suppliers in our worldwide supply chain to adopt and enforce concepts similar to those in this policy.

We expect that our suppliers will treat others with dignity and respect, encourage diversity, remain receptive to diverse opinions, promote equal opportunity and foster an inclusive and ethical culture. They must refrain from violating the rights of others and address any adverse human rights impact on their operations. This includes child labor, human trafficking, harassment, nondiscrimination, wage and benefit compensation and social dialog.

Our suppliers must not seek to gain advantages through unfair, unethical or illegal business practices and must also exhibit good trade practices including responsible sourcing of minerals, protecting intellectual property and sensitive information, and maintaining accurate records.

Additional supply chain Anti-Human Trafficking and Slavery information, including verification and evaluation of risk, compliance, program accountability, training and reporting options are posted on our company website.

WE DELIVER CUSTOMER SATISFACTION

We are dedicated to satisfying our customers. We believe in respecting our customers, listening to their requests and understanding their expectations. We strive to exceed their expectations in affordability, quality and on-time delivery.

The ETHICS: OWN IT, LIVE IT, LEAD IT quarterly newsletter presents a broad range of topics, including executive messages, case scenarios and best practices, and serves as a continued refresher for ethics awareness and the importance of customer satisfaction.
NORTHROP GRUMMAN SPEAK UP CULTURE

Our ethics program goes beyond the minimum standards to create and sustain an open environment and a “speak up” culture that fosters trust, helps employees achieve goals and improves our performance. By making the right decisions based on Values, Northrop Grumman employees maximize both individual and company success.

We act in line with our Values and Standards of Business Conduct. Our employees are encouraged to raise concerns or questions to managers or business conduct officers. Our “Speak Up - We’re Listening” OpenLine posters, with contact information for local business conduct officers and the OpenLine, are prominently displayed at all Northrop Grumman facilities and serve to reinforce our commitment to integrity. In 2017, we translated our international posters into nine languages, created more than 30 versions and printed more than 200 copies for in-country distribution.

Our Northrop Grumman OpenLine is a valuable resource where employees, business partners, suppliers and other stakeholders can ask questions, seek guidance on ethics questions or matters of employee relations, and report suspected violations of laws, regulations and company policy or other concerns. The toll-free 24/7 number, administered by a third-party service provider, is communicated on brochures, posters, the company intranet and internet sites. Callers may choose to remain anonymous, however, this varies in global locations based on country laws. In addition, an online web-based reporting system is available to employees. The company provides dedicated OpenLine numbers at many of our international locations so that employees in those countries can speak to a representative in their native language.

In 2017, employee inquiries to the OpenLine increased by 17 percent from the previous year, and reports of allegations increased by 10 percent. These increases are consistent with the enhanced training on certain compliance topics and increased awareness of OpenLine availability.

The trained Compliance and Ethics Investigation Team investigates reported allegations in a manner that respects the individual and the trust they have placed in us. Northrop Grumman does not tolerate direct or indirect retaliation against any individual who reports a concern in good faith; this messaging is prominently posted online and in brochures.

For 2017, we substantiated 31 percent of allegations reported through the Openline, down from 36 percent in the previous year. Actions taken on cases with merit included coaching, verbal and written warning, demotions and 66 terminations. Notable in 2017 was the 17 percent increase in inquiries that may reflect increased awareness of OpenLine availability and increased awareness on the Northrop Grumman business courtesies policy.
Northrop Grumman offers an extraordinary portfolio of capabilities and technologies that enable us to deliver innovative systems and solutions for applications that range from undersea to outer space and into cyberspace. Our core competencies are aligned with the current and future needs of our customers and address emerging global security challenges in Cyber, Logistics, Autonomous Systems, C4ISR, and Strike that are critical to the defense of the United States and its allies.
At Northrop Grumman, we innovate to provide advanced defense/security solutions and capabilities to our customers. A critical approach is Systems Thinking, which allows us to design and deliver complex products that are critical to global security.

A Systems Thinking culture is key to our business and success. Systems Thinking goes beyond the ability to perform program engineering, to include all of our employees helping to solve complex problems. This process keeps in mind the impact of every decision on the rest of the system and ensures decisions will be sound for the entire system from initial concept, to capture and through sustainment. Developing a strong Systems Thinking culture, including world-class Systems Engineering, across the organization from top to bottom is a key discriminator for Northrop Grumman and allows us to better execute on programs, increase customer confidence and grow our business.

Systems Engineering is a key tenet to creating first-time quality and sustainable performance. We work to communicate and emphasize the importance of Systems Engineering company-wide, across all functions, to ensure that we create value strategically.

Systems Thinking and Systems Engineering play a critical role within program teams and across the company. Systems engineers ensure the product or solution being developed fully meets mission objectives and is delivered to the customer as intended. Systems Engineering considers the business and technical needs of customers with the goal of providing a quality product or solution that delivers the objective. When executed well, Systems Engineering adds value by creating sound proposals, clear requirements, robust designs and effective testing.

Our culture of Systems Thinking is essential to derive the full benefit of our world class Systems Engineering. Adopting a Systems Thinking mindset across our company – to programs and projects of all sizes and scope as well as our day-to-day activities – reinforces our systems-engineered solution development as we drive individual, team and company-sustained top performance.

RESEARCH AND DEVELOPMENT

Our research and development efforts include partnering with leading universities, small businesses and national laboratories to create advanced capabilities; attracting and developing a highly innovative technical workforce that includes leading scientists and engineers; and advancing science and human discovery.
2017 HIGHLIGHTS

TECHFEST 2017
This annual week-long, company-wide technology event brought together more than 2,000 employees, customers and university partners to share ideas and see the innovative technologies we are developing at Northrop Grumman. The event drew participants from the United States, the United Kingdom, Australia and France.

TECHFEST KEY TECHNOLOGY AREAS INCLUDED
- Radio Frequency, Sensor, Processing Electronics
- Command, Control, Decision Support and Combat Systems
- Information Assurance
- Mission Engineering and Enterprise Systems
- Intelligence, Surveillance and Reconnaissance
- Data Analytics and Cognitive Autonomy
- Communications and Networking
- Cyber Resilience

TECH UNDERGROUND AND FABLABS
These innovation and creativity spaces allow employees from all levels and backgrounds to volunteer their time together and turn ideas into inventions. The mission: tackle new challenges, improve affordability, expand capabilities, support early product development and engage employees through exploring the art of the possible.

GLOBAL GRAND CHALLENGE SUMMIT
The summit is co-hosted by U.S.’s National Academy of Engineering, the U.K.’s Royal Academy of Engineering and the Chinese Academy of Engineering. The summit brought together engineers, industry leaders, policymakers, educators, artists and students from around the world to brainstorm ways of harnessing global cooperation to solve common challenges, including sustainability, health, security, joy of living, education and public engagement.

The Northrop Grumman Foundation was a principal sponsor of the summit, and Chairman and CEO Wes Bush addressed the attendees with keynote remarks. Consistent with the company’s interests in promoting the benefits, importance and satisfaction of engineering careers, Bush’s remarks stressed the amazing technologies on the near horizon. He underscored the point with a description of the James Webb Space Telescope. Bush also touched on the importance of ethics to the profession, as well as the value of openness to the vast array of directions an engineering career can take.

INNOVATION ECOSYSTEM
Innovation is foundational to our history, our legacy and our culture at Northrop Grumman. Every day, our employees solve complex problems and challenges. To help us collaborate more freely at a company level, we created a new company-wide tool, SPARK, that brings together innovation platforms and programs from across the company into one common community.

Using SPARK, employees can comment on one another’s ideas and solutions and collaborate across Northrop Grumman. During 2017, in its first year of its release, more than 20 percent of employee ideas submitted were selected for funding. This funding provided the time and resources needed to explore ways to improve products and mission outcomes through novel ways of approaching a problem, applying lessons learned, or innovative emerging technology.
MISSION POSSIBLE

HELPING PEOPLE GET ACCESS TO VACCINES

Founded in 2008, Not Impossible Labs uses collaborative methods to “crowd solve” problems impacting vulnerable people and populations. Not Impossible Labs employees are looking for innovative ways to help families in the Democratic Republic of the Congo get access to vaccines.

Of particular interest is the question of how healthcare providers can let people in rural areas know that vaccines are available. For example, if a mother is going to travel for a day to take her children to a clinic, how can she know when, and whether, the clinic will have the vaccines she needs?

“This has a big impact on people’s lives. We love the idea of helping people a world away.”

OSCAR CASTILLO | Northrop Grumman FabLab manager and mechanical engineer

Northrop Grumman employees collaborated to develop potential solutions during an event they dubbed, “Vaccine: Not Impossible Hackathon.”

BRIGHT IDEAS

During their brainstorming sessions, employee volunteers came up with numerous ideas to inform villagers in remote areas that vaccines are ready for pickup at health centers in more developed areas of the Congo. Some concepts were relatively simple such as using smoke clouds of different colors. Certain colors might indicate vaccines had arrived while other colors would signify different types of medicine. Other ideas were a bit more complex: unmanned boats, balloons and unmanned aerial vehicles equipped with LEDs.

