

*NASA Parts and Packaging Program*  
*Goddard Space Flight Center (GSFC)*  
*EEE Parts Program*

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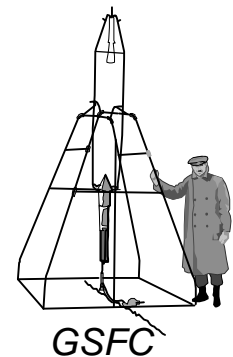
*Presentation to the*  
*Space Parts Working Group*  
*March 1998*

*Presented by:*

*Jay Brusse*

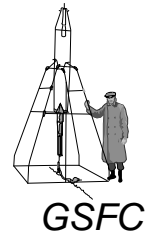
*Unisys Corporation @ NASA Goddard Space Flight Center*  
*(301) 286-2019*

*Jay.A.Brusse.1@gssc.nasa.gov*



# *NASA Parts and Packaging Program*

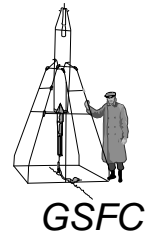
## *Goddard EEE Parts Program Elements*



- *NASA Parts Selection List (NPSL)*
- *Supplier Assessment Programs*
  - *Passive (PSAP)*
  - *Active (ASAP)*
- *EEE Parts Information Management System (EPIMS)*
  - *GSFC Parts Analysis Web System (PAWS)*
- *EEE Links Newsletter*

# *NASA Parts Selection List*

## *What is the NPSL ?*

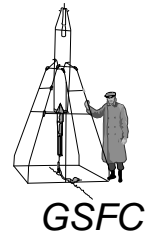


- *NPSL is a WWW-Based EEE Parts Selection Toolkit*
- *NPSL Provides Detailed Support for Parts Selection and Application for NASA Programs*
- *Targeted Users of the NPSL Include:*
  - *Parts Engineers (Govt., OEM, University)*
  - *Design Engineers (...)*
  - *Experimenters (...)*
  - *Anyone and Everyone with an Interest*
- *NPSL can be Accessed at:*

**<http://misspiggy.gsfc.nasa.gov/npsl>**

# *NASA Parts Selection List*

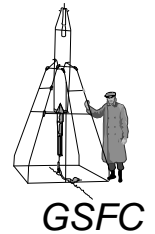
## *Role of the NPSL*



- *NPSL Captures the Best Features of MIL-STD-975 and GSFC PPL-21*
  - *MIL-STD-975 is No Longer Being Maintained (Last 975 Update was March 1995)*
  - *PPL-21 has Uncertain Future (Last Update was Notice 1 Dated May 1996)*
  
- *NPSL Provides “Real-Time” Guidance to NASA Projects and Offers Free Access to All*
  
- *NPSL is Not Designed to be Contractually Mandated*
  
- *NPSL Goes Beyond the Traditional Offerings of its Predecessors*

# *NASA Parts Selection List*

## *Current Status and Future Plans*



- *NPSL is Available NOW!!*

**<http://misspiggy.gsfc.nasa.gov/npsl>**

- *Initial Phase (FY98):*

- *Capture EEE Commodities Covered by 975 and PPL-21*
- *Most Commodity Sections are Complete Now!*

- *Second Phase (End of FY98):*

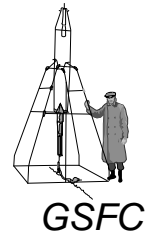
- *Capture Derating Guidelines*

- *Third Phase (FY99):*

- *Capture New and Advanced Technologies*

# *NASA Parts Selection List*

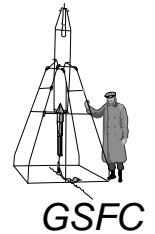
## *Key Elements and Benefits*



- *Fast, Unrestricted World-Wide Access*
- *Robust Selection Lists for EEE Parts for Spaceflight*
- *Full Part Number/Ordering Explanations*
- *Available Sources of Supply*
- *Detailed Application Notes and Guidelines*
- *Dimensional Drawings, Outline Configurations, Connector Insert Arrangements, etc.*

# *NASA Parts Selection List*

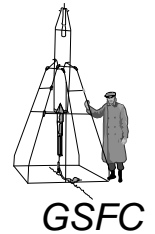
## *Key Elements and Benefits*



- *Links to Part Reliability Databases*
  - *EPIMS*
  - *Radiation Effects*
  - *Construction Analyses*
- *Links to Manufacturer Homepages*
- *Links to DSCC Homepage for QPL/QML and Specs*
- *Links to GSFC Procurement Specifications*
- *Future Links to Any Sites We Consider Value-Added*
- *User Feedback is Critical to Future Enhancements*

# *Supplier Assessment Programs*

## *Who are PSAP and ASAP?*



- *PSAP and ASAP are NASA HQ's Funded Programs Established to Provide NASA Projects with Insight into the EEE Parts Marketplace*
  
- *PSAP and ASAP are Managed by:*
  - *Passive (PSAP)*

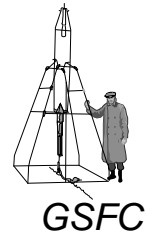
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# *Supplier Assessment Programs*

