Appendix 6
Work Breakdown Structure

For

Kennedy Space Center Integrated Communications Services (KICS)

1.0   Work Breakdown Structure (WBS), Work and Financial Reporting

1.1   Report Costs for Customer Organization

The costs incurred under this contract should be organized in such a manner to allow the customer community to see their cost, down to the system, project and task level. The goal is to allow each customer to identify where their funds are being expended to meet their service needs. The expectation is that the customer community will use this data to understand their communications utilization, understand what is driving their costs, and identify areas where they see a potential for improvement. In addition, costs should be aggregated across customers, by system to the third level of the WBS. This will allow system managers to address system wide costs across the contract by WBS element.

Costs shall be reported by customer and WBS element to the third level of the WBS. Provisions shall be made to allow costs to be collected by government provided cost allocation as well as by special projects or activities that make use of standard services. In addition, a cost summary shall be provided that sums all costs to the third level by WBS Element.

1.2   WBS and Cost Assignment

The WBS is organized by system, sub-system and work performed. Work will take place in a physical location. This location (site, facility, room) is necessary to schedule/assign work, and is a key component cost assignment. Work tasking information will include: sub-system to be operated upon, physical location of system to be operated upon and the specific task(s) to be performed. Reporting includes the task information and the resources expended to perform or support the task. Cost is assigned based upon WBS element and location. A listing of possible work locations, their associated customer(s), and the cost sharing allocation to be applied will be maintained by the contractor and updated by the Government on a quarterly basis. The current cost sharing allocation is located in the bidders library.

Resource utilization will be assigned to a customer or customers based upon a combination of the work performed, the work location and that locations related occupancy/responsibility. Project or mission support activities outside of normal operations will carry a unique project code that supersedes the work location cost assignment and allow cost collection and reporting by project and WBS element.   These project codes will be related to specific customer(s) and will provide the necessary cost sharing allocation information.

1.3   ID/IQ Services

A stated goal of the KICS contract is to move KSC towards a service model for communications activities. The end state will be a fixed price catalogue of communications services. When this point is reached for a first or second level WBS element, the WBS will stop at that point. There will be no further detail below that level.

At this time, there are only two components of the WBS that are at that level. These are the Administrative Phones and the DOD Technical Multi-media Support. There is no corresponding third level WBS for Administrative Phones and DOD Technical Multi-media Support. These elements are identified in the WBS with and ID/IQ label following the element title.

Example 1: Provide additional OIS units to 3 rooms in the SSPF.
The WBS element would be:

> WBS 02.01.02Voice Communication Systems; Operational Intercommunication System (OIS-D); Activation/Validation

The Location Code would be SSPF (or facility number) and the room number. Based upon this data, the customers associated with the SSPF (either entire facility or that room) would be assigned the associated cost. The Summary report would show the cost under the WBS totals as a part of total Phone activation validation costs. The Customer would see their cost and have visibility to the nature of the cost.

Example 2: Provide XA (Public Affairs) support for VIP Launch Visitors.
Multiple WBS elements would be utilized, including:

- WBS 02.01.02Voice Communication Systems; Operational Intercommunication System (OIS-D); Activation / Validation
- WBS 03.03.03 Video & Visual Imaging; Public Affairs Television; Operations
- WBS 02.04.03 Voice Communications; Radio Systems; Operations

The location codes for these activities would all vary based upon the location. However, the XA project code would be used to identify and collect costs associated with the activity. The Summary report would show the cost under the associated WBS elements. The Customer Organization (XA) would see the costs under their project code and have visibility to the nature of the cost.

2.0   WBS Structure Organization

2.1   Level I - Major system
Top-level major systems

2.2   Level II - Subsystem
This will vary by WBS, but will consist of major subsystems within each WBS.

2.3   Level III - Activity
Every Level I/II WBS will contain the following standard Level III work elements.

.01 Design and Development

Support for Design and Development efforts including Sustaining Engineering to directly support WBS element.

.02 Activation, Validation

Support for Installation, Activation, and Validation of new operational systems or services in WBS element.

.03 Systems Operations

Support day-to-day operations of WBS element. Including test monitoring, system monitoring, mission support.