According to Mary O’Reilly, campaign manager at Not Impossible Labs and project lead of “Vaccine: Not Impossible,” various organizations have spent decades and billions of dollars trying to solve this problem. Watching Northrop Grumman engineers throw their ideas into the ring during 11 intense hours was inspirational. “It was great to see people coming in on their day off,” she said. “They were just jumping in and pitching their ideas. We were incredibly impressed with the solutions they came up with.”
Our Environmental, Health and Safety (EHS) professionals define and implement our overall Northrop Grumman strategy to support compliance and environmental sustainability across our diverse global operations at 424 separate locations. Site managers provide employees the resources and support to prevent or mitigate environmental impacts. The activity and work accomplished by our EHS staff in 2017 is highlighted in the following three sections (for Health and Safety program information, see page 43):

- **EHS COMPLIANCE**
- **ENVIRONMENTAL REMEDIATION**
- **ENVIRONMENTAL SUSTAINABILITY**

**OUR POLICY AND COMMITMENT**

- Implement pollution prevention programs to minimize the release of contaminants, the use of natural resources and the generation of solid and hazardous waste.
- Establish processes to facilitate timely identification, reporting and response to EHS concerns and conduct training and awareness campaigns.
- Integrate EHS requirements and sustainability practices in planning, design, procurement and modification activities.
**2017 CORPORATE FORUM PARTICIPATION**

In 2017, we participated in EHS forums across the United States. As corporate members, we received valuable updates and information with regards to health, safety and environmental sustainability. Benefits included collaboration opportunities with our peers, educational resources and regulatory updates.

- Association of Climate Change Officers.
- Conservation International’s Business & Sustainability Council.
- Rocky Mountain Institute’s Business Renewables Center.
- Corporate Eco Forum.

**INTERNATIONAL AEROSPACE ENVIRONMENTAL GROUP**

As a founding member of the International Aerospace Environmental Group (IAEG), a global aerospace and defense industry association, we support environmental compliance and environmental sustainability initiatives in collaboration with our peers to discuss and find solutions common to industry challenges. Engaging with IAEG provides Northrop Grumman with a forum to discuss our challenges and provides valuable insights into the concerns of our industry peers that might affect our business in the future. We engage both at the Board level, supporting the organization’s governance and strategy, as well as at the work-group level, providing subject matter expertise for the following work groups:

- Chemical Reporting.
- Replacement Technologies.
- Greenhouse Gas Management and Reporting.
- Reach Process Authorization.
- Supply Chain Environmental Sustainability Survey Harmonization.
- Toxic Substances Control Act Compliance.

**ENVIRONMENTAL COMPLIANCE**

Through robust environmental compliance programs and awareness campaigns, we remain committed to conducting our operations in a manner that minimally impacts surrounding environments.

- Comply with all applicable laws and procedures within our regions of operation, adhere to Northrop Grumman policies and procedures and reduce our environmental footprint.
- Strive for excellence and promote efficiency, affordability, innovation and forward-thinking in our operations.

**HAZARDOUS WASTE MANAGEMENT**

Northrop Grumman is committed to responsibly managing hazardous waste generated within our operations in compliance with any legal requirements. Our corporate policies emphasize maintaining visibility on our hazardous waste (HW) streams from the point of generation to final disposition and minimizing HW where it is economically and technically feasible. HW generation is a standard byproduct of our business operations, and fluctuates based on product demand and development as well as operation and maintenance of our sites. As a result, our EHS professionals spend time ensuring HW is managed and disposed of properly. The data below represents HW generated from product manufacturing, research and development and facilities and maintenance activities at our U.S.-based, auditable sites.

<table>
<thead>
<tr>
<th>HAZARDOUS WASTE (TONS)</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,032</td>
<td>1,306</td>
<td>1,460</td>
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</tbody>
</table>

The TRI data represents all U.S.-based operations required to report to the EPA and/or state governments, and follows the EPA’s reporting schedule.

**CHEMICAL MANAGEMENT**

As a Department of Defense contractor, emerging technologies, material specifications from our customers, and fluctuations in demand for our product drive our use of hazardous materials. We comply with the federal Toxic Release Inventory (TRI) Program reporting requirements by calculating total usage of chemicals covered under this program. In addition to tracking usage, our employees also look for opportunities to substitute and minimize the use of toxic chemicals where possible. We are committed to responsibly managing chemical usage in Northrop Grumman operations in compliance with any legal requirements.

<table>
<thead>
<tr>
<th>TOXICS RELEASE INVENTORY (TONS)</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td></td>
<td>46.0</td>
<td>42.0</td>
<td>39.8</td>
</tr>
</tbody>
</table>

The TRI data represents all U.S.-based operations required to report to the EPA and/or state governments, and follows the EPA’s reporting schedule.
ENVIRONMENTAL, HEALTH & SAFETY AUDIT PROGRAM

Our commitment to ensuring strong environmental, health and safety performance is demonstrated by the presence of our Corporate EHS audit program. Our internal audit department has delegated responsibility for managing and administering global EHS compliance audits to Corporate EHS. Delegating this responsibility helps ensure that company professionals who understand EHS compliance and management are reviewing performance. The scope of the audits includes federal/national, state and local regulatory requirements, standards organization codes (e.g., fire codes) and company policy and procedures. Our audits also assess each site’s EHS Management system, which is required by company policy and is evaluated based on ISO 14001 and OHSAS 18001 standards.

Our practice is to conduct Corporate EHS compliance audits at auditable sites every three to four years. Assessments of our management systems emphasize the effectiveness and integration of key fundamentals into day-to-day business operations.

AUDITABLE SITES

EHS management determines auditable sites by reviewing operations at our facilities using tools such as questionnaires, site visits and telephone interviews to evaluate the existence and extent of EHS-related risk. If the EHS risks warrant review, then those facilities are included as auditable sites. We conduct reviews of site operations and auditability annually or as operations change at Northrop Grumman sites. Northrop Grumman’s audit program is global and, at present, includes sites throughout North America, Europe and Australia. Currently, there are 77 Northrop Grumman sites in the audit program, which accounts for 72 percent of the company’s global square footage.

AUDIT TEAM

Each Corporate EHS Audit is led by an EHS management systems auditor who evaluates each site’s compliance management strategies and the overall effectiveness of the site’s compliance program. The audit team composition is an important consideration during the annual audit scheduling process. Audit teams are formed to ensure sufficient subject matter expertise is available; audit topics are appropriately assigned; and to make sure the audit team is given adequate time to conduct a thorough review of the EHS programs at the site. These subject matter experts are assigned a topic within the audit to review and evaluate.

AUDIT PROGRAM LOOK-AHEAD

We are continuing to strengthen and increase transparency of our audit program through the use of an Environmental Management Information System (EMIS). Our audit program, sectors and sites will begin utilizing this system in 2018. The system will automate our audit process by creating efficiencies in execution, review of findings, and timely closure of corrective actions. In addition, this system will provide management at all levels of the organization an opportunity to conduct more comprehensive trend analysis. Focusing on trend analysis will improve our ability to benchmark EHS program performance throughout the company and focus on continual improvement. For more information on our Health and Safety programs see page 43.

ENVIRONMENTAL, HEALTH AND SAFETY CERTIFICATIONS

In addition to establishing an internal EHS management system, we have 23 ISO 14001 registered sites across the globe, which make up approximately 38 percent of Northrop Grumman square footage and include approximately 28 percent of our employees. These sites work diligently to achieve and maintain this widely recognized certification.

In 2017, the Northrop Grumman Australia Office received both the AS/NZS ISO 14001:2015 and AS/NZS 4801:2001 certifications, highlighting the team’s commitment to EHS excellence.
THE greeNG PROGRAM

Our focus on environmental performance extends beyond compliance. Our corporate values strongly support environmental sustainability and it is an important subject to our many diverse stakeholders. Our greeNG Program is leading the charge in integrating environmental sustainability throughout our organization. Through a focus on resource conservation and efficiency in our operations, we are driving long-term affordability that is providing value to our customers as well as our shareholders.

Environmental sustainability is one of six nonfinancial performance metrics at Northrop Grumman, stressing its importance throughout the organization. The Policy Committee of our Board of Directors oversees the alignment of the program with Northrop Grumman’s strategic objectives.

Employee participation is a key driver of our success. In 2017, we launched a new internal program website and voluntary training module to further engage and educate employees on their role in advancing environmental sustainability at Northrop Grumman. Our annual Earth Day celebrations provide opportunities for employees to learn more about how they can get involved with environmentally-focused initiatives at work, home and within their communities.

The greeNG Program team visited reforestation sites outside of Jackson, Mississippi that are part of the Mississippi Valley Reforestation project.