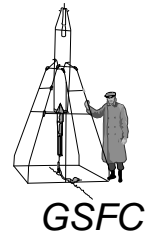
## *Key Elements*



- *PSAP / ASAP are Primary “Technology Support Arm” of the NASA Parts Selection List (NPSL)*
- *PSAP / ASAP Conduct Routine Monitoring of EEE Parts Marketplace for Availability or Reliability Issues*
  - *Diminishing Source*
  - *Shipment Holds*
  - *Failure Reviews*
- *Periodic “Piggyback” Auditing with DSCC of Key Suppliers to NASA*
- *Provide DSCC and Industry with NASA Voice for Military / Industry Specification Modifications*

# *Supplier Assessment Programs*

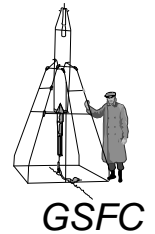
## *Key Deliverables*



- *Technical Inputs to the NPSL*
- *On-line Access to “Core Suppliers Lists”*
  - *Passives --> <http://arioch.gsfc.nasa.gov/psap/psap.htm>*
  - *Actives --> <http://arioch.gsfc.nasa.gov/asap/asap.htm>*
- *Readily Available Technical Advice/Support*
- *Regular Parts “Information” Bulletins via E-Mail*
  - *Passives Contact Jay Brusse*  
*Jay.A.Brusse.1@gsfc.nasa.gov*
  - *Actives Contact Qutbuddin (Ali) GhulamAli*  
*Qutbuddin.Ghulamali.1@gsfc.nasa.gov*

# *EEE Parts Information Management System*

## *(EPIMS)*



- *NASA (GSFC) WWW-Based Database*

**<http://epims.gsfc.nasa.gov>**

- *Available Data Includes:*

- *GIDEP Alert Database*
- *NASA Project Parts Lists*
- *NSPAR References*
- *Manufacturer CAGE Code Lookup*

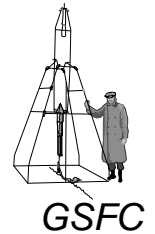
**NEW !** • *GSFC Parts Analysis Web System (PAWS)*

- *Intended for Use by Govt., Contractors, Industry, Academia Directly Supporting NASA Programs*

- *User-ID and Password Protected Access*

# *GSFC Parts Analysis Web System*

## *(PAWS)*



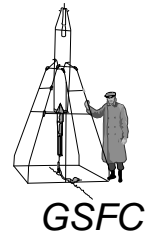
### ■ *WWW Access to GSFC Parts Analysis Reports*

- *Literally 1000's of Reports Available*
  - *DPA*
  - *Construction Analysis*
  - *Failure Analysis*
  - *Coupon Evaluation*
- *Newer Reports Available in ADOBE Acrobat File Format*
- *Older Reports Available as Text Only*

### ■ *RESTRICTED Access:*

- *Accessible Via the EPIMS Homepage*
- *Available to Government and Contractor Personnel Directly Supporting NASA Programs*

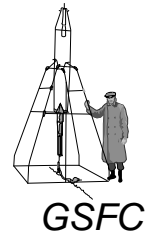
# *EEE Links Newsletter*



- *Quarterly Newsletter Discussing Topics of Interest for EEE Parts and Packaging*
- *Articles from Govt., Contractors, Industry, Academia*
  - *Parts and Packaging Technology Developments*
  - *Conference Summaries*
- *Available in Two Formats*
  - *Via the WWW*
    - **<http://arioch.gsfc.nasa.gov/312/Linkspg.htm>**
  - *For Hardcopy Mailing Contact:*
    - Bob Humphrey (Editor)
    - (301) 731-8625
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# *NASA GSFC Parts Program*

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# *NASA Goddard Space Flight Center EEE Parts Homepages*

## ***NASA Parts Selection List***

EEE Parts Selection  
Supplier Info  
Application Guidelines  
and More!!

**<http://misspiggy.gsfc.nasa.gov/npsl>**

## ***EPIMS***

GIDEP and NASA Advisory Search  
Parts Lists  
Parts Analysis Reports (PAWS)  
NSPAR References

**<http://epims.gsfc.nasa.gov>**

## ***GSFC Component Technologies & Radiation Effects Branch***

GSFC Procurement Specs  
PPL-21  
Screening/Qual Guidelines

**<http://arioch.gsfc.nasa.gov/311/html/311.html>**

## ***Passive Supplier Assessment Program***

Passive Parts Core Suppliers List

**<http://arioch.gsfc.nasa.gov/psap/psap.htm>**

## ***GSFC Parts Analysis Web System (PAWS)***

Reports Available for Download  
DPA  
Construction Analysis  
Failure Analysis

**<http://epims.gsfc.nasa.gov>**     *Available via EPIMS*

## ***Active Supplier Assessment Program***

Active Parts Core Suppliers List

**<http://arioch.gsfc.nasa.gov/asap/asap.htm>**

## ***GSFC Materials Outgassing Database***

Outgassing Data for Selecting Spacecraft Materials

**<http://misspiggy.gsfc.nasa.gov/og>**

## ***EEE Links Newsletter***

Quarterly Publication  
Parts and Packaging Technology Articles

**<http://arioch.gsfc.nasa.gov/312/Linkspg.htm>**

## ***GSFC Radiation Effects and Analysis***

Single Event Effects  
Total Ionizing Dose

**<http://flick.gsfc.nasa.gov/radhome.htm>**



**GSFC**