SUBJECT: INSPECTION/OVERHAUL OF ROLLS-ROYCE ALLISON 250-C47B TURBINE ENGINE

BID #: XF-0367-17 **OPEN DATE:** 4/6/2017

GENERAL GOVERNMENT AWARDS COMMITTEE

KIND AND BASIS OF CONTRACT:
SERVICE CONTRACT – ONE TIME PURCHASE

AGENCY: SHERIFF'S OFFICE

BASIS OF AWARD: ALL OR NONE TO THE LOWEST RESPONSIVE, RESPONSIBLE BIDDER

NUMBER OF BIDS INVITED: 8 **NUMBER RECEIVED:** 3 **NO BID:** 0

SUMMARY OF BIDS AND RECOMMENDED ACTIONS:
Award was approved as an Administrative Award on 4/6/17 in the amount of $40,323.52. Recommend approval to amend and increase the award with Vector Aerospace Helicopter Services, Inc. in the amount of $105,857.33 to cover all labor, parts and rework required that were discovered during the overhaul inspection. Total revised maximum expenditure not to exceed $146,180.85.

Funding for this increase to be encumbered by account SHPO011CAAV-04603 to be executed by Purchase Order Change Order.

Attachments: Recommendation Memo; Vendor itemized Quotation; Previous Award

Analyst: _____ **RESPECTFULLY SUBMITTED:** _____
STEVEN BURAKOWSKI GREGORY PEASE, CHIEF
PROCUREMENT DIVISION

CONCURRENCE BY: **Bill Clement, Chief, Budget & Management Division, Jacksonville Sheriff's Office**

(ALL AWARD ACTIONS SUBJECT TO LAWFULLY APPROPRIATED FUNDS)
ACTION OF GGAC COMMITTEE ON RECOMMENDATIONS ABOVE

MEMBERS APPROVING _____ MEMBERS DISAPPROVING _____ DATE: _____

_____ _____ OTHER: _____

_____ _____

_____ _____

ACTION OF AWARDING AUTHORITY DATE _____

APPROVED _____ DISAPPROVED _____

OTHER _____

SIGNATURE OF AUTHENTICATION _____

Jacksonville Sheriff's Office

Duval County, Florida

Mike Williams, Sheriff

501 E. Bay Street
Jacksonville, FL 32202

To: Gregory Pease
Chief of Procurement

Thru: Bill Clement, CPA
Chief of Budget & Management Division

From: Mike Bruno
Director of Department of Patrol & Enforcement

Subject: XF-0367-17 Overhaul Inspection of Rolls Royce Allison 250-C47B Turbine Engine

Date: July 3, 2017

We are requesting an amendment to the award to Vector Aerospace Helicopter Services, Inc., for Bid XF-0367-17 Overhaul Inspection of Rolls Royce Allison 250-C47B Turbine Engine (PO7A06651) to increase the awarded amount by $105,857.33 to a new not to exceed amount of $146,180.85. This increase is necessary due to items that were found after the final inspection was conducted and all labor, parts and rework required to return the unit to airworthy condition were noted. Attached is a revised estimate for completion from Vector Aerospace Helicopter Services, Inc., the authorized Rolls Royce Allison center. The funding source is SHPO011CAAV – 04603.

Please let me know if you require any additional information. Thank you for your assistance.

Jacksonville Sheriff's Office

Duval County, Florida

Mike Williams, Sheriff

501 E. Bay Street
Jacksonville, FL 32202

INTRADEPARTMENTAL CORRESPONDENCE

TO: Cmdr.Robert H. Highfill, Jr.

FROM: Ronald E. Battles, A&P/IA Supervisor #6515 **DATE:** 6/20/2017

SUBJECT: Change Order/Increase of PO # 7A06651

Vector Aerospace Helicopter Services Inc. was recently issued Purchase Order # 7A06651 in the amount of $40,323.52 to cover the costs for the inspection, repair and overhaul of Rolls-Royce Allison engine 250-C47B serial number CAE-847638. As with any engine repair/overhaul, the engine vendor has to perform an inspection, and then issue the customer a final price based on the findings of that inspection. Upon inspection, Vector Aerospace Helicopter Services Inc. found that our engine had severe corrosion in the critical area of the **Compressor Section** of the engine that needed to be repaired. (Photos were provided).