ENVIRONMENTAL SUSTAINABILITY 2020 GOALS

<table>
<thead>
<tr>
<th>METRIC</th>
<th>2020 GOAL</th>
<th>2017 PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhouse Gas Emissions Reduction</td>
<td>30%</td>
<td>31.7%</td>
</tr>
<tr>
<td>From 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potable Water Use Reduction</td>
<td>20%</td>
<td>6.6%</td>
</tr>
<tr>
<td>From 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid Waste Diversion</td>
<td>70%</td>
<td>62.9%</td>
</tr>
<tr>
<td>From landfill</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

METHODOLOGY

Our environmental sustainability goals, along with greenhouse gas, water, and solid waste inventories, include our full portfolio of facilities where we have operational control (consolidation approach). This represents more than 98 percent of our global floor space.

We develop our inventories in accordance with The GHG Protocol Corporate Standard and in alignment with the International Aerospace Environmental Group Greenhouse Gas Reporting Guidance.

We are committed to maintaining high-quality data and performance tracking through third-party verification to the International Organization for Standardization (ISO) 14064-3. We perform verification of our Scope 1 (direct), Scope 2 (indirect, location- and market-based), and Scope 3 (other indirect) Business Travel emissions and Water use data.

Verification statements are available at [www.northropgrumman.com/corporateresponsibility](http://www.northropgrumman.com/corporateresponsibility)
**GREENHOUSE GAS EMISSIONS**

To reduce greenhouse gas emissions from our operations, we focus on improving the efficiencies of our buildings, information technology infrastructure and manufacturing processes.

**2017 Highlights**
- Exceeded and remain committed to our 2020 reduction goal of 30 percent.
- Implemented projects that are estimated to reduce annual emissions by 10,180 MTCO2e.
- Two new buildings received LEED certification
- Northrop Grumman received an A- for leadership performance on the CDP Climate Change program.

Our CDP Climate Change response is available on our website and includes details on our climate change risk management, energy consumption and Scope 2 market-based and Scope 3 emissions.

**WATER CONSERVATION**

We are committed to minimizing our water consumption and emphasizing action in regions where water stress is a reality, including California and parts of Australia. Our conservation efforts are enhancing our environmental stewardship and creating long-term operational cost savings for the company.

**2017 Highlights**
- Implemented water conservation projects to reduce annual water consumption by 64 million gallons.
- Reduced water use at our California locations by 11.8 percent from our 2014 base year.
- Completed two additional site water assessments. In total, the 11 completed site assessments represent more than 70 percent of our water use.

**SOLID WASTE DIVERSION**

To minimize our impact on local landfills, we focus on solid waste management by creating opportunities to optimize our processes, minimize material use and reduce costs. Our strategies for increasing solid waste diversion include recycling, composting, reuse, and donating useful supplies to local organizations.

**2017 Highlights**
- Implemented solid waste projects estimated to divert approximately 400 tons from landfill.
- Performed 25 site solid waste assessments to better inform our solid waste management strategies.
- Our El Segundo and Redondo Beach, California facilities implemented paper towel composting to divert 50 tons of material per year from landfills.
- Our Linthicum, Maryland facilities expanded recycling programs and installed recycling compactors, diverting 33 tons of waste from the landfill.

**GHG EMISSIONS**

- 2017 PERFORMANCE SUMMARY
(Additional data in all three areas can be found in the Environmental, Social and Governance Performance Data Matrix in Appendix B).

**POTABLE WATER USE**

**DIVERSION RATE**

1) GHG emissions are in units of Metric Tonnes Carbon Dioxide Equivalent (MTCO2e) and include gases CO2, CH4, N2O, HFCs, PFCs, SF6, and NF3.
2) Diversion rate includes waste to energy but does not include construction and demolition debris.
RENEWABLE ENERGY

We continue to evaluate opportunities to procure renewable energy for our facilities. In 2017, the following renewable energy sources produced 22,111 MWh of electricity:

- Two Northrop Grumman owned on-site solar systems.
- One landlord-owned solar system installed at a leased facility.

ECOSYSTEM CONSERVATION

Forests play an important role in sequestering carbon and maintaining biodiversity around the world. To promote forest conservation, we continue our multiyear commitment and purchase of 11,000 MTCO2e of American Carbon Registry-certified carbon offsets.

These conservation-based carbon offsets are generated by the Mississippi Valley Reforestation Project in the southeastern United States and support the reforestation of one million acres of the Lower Mississippi Alluvial Valley, one of the most important ecosystems in North America.

GREEN BUILDINGS

In 2017, we received LEED certification for two new buildings at our Melbourne, Florida and Linthicum, Maryland sites. We have operations in 15 certified green buildings, which total more than two million square feet of floor space.

- 2 U.S. Environmental Protection Agency ENERGY STAR® Program for energy-efficient equipment and building systems design.

ZERO WASTE

In Palmdale, California, our Aircraft Integration Center of Excellence maintains its Silver level Zero Waste certification from the U.S. Zero Waste Business Council. This signifies more than 90 percent of site waste is diverted from landfill, incineration and the environment.

First aerospace production and manufacturing facility in the United States to receive this certification.

ELECTRIC VEHICLE CHARGING

Our electric vehicle (EV) Workplace Charging Program supports the growing number of employees who use low/no emission vehicles to commute.

- 23 Northrop Grumman locations
- 87 “Level 2” charging connections
- 627 Employee EV drivers

RAINWATER HARVESTING

The rain harvesting system at Northrop Grumman subsidiary Park Air Systems in Peterborough, United Kingdom captures rainwater from the roof, filters the water and stores it in the tanks shown. The water is used for toilets on the ground floor of the building and saves more than 120,000 gallons per year, a reduction of 70 percent of water use at the facility.
ENVIRONMENTAL REMEDIATION

2017 Goals And Performance Summary

GOAL
Manage global environmental liabilities and drive business value to ensure the continued protection of human health and the environment. Aligned with our Northrop Grumman mission and policies, we are committed to the core values of quality, leadership, integrity, collaboration and stakeholder satisfaction. We make technically sound and cost-effective decisions, meet regulatory obligations and provide remediation leadership. We commit to work with integrity to ensure quality, drive performance and uphold safe work practices for ourselves and the teams we lead.

We continue to provide cost-effective and scientifically sound alternatives to traditional resource-intensive remediation practices to reduce environmental disturbance, lower energy use, and promote ecosystem recovery.

PERFORMANCE

- Clifton Precision in Murphy, North Carolina: Obtained USEPA RCRA Corrective Action Statement of Basis finalizing the site remediation plan for groundwater contamination covering a one-mile area.
- Reda Pump Facility in Marshall, Texas: Received a “No Further Action” determination from the regulatory agency, as well as closure of a 10-acre site where we treated soil and impaired groundwater over a 30-year timeframe.
- Puente Valley in Industry, California: Submitted the final design (100 percent) to the U.S. EPA for a water treatment plant to treat groundwater contamination covering a two-mile area.
- Zeidrich Site in Minerva, Ohio: Received Ohio EPA approval finalizing the site remediation plan of excavation and removal of a former waste site covering two acres.

- Former US Navy/Grumman Facilities in Bethpage, New York: We are engaged in remediation activities relating to environmental conditions allegedly resulting from historic operations at the former United States Navy and Grumman facilities in Bethpage, New York. For more than 20 years, we have worked closely with the United States Navy, the United States Environmental Protection Agency, the New York State Department of Environmental Conservation, the New York State Department of Health and other federal, state and local governmental authorities to address legacy environmental conditions. We are committed to continuing to address environmental conditions with other responsible parties through implementation of scientifically sound and technically proven remedies.

HUDSON SITE
We are leading the design and construction of two environmental remediation projects to address contaminated groundwater zones within the Puente Valley (California) Operable Unit of the San Gabriel Superfund Site located east of Los Angeles and under oversight by the U.S. EPA. In 2015, we purchased 1.8 acres for the construction of these two water treatment plants.

- Completed property restoration and re-purposing of the 1.8 acres for beneficial and sustainable use.
  - Removed 400 tons of total petroleum hydrocarbons (TPH) in soil to a depth of 4 feet, covering 2,500 square feet.
  - Obtained approval for site closure of remedial activities from the Los Angeles Regional Water Quality Board.
- Designed construction of both water treatment plants that will begin in 2018:
  - One groundwater treatment plant to treat up to 2,000 gallons per minute of contaminated groundwater and distribute for potable use to the San Gabriel Basin, providing clean water for 50,000 residents.
  - One groundwater treatment plant to treat up to 300 gallons per minute with conventional treated water discharge.
Our strategy begins with attracting the best, most diverse talent from top colleges and the labor market. We hire military veterans for their commitment, high ethical standards, skills, experiences and knowledge of our industry. We have a strong commitment to hiring and mentoring our nation’s wounded warriors. Our focus on building the best culture ensures that we attract and retain the best employees. We do this by creating a diverse and inclusive workforce that emphasizes employee and team engagement. Our annual employee survey asks our employees across the globe about engagement and inclusion, which are essential to our company’s culture. Other elements that are crucial to our best culture approach include our robust performance management process focused on recognizing top performers at Northrop Grumman. The performance management process and leadership development programs are a critical part of preparing for the challenges we will face in the future. Through our Northrop Grumman Development Center, all employees can leverage online, career-specific tools and resources to help them gain key job experience, increase business exposure and enhance skills with education and training.

