

2. AMENDMENT/MODIFICATION NO. 120	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
---	------------------------------------	----------------------------------	--------------------------------

6. ISSUED BY John F. Kennedy Space Center, NASA Procurement Office - ODIN - OP-OS-ODIN Kennedy Space Center, FL 32899	7. ADMINISTERED BY (If other than Item 6)
--	---

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) OAO Corporation 7375 Executive Place Seabrook, MD 20706-2278	(x)	9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-98144/CC90303B 10B. DATED (SEE ITEM 13) December 1, 2001
--	-----	---

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning ___ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: NAS5-98144 Contract Clause C.7 Technology Refreshment Process and FAR Clause 52.212-4 Contract Terms and Conditions-Commercial Items, (c) Changes
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Stennis Space Center --- ODIN SERVICES

Technology Infrastructures: Incorporation of SWR XK30 4213 01

Change in Delivery Order Price: \$123,349.55 (INCREASE)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Keith L. Spencer Sr. Contracts Manager	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Penelope A. Ebright Contracting Officer
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 17 May 2004
16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 5/21/04

1. In accordance with Master Contract NAS5-98144, C.7, Technology Refreshment Process, the technology refreshment services referenced below is hereby incorporated into this Delivery Order at a fixed price of \$123,349.55

SWR #	Subject	Amount
XK30 4213 01	Upgrade wiring in B1201 from Cat3 and Cat5 to Cat6 for NASA	\$123,349.55

2. SWR XK30 4213 01

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabing (IEEE 802.3, EIA/TIA Building Wiring Standards, National Electric Code, and Fire Protection Code, as applicable), and equipment installation) and materials necessary replace existing Cat3 and Cat5 wiring with Cat6 network wiring in B1201. Upgraded wiring will be installed in (2) locations: Wiring in B1201 and B1201T will go to room 116 and terminate on Avaya Visipatch panels; wiring in B1201South will go to room 181 and terminate on Avaya Visipatch panels. This effort also includes installation of (1) 12-strand fiber cable to (1) location; (1) 24-strand fiber cable to (2) raised floor locations in room 174; installation of (1) 2-strand fiber cable to (3) jack locations in room 109 and removal of all old wiring after cutover; installation of network cabinets to support NASA networks as outlined in OAO proposal dated March 12, 2004. Installation will include testing, labeling, and configuration documentation (red line drawings).

- a. The contractor shall be responsible for performance of the following tasks:

BOE-TEL to work:

- (1) Install (2) Cat6 wires to (105) jack locations in B1201, B1201T and B1201S
- (2) Install (4) floor boxes that will hold fiber and Cat6 wiring in computer floor in room 174.
- (3) Install (1) 24-port Cat6 patch panel in (3) floor boxes in room 174.
- (4) Install (2) 24-port Cat6 patch panels in (1) floor box in room 174.
- (5) Install (3) GL8401E-2936 equipment cabinets in room 174.
- (6) Install (1) 24-port Cat6 patch panel in (3) equipment cabinets installed in item (5) in room 174
- (7) Install (1) 24-port Cat6 patch panel in existing equipment cabinet in room 123.
- (8) Install (1) 12-port multimode fiber patch panel in (1) floor box in room 174.
- (9) Install (1) 24-port multimode fiber patch panel in (1) floor box in room 174.
- (10) Install (1) LGX panel in equipment cabinet that was installed in item (5) in room 174.
- (11) Install (1) LGX panel in existing equipment rack in room 181.
- (12) Install (24) Cat6 wires to each 24-port patch panel in room 174.
- (13) Install (12) Cat6 wires to 24-port patch panel in room 123.
- (14) Install (5) sheets of plywood on the wall in room 174.
- (15) Install (5) Visipatch panels in room 181.
- (16) Install (5) Visipatch panels in room 116.
- (17) Install (1) 12-strand multimode fiber cable to the (2) 12-port patch panels installed in item (8) above.
- (18) Install (1) 24-strand multimode fiber cable to the (1) 24-port patch panels installed in item (8) above.
- (19) Install flextray under the floor in room 174 from existing tray to floor boxes.