They also found in the **Gearbox Section** of our engine, a very important CEB (Commercial Engine Bulletin) that has to be completed, it is the replacement of the **Torquemeter Gearshaft**, due to excessive vibrations. Each of these modules will also have a 3500 hour On Condition inspection performed in accordance with the Rolls-Royce 250-C47B engine overhaul manual, the engine has 4001 hours on it. Vector Aerospace Helicopter Services Inc. has issued us a final price of **$146,180.85** for the inspections, repairs and overhaul of Rolls-Royce Allison engine 250-C47B serial number CAE-847638. It is requested that Purchase Order # 7A06651 be increased to **$146,180.85** to cover the costs of the engine services.

Respectfully Submitted,

Ronald E. Battles, A&P/IA Supervisor

OFFICE OF THE SHERIFF
ORDER REQUEST FORM

Request For: J.S.O. AVIATION UNIT (Work Unit) | Community Affairs (Division) | select... (Dept.)

Requestor: Ronald E. Battles, A&P Supervisor (Name) | 6515 (ID #) | 642-0422 (Phone) | 6/1/2017 (Date)

Deliver To Location: 855-18 St. Johns Bluff Rd. Jacksonville, FL 32225

Item No.	Description and Model No.	JSO Stock No.	QTY.	Unit Cost	Total
1	Change Order for the purchase of the inspection, repair, and overhaul of Rolls-	N/A	1	########	$ 146,180.85
2	Royce Allison 250-C47B engine, Serial Number CAE-847638.				
3	PURCHASE ORDER 7A06651				
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
				TOTAL REQUEST	$ 146,180.85

Suggested Vendor: Vector Aerospace Helicopter Services Inc. Vendor Phone: 1-604-276-7562

Vendor Address / E-mail: 4551 Agar Dr. Richmond, British Columbia V7B 1A4 Contact: Michael.Mones@vectoraerospace.com

☐ Proprietary
☐ Sole Source

If Proprietary / Sole Source, attach appropriate form and letter from vendor.

Special funding to be used for this purchase?
☐ Loan Pool / Banking Fund
☐ Grant *
☐ Trust Fund *

* Enter name and # of Grant or Trust Fund

Justification / Repetitive Request Authorization / Notes:

Approvals:
1. Signature | ID # | Date
2. Signature | ID # | Date
3. Signature | ID # | Date
4. Director M.S. Signature | 5514 ID # | 07/05/17 Date

Required approval level (per General Order 54):		
$0 to $2,500	-	Assistant Chief or higher
$2,501 to $5,000	-	Chief or higher
$5,001 or more	-	Director or higher

Budget Office Use Only			
Index		Subobject	
Analyst		Date	

(e) Check run engine(s) prior to the next flight in accordance with 72-00-00, Engine-Description and Operation, para 7., conduct the following checks and repair as necessary:

1 Anti-icing system operation.

2 Note erratic or abnormal N_1 and/or N_2 speed or MGT indications.

(7) On Condition Inspection -- Compressor

Anytime the impeller is removed, it must be fluorescent penetrant inspected if the log book indicates more than 3500 hours since it was last fluorescent penetrant inspected. (Refer to M250-C47B Overhaul Manual, Pub. No. CSP22001 for inspection criteria.)

NOTE: Record compliance with this inspection in the appropriate section of the log book. Include date and hours.

(8) On Condition Inspection -- Power and Accessory Gearbox

Anytime the gearbox housing is separated from the cover, and at an Authorized Maintenance Facility all gears must be Magnetic Particle Inspection (MPI) if the log book indicates that more than 3500 hours have elapsed since the gears were new or last magnafluxed. (Refer to M250-C47B Overhaul Manual, Pub. No. CSP22001, for inspection criteria.)

NOTE: Record compliance with this inspection in the appropriate section of the log book. Include date and hours.

(9) On Condition Inspection--Power and Accessory Gearbox Cover

Anytime the gearbox is disassembled at an Authorized Maintenance Facility for replacement of a failed No. 2-1/2, 3 or 4 bearing, perform an FPI or MPI for cracks in the area of the casting boss supporting the bearing. (Refer to the Engine Overhaul Manual, Pub. No. CSP22001, for inspection criteria.)

(10) On Condition Inspection--Outer Combustion Case

Anytime the outer combustion case is separated from the engine, visually inspect AREA A and AREA B, Figure 203, for cracks. Use a bright light in a dark room to inspect the inside of the part. If the outer combustion case is at an Authorized Maintenance Facility, inspect per Overhaul Manual 72-40-00, Table 2.

