

Counterfeit Parts Prevention Overview

February 2014

Honeywell

Counterfeiting is a growing problem that is impacting our materiel supply chain.

What is Counterfeit Material?

- A copy or substitute without legal right or authority to do so
- Item whose material, performance, or characteristics are knowingly misrepresented by the vendor, supplier, distributor, or manufacturer
- Non-conforming supplies tendered with intent to deceive
- Used or reclaimed parts misrepresented as new

Thousands of chips are being fabricated in untrusted foundries or counterfeited























Counterfeiting is a growing problem

- Counterfeit electronic parts continue to be prevalent in the broker supply chain and impact product quality and cost
- Obsolescence and schedule / lead time requirements impact ability to purchase from OEM / OCM / Authorized Distributor
- Customer escapes have occurred related to counterfeit parts
- Honeywell is committed to continuously improving our counterfeit parts prevention processes and procurement practices to combat this problem
 - Member of various Industry forums with Primes driving policy alignment regarding standardized SAE AS5553 and AS6174 contract language flow down
 - Our internal Aerospace procedures (AP-1064 series) along with our Supplemental Purchase Order Condition (SPOC 419) are aligned:
 - with the requirements of SAE AS-5553A Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition.
 - and with AS-6174 Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel (commodities phased in during Q1-Q4)
 - Honeywell Aerospace will adapt our processes to comport with the regulations promulgated pursuant to the National Defense Authorization Act, Sec. 818 (FY 2012) & Sec 833 (FY 2013) once they are released

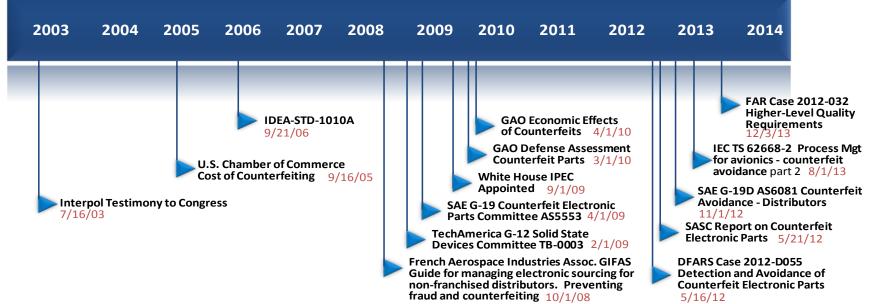
A significant challenge across the Aerospace industry

China Counterfeit Parts in U.S. Military Aircraft

http://bloom.bg/vfVxEG

A Partial Listing of Major Counterfeit Related Milestones with Expectations of Additional Activity in 2014





Proposed DoD Counterfeit Prevention Framework

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Implementation of Section 818 FY 2012 NDAA & Section 833 FY 2013 NDAA

DFARS Case 2012-D055 "Detection and Avoidance of Counterfeit Electronic Parts" Proposed Rule – public comment period ended 7/15/2013

2/11/2014 DAR editor submitted draft final DFARS rule to Office of Information and Regulatory Affairs. OIRA reviewing. DFARS Case 2014-D005 "Detection and Avoidance of Counterfeit Electronic Parts – Further Implementation"

To Be Published

11/07/2013 DARC Director tasked DARS staff to draft proposed DFARS rule. Report due date extended to 4/23/2014. FAR Case 2013-002 "Expanded Reporting of Nonconforming Supplies"

To Be Published

3/26/2014 CAAC Chair sent draft proposed FAR rule to OIRA. OIRA reviewing.

Report Nonconformances Impacting Safety:

 DFARS 252.246-7003 Notification of Potential Safety Issues

Using Existing Quality Inspection Clauses:

- <u>52.246-1</u> Contractor Inspection Requirements
- <u>52.246-2</u> Inspection of Supplies Fixed-Price
 <u>52.246-3</u> inspection of Supplies Cost
- Reimbursement
- 52.246-11 Higher-Level Contract Quality Requirements
 - Key area of influence rests in industry standard involvement, which is where ambiguity can be addressed
 - Support from SMEs are need in areas such as AS6174 slash sheet development (e.g. raw material), G-19Cl ad-hoc committee on traceability & reporting, etc.

Collaborative Industry Effort Tracking Monthly Updates

FAR Case 2012-032 "Higher-Level Contract Quality Requirements"

Proposed Rule – public comment period ended 2/3/2014

2/26/2014 DARC Director tasked Ad Hoc Team to review public comments, draft final FAR rule. Report due 4/2/2014. Report due date extend to 4/30/2014.