.04 Maintenance

Maintenance including preventative maintenance, troubleshooting, repair, and return to service.

.05 Logistics

Support for logistics, procurement, equipment lease, property management, and depot level maintenance for WBS element. Equipment and License Maintenance and Service Contracts for WBS element.

.06 Facilities

Support for modifications, move costs, facility lease, furniture, utilities for WBS Element.

.07 Training

Contract Personnel Training, End User Training, for WBS Element.

.08 Project management

Management Team, WBS Item Project Management for WBS Element.

.09 Studies

Support for specific tasking related to feasibility development for WBS Element.

.10 IDIQ Service and Materials

IDIQ Systems and Services provided by WBS element (once packaged as services).

.99 Misc.

Specific Items not allowed above. One time charges in support of WBS Element.

3.0   KICS Level I and Level II WBS Structure

WBS 01 KICS Contract Management

01.01 Management

Project Control, Business Management

01.02 Logistics

01.03 Configuration Management

Integration Board

01.04 S&MA

WBS 02 Voice Communication Systems [PWS Attachment J-1, Section 4.2.1]

02.01 Operational Intercommunication System (OIS-D)

02.02 Quintron Operational Intercommunication System (OIS-Q)

02.03 Paging and Area Warning System (P/AWS)

02.04 Radio Systems

02.05 Audio Distribution System

02.06 Voice Distribution Management System (VDMS)

02.07 Astrocomm System

02.08 Voice Recording System

02.09 Public Affairs Audio Systems

WBS 03 Video and Visual/Imaging Systems [PWS Attachment J-1, Section 4.2.2]

03.01 Launch Complex 39 Shuttle Operations Television

03.02 Industrial Area Operational Television

03.03 KSC Public Affairs Television (KSCTV)

03.04 Broadband Communications Distribution System (BCDS)

03.05 Timing & Countdown (T&CD)

03.06 KSC/Shuttle Photo Support

03.07 Photo Optical Control Systems (POCS)

03.08 KSC/NASA Digital Photo Services Support

03.09 DOD Technical Multi-media Support – ID/IQ

WBS 04 Transmission Systems [PWS Attachment J-1, Section 4.2.3]

04.01 T-Carrier/SONET Multiplex System

04.02 Asynchronous Transfer Mode (ATM) Transmission System (ATXS)

04.03 Fiber Optic Systems
> SONET

04.04 Remote Monitoring and Monitoring System (RMAS)

WBS 05 Cable Systems [PWS Attachment J-1, Section 4.2.4]

05.01 Inside Plant – Telecom
> Premise wiring, conduit, copper, fiber optic systems, test board support, circuit monitoring,

05.02 Outside Plant
> Wide area cables, conduit, copper, fiber optic systems, underground utilities location, circuit monitoring,

WBS 06 Administrative Phones [PWS Attachment J-1, Section 4.2.5]

06.01 Telephone Systems – ID/IQ
> 911 emergency service, operator service, FTS/CCAFS/Local interface, voice mail, conference calling, firewall, VoIP, conference room sound suppression, Phone Switch, End Instruments, Cable Plant Interface, Collaboration Servers, User Support, Scheduling

WBS 07 Network Systems [PWS Attachment J-1, Section 4.2.6]

07.01 Network Hardware
> Switches, Routers, Hubs, Cable Plant interface Equipment, Wireless, Smart Cards, Terminal Services

07.02 Network Services
> Scheduling, remote access, DHCP, DNS, IP Database, authentication services, certificate management, Requirements Management, End User Support

WBS 08 IT and Communication Security [PWS Attachment J-1, Section 4.2.7]

08.01 IT and Communication Security Operations
Firewalls, Intrusion Detection & Monitoring, Plans, Call Lists, External Access, Security Scanning, Scheduling

08.02 Incident Response
Incident Response Teams

WBS 09 IDIQ Specialized Services [PWS Attachment J-1, Section 5.0]

09.01 System Administrator Services

09.02 Help Desk Services

09.03 System Engineering Services

09.04 Subsystem Engineering Services

09.05 Technical Support Services