

# “Hitting the Road to Achieve Bilateral Communications with Suppliers”

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T-6A  
Cockpit



T-6B  
Cockpit

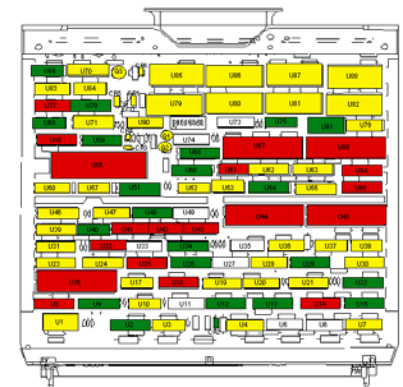


# T-6 JPATS Program Background

- Textron (formally Beechcraft Defense Company) won the highly competitive Joint Primary Aircraft Training Program (JPATS) by offering the safest, most capable, and most affordable trainer.
- Just celebrated the 18<sup>th</sup> anniversary and 2.1 million flight hours
- 496 T-6A and 187 T-6B aircraft have been delivered to the fleet.
- Overall, the JPATS program calls for nearly 800 deliveries through the year 2017, with international sales increasing. • 26 to Canada, 15 to Iraq, 45 to Greece, 9 to Israel, 24 to Morocco, 6 to Mexico, and 11 to New Zealand
- The T-6 is currently used by the U.S. Air Force, U.S. Navy, the Hellenic Air Force of Greece, and the NATO Flying Training in Canada program as a primary trainer and weapons & navigation trainer.
- BAE Systems is a sub-contractor to Textron. Textron is the Prime Contractor to the USG (664th AESS, WPAFB).

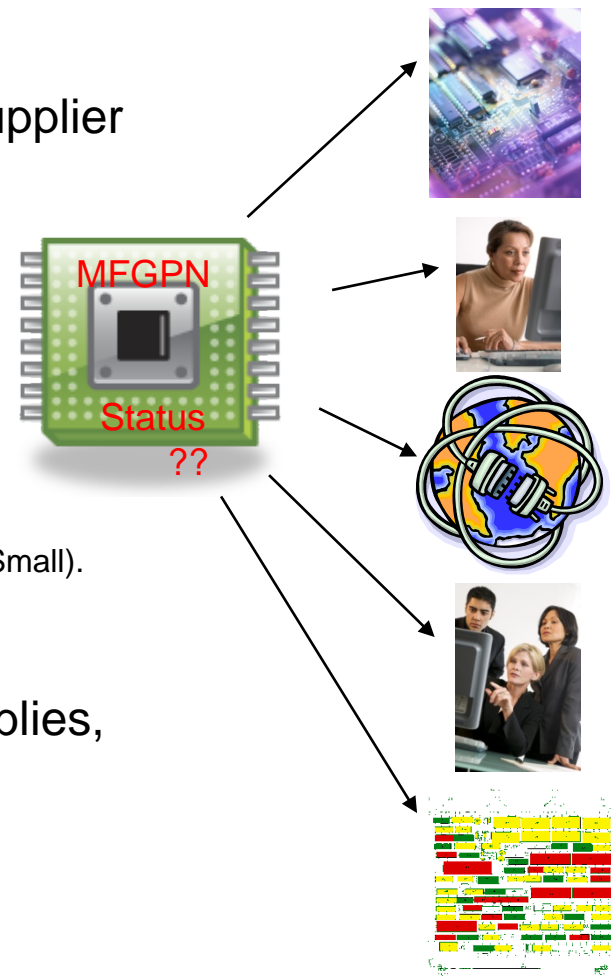
# Program Purpose

- The purpose of this DMSMS Program is to implement the steps and processes that will be used to proactively manage the T-6 Training System's DMSMS challenges throughout the system's life cycle.
- The program takes into consideration the current system configuration, planned system upgrades, and legacy system maintenance requirements.
- To promote cost-effective supply chain management integrity through DMSMS problem resolution at the lowest (cost, time, or functional) level.
- To proactively manage potential DMSMS risks and actual DMSMS issues in such a manner as to minimize impact to Textron's performance of production, modification, or support requirements.



# Statusing Items

- Beyond the “industry standard” for data loading and Supplier Communication.
- This program represents a new way of providing component part and end item status to our customer.
- What is meant by this?
  - BDC is an aircraft manufacturer and while they do manufacture a small subset of items they procure most of their items (From OEMs Large and Small).
- Textron suppliers meet Textron requirements by providing boxes, i.e. COTS items, LRUs, cable assemblies, oxygen systems, nav. systems...