Our employees are the foundation of our sustainable top performance.
New college hires participated in our Professional Development Program in 2017.

Diversity Sourcing
We understand and value the relationship between diversity, innovation and performance. We proactively seek talent with different perspectives, unique skills and experiences. That focus helps us find the best talent to fill new positions and to help us grow. As we have throughout our history, in 2017 we continued to partner with numerous diversity organizations such as the U.S. Business Leadership Network, Out & Equal, oSTEM, Black Engineer of the Year and Society of Women Engineers to help us connect with talented candidates who are diverse and who will thrive in a team environment.

Equal Pay
We benchmark pay using external salary surveys. We monitor pay rates to ensure equitable remuneration for women and People of Color, and our incentive system is performance-based.

Equal Employment Opportunity
We build employment equity and nondiscrimination principles and policies into our company operations specifically designed for each country where we operate. Within the United States, we develop annual Affirmative Action plans, where applicable, that document specific steps to drive awareness of representation and underrepresentation of veterans, minorities, women and People with Disabilities.

Performance Management
Performance is at the center of our values, and performance management is one of the vehicles to ensure expectations are clear and achieved. All employees receive annual, formal feedback and are eligible for development opportunities to achieve career goals. In addition, employees receive formal performance reviews; however we encourage continuous feedback as a mechanism to high performance. During the performance cycle, this allows us the opportunity to provide employees with career guidance and development.
Benefits
Employees who are regularly scheduled to work 20 or more hours per week are eligible for health and welfare benefits under the Northrop Grumman Health Plan, including benefits for domestic partners and transgender benefits. Qualified full-time and part-time employees are eligible for the 401(k) plan, retirement plans, work/life benefits, childcare information, life and disability insurance, education assistance and other employee benefits.

Agency Complaints
In 2017, external agencies logged 32 complaints of discrimination across the company. We investigate all such complaints and take appropriate action. Of these complaints, we successfully resolved 10, with 22 still open/pending as of December 31, 2017.

Collective Bargaining
Currently, collective bargaining agreements cover approximately 3.3 percent of Northrop Grumman employees. At Northrop Grumman facilities, our employees are free to exercise their rights of freedom of association and collective bargaining.

DIVERSITY AND INCLUSION 2017

GOAL
Create an inclusive work environment that fosters creativity, innovation and colleague engagement and increases the number of underrepresented women and People of Color in leadership positions.

PERFORMANCE
In 2017, we completed year three of our five-year diversity plan with growth in almost all areas. Female leaders increased from 25.2 percent in 2016 to 26.3 percent in 2017. People of Color in leadership increased from 23.7 percent in 2016 to 25.2 percent.

In 2017, more than 50 percent of college hires were diverse, strengthening our future leaders’ pipeline. Our overall representation for People with Disabilities increased from 6 percent in 2016 to 7.1 percent in 2017. Of all hires, People with Disabilities comprised 10.8 percent in 2017 and veterans 24.6 percent.

GOAL
Engage external stakeholder groups that support and serve our values and interests in recruiting, developing and recognizing a diverse workforce and contracting with diverse suppliers.

PERFORMANCE
In 2017, we participated in almost a dozen diversity conferences to recruit new employees and develop talent. We won awards and were recognized by more than 25 organizations, including those representing LGBT, veterans, People of Color, executive women and People with Disabilities. We achieved a perfect 100 point rating on the Disability Equality Index Best Places to Work for Individuals with Disabilities. To strengthen our partnerships, senior leaders spoke at conferences such as Out & Equal, the Society of Asian Scientists and Engineers, the Society of Women Engineers and the U.S. Business Leadership Network.
We launched our self-service online request system **ACCOMMODATE** in June 2015, which provides accommodations for People with Disabilities. We are committed to providing accommodations for disabilities and a range of other needs including religious, dietary, new mother, caregiver, transition assistance and travel. For example, our employee resource group **VOICE** (Victory Over Impairment & Challenge Enterprise) helped pilot a software solution for lactation room reservations, accessibility and utilization.

**WHAT WE SUPPORT**
- Job Modifications (duties/hours/location).
- Job Equipment (chairs, lamps, mirrors, sit/stand desks).
- Accessibility (facilities modifications and IT hardware/software).
- Accommodation Services (interpreters, captioning, travel, lactation/prayer rooms, dietary).

**REQUESTS**
- **2017**: 1,296
- **TOTAL**: 3,340 (SINCE INCEPTION IN 2015)

**EMPLOYEE DEMOGRAPHICS**
- **TOTAL POPULATION**
  - 26.6% FEMALE
  - 73.4% MALE
- **34.5% PEOPLE OF COLOR**
  - Asian
  - Hispanic
  - Black/African American
  - American Indian/Native American or Alaska Native
  - Native Hawaiian/Other Pacific Islander
- **VETERANS AND PERSONS WITH DISABILITIES (PWD) POPULATION:**
  - 20.0% Veteran Population
  - 24.6% Veteran New Hires 2017
  - 7.1% PWD Population
  - 10.8% PWD New Hires 2017

**VETERANS AND PERSONS WITH DISABILITIES (PWD) POPULATION:**

**MANAGEMENT POPULATION**
- 26.3% FEMALE
- 73.7% MALE
- 25.2% POC

**SENIOR EXECUTIVE* POPULATION**
- 52.6% FEMALE
- 47.4% MALE
- 21.1% POC

*Executives who report directly to the CEO and the President and COO.
CREATING THE BEST CULTURE

Since 2010, our global employees who have participated in the annual employee survey have provided feedback to improve our company culture. The survey process is managed by a third-party vendor to encourage candor and recommendations on many topics, including company leadership, manager effectiveness, work environment, sustainable engagement, accountability, inclusion and career development.

2017 ANNUAL EMPLOYEE SURVEY

- 84 percent of Northrop Grumman employees completed the survey.
- Survey distribution in 40 countries and eight languages.

Overall, inclusion scores were higher than those from externally benchmarked, high-performing companies and significantly exceeded the benchmark for other aerospace and defense companies included in the survey database. Our leaders and teams worked together to use the results to create 2018 action plans.

EMPLOYEE RESOURCE GROUPS

- African American Task Group (AATG)
- Asian Pacific Professional Network (APPN)
- Connect1NG
- Generation to Generation
- greeNG ERG
- Native American Caucus (NAC)
- NGFAMILY
- Northrop Grumman Women's International Network (NGWIN)
- One Adelante
- Pride in Diversity Alliance (PrIDA)
- Veterans, Employees and Reservists Inspired to Act and Serve (VERITAS)
- Victory Over Impairment & Challenge Enterprise (VOICE)

Our employee resource groups (ERGs) exemplify diversity and inclusion and connect our team members in countless ways including internal and external outreach, professional development and community involvement. During 2017, our ERGs sponsored a speaker series with 12 sessions ranging from international leadership skills to working with introverts to community connections.

OUR COMMITMENT TO DEVELOPMENT

At Northrop Grumman, an investment in our employees is an investment in our future. We are committed to a culture of continuous learning and development where employees have the opportunity to increase their skills and capabilities, build knowledge of our business and pursue job opportunities aligned to their personal aspirations and talents. Our employees grow through job rotations and a diversity of new job experiences, technical and leadership development programs, formal and informal mentoring and visibility to senior leaders across the company.

THE FOUNDATION-LEADERSHIP CHARACTERISTICS

Northrop Grumman Leadership Characteristics enable employees at all levels to strengthen their leadership skills and their ability to deliver and develop top-tier sustainable performance. These six leadership characteristics are representative of the Northrop Grumman culture. The extent to which employees demonstrate our Leadership Characteristics is considered in our hiring practices, performance review and succession planning process.

MENTORING

Mentoring is a valuable method for developing employees at all levels and supports our culture of performance, learning and innovation. We offer a variety of formal and informal opportunities to support career growth and development for mentors and mentees.

In its third year, the Vice President Mentor Program creates increased leadership visibility and business exposure of high-potential talent to all vice presidents. The program will continue offering mentees the opportunity to pay it forward by mentoring other high potential talent. Formal and informal mentoring provides an ideal opportunity for knowledge transfer and talent development.
INCLUSIVE LEADERSHIP
We promote a culture of inclusive leadership by helping leaders increase awareness of inequalities and unconscious bias. Leaders develop critical inclusive leadership skills, as well as strategies and action plans to foster and promote an inclusive work environment for all employees. Leaders participate in inclusion leadership opportunities as a part of the New Manager Program and other development.