- (20) Install Panduit outlet boxes in network technician area in room 179 and in burn in area in room 177.
- (21) Purchase Raritan Paragon II equipment to be installed by OAO network technicians.
- (22) Install (3) RG6 coax to new plasma screens in room 111 to be used for SSC CATV.
- (23) Install (1) Cat3 wire to (5) locations in room 111 for Security dispatch due to remodeling of the room. All old wiring was removed when remodeling started.
- (24) Install (1) Avaya M81C "F" connector in (100) faceplates to replace existing Digital "F" connectors that are in the same faceplate with Cat3 jacks.
- (25) Provide redline drawings showing jack numbers and locations.
- (26) Test and label Cat6 wiring at both ends.
- (27) Test and label fiber at both ends.
- (28) Remove all old wiring after OAO completes cutover

OAO to work:

- (1) Relocate existing servers from old cabinets to new cabinets.
 - (2) Place cross connects to cutover from old Cat3 & Cat5 wiring to new Cat6 wiring.
 - (3) Place fiber cross connects to cutover servers to new fiber panels.
 - (4) Install Raritan equipment in equipment cabinet in room 174 to be able to switch between servers using only (1) keyboard and monitor.
 - (5) Update network drawings.
 - (6) Update database with new jack
- b. The contractor shall provide the following material:
- (1) 70,000 feet of Avaya 2071 Level 7 wire (CMP-00424AVA-7U-06) Blue
 - (2) 2,000 feet of Avaya Cat3 wire (CMP-00424MAX-3U)
 - (3) 600 feet of Corning MIC 2-strand multimode fiber cable (370-949-FDDI-02)
 - (4) 375 feet of Corning MIC 24-strand multimode fiber cable (370-949-FDDI-24)
 - (5) 288 each Avaya level 7 solid copper cords (108793-969-06-25)
 - (6) 210 each T568A/B Cat6 jack (246746) Green
 - (7) 190 feet of Corning MIC 12-strand multimode fiber cable (370-949-FDDI-12)
 - (8) 175 each Avaya 14-feet Cat6 patch cord green (MM14-AV7E-04)
 - (9) 132 each P2020C_C_125 multimode ST connectors (170290)
 - (10) 132 each cool cure consumables (142172)
 - (11) 105 each Avaya M14L-262 faceplate white (197613)
 - (12) 100 each Avaya M1BH Cat3 jack gray (240707)
 - (13) 100 each Avaya M81C "F" connectors (190526)
 - (14) 90 each Caddy J-hooks (184873)
 - (15) 72 each C2000A multimode ST couplers (184873)
 - (16) 72 each Avaya ST fiber inserts (190662)
 - (17) 60 each Avaya Visipatch distribution rings (532421)
 - (18) 35 each Avaya 25 feet Cat6 patch cord green (MM25-AV7E-04)
 - (19) 26 each Panduit outlet boxes (205872)
 - (20) 20 each Panduit LD5 raceway (131156)
 - (21) 12 each 8-inch L brackets (217074)
 - (22) 12 each stanchion clamp (216883)
 - (23) 10 each Avaya 336-pair Visipatch panel (532210)
 - (24) 10 each Avaya Visipatch horizontal duct (539650)
 - (25) 8 each Avaya 24-port PatchMax patch panel (246722)
 - (26) 6 each Great Lakes mesh doors (8402E-M29)