# Concept and Concerns

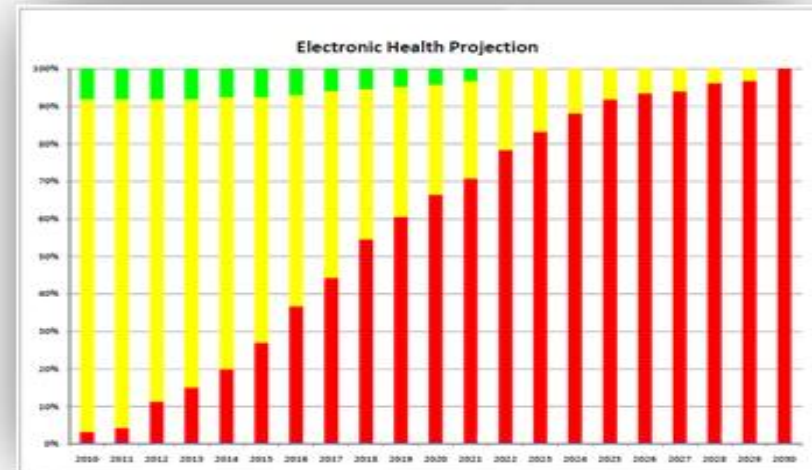
- The mandate for our program was to create a Proactive DMSMS Program that monitors the JPATS T-6 from Nose to Tail including Support Equipment in a DMSMS software tool.
- BAE Systems Component Engineers along with Textron's Engineers determined the critical systems and suppliers for these systems.
- The need for supplier information and the cooperation to provide risk mitigation for USG and Textron
- Incentivizing the supplier to release Bill of Materials since COTS items are commercially developed and intellectual property is not owned by the USG.
- If suppliers didn't participate what would we know, would have unknown-unknowns, huge risks.
- What are we asking from them, and what are we supplying to them. How to achieve bilateral communication?





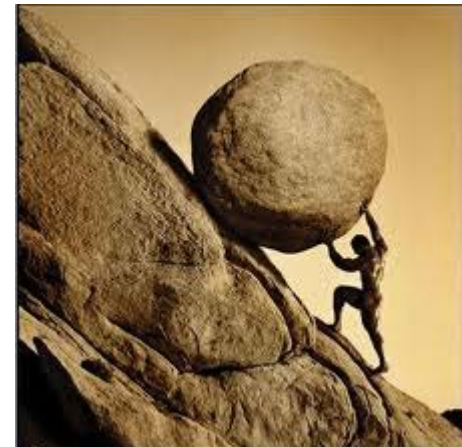
# Bilateral Communications w/ Suppliers

- Key product information to be filled out in surveys
  - Vendor Projected Lifecycle
  - Vendor Obsolescence Management Plan
  - Product demand
  - Hardware and/or software revisions
  - Product support
  - Third party repair/support
- BOMs
  - Load Bills of Materials into AVCOM
  - BOM Analysis
  - ROHS Compliance
  - Clearer DMSMS Impact
  - Alerts and solutions from other platforms
- Fill out survey updates
  - Periodic updates are crucial
  - POC changes
  - Early EOL, or Change Notices
- Put us on distribution for
  - Change or Discontinuance notices
  - Design changes
  - Part number changes
  - Package changes
  - Material content changes



# Slow Start

- Initial effort of calling and e-mailing critical suppliers met with varied success
- Complete T-6 configuration load might be a Sisyphean Task
- Providing Health Analysis and monitoring BoMs in AVCOM seemed like a win-win to encourage supplier participation
- Old ways of thinking and the perceptions of what supplier's level of effort was going to be and potential costs
- “Click and Send” wasn't working
- We had to hit the road to convey our message and the importance of this program to Textron and the USG.





# Supplier Site Visits Macro

- Scheduled supplier site visits to explain our program with representatives from Textron, USG, and BAE Systems.
- Presented program to supplier during visits and answered questions face to face
- Requesting information in person proved successful and was told several times that had we not asked for it in person we would not have obtained it
- This effort took less than 3 years and we've obtained over 50% of the total Bills of Material that were designated as critical, but we have received 100% of the critical market surveys.
- This face to face approach did improve supplier relationships and we regularly have suppliers submitting their Bills of Material for obsolescence review prior to their own upgrade and design reviews