NEW MANAGER PROGRAM
Highly skilled managers create a work environment that is inclusive and encourage the development of their staff to optimize individual performance and advancement opportunity. In 2017, we introduced new programs to ensure preparation, selection and development of effective new managers. Through the New Manager Program, new leaders develop skills to effectively coach, develop and maximize their team’s performance. Access to information is important for all managers, so we connect managers through an internal, online portal and help them to refine their communication skills using a variety of tools to coach and support his or her new manager’s ongoing development and transition into management at Northrop Grumman.

EXECUTIVE DEVELOPMENT
Our annual succession planning process identifies and develops high-potential employees. To further prepare and evaluate candidates for advancement, employees attend a number of leadership programs including Strategic Leadership, Executive Leadership Cohort, Women in Leadership and Affinity Forum. Program participants also receive one-on-one coaching and access to tools such as 360 and executive assessments. Our Building the Best Culture program helps leaders develop critical inclusive leadership strategies, as well as sharpen awareness of unconscious biases and privilege while strengthening their leadership skills.

PROFESSIONAL AND TECHNICAL DEVELOPMENT
As technology changes and customer needs evolve, our ability to provide strong performance, meet all commitments and to innovate is linked to our investments in employee development. The Northrop Grumman Development Center provides on-demand resources and development opportunities for employees. Our 24/7 Online Development portfolio includes thousands of courses, videos, articles and job aids to support employee development of technical and leadership capabilities. Employees who aspire to be managers benefit from development guidance and assessments that focus on building the skills required for success at Northrop Grumman.

We encourage employees to leverage Northrop Grumman Development Center resources to develop in their current roles and engage in a broader approach to career development. We empower employees to learn and explore their aspirations, assess their talents, proactively develop their capabilities and pursue opportunities aligned to their aspirations.

In 2017, we created technical academies and apprenticeships. Technical academies complement our long-standing Cyber Academy and Enterprise Analytics development offerings and up-skill our most experienced engineers and developers in critical areas such as embedded cyber, data science and artificial intelligence. In partnership with local businesses and academic institutions, our apprenticeship program for technical professionals provides “learn while you earn” opportunities, combining on-the-job training with related technical instruction. These work-based learning programs, launched formally in 2018, will be critical enablers in closing the skills gap and attracting talent. We are excited by the growing momentum around technical development.
HEALTH AND SAFETY COMPLIANCE

Safety is one of six nonfinancial performance metrics at Northrop Grumman, stressing its importance throughout the organization.

At Northrop Grumman, our policy protects the safety and health of employees, contractors, and visitors in every aspect of our organization, which is paramount to our mission and performance. We demonstrate this commitment by placing continued emphasis on investing in and enhancing the programs we use to reduce the number and severity of injuries and illnesses. We have invested in external certifications to demonstrate our commitment to safety and health. Currently, we have three sites certified to OHSAS 18001 and four sites participating in OSHA’s Voluntary Protection Program. We take accident prevention seriously, so providing communications and training around the topic is a priority. In 2017, we once again partnered with the National Safety Council and American Society of Safety Professionals to recognize June as National Safety Month. During this year, we promoted a messaging and training campaign focused on:

- Avoiding injuries at work and at home
- Empowering employees to make changes to their work environments to prevent injuries
- Celebrating our success in creating a dynamic safety culture at Northrop Grumman.

We encourage employees to participate in environmental, health and safety committees to give them a voice in ensuring we maintain a strong safety culture and are proactive in the prevention of injuries. Our culture of safety continues to facilitate a strong bond of communication and engagement for management and employees alike at Northrop Grumman.

2017 HEALTH AND SAFETY METRICS PERFORMANCE SUMMARY

We evaluate the effectiveness of our health and safety programs externally, through benchmarking with industry peers and the Bureau of Labor Statistics (BLS). Internally, we determine program effectiveness by conducting trend analyses of our past performance. Northrop Grumman has not reported a work-related fatality since 2014. For each safety metric shown below, a lower statistic is indicative of better performance.

![Graph showing health and safety metrics]

<table>
<thead>
<tr>
<th>YEAR</th>
<th>LOST WORK DAY RATE</th>
<th>TOTAL CASE RATE</th>
<th>DAYS AWAY CASE RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1.08</td>
<td>9.91</td>
<td>0.34</td>
</tr>
<tr>
<td>2016</td>
<td>0.90</td>
<td>2.5</td>
<td>0.25</td>
</tr>
<tr>
<td>2017</td>
<td>0.91</td>
<td>0.26</td>
<td></td>
</tr>
</tbody>
</table>

In 2017, safety rates increased slightly. We attribute this to an overall increase in hours worked in 2017 and an increase in manufacturing activities over previous years. We continue to invest in accident prevention strategies to reduce the frequency and severity of injuries.

Safety metrics depicted in the graph above include domestic Northrop Grumman employees as well as contract labor working at Northrop Grumman facilities.
**ERGONOMICS IN 2017**

In 2017, we conducted multiple Kaizen events for process improvement, where workers and supervisors teamed to identify efficiencies and tools that may reduce or eliminate the potential for an injury in the manufacturing process. Additionally, during National Ergonomics Awareness Month in October, employees had the opportunity to work either in person or virtually with an ergonomist to make modifications to their workstations that would increase comfort and reduce fatigue and the likelihood for a repetitive motion injury.

We worked to ensure that ergonomic considerations become integrated with planning as we grow and expand. Our Factory of the Future project looked at the design of workstations and job tasks in the manufacturing and laboratory space, to “design out” many of the movements with a high potential to lead to musculoskeletal injuries. We also undertook a project to identify how to reduce, through design, the ergonomic stressors in our hoteling spaces for transitional/virtual employees. We are working to make these recommendations part of the design standards for new temporary work spaces going forward.

**CORPORATE CITIZENSHIP AND STEM**

**OUR VISION**
Connect our passions and talents to build partnerships that transform our communities.

**OUR MISSION**
Leverage our time, talent and dollars to cultivate a future workforce and strengthen the lives of those within our communities.

**STRATEGIC PRIORITIES**

- Education
- Employee Engagement
- Reputation
- Strengthening Communities

**INVESTMENT THROUGH PHILANTHROPY**

**NORTHROP GRUMMAN COMPANY CONTRIBUTIONS**

- **$15.1 MILLION**
  - $10.0M Gift from Northrop Grumman to Northrop Grumman Foundation
  - $15.6M Northrop Grumman Foundation
  - $4.1M Employee Giving
  - $0.428M In-Kind/Non-Cash Giving

**TOTAL $15,127,023**

**Breakdown by Focus Area**

- Higher Education $4,585,048
- K-12 Education $3,916,412
- Military and Veterans $2,100,923
- Other $2,112,692
- Health and Human Services $1,863,398
- Environment $548,550

1 Includes ECHO, employee donations for education matched by company and local fund-raising campaigns.
2 Includes contributions in categories such as arts and culture, youth and civic that are not in one of our four focus areas.
KEY INVESTMENTS IN STEM

Northrop Grumman and the Northrop Grumman Foundation are committed to expanding and enhancing the pipeline of diverse, talented STEM students globally. In 2017, Northrop Grumman and the Northrop Grumman Foundation contributed over $20.4 million to diverse STEM-related groups.

1 IMPROVING EDUCATION PRIORITY

Contribute to the development of a pipeline of diverse talent by supporting STEM and strategic education programs and initiatives that align to the business needs of the company.

GOALS AND OUTCOMES

In alignment with UN Sustainable Development Goal 4, by 2030, Northrop Grumman will provide workforce-relevant professional development programming to middle school educators in order to increase their math and science knowledge and their confidence and competence in teaching STEM subjects, in turn helping to increase math and science proficiency for 350,000 students.

PERFORMANCE

In support of the goal, 182 middle school educators participated in professional development programming, impacting more than 16,700 students in 2017.

TEACHERS ACADEMY

The Northrop Grumman Foundation Teachers Academy immerses teacher fellows into engineering and technology environments at Northrop Grumman. Marking the second year of the program, we hosted 25 middle school teachers (grades 5 to 8) in the year-long blended learning program. For the first time, the program expanded internationally to include a teacher participating at our Canberra, Australia office. Almost 100 percent of the fellows from 2016-2017 indicated they will likely increase the type and amount of STEM-related subjects into lesson plans and coursework.

“One of the most effective parts of the program for me is being able to talk to many different people who work in the engineering field and gain their knowledge and perspective about how I can help get my students ready for what they do and to give my students examples of the paths real people have taken in order to become successful in their careers.”

NORTHROP GRUMMAN FOUNDATION TEACHER FELLOW

EarthEcho INTERNATIONAL

For the first time, the Northrop Grumman Foundation partnered with EarthEcho International, a leading nonprofit organization dedicated to youth education. We sponsored 25 middle school teachers from across the United States to complete a week-long expedition examining water scarcity. Philippe Cousteau, Jr., grandson of Jacques Cousteau, led Water by Design in Los Angeles, California.

Participating teachers engaged in the development of adventure-based STEM learning modules that introduce students to innovative engineering and technology solutions, addressing water scarcity issues. EarthEcho Expedition modules created by the educator team are designed to be distributed digitally to classrooms across the world at no charge.