(11) Oil System Contamination Inspection

After first 50 hours of operation on new, repaired or overhauled engine, check oil filters for contamination. Also, if decreased oil pressure is noticed during operation, check engine oil filters for contamination at that time. If debris is found, proceed as follows:

(a) Drain oil system. Pay particular attention to metallic debris in the oil. Swab the oil tank and note foreign material.

(b) Flush engine oil system and clean oil filter.

(c) Reinstall filter and fill filter cavity with fresh oil. Fill oil tank with fresh oil.

(d) Do a 30-minute ground run at power. (Refer to 72-00-00, Engine Servicing, Magnetic Plug Inspection, para 8.E.)

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EXPORT CONTROLLED

COMMERCIAL SERVICE LETTER

Rolls-Royce®

GEARBOX BORE ALIGNMENT CHECK

Upon receipt of this commercial service letter, anytime the main accessory gearbox is disassembled for any reason to a point where the gears and other internal components are removed, a bore alignment check must be carried out. This is to prevent and alleviate abnormal shafting wear due to misalignment of the bores often associated with older gearbox covers and housings, and covers and housings that have experienced overhauls.

The applicable Overhaul Manual should be referenced for the dimensional requirements on the two bearing bore locations. Example: C20 Series Overhaul Manual, 10W4, 72-60-00, Table 301 and Figures 301 and 302.

If you do not have Overhaul Manuals or the capability to accurately make this measurement, you are encouraged to contact an authorized maintenance facility.

The contents of this CSL will be added to each Operation and Maintenance Manual during a future revision.

CUSTOMER SUPPORT
ROLLS-ROYCE

May 2, 2003
Revision 1
August 27, 2004

250-C18 Series	CSL-229
250-C20 Series	CSL-1238
250-C28 Series	CSL-2177
250-C30 Series	CSL-3195
250-C20R Series	CSL-4112
250-C40 Series	CSL-5099
250-C47 Series	CSL-6098
250-B15G Series	TP CSL-157
250-B17 Series	TP CSL-1190
250-B17F Series	TP CSL-2105

Rolls-Royce Proprietary Data – Uncontrolled Printed Copy

EXPORT CONTROLLED

COMMERCIAL ENGINE BULLETIN

Rolls-Royce

ENGINE GEARBOX ASSEMBLY - RELEASE OF NEW HELICAL TORQUEMETER GEARSHAFT ASSEMBLIES

1. PLANNING INFORMATION

A. Effectivity

(1) Engines

Rolls-Royce M250®-C47B Series engines are affected by this Commercial Engine Bulletin (CEB).

B. Reason

Rolls-Royce has recently redesigned the torquemeter gear by adding molybdenum coating in order to reduce vibratory stresses in the gear web. The vibratory stresses currently present in the gear web can load to excessive fretting of the damper ring in the M250-C47B application. This CEB releases new torquemeter gear assemblies to include molybdenum coating to reduce the gear vibration. Also new torquemeter gear assembly P/N's are released to differentiate between gears which had/had not been silver plated and/or superfinished prior to coating.

C. Description

This bulletin provides instructions for reworking assemblies with torquemeter gears (6893673, 23071895, 23078713, 23084248, and M250-10079) into the new torquemeter gear assemblies (M250-10588, M250-10589, and M250-10562) per the table below.

New Torquemeter Gear Assembly Part Number	Old Torquemeter Gear Part Number
M250-10562	23084248, M250-10079
M250-10588	6893673, 23071895
M250-10589	23078713

D. Approval

Technical aspects are FAA approved.

E. Compliance

Compliance Code 2: To be complied within 4000 flight hours since issuance of this CEB, or the next time the gearbox is disassembled for any reason.

F. Interchangeability - Not affected

G. Material Availability

New P/N	Nomenclature	Qty
M250-10562	Gearshaft Assembly, Helical Torquemeter	1
M250-10588	Gearshaft Assembly, Helical Torquemeter	1
M250-10589	Gearshaft Assembly, Helical Torquemeter	1

NOTE: Serviceable Torquemeter Gears can be sent to a Rolls-Royce FIRST Facility for rework and re-identification.

H. Tooling - Not applicable

I. Weight and Balance - Not affected

J. Electrical Load Data - Not affected

K. References

(1) AEM CW 500018992977.

