Vehicle Assembling Building
Data Center Virtual Tour

Daniel D Hauge
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Who We Are

Marshall Space Center
Huntsville, AL

NASA HQ
Washington DC

Johnson Space Center
Houston, TX

Kennedy Space Center
Cape Canaveral, FL
Who We Are

Marshall Space Center
Huntsville, AL

- Mission Design and Planning

- Responsible for Main Engine, External Tank and twin Solid Rocket Boosters
Who We Are

• Astronaut & Flight Controller Training
• Space Shuttle Flight Simulator Operations
• Space Station Operations and Utilization
• Flight Crew Equipment, Including Space Suits, Food and so on.
• Mission Control Center Management and Operations

Johnson Space Center
Houston, TX
Who We Are

• Vehicle Maintenance, Testing and Launch Operations

• Support U.S. and Trans-Atlantic Emergency Landing Sites

• Ocean Retrieval of Solid Rocket Boosters

• Space Shuttle Logistics Depot - manufacture, repair and procurement of Shuttle hardware and ground support equipment

Kennedy Space Center
Cape Canaveral, FL
VAB Data Center Virtual Tour

Data Center Virtual Tour
VAB Data Center Virtual Tour

Facilities Overview
Facilities Overview

Chillers
Facilities Overview

Generators
Facilities Overview

UPS Control Panel
Facilities Overview

Air Handlers
VAB Data Center Virtual Tour
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KVM Consoles
VAB Data Center Virtual Tour

IBM Mainframe
VAB Data Center Virtual Tour

SAN Storage
VAB Data Center Virtual Tour

Powderhorns
VAB Data Center Virtual Tour

Unix Servers
VAB Data Center Virtual Tour

7x24x365 Control Room
VAB Data Center Virtual Tour

HP OpenView Operations

HP OpenView Operations for UNIX
VAB Data Center Virtual Tour

Legato Networker Administrator Consoles

USA
VAB Data Center Virtual Tour

Mainframe Consoles
VAB Data Center Virtual Tour

KVM Consoles
3800 Printer Replacement
3800 Printer Replacement

The Solution
A Web-based information management and distribution solution

1,200 reports!!
Most Updated Daily!

- Reports are easily searchable online
- Allows the user to view reports directly on the WEB
- Reports can be printed on demand or automatically
- All reports are on-line, available, and reliable
3800 Printer Replacement

The Solution

Past

Present
3800 Printer Replacement

Use of SPLOX paper (SSpeed Loading bOX)

- Light weight, easy to carry
- Easy to open
- No reams to unwrap
- Ease of loading

No Waste

Protects reports from the elements (wind/rain)

- Boxes re-usable for delivery
3800 Printer Replacement

Cost Comparison

- Supplies
- Paper Cost
- Lease and Maintenance Cost
- Click Charges
3800 Printer Replacement

Printers/Perfect Binder

Perfect Binder

3 Printers/Copiers
3800 Printer Replacement

The Solution

- Three high volume (105ppm) standard cut sheet printers and a Perfect Binder at a central location (VAB Data Center).
  - Use of duplex printing
    - Reduces paper cost by over 60%
    - Reduces recycled waste by 50%
    - Reduces size/weight of reports by over 50%
  - Reports under 200 pages are automatically stapled (85% of the reports)
  - Reports over 200 pages are bound using “Perfect Binder”
  - “Open Solution” which provides printing/copying/binding for any application, not limited to supporting the IBM Mainframe
  - New capabilities can provide professional publications/books
Disaster Recovery
Disaster Recovery
Next Shuttle Launch

STS114

Return To Flight
Next Shuttle Launch

Discovery (OV-103)

Mission: STS-114 - 17th ISS(International Space Station) Flight (LF1) - Multi-Purpose Logistics Module

Vehicle: Discovery (OV-103)

Location: Launch Pad 39B

Launch Date: Launch Planning Window May 15 - June 12, 2005

Commander: Eileen Collins

Pilot: James Kelly

Mission Specialist: Soichi Noguchi, Steve Robinson, Andy Thomas, Wendy Lawrence, Charlie Camarda
Next Shuttle Launch

- External Tank
  Moved into VAB on Jan 5, 2005

View from Forward Skirt
looking down vehicle

View from ET Attach Ring
looking up vehicle
Next Shuttle Launch

- External Tank
- Solid Rocket Boosters
  Stacked and mated with External Tank on Feb 28, 2005
Next Shuttle Launch

- External Tank
- Solid Rocket Boosters
- Space Shuttle
United Space Alliance

Space Transportation System  Orbiter

Upper Forward Fuselage

Crew Compartment

Payload Bay Doors

Forward RCS Module

Lower Forward Fuselage

Mid Fuselage

Wing

Vertical Stabilizer

OMS/RCS

Body Flap Aluminum 2024

Aft Fuselage

X₀ 1507

6.3 m (20.67 ft)

7.23 m (23.76 ft)

3.5 m (11.49 ft)

19.28 m (63.10 ft)

3.62 m (11.89 ft)

23.2 m (76.27 ft)

Ground Line

29.70 m (97.36 ft)

34.98 m (114.8 ft)

10.64 m (34.84 ft)

32.05 m (105.07 ft)

3.2 m (10.5 ft)

17.27 m (56.67 ft)

30.5 ft