Teachers examine water scarcity as part of Water by Design.
SOARING TO NEW HEIGHTS

LOS ANGELES COUNTY AIR SHOW
As we continue to expand STEM outreach across the globe, we increased participation in air shows that offer STEM engagement opportunities for attendees. We participated in the Los Angeles County Air Show, attended by 100,000 people, showcasing the Northrop Grumman STEM Tent. Our interactive activities for families included the B-2 Photo Booth, Wind Tube activity and building your own James Webb Space Telescope using LEGO® brand building blocks.

MAXWELL AIR FORCE BASE AIR SHOW
Commemorating the U.S. Air Force’s 70th Anniversary, the Maxwell Air Force Base Air Show, held in Montgomery, Alabama, included a STEM day during which more than 1,000 students from local schools visited the Northrop Grumman STEM booth. Northrop Grumman also provided speakers for the STEM panel discussion for students and faculty of Air War College, Air Command and Staff College and the School for Advanced Air and Space Studies.

ROYAL INTERNATIONAL AIR TATTOO, UK
At one of the world’s largest military air shows showcasing more than 250 aircraft, with an estimated 130,000 visitors in attendance, we showcased JWST in Techno Zone and promoted STEM activities for students.

INTO THE UNKNOWN
The film INTO THE UNKNOWN continued to premier in countries around the world as part of our global education outreach efforts. The film, developed by the Northrop Grumman Foundation as a resource for teachers, students, and science enthusiasts, provides an in-depth look at one of the most daring scientific missions ever attempted: the building of NASA’s James Webb Space Telescope.

Students, teachers and scientists saw the film at schools, universities and science centers around the globe including Japan, Norway, South Korea, Australia and the United Kingdom. Following each screening, experts from NASA and/or Northrop Grumman participated in panel discussions. INTO THE UNKNOWN screenings were featured during Engineers Week across 20 Northrop Grumman communities where students also engaged in engineering challenges, site tours and hands-on STEM activities.

VEX ROBOTICS WORLD CHAMPIONSHIPS
The Northrop Grumman Foundation has partnered with VEX Robotics in support of their annual World Championship competition for much of the past 10-year history. Held in Louisville, Kentucky, the event drew 1,400 teams from 30 countries with a total of 25,000 attendees. During the world’s largest robotics competition, students came together to build alliances and put their technical skills to the test during the nationally televised competition. For 2017, we supported the creation of 76 teams, impacting 7,600 students.
The Northrop Grumman Foundation funded Space Camp® scholarships for 80 middle school students and 48 teachers from across the United States, United Kingdom, Australia and, for the first time, Japan. Space Camp was held at the U.S. Space & Rocket Center in Huntsville, Alabama. To date, the Northrop Grumman Foundation has sponsored more than 800 students and teachers and partnered with more than 270 middle schools across the United States and in select countries.

**SPACE CHALLENGE**

For the second year, we sponsored the annual Republic of Korea Air Force (ROKAF) Space Challenge where 2,000 Korean STEM students learned about unmanned aerial vehicles, tested water rockets and participated in a simulated parachute experience using virtual reality.

**VICTORIAN SPACE SCIENCE EDUCATION CENTRE**

As part of our commitment to Australia’s future and support for the community, we formed corporate community partnerships with the Victorian Space Science Education Centre to inspire students in STEM. We provided a range of scholarships for high school students including Women in Technology and Excellence in Engineering, along with support for competitions such as the National Engineering and Science Challenge, VEX Robotics and the UAV Outback Challenge in Australia.

**VIVA TECHNOLOGY™**

This national K-12 education program, supported by the Northrop Grumman Foundation, engages students, teachers and parents with STEM projects and provides STEM-focused career pathways. Implemented at middle schools near Northrop Grumman facilities in California, Florida and Maryland, the program is supported by our employees, who volunteer their time. Parents and teachers learn techniques to encourage student interest in STEM, while students participate in competitions and activities during a one-day event led by college students majoring in STEM disciplines. There have been 21 events held since 2011 that have touched the lives of more than 2,000 students.

**NATIONAL SOCIETY OF BLACK ENGINEERS SUMMER ENGINEERING EXPERIENCE FOR KIDS**

We have been a sponsor of this program for the past five years, helping to advance their mission as the National Society of Black Engineers provide early STEM exposure to students in economically disadvantaged areas, beginning in third grade through twelfth grade.
CYBER EDUCATION INITIATIVES

We partnered with the George Washington University Center for Cyber and Homeland Security to host a half-day conference to discuss high-priority cybersecurity policy issues facing the U.S. government and private sector stakeholders. The conference covered a May 2017 Executive Order on cybersecurity, strategic questions related to cyber deterrence and defense doctrine, and the current status of nation-state and non-state cyber threats to U.S. national security and economic interests.

HIGH-PRIORITY CYBERSECURITY POLICY

We partnered with the George Washington University Center for Cyber and Homeland Security to host a half-day conference to discuss high-priority cybersecurity policy issues facing the U.S. government and private sector stakeholders. The conference covered a May 2017 Executive Order on cybersecurity, strategic questions related to cyber deterrence and defense doctrine, and the current status of nation-state and non-state cyber threats to U.S. national security and economic interests.

CYBER PATRIOT

Our cyber education programs aim to motivate youth to pursue academic opportunities in cybersecurity. Outreach activities help remove barriers by providing scholarships and internships. Workforce development efforts deployed by Northrop Grumman help model and advocate for a diverse and talented cyber workforce.

Our key initiative is the CyberPatriot National Youth Cyber Education Program, created by the Air Force Association and sponsored by Northrop Grumman Foundation. As part of this program, middle- and high-school students compete in teams to protect and defend the network of a fictitious company.

The CyberPatriot IX competition drew a record 4,404 teams, a 30 percent increase over 2016. The team participation exceeded the goal of 4,000 teams. We used the CyberPatriot platform internationally to develop CyberCenturion in the United Kingdom and CyberArabia in Saudi Arabia and would like to assist our partners in Australia to launch a Cyber program for students by 2019.

EMPLOYEE ENGAGEMENT PRIORITY

Connect employees to strategic opportunities for volunteerism, skills development and community giving to create a culture that drives excellence and retains employees.

OUTCOMES

VOLUNTEER TIME

Our employees logged 63,454 hours of time in our event management system, Volunteer1NG. Of these hours, 62,166.5 were personal time and 1,287.5 were paid by the company. These hours are valued at more than $1.53 million in community impact (based on an average value of volunteer time at $24.14 per hour as suggested by the nonprofit and corporate giving coalition group, Independent Sector).

COMMUNITY SERVICE GRANTS

We honor employees who have demonstrated a commitment to volunteerism. The Community Service Grants program provides a $400 donation to organizations in which an employee has volunteered a minimum of 40 hours in a year. This program continues to grow as our employees engage in the communities where they live and work.

44,663 Volunteer hours applied to Community Service Grants program.
311 Employees awarded Community Service Grants.
231 Unique organizations funded in the amount of $124,400.

RISE AGAINST HUNGER

As part of Hunger Action Month in September, we partnered with Rise Against Hunger through the Northrop Grumman Global Giving Campaign. The effort included 1,885 employees at 29 sites who packed 380,808 meals.

AMERICAN CANCER SOCIETY RELAY FOR LIFE

Northrop Grumman is a national corporate team partner with the American Cancer Society’s Relay for Life. We had 442 participants on 33 teams nationwide and raised $143,129. The top three teams were Beach Cities, California; Relay For Life of Calcasieu Lake Charles, Louisiana; and St. Augustine, Florida.
**EMPLOYEE GIVING**

**EXCELLENCE IN VOLUNTEERISM**

Our employees have worked to bring a smile to the faces of children fighting cancer, to prevent forest fires in California, to combat homelessness, to feed the hungry, to honor civil rights organizations and to improve the environment. The Excellence in Volunteerism Awards annually recognize employees dedicated to volunteerism at nonprofit organizations in their communities.

We honored 29 of our employees, dedicated to volunteerism at 10 nonprofit organizations and public schools, with an Excellence in Volunteerism Award.

**TOTAL**

$4,119,599

**CONTRIBUTED BY EMPLOYEES**

- Employees Charity Organization (ECHO) $1,981,344
- Matching Gifts for Education $1,046,243
- USO $171,611
- Disaster Relief $304,430
- Holiday Giving $170,631
- Other $445,340

**GREENPOWER CAR STEM PROGRAM**

Our continued support of this program at Discovery Middle School in Madison, Alabama, gave students a hands-on approach to the aerodynamics, engineering and technology involved in building electrical and mechanical systems in vehicles. Northrop Grumman engineers supported students who designed, tested and competed in local races against other middle school students.

**PLAYGROUND CLEAN UP**

We sponsored this effort for United Cerebral Palsy, which creates safe, clean environments for children with disabilities. Volunteers from Northrop Grumman spent the day cleaning and sanitizing the United Cerebral Palsy playground facility in Huntsville, Alabama.

