



# Langley Research Center Safety Alert

National Aeronautics and  
Space Administration

SA-05-96

Date: 7-9-96

TO: ALL EMPLOYEES

FROM: 429/Head, Office of Safety and Facility Assurance, OSEMA  
421/Head, Office of Mission Assurance, OSEMA

SUBJECT: Receipt Inspection for Safety Critical Purchases

In recent years the United States Government has experienced an increase in the amount of substandard and counterfeit high-strength fasteners. Unethical companies will alter the appearance of low-strength fasteners to imitate high-strength fasteners to increase their profit margin. This substitution of bogus fasteners has led to serious accidents and costly repairs to the government. People have been killed, our defense readiness reduced, and the cost runs into millions of dollars to cover system failures, downtime, reconstruction, and other inefficiencies.

This problem has been addressed by Public Law 101-592, "Fastener Quality Act" and NASA Management Instruction (NMI) 5320.7, "Basic Policy for Mechanical Parts Control". The Fastener Quality Act establishes procedures to provide customers buying certain high-strength fasteners used in critical applications with assurance that the fasteners they purchase meet stated specifications. The Basic Policy for Mechanical Parts Control established the basic policy for controlling the selection, acquisition, testing, and traceability of all mechanical parts. Mechanical parts such as high pressure fittings, metal pipe and tubing, and metal plate and shapes share the same problem as the high-strength fasteners. Not only has LaRC experienced problems with substandard and counterfeit parts but, we have received parts incorrectly packaged, mismarked, damaged, used, or altered in an attempt to meet specifications.

At LaRC we have three different methods for procuring high-strength fasteners and mechanical parts; through the stockroom, purchase requests, and credit cards. When these items are received at the stockroom, a classification code identifies them to be delivered to the Receipt/Inspection Quality Assurance Laboratory (RI/QA Lab). The RI/QA Lab provides material and process verification services to assure that procured items comply with specifications for selected research hardware to space, aeronautics, and research facilities. The documentation generated by the RI/QA Lab provides traceability of the item back to the manufacturer. Traceability of parts is a requirement for Space, Aeronautics, and specified Facility projects. When high-strength fasteners and mechanical parts are procured through purchase requests and credit cards it is the responsibility of the requester to contact the RI/QA Lab for receipt inspection. Please note that there is no charge for this service and that service is usually accomplished within three (3) days. Priority items will be given special consideration.

If you receive a high-strength fastener or mechanical part that requires testing and traceability, you are requested to contact Dave Rabon, RI/QA Lab Manager (46890), or Arthur Hayhurst, RI/QA Lab Technical Monitor (43352).

*Alan H. Phillips*  
Alan Phillips  
47233

*V. William Wessel*  
V. William Wessel  
43344

421/HTG *[Signature]*