# Supplier Site Visits Micro

- Getting visits scheduled
  - Working with BDC supply chain to get POC information
  - Large vs. small suppliers
  - Follow-up, Follow-up, Follow-up
- How do we present our program
  - All theory but had nothing practical to show
  - Tailoring our presentation after every meeting
  - Conveying the T-6 sustainment needs to suppliers
- Requesting the information in person
  - Assuring supplier that program would not cost them money
  - We did not want to run their program
  - “Yes” in person after getting initial “No” over the phone
  - Work together to create a “win-win” situation”
- This effort took less than 3 years
  - Initially one visit a quarter
  - Moved to one visit per month and depending on location multiple visits per trip
- Improved supplier relationships
  - Obtained supplier buy-in
  - Provided information we promised
  - Took those examples and went back to hold-outs
  - Quick turn-around on survey follow-ups



# Typical meeting scenario

- Who are we usually meeting with
  - Depends on the size of the company
  - Engineers, Program Managers, Supply Chain, and Production Managers
- What types of people do we meet with
  - Skeptical
  - Want to help but don't know if they can
  - Wary of more intrusion
- Typical meeting scenario
  - Introductions
  - Presentation w/ each team member giving a portion of the brief
  - If supplier has a DMSMS program in place they will also present
  - Question and answer
  - Supplier Tour
- No meeting is the same
  - Some glad you came to visit
  - Occasionally a cool room before we present
  - If they give us a plant tour we usually get the information we request
  - Initial meetings were tough but found what worked



# Sharing Information

- **Diode Industries Feedback:**

## Problem

Diode Industries supplier of the Selector, Antenna had long lead time for Micro-semi JANX tested Diode. These long lead times effected availability of the antenna selector and had spent 2 years searching industry for secondary source.

## Solution

Before the initial site visit one of our Component Engineers while talking to supplier to get Market Surveys completed found out about this problem. It literally took 2 minutes for our engineers to find Semtech as an additional source of supply for this part and passed this solution onto the OWG in preparation for our site visit.

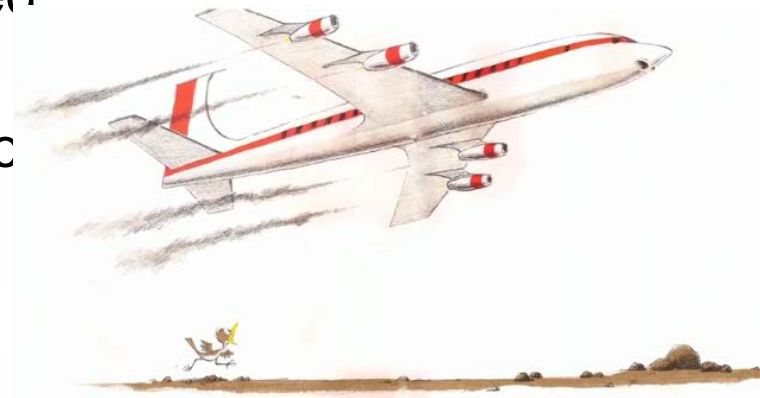
## The Pay Back

Diode Industries approved Semtech as a second source of supply. Lead times have decreased and availability has increased. Sharing this information solidified our relationship with Diode and our onsite visit was a success.



# Key Program Metrics

- 132 Critical Suppliers Identified
- 100% Supplier Market Surveys Completed
- 27 Supplier Visits (3 international trips)
- 50% success rate in obtaining supplier Bc
- 4, 069 total AVCOM Proactive DMSMS
- 311 Total Cases Closed
- 68 Health Analysis Reports
- Average travel is 1 trip per month
- During start-up period for supplier visits, average travel was just under 2 trips per month (includes OWGs, supplier visits, and other business meetings)



*Image from: Dr Seuss, "Are you my mother?"*

*Should read "Are you my father?"*

# Benefits

- Reducing unknown risks
  - Prevents missed LOT Buy dates
  - Prevents missed PDN notices
  - Prevents missed product support availability
  - By understanding the suppliers' business cycles
- Most Proactive posture
  - Nose to tail
  - BoM Analysis
  - Electronic Parts Health Analysis
  - Market Surveys from supplier
- Provides more time for analyzing situation and determining course of action.
  - Stock on-hand
  - BER Rate
  - Repair time
  - LOT Buy vs. Certification Effort
  - Prioritization of issues (Wait vs. Can't Wait)
- Time to secure funding
  - Critical to building business case (BCA) for funding
  - Don't miss the POM Cycle



## Support to the Warfighter

# Conclusion

- Not every program may be able to level this same kind of effort
- Our before and after results proved that “face to face” visits work
- Must be willing to share information and guarantee that information will be protected. NDAs, multiple party NDAs, and PIAs.
- Maintaining communications and keeping promises
- DMSMS programs will have to go beyond just “clicking and sending” to obtain suppliers buy-in to their program

"The man knew what he wanted and went out and got it!"  
- Arthur Miller, Death of a Salesman





## For More Information about how AVCOM can help Support Your Program Contact

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