- (27) 6 each Great Lakes vertical cable management (CME-8429)
- (28) 5 sheets of ¾" x 4' x 8' plywood
- (29) 4 each American Access raised floor box (200652)
- (30) 4 each Avaya fiber management kit (176801)
- (31) 4 each flextray 2' x 8" x10' (174337)
- (32) 3 each Avaya 24-port MultiMax blank patch panel (176455)
- (33) 3 each Great Lakes equipment cabinets (GL8401E-2936) black
- (34) 3 each Great Lakes top panel (TPE29L)
- (35) 3 pair Great Lakes mounting rails (8405-E2)
- (36) 3 each Great Lakes sliding shelf (7206-FRSL_ADHD)
- (37) 3 sets Great Lakes caster sets (7208) (2-unlocking, 2- locking in each kit)
- (38) 2-pair Great Lakes side panels (8411-36ELL)
- (39) 2 each LST1U-072/7 termination shelf (106722)
- (40) 2 each 1000ST panels for LST1U-072/7 termination shelf (106730)
- (41) 2 each flextray "Z" bracket (174353)
- (42) 2 pack of washer splice kit (214856)
- (43) 1 roll of Velcro ties (1STRAPK ¾" x 12)
- (44) 1 each Panduit TG70 base & cover raceway (TG70IW8) (230476)
- (45) 100 each blank faceplates (167020)
- (46) 1 each Raritan Paragon II, 4-user, 42-server (P2-UMT442)
- (47) 2 each Raritan Paragon II analog only user (P2-UST)
- (48) 12 each Raritan Paragon II PS/2 CIM (PSCIM-PS2)
- (49) 3 each Raritan Paragon II Sun CIM (P2CIM-SUN)
- (50) 1 each Raritan KVM drawer model T1500 (T1500)
- (51) 1 each 2-year warranty on Paragon II 4 x 42
- (52) 2 each 2-year warranty on Paragon II analog user station
- (53) 1 each 2-year warranty on T1500
- (54) 675 feet of RG6 coax plenum (B9116P)
- (55) 3 each faceplate e/w barrel connector (142763)
- (56) 12 each F-connectors for RG6 (086107)

- c. Schedule: The completion of this effort shall be (16) sixteen weeks after receipt of a signed modification.

3. Part II "Contract Administration Data", Item 4, is revised as indicated below to incorporate the increase of \$123,349.55 for this infrastructure upgrade:

ESTIMATED TOTAL (Contract Item 4) (through Mod 120)

Ordered Seats and Services	\$ 10,936,603.27
Catalog Actuals	\$ 676,781.44
Specialized Services Actuals	\$ 224,796.72
Infrastructure upgrades	\$ 3,356,033.70
Fast Track Mods Authorized	\$ -
Subtotal	\$ 15,194,215.13
Less credits	\$ (2,625.55)
Less retainage not earned	\$ (33,905.56)
Subtotal	\$ 15,157,684.02
Seats/service levels projected through 11/30/04	\$ 2,689,097.60
Total Estimated Delivery Order Value	\$ 17,846,781.62

4. Part V "Technology Infusion (Infrastructure Upgrades)", Item 2 is modified to include the subject infrastructure upgrades. The signed date and completion date will be completed in a future infrastructure upgrade modification.

Mod	Description	Date Signed	Date Completed	Amount
120	XK30 4213 01 Upgrade wiring in B1201 from Cat3 and Cat5 to Cat6 for NASA			\$123,349.55

5. Payment Schedule: Invoicing and Payment for this modification will be made in accordance with Master Contract NAS5-98144, FAR 52.212-4: Commercial Items (May 1997) (Modified). The following payment schedule is applicable for **SWR XK30 4213 01**:
 - a. Upon receipt of material and acceptance by the Alternate DOCOTR or his designee the contractor may invoice for \$61,148.31
 - b. Upon installation of the fiber cabling and Cat6 wiring as accepted by the Alternate DOCOTR or his designee, the contractor may invoice for \$18,342.19
 - c. Upon completion of this infrastructure upgrade and all wiring has been terminated, jacks faceplates installed, servers relocated to new cabinets and the effort has been accepted by the Alternate DOCOTR or his designee, the contractor may invoice for the balance, \$43,859.05.
6. Reporting requirements: The contractor shall provide monthly status reports to the SSC Alternate DOCOTR, with a copy to the DOCO. These reports shall include, as a minimum, installation progress, and potential problem areas.
7. In consideration of the modification agreed to herein as complete equitable adjustment for the changes set forth, the Contractor hereby releases the Government from any and all

liability under this delivery order for further equitable adjustments attributable to such facts or circumstances giving rise to these changes.

8. All other terms and conditions of this Delivery Order remain unchanged and in full force and effect.