Supplier Management for the Tracking and Data Relay Satellite (TDRS) Program

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Supplier Management

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Overview

- **In-depth investigation conducted prior to the TDRS K award**
  - Goal: determine problematic supplier areas and associated root causes
  - Performed by multi-disciplined “tiger team”
  - Took advantage of “Best of Boeing” Supplier Management
  - Solicited Supplier Feedback

- **Result:** More focused, standardized and robust approach to Supplier Management

- **TDRS K Program implemented multiple initiatives to improve supplier management, supplier quality and overall supplier performance**
IDS Supplier Management Focus Areas

- Market strategies and control points
- Strategic make/buy
- Enterprise capability sourcing strategies
- Enterprise supply chain strategies
- Capture & proposal strategy, execution and transition

- EAC / BAC
- Alignment to prime
- Affordability expectation
- Risks aligned and managed
- Leverage spend
- Terms and conditions
- Supplier diversity
- Strategic work placement
- Strategic agreements

- Supplier insight and control using Six Sigma
- Top 100 supplier performance improvement
- Supply base management
- Supplier partnership initiative lean engagements
- Common buy package
- Supplier program manager deployment

Create Opportunities – Capture Value – Ensure Performance
Key Initiatives Implemented on TDRS K

- Supplier Conferences held prior to award
- Standard Buy-to Packages
- Risk Management Requirements flowed to Subcontractors
- Supplier Data Tool (SDT) to manage SDRL process
- Supplier Program Managers assigned to key/critical subcontractors
- Supplier Enterprise Review Board
- Capability Assessments
TDRS K Supplier Conferences

- Two Supplier Conferences held with proposed Supply Base:
  - Prior to Prime Contract award (2007)
  - After Program Systems Requirements Review (April 2008)

- Purpose:
  - Communicate programmatic requirements with emphasis on Customer-unique Mission Assurance Requirements (MAR)
Standard Buy-to Packages

What is it?

- Standard complement of requirements documents, including:
  - Subcontract Statement of Work (SSOW)
  - Model Subcontracts (by contract type, if applicable)
  - Terms and Conditions and Prime Contract Flowdowns
  - Supplier Data Requirements List (SDRL) and Data Item Descriptions (DID) - tailored to include Program-specific requirements
  - Product Specifications
  - Other Applicable Documents including Product Assurance documentation tailored to include Program-specific MAR requirements

Why it's important

- Assures consistent and timely flowdown of requirements
- Ensures complete and accurate flowdown of program and customer requirements to supplier base
**Overview**

- Standard Risk Management SDRLs flowed down in SSOW
  - Risk Management Plan
  - Risk Assessment – Monthly submittal

- Supplier Risk process managed jointly by Supplier, Shared IPT and Supplier Management
  - Review of monthly submittals
  - Weekly discussion of key subcontract risks

- Elevation of major supplier risks as Program-level Risks – determined by IPT

**Why it's important**

- Provides timely and consistent visibility into supplier risks and mitigation plans
- Ensures program and Customer visibility of critical risks and associated mitigation plans
- Provides mechanism for active management of program performance risks
Supplier Data Tool (SDT)

What is it?
- Secure web-based process for submittal and disposition of supplier data
- Establishes SDRL-based reviewers (Data Management, primary reviewer, functional reviewers, Export Compliance (as needed), and Procurement Agent)
- Electronically receives and routes data items through approval process
- Dispositions, comments, mark-up files, and resubmittal due date (if needed) are returned to the Supplier

Why it's important
- Real-time access to SDRL review/approval status, reports, document access, and metrics
- Historical data retention and linkage to other systems
Supplier Program Manager

- **Focused interface with the Supplier**
  - Held accountable for execution (2-way interaction: Boeing and Supplier)

- **SPM RAA:**
  - Responsible for Supplier execution and product integrity
  - Integrates and facilitates resolution of technical and business issues
  - Establishes and evaluates performance measures, metrics and leading indicators
  - Accountable for Supplier Improvement Plan and actions
  - Collaborates with Supplier to understand their capabilities related to program requirements & future growth

Formalized Through Program / Team Execution Plans
Supplier Program Managers Supporting TDRS K

SPMs fully engaged on critical TDRS Subcontracts:

Structures
- Ground System
- RF Electronics

Passive Microwave Devices
- Propulsion
- Solar Array
Ground Subcontract Management

- **Integrated Boeing/Supplier Team environment established early in the proposal phase**
  - Roles, processes, and work scope developed as a team
  - Supplier integrated as an integral part of IPT
  - Supplier Program Manager (SPM) integrated within Shared IPT

- **SPM has significantly improved supplier work execution**
  - Allows for focused attention to details of Supplier’s execution
  - Early identification of potential problems – providing the opportunity for mitigation

- **Integrated team continuously working to improve relationship**
  - Recently developed new, more efficient, SDRL process for Ground Segment
  - Continually tracking supplier performance via metrics
Supervisor Enterprise Review Board (SERB)
Cross-Functional Review of Critical TDRS Suppliers

- Review current contract area performance parameters
- Identify areas of greatest need
  - Problem statements
- Define improvement actions and determine best indicators to measure progress
- Document in Supplier Improvement Plan (SIP)
  - Draw from "Best of Boeing"

Forum to Address Supplier Performance Issues Affecting Multiple Programs including TDRS
Capability Assessments

Focus Areas During Review

- General Factory Controls
- Training programs and processes
- Quality Controls and Quality Processes
- Supplier Management/Control
- Configuration/Change Management
- Parts Materials and Processes (PMP)
- Planning Processes
- Assembly & Test Processes
- Manufacturing Engineering
- Supplier unique processes

Ensures ability to execute to Boeing / Customer standards Conducted on Key TDRS K Suppliers
Program Mission Assurance team engagement encompasses the following:
- Quality Requirements Reviews – in process
- Mission Assurance flowdown validation – in process
- Parts, Materials and Processes review/approval – in process
- Quality Surveillance Plans
- Supplier Quality Surveillance
- Electronic Supplier Corrective Action Notification (ESCAN)
- Coordinate on Government Source Inspection
Summary

TDRS K benefits from advancements in Supplier Management
- Boeing Enterprise-wide initiatives and systems
- Common Boeing tools and processes
- Recommendations from solicited Supplier Feedback

Results
- Standardized and robust approach to Supplier Management
- Early Supplier involvement and capabilities assessments
- Enhanced controls and tools provide increased focus and visibility into supplier progress, risks and issues
- Cost-effective oversight and management of subcontracts
- Significantly improved supplier performance despite increased percentage of procured hardware

S&IS Supplier Management focused throughout the program lifecycle