



**NASA OFFICE OF INSPECTOR GENERAL**



# OFFICE OF INVESTIGATIONS

**PRODUCT SUBSTITUTION**



COUNTERFEITS  
CAN BE COSTLY AND  
**DANGEROUS**

## ABOUT THE OFFICE OF INVESTIGATIONS

# WHO ARE WE?

Each Federal agency has an independent Office of Inspector General (OIG) charged with conducting objective audits and investigations, as well as preventing and detecting fraud, waste, and abuse. Within the NASA OIG, the Office of Investigations handles allegations of wrongdoing involving organizations or individuals that receive awards from, conduct business with, or work with NASA.

# WHAT DO WE DO?

We investigate allegations in which NASA is the potential victim of fraud, waste, or abuse by employees, grantees, contractors, or others. We receive allegations from many sources, including proposal reviewers, Agency employees, the OIG hotline, and the public. We also handle all allegations of research misconduct involving Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) proposals and awards.



## TYPES OF PRODUCT SUBSTITUTION

### **Form (Materials substitution)**

- The use of materials that do not conform to contract requirements
- Used, surplus, or outdated materials or components

### **Fit (Dimensions/Interchangeability)**

- Most common defect in manufactured products
- Part may be unusable
- May affect life of mated components or damage equipment
- May affect reliability, accuracy, or durability of entire system

### **Function (Design, workmanship, or process control issues)**

- Process not performed properly (machining, welding, soldering, plating, testing)
- Component or end item does not operate within parameters of original design due to unauthorized design change
- Design never conformed to development specification
- Falsification of test results or service records

## Counterfeit parts

- Parts which do not contain the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part
- Parts which have been used, refurbished or reclaimed, but represented as a new product
- Parts which have a different package style or surface plating/finish than the ordered parts
- Parts sold with modified labeling or markings intended to misrepresent the part's form, fit, function, or grade

## Service contracts

- Use of unskilled/unqualified personnel
- Falsifying level of effort





# WHO IS AT **RISK?**

- **ASTRONAUTS**
- **PILOTS**
- **LAUNCH VEHICLES**
- **ISS CREWMEMBERS**



## AVOID THE RISKS

### **What Is Product Substitution?**

Misrepresentation of any fact pertaining to any product used in Government projects.

### **What Is the Impact to NASA?**

- Safety risks to astronauts and pilots
- Launch vehicles failures
- Mission failures
- Launch delays
- Detrimental impact to project schedules
- Increased costs

## INDICATORS

Product substitution involves contractors who knowingly introduce defective, substituted, untested, counterfeit, or substandard products into NASA's acquisition system. Common indicators include, but are not limited to, the following:

- Receiving frequent complaints by users of supplies or services
- Mismatching or mislabeling of products and materials
- Using old, uncalibrated, or improperly calibrated equipment for acceptance testing
- Restricting or avoiding inspection of goods or services or select samples to be tested
- Entertaining or providing gratuities to inspection personnel
- Noting that the work performed shows early signs of aging and wear
- Providing inadequate, disorderly, missing, or altered supporting documentation or certifications relating to production, manufacture, supply, or quality control processes
- Showing high rates of return, rejection, and failures
- Noting that the contractor selects testing company or performs tests itself
- Observing that test records reflect no failures, have been altered or destroyed, or cannot be found.
- Uncovering evidence of close socialization between the supplier and contracting personnel
- Providing photocopies or digital versions of certifications and other records when originals are expected
- Noting higher than expected maintenance rates
- Providing duplicative laboratory test reports (for example, reports that are identical to sample test results, varying only by date and lot numbers)



## PENALTIES AND REPERCUSSIONS

The NASA OIG investigates allegations or suspicions of fraud pertaining to the intentional introduction of defective, counterfeit, untested, or substandard products into NASA's acquisition system. Violations of criminal law are referred to the U.S. Department of Justice (DOJ). Common statutes pursued by DOJ in Product Substitution cases include:

- **18 U.S.C. § 38** **18 USC 38** Fraud Involving Aircraft or Space Vehicle Parts
- **18 U.S.C. § 287** False Claims
- **18 U.S.C. § 371** Conspiracy
- **18 U.S.C. § 1001** False Statements
- **18 U.S.C. § 1341 / 1343** Mail & Wire Fraud

Contractors and individuals successfully prosecuted by DOJ risk prison, payment of fines, restitution and other penalties. DOJ may also pursue civil lawsuits under the False Claims Act against individuals and companies who knowingly supply defective, counterfeit, untested, or substandard products to NASA and DOJ may seek triple the amount of damages in such cases. Additional repercussions of engaging in Product Substitution may include NASA terminating outstanding awards and suspending or debaring individuals or companies from receiving new grants and contracts from any U.S. Government agency.

A person in a light blue shirt is scanning a cardboard box with a handheld barcode scanner. The box has a red 'URGENT' sticker and a barcode. The background shows other boxes and a person in a blue uniform.

**DO NOT  
CONSENT**  
TO COUNTERFEIT PARTS  
OR MATERIALS

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**OFFICE OF INVESTIGATIONS**  
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202-358-0105



**OFFICE LOCATIONS AND PHONE NUMBERS**

**NASA OIG HEADQUARTERS**

Washington, DC  
202-358-1220

**AMES RESEARCH CENTER**

Moffett Field, CA  
650-604-3682 (Investigations)

**GLENN RESEARCH CENTER**

Cleveland, OH  
216-433-5414 (Investigations)  
216-433-9714 (Audits)

**GODDARD SPACE FLIGHT CENTER**

Greenbelt, MD  
301-286-9316 (Investigations)  
301-286-6443 (Audits)

Trenton, NJ

609-656-2543 (Investigations)  
or 609-656-2545

**JET PROPULSION LABORATORY**

Pasadena, CA  
818-354-6630 (Investigations)  
818-354-3360 (Audits)

**LONG BEACH RESIDENT AGENCY**

Long Beach, CA  
562-951-5485 (Investigations)  
or 661-276-2685

**JOHNSON SPACE CENTER**

Houston, TX  
281-483-8427 (Investigations)  
281-483-0483 (Audits)

**KENNEDY SPACE CENTER**

Kennedy Space Center, FL  
321-867-4714 (Investigations)  
321-867-3153 (Audits)

**LANGLEY RESEARCH CENTER**

Hampton, VA  
757-864-3263 (Investigations)  
757-864-8562 (Audits)

**MARSHALL SPACE  
FLIGHT CENTER**

Marshall Space Flight Center, AL  
256-544-9188 (Investigations)  
256-544-1149 (Audits)

**STENNIS SPACE CENTER**

Stennis Space Center, MS  
228-688-1493 (Investigations)

*This office handles Armstrong Flight  
Research Center Investigations.*

NASA Policy Directive 9800.1B requires NASA employees who observe crime, fraud, waste, abuse, or mismanagement to report the observation or suspicion to the OIG. Likewise, NASA employees, contractors, grantees, programs, partners, and those receiving NASA funds are expected to cooperate fully with the OIG and its designees. To report suspected violations, contact us through our Hotline.

## OIG HOTLINE

1-800-424-9183 / TDD: 1-800-535-8134

[\*https://oig.nasa.gov/hotline.html\*](https://oig.nasa.gov/hotline.html)

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