Example Higher Level Quality Requirements for Combating Counterfeits:

- AS6174, Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel, current version – DoD Adopted 17 Jun 2013
- AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition, current version – DoD Adopted 31 Aug 2009
- AS6081, Distribution Counterfeit Electronic Parts; Avoidance Protocol, Distributors, current version – DoD Adopted 10 Jun 2013
- EPRI TR-1019163, Counterfeit Fraudulent and Substandard Items, Mitigating the Increasing Risk
- IDEA STD-101-A, Acceptability of Electronic Components distributed in the Open Market, current version
- JEDEC Standard, General Requirements for Distributors of Commercial or Military Semiconductor Devices, current version
- SEMI T20, Specification for Authentication of Semiconductors and Related Products, current version

Counterfeit Material Prevention Strategy

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Processes	Traceability	Reporting	Training	Surveillance and Compliance	Obsolescence
HON Aerospace Counterfeit Parts Prevention contains three components: 1. AP-1064 Procedures for CP Prevention 2. APOL – 85 Broker Policy to reduce broker purchases 3. SPOC-419 – external flow down to our suppliers. All are Integrated in IPDS gate reviews	HON Aerospace incorporates "authorizing documentation" for our electronic material to ensure traceability back to the part origin or authorized source.	HON Aerospace requires GIDEP—Reporting Evaluation and Tracking for owned material IAW contract requirements. HON Aerospace uses an internal Quality Alert System to inform sites of pending issues.	HON Aerospace provides "Awareness" training regarding counterfeit parts prevention. Specific functional training is available for Procurement Quality Assurance Component Engineering Field Quality Engineering Site Counterfeit Part Resolution Team	HON Aerospace incorporates compliance into the counterfeit prevention processes through audits and utilization of checklists created and implemented by the CPP team. • Supplier Contract Manufacturer Field Quality Audit Teams • Site Counterfeit audits based on AS5553, AS6174 (phased in 2014) and AP-1064 verification.	HON Aerospace uses Obsolescence Processes that focus on specific actions prior to using un- authorized sources. HON Aerospace uses comprehensive component roadmaps, design practices and reactive measures to minimize the impact of obsolescence (or DMSMS).
	<u> </u>				Obsolescence

Six Elements to the CPP Strategy

Continuous Improvement Activities

- Inventory Internal
- Inventory at Contract Manufacturers
- Internal Audit
- Contract Manufacturer Audits
- Authorized Sources Database
- Communication
- Broker Policy
- Test Lab Assessment & Training
- Procedure Coordination
- Receiving & Inspection Data Mgmt
- Tools / Traceability
- AP-1064-4 for Materiel
- Industry Involvement
- Test Lab Report Review
- Problem Resolution (Technical Review Board)



Honeywell Industry Involvement

- Active committee participation in the following:
 - SAE Counterfeit Avoidance Steering Group (CASG)
 - SAE G-19 Counterfeit Electronic Parts Committee
 - SAE G-19A Test Laboratory Standards Development Committee
 - SAE G-19DR Distributor Risk Characterization Committee
 - SAE G-19T Definitions Task Committee
 - AIA Counterfeit Parts Process Committee
 - DMSMS & Standardization Counterfeit Parts Committee Planning
 - TechAmerica Supply Chain Assurance Committee
 - TechAmerica G12 Solid State Devices
 - IEC TEC-107 Process Management for Avionics
 - Acquisition Reform Working Group (ARWG)
- DoD DMSMS & Standardization Conference
 - Implementing a counterfeit parts control plan
 - Implementing a test plan
- Participate and present at numerous trade-shows including CALCE/SMTA Counterfeit Parts Symposium, NASA Quality Leadership Forum, and many more...

In Summary

- Through our gap analysis we have aligned ourselves to the industry standards SAE AS-5553A & AS-6174
- Our proactive processes:
 - Maximize availability of authentic parts by procuring from reliable sources
 - When it is not possible to buy from OCMs and franchised distributors, develop risk assessment plans for material procured from non-franchised distributors
 - Ensure adequate testing from approved test houses on material procured from non-franchised distributors to determine suspect part status based on criticality of device, application, and supplier
 - Improve receiving and inspection requirements of non-franchised procured parts to prevent counterfeit parts from entering the supply chain
- We are continuing to partner and communicate with our customers and suppliers to assure compliance

Risk-based, continuous improvement approach