NOTE: This document is for internal Rolls-Royce use only.

(2) CSP 21001 Operation and Maintenance Manual (OMM), Turboshaft M250-C47B.

(3) CSP 22001 Overhaul Manual (OHM), Turboshaft M250-C40B, -C47B, -C47M, and -C30R/3.

(4) CSP 23001 Illustrated Parts Catalog (IPC), Turboshaft M250-C40B, -C47B and -C47M.

(5) PMI C0011 Engine, Gearbox Assembly - Molybdenum Coating M250 Series IV Torquemeter Gears.

L. Prerequisites - None

2. ACCOMPLISHMENT INSTRUCTIONS

A. Remove gearbox assembly from engine (Ref. OMM).

B. Disassemble the gearbox assembly as required to gain access to the Torquemeter Gear (Ref. OMM).

C. Remove Torquemeter Gear (6893673, 23071895, 23078713, 23084248, and M250-10079) and insert new Torquemeter Gear (M250-10588, M250-10589, and M250-10562) (Ref. OMM).

D. Assemble the gearbox assembly (Ref. OMM).

E. Record compliance with the CEB in the Engine Log Book Gearbox section as applicable:

250-C47 Series CEB 72-6072

3. MATERIAL INFORMATION:

New P/N	Qty	Nomenclature	Old P/N	Qty	Instructions/ Disposition
M250-10562	1	Torquemeter Gear	23084248, M250-10079	1	1,2
M250-10588	1	Torquemeter Gear	6893673, 23071895	1	1,2
M250-10589	1	Torquemeter Gear	23078713	1	1,2

INSTRUCTIONS/DISPOSITION NOTES

1. New item.
2. Send removed gear to FIRST Network Facility for rework.

CUSTOMER SUPPORT
ROLLS-ROYCE

June 19, 2017

City of Jacksonville

Attn: Procurement Dept. **Purchase Order: PO7A06651**

Teardown/Evaluation Quote
ENGINE ASSY, C47B
CAE-847638

Presented by: MICHAEL MONES, Customer Support, Vector Aerospace

604-276-7562 michael.mones@vectoraerospace.com

VECTOR AEROSPACE

Vector Aerospace Helicopter Services Inc
4551 Agar Drive
Richmond, BC
Canada V7B 1A4
Tel: 604-276-7600
www.vectoraerospace.com

Teardown/Evaluation Quote

Procurement Dept.
City of Jacksonville
214 N Hogan Street, STE 800
Jacksonville, FL Jacksonville, F 32202
United States

Vector Aerospace is pleased to present you with our quote for your ENGINE ASSY, C47B , S/N: CAE-847638, as referenced on your PO#: PO7A06651.

Please see below for the pricing and detail summary:

Estimate Price Summary		
ENGINE ASSY, C47B	$	17,412.83
COMPRESSOR ASSY	$	18,411.49
GEARBOX ASSY	$	40,284.79
TURBINE ASSY	$	70,071.74
Total Estimate	$	**146,180.85**

Payable in USD

Key Notes to the Teardown/Evaluation Quote:

This Estimate is valid for 30 days; if it is not Approved within 30 days, an invoice of $15,000.00 will be issued to cover Disassembly, Cleaning/NDT (if required), Inspection and Quote costs incurred to date. This invoice will be due net 30 days from issue and will be credited against the final invoice total of this job after subsequent Customer Approval and completion / shipment of the product. All prices are subject to change if job is not approved by January 1 of upcoming calendar year.

Detail Summary ENGINE ASSY, C47B W/O: 37-07937 CAE-847638

New Parts	$	3,580.18
Labour & Testing	$	11,198.50
Reworks	$	2,634.15
Subtotal:	**$**	**17,412.83**