**OYSTER RESTORATION PROGRAM**

Northrop Grumman volunteers led an effort to support habitat restoration in Florida. The team joined the community partner in a shoreline restoration project that used gabions, which are cages, cylinders or boxes typically filled with rocks, concrete or sand/soil for use in building projects. Employees cut, molded, clipped and filled 200-plus gabions with hundreds of pounds of recycled shells.

**REPUTATION PRIORITY**

Enhance Northrop Grumman as an employer and business of choice through key partnerships in our communities.

**OUTCOMES**

**CONFIDENCE CODE FOR GIRLS CONFERENCE**

We sponsored this important program to help girls rediscover and maintain self-assurance in the company of influential women: mothers, aunts, teachers, neighbors and friends. The conference included a panel discussion highlighting “The Science of Confidence: How Women and Girls can Master the Tech Revolution.” Approximately 500 girls attended the conference.
STRENGTHENING COMMUNITIES PRIORITY
Define and address needs in our communities that align with our business and focus areas: education, military and veterans, health and human services, and the environment.

OUTCOMES
We support troops, veterans and their families, specifically in the areas of wounded warriors, veteran homelessness, employment and military appreciation.

WARRIOR WEEK
One example of support for our troops, veterans and their families was the Warrior Week in Hampton Roads, Virginia. More than 500 wounded, ill and injured military service members and their families participated, along with their volunteer supporters.

KIDS IN SUPPORT OF SOLDIERS
Employees, friends and family in Melbourne, Florida collected personal care items, coffee and non-perishable snacks to pack into 77 care packages for the nonprofit organization Kids In Support of Soldiers, which serves service men and women deployed overseas.

USO SUPPORT
A team of employees volunteered at “Pack 4 Troops” and distributed care packages at the Dulles Airport United Services Organization (USO) airport lounge for travelling service members and their families.

ART OF HEALING
Employees in Falls Church, Virginia, supported a mural painting event to donate art to health facilities around the world as part of a campaign to make hospitals beautiful places for healing.

AEROSPACE VOLUNTEER DAY
Northrop Grumman and Scaled Composites employees participated in the annual Aerospace Volunteer Day at The Painted Turtle, a medical specialty camp. Employees spent the day preparing the camp for Fall 2017 sessions by painting cabins and cleaning horse stalls and the grounds.

HABITAT FOR HUMANITY
Employees in Florida and California supported their local Habitat for Humanity. In Melbourne, Florida, 138 employees joined Habitat for Humanity on seven build days, totaling more than 3,500 hours. Employees from our Palmdale, California site participated in Habitat for Humanity’s “Veteran Enriched Neighborhood Groundbreaking” celebration of a 56-home veteran community in Antelope Valley.
DISASTER RELIEF

Northrop Grumman contributes annually to the Red Cross and Americares to help ensure these organizations are prepared to respond to disasters at a moment’s notice. In 2017, disasters from catastrophic hurricanes to tragic wildfires prompted the Northrop Grumman Foundation and Northrop Grumman employees to respond. The Northrop Grumman Foundation contributed $1 million directly to Hurricane Harvey and Hurricane Irma relief efforts. In addition, employees gave more than $270,000, which the Northrop Grumman Foundation matched. Northrop Grumman employees across 24 sites conducted hurricane relief drives, collecting nonperishable items and critical supplies to help replenish the Red Cross warehouses in Texas and Florida. Employees could also contribute through an online donation drive, supporting efforts on the ground in Puerto Rico after Hurricane Maria.

These disasters directly affected employees and their families. Concerned for their welfare, we quickly accounted for all employees following each disaster and activated the Emergency Contact Center, which provided financial assistance to more than 160 affected employees.

When roads were inaccessible due to post-storm flooding, Northrop Grumman Global Supply Chain coordinated company resources to deliver critical relief supplies to sites in Florida. Employees and their families had immediate access to clean drinking water, food and critical needs items. Supplies were also donated to local nonprofit partners in the communities affected across the state. Distribution of goods was supported by more than 300 volunteers.
STRENGTHENING COMMUNITIES AROUND THE WORLD

EDUCATION

ENGINEERS WITHOUT BORDERS
Our partnership allows Engineers Without Borders to accelerate and scale their efforts significantly to deliver high-quality technical expertise in water supply, sanitation, energy, structure, civil works and agriculture.

WATER FOR PEOPLE
This organization strives to build the capacity of communities to manage water and sanitation systems and to advocate for improved systems for 14,000 people in Uganda.

STEM MUSEUM
Students in California visited the Northrop Grumman STEM Museum that showcases a JWST model and incorporates a K-12 curriculum based on JWST. More than 1,800 middle school and high school students toured the STEM museum along with 200-plus teachers and educational staff.

RONALD MCDONALD HOUSE
Employee volunteers planned meals, then purchased and prepared the food for residents needing comfort and support for the Ronald McDonald House, a non-profit organization that provides accommodations for families who travel to Charlottesville, Virginia to be near their hospitalized child.

MILITARY & VETERANS

WWII AND KOREAN WAR VETERANS
More than 70 Northrop Grumman employees, friends and family cheered and welcomed arriving veterans with USO Metro. Greeting an Honor Flight arrival of WWII and Korean War veterans at Dulles International Airport in Washington, D.C. continued our longstanding partnership as the founding sponsor of USO Dulles Airport Lounge.

WOUNDED WARRIOR
Employees in Richmond, Virginia sponsored the Home for Our Troops. This organization built a new home for Sergeant James McGuire and 46 of our volunteers assisted with landscaping the yard.

AL-NAHDA PHILANTHROPIC SOCIETY FOR WOMEN
In Riyadh, Saudi Arabia, Northrop Grumman supports the Al-Nahda Philanthropic Society for Women in their vision for Saudi women to be active members in the development of Saudi society through a one-year program called Mustaqbali, which means “my future.” The program is for high school girls and it encourages education and training.

LOCAL INITIATIVES SUPPORT CORPORATION
Northrop Grumman has committed support for 2,268 housing units for 1,240 veterans across the U.S. to provide permanent housing in supportive environments.

RISE AGAINST HUNGER
Northrop Grumman has partnered with Rise Against Hunger since 2013, in an effort to end world hunger. Volunteers across Northrop Grumman have packaged 679,968 meals, impacting 6,800 lives. In 2017, meals went to Haiti, Vietnam, El Salvador, Madagascar, Turkey and Nicaragua.

TRAGEDY ASSISTANCE PROGRAM FOR SURVIVORS (TAPS)
Throughout 2017, those who lost a loved one in the military could turn to this organization for resources and support. Northrop Grumman was a sponsor of the TAPS National Military Survivor Seminar and Good Grief Camp held annually in Washington, DC. Several employee teams wrote notes of support, assembled backpacks and volunteered for the weekend event for 1,000 adults and 500 children.

SOLDIER ON
Northrop Grumman provides grant funding to the Soldier On program in Australia to assist veterans and their families with supportive services, including workforce integration, counseling and mentoring.

HEALTH & HUMAN SERVICES

EDUCATION MILITARY & VETERANS ENVIRONMENT

WOUNDED WARRIOR
Employees in Richmond, Virginia sponsored the Home for Our Troops. This organization built a new home for Sergeant James McGuire and 46 of our volunteers assisted with landscaping the yard.

*These are just a few examples of our programs globally. The list is not comprehensive.
We are a member of the GOLD Community and support the mission of GRI to empower decision makers everywhere, through GRI Sustainability Reporting Standards and its multi-stakeholder network, to take action toward a more sustainable economy and world.

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APPENDIX A
This data table summarizes key information we at Northrop Grumman consider to be material to the company and its stakeholders.

### Company Data

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<tr>
<td>Floor space</td>
<td>$ millions</td>
<td>34,392</td>
<td>34,112</td>
<td>35,379</td>
</tr>
</tbody>
</table>

### Corporate Citizenship

- **Direct community investment through philanthropy - a**
  - $ millions: 25.4, 26.3, 30.8
- **Company charitable grants - Education (Target 50%)**
  - %: 57, 52, 56
- **Company charitable grants - Military and Veterans (Target 25%)**
  - %: 12, 15, 14
- **Company charitable grants - Health and Human Services (Target 20%)**
  - %: 10, 14, 12
- **Company charitable grants - Environment (Target 5%)**
  - %: 3, 4, 4
- **Company in-kind contributions**
  - $ millions: 0.859, 3.2, 428
- **Employee giving - b**
  - $ millions: 3.7, 34, 4.1
- **Employee volunteerism**
  - Hours: 30,588, 68,969, 63,454
  - Individual students: 10,840, 10,660, 16,760

### Ethics and Integrity

- **OpenLine inquiries**: 899, 898, 901
- **OpenLine allegations**: 1,388, 1,300, 1,460