New Parts $ 3,580.18

Qty	Part Number	Description		Extended List Price		Extended Price
1	KIT-250-518	C47 ENGINE BUILD 90175 -100% replacement	$	2,738.82	$	2,136.28
1	KIT-250-519A	C30R/3 ENGINE BUILD OH -100% replacement	$	472.57	$	368.60
1	KIT-250-519B	C30R/3 EXCITER 23064130 -100% replacement	$	13.80	$	10.76
1	23039030-14	CLAMP -Worn	$	18.22	$	14.21
1	23056451	ELEMENT, FUEL FILTER -Workscope	$	447.41	$	348.98
1	23060435	TUBE, SCAVENGE OIL -Dented	$	398.20	$	310.60
1	23066399	WASHER, INSULATION -Not received	$	44.11	$	34.41
1	23066650	WASHER, INSULATION -Not received	$	29.12	$	22.71
1	6854056	BRACKET, FLAT -Cracked	$	29.71	$	23.17
1	6895551	SPRING, VALVE -Worn	$	194.13	$	151.42
1	AN837-8J	ELBOW -Not received	$	145.02	$	113.12
1	AN924-8J	NUT -Not received	$	17.43	$	13.60
8	AN960C10	WASHER -100% replacemen	$	5.12	$	3.99
4	MS27039C1-08	SCREW -100% replacement	$	5.80	$	4.52
4	MS27039C1-09	SCREW -100% replacement	$	1.56	$	1.22
1	MS9015-03	PLUG -Bulletin upgrade	$	28.96	$	22.59
	Total		**$**	**4,589.98**	**$**	**3,580.18**

New Parts discount 22.00% = $1,009.80

Labour & Testing $ 11,198.50

Qty	Part Number	Description		Extended Price
1	23063392	ENGINE ASSY, C47B -2000Hour Inspection	$	8,160.00
1	23063392	ENGINE ASSY, C47B -Test Run	$	3,038.50
	Total		**$**	**11,198.50**

Reworks $ 2,634.15

Qty	Part Number	Description		Extended Price
1	23030911	CASE ASSY, COMBUSTION -CLEAN -NDT -PRESSURE CHECK -INSPECT AND ESTIMATE -REFORM DENTS -COLDWORK FUEL NOZZLE BOSS PARALLEL TO FLANGE	$	538.05
1	AS12841	CLIP, OUTER -BRUSH CADMIUM PLATE	$	.00
1	23064570	LINER ASSY, COMBUSTION -PMI E0001 - REPAIR CRACKS -NOZZLE FERRULE W/O BRAZE INSERT, WELD LANDS (ALRI 019-A) -PMI E0001 - RE-GAP LINER	$	1,034.45
1	23069751	MOUNT, REAR ENGINE -REPLACE WORN PIN(S)	$	325.55
1	23064612	TUBE, DISCHARGE -CLEAN -NDT -PRESSURE TEST, INSPECT/ESTIMATE -COLDWORK DENTS (ITEM 25)	$	368.05
1	23064612	TUBE, DISCHARGE -CLEAN -NDT -PRESSURE TEST, INSPECT/ESTIMATE -COLDWORK DENTS (ITEM 25)	$	368.05
	Total		**$**	**2,634.15**

Detail Summary COMPRESSOR ASSY W/O: 37-07970 CAC-45292

New Parts	$	9,253.59
Labour	$	4,200.00
Reworks	$	4,957.90
Subtotal:	**$**	**18,411.49**

New Parts $ 9,253.59

Qty	Part Number	Description		Extended List Price		Extended Price
1	KIT-250-510A	C30R/3 COMPRESSOR OH -100% replacement	$	23.22	$	18.11
1	KIT-250-514	C30R/3 & C47 COMP INSTALL -100% replacement	$	213.39	$	166.44

1	23004514	RING, MATING -Scored	$	143.42	$	111.87
1	23051117-1	ADAPTER, COUPLING COMP -Worn internal splines	$	4,512.61	$	3,519.84
4	23087640-0805	BOLT -Coating loss	$	103.64	$	80.84
2	23087640-0809	BOLT -Coating loss	$	18.32	$	14.29
1	23089905	SEAL, PLAIN ENCASED -Scored mating face	$	353.98	$	276.10
1	6893614	NUT, SPANNER -Used locks	$	435.98	$	340.06
1	M250-10022	GEARSHAFT ASSY, SPUR -Worn splines at compressor and turbine sides	$	4,367.70	$	3,406.81
1	M250-10393	BEARING, NO.1 -Pitted bearing outer race inner raceway surfa	$	1,671.61	$	1,303.86
1	MS9489-06	BOLT -Damaged threads	$	19.70	$	15.37
	Total		**$**	**11,863.57**	**$**	**9,253.59**

New Parts discount 22.00% = $2,609.98

Labour $ 4,200.00

Qty	Part Number	Description		Extended Price
1	23065593	COMPRESSOR ASSY -Repair	$	4,200.00
	Total		**$**	**4,200.00**

Reworks $ 4,957.90

Qty	Part Number	Description		Extended Price
1