### Engagement, Diversity & Inclusion

- **Total population - male**
  - %: 73.0, 73.1, 73.4
- **Total population - female**
  - %: 27.0, 26.9, 26.6
- **Total population - People of Color**
  - %: 31.8, 33.1, 34.5
- **Total population - veterans**
  - %: 20.4, 20.1, 20.0
- **Total population - personnel with disabilities**
  - %: 5.4, 6.0, 7.1
- **Management population - male**
  - %: 75.5, 74.8, 75.7
- **Management population - female**
  - %: 24.5, 25.2, 26.3
- **Management population - People of Color**
  - %: 21.0, 23.1, 25.2
- **Senior executive population - female - d**
  - %: 40.0, 50.0, 52.6
- **Senior executive population - People of Color - d**
  - %: 20.0, 24.1, 21.1

### Environment

<table>
<thead>
<tr>
<th>Topic</th>
<th>Unit</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sites audited</td>
<td>G4-DMA</td>
<td>26</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>Sites certified</td>
<td>G4-EN8</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Energy

<table>
<thead>
<tr>
<th>Topic</th>
<th>Unit</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity consumption</td>
<td>Megawatt hours</td>
<td>1,107,531</td>
<td>1,089,952</td>
<td>1,102,695</td>
</tr>
<tr>
<td>Renewable energy use</td>
<td>Megawatt hours</td>
<td>21,695</td>
<td>22,227</td>
<td>22,111</td>
</tr>
<tr>
<td>Energy Intensity</td>
<td>MWH per USD sales</td>
<td>0.00004708</td>
<td>0.00004447</td>
<td>0.00004274</td>
</tr>
</tbody>
</table>

---

**APPENDIX B**

- **a** Includes investments from Northrop Grumman and the Northrop Grumman Foundation; excludes donations from Northrop Grumman to the Northrop Grumman Foundation
- **b** Includes giving through ECHO, matched gifts and employee fundraising
- **c** Calculation based on teacher maintaining active teaching status or in a school-based setting for three years after professional development experience
- **d** Executives who report directly to the Chief Executive Officer and the Chief Operations Officer
### WATER

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water source (potable): Surface water</td>
<td>Gallons</td>
<td>G4-EN8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Water source (potable): Ground water</td>
<td>Gallons</td>
<td>G4-EN8</td>
<td>121,090,922</td>
<td>125,906,386</td>
<td>149,801,818</td>
</tr>
<tr>
<td>Water source (potable): Municipal supply</td>
<td>Gallons</td>
<td>G4-EN8</td>
<td>759,921,826</td>
<td>747,959,516</td>
<td>723,050,329</td>
</tr>
<tr>
<td>Water sources (potable): TOTAL</td>
<td>Gallons</td>
<td></td>
<td>881,012,748</td>
<td>873,865,901</td>
<td>872,852,147</td>
</tr>
<tr>
<td>Water source (nonpotable): Rainwater</td>
<td>Gallons</td>
<td>G4-EN8</td>
<td>65,044</td>
<td>87,916</td>
<td>74,993</td>
</tr>
</tbody>
</table>

### EMISSIONS

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct (Scope 1) greenhouse gas emissions</td>
<td>Tonnes CO2e</td>
<td>G4-EN15</td>
<td>141,688</td>
<td>130,431</td>
<td>140,537</td>
</tr>
<tr>
<td>Indirect (Scope 2) location-based greenhouse gas emissions</td>
<td>Tonnes CO2e</td>
<td>G4-EN16</td>
<td>433,331</td>
<td>402,674</td>
<td>370,677</td>
</tr>
<tr>
<td>Carbon offsets</td>
<td>Tonnes CO2e</td>
<td>G4-EN19</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
</tr>
<tr>
<td>Total GHG Emissions (location-based, includes carbon offsets)</td>
<td>Tonnes CO2e</td>
<td></td>
<td>564,020</td>
<td>522,105</td>
<td>500,215</td>
</tr>
<tr>
<td>Greenhouse gas emissions intensity (Scope 1 and Scope 2 - location based)</td>
<td>Tonnes CO2e/per USD sales</td>
<td>G4-EN18</td>
<td>0.00002397</td>
<td>0.00002130</td>
<td>0.00001939</td>
</tr>
<tr>
<td>Reduction of greenhouse gas emissions (from 2010 base year)</td>
<td>%</td>
<td></td>
<td>23.0</td>
<td>28.7</td>
<td>31.7</td>
</tr>
</tbody>
</table>

### NONHAZARDOUS SOLID WASTE

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reuse</td>
<td>Tons</td>
<td>G4-EN23</td>
<td>73</td>
<td>41</td>
<td>63</td>
</tr>
<tr>
<td>Recycling</td>
<td>Tons</td>
<td>G4-EN23</td>
<td>10,596</td>
<td>11,860</td>
<td>13,468</td>
</tr>
<tr>
<td>Composting</td>
<td>Tons</td>
<td>G4-EN23</td>
<td>586</td>
<td>551</td>
<td>495</td>
</tr>
<tr>
<td>Recovery (including energy recovery)</td>
<td>Tons</td>
<td>G4-EN23</td>
<td>638</td>
<td>787</td>
<td>326</td>
</tr>
<tr>
<td>Landfill</td>
<td>Tons</td>
<td>G4-EN23</td>
<td>10,097</td>
<td>8,800</td>
<td>8,462</td>
</tr>
<tr>
<td>Diversion Rate</td>
<td>%</td>
<td></td>
<td>54.1</td>
<td>60.1</td>
<td>62.9</td>
</tr>
</tbody>
</table>

### HAZARDOUS WASTE

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hazardous waste generated</td>
<td>Tons</td>
<td>G4-EN25</td>
<td>1,032</td>
<td>1,306</td>
<td>1,460</td>
</tr>
</tbody>
</table>

### SIGNIFICANT FINES AND PENALTIES

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>$, shown in year paid</td>
<td></td>
<td>G4-EN29</td>
<td>12,008</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### HEALTH AND SAFETY

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-related fatalities</td>
<td></td>
<td>G4-LA6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Case Rate</td>
<td>Per 100 workers</td>
<td>G4-LA6</td>
<td>1.08</td>
<td>0.9</td>
<td>0.91</td>
</tr>
<tr>
<td>Employee Lost Work Day Rate</td>
<td>Per 100 workers</td>
<td>G4-LA6</td>
<td>13.12</td>
<td>9.91</td>
<td>10.6</td>
</tr>
<tr>
<td>Days Away Case Rate</td>
<td>Per 100 workers</td>
<td>G4-LA6</td>
<td>0.34</td>
<td>0.25</td>
<td>0.26</td>
</tr>
</tbody>
</table>

### PRODUCT AND SERVICE QUALITY

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Board of Directors</td>
<td></td>
<td></td>
<td>12</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Number of independent Board of Directors</td>
<td></td>
<td></td>
<td>11</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Women/minority independent Board of Directors (Number,%)</td>
<td></td>
<td></td>
<td>4 (33%)</td>
<td>5 (36%)</td>
<td>5 (38%)</td>
</tr>
</tbody>
</table>

### RESEARCH & DEVELOPMENT AND INNOVATION

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-Sponsored R&amp;D Expenses</td>
<td>$ millions</td>
<td></td>
<td>712</td>
<td>705</td>
<td>639</td>
</tr>
</tbody>
</table>

### SUPPLY CHAIN

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Business</td>
<td>%</td>
<td></td>
<td>37.8</td>
<td>38.0</td>
<td>39.7</td>
</tr>
<tr>
<td>Small Disadvantaged Business (SDB)</td>
<td>%</td>
<td></td>
<td>4.7</td>
<td>5.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Woman-Owned Small Business (WOSB)</td>
<td>%</td>
<td></td>
<td>8.6</td>
<td>8.3</td>
<td>9.7</td>
</tr>
<tr>
<td>HUBZone Small Business</td>
<td>%</td>
<td></td>
<td>1.9</td>
<td>2.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Veteran-Owned Small Business (VOSB)</td>
<td>%</td>
<td></td>
<td>5.9</td>
<td>5.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Service-Disabled Veteran-Owned Small Business (SDVOSB)</td>
<td>%</td>
<td></td>
<td>2.8</td>
<td>2.6</td>
<td>2.8</td>
</tr>
</tbody>
</table>

### TALENT MANAGEMENT

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>UNITS</th>
<th>GRI INDICATOR</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees (employee headcount as of December 31 of each calendar year)</td>
<td></td>
<td></td>
<td>62,443</td>
<td>64,072</td>
<td>66,613</td>
</tr>
<tr>
<td>Veteran new hires</td>
<td>%</td>
<td></td>
<td>26.6</td>
<td>24.3</td>
<td>24.6</td>
</tr>
<tr>
<td>Persons with disabilities new hires (target 7%)</td>
<td>%</td>
<td></td>
<td>10.2</td>
<td>9.5</td>
<td>10.8</td>
</tr>
<tr>
<td>U.S. employees covered by collective bargaining agreements</td>
<td>%</td>
<td></td>
<td>4.0</td>
<td>3.7</td>
<td>3.3</td>
</tr>
</tbody>
</table>

1 Refer to CDP Climate Change disclosure for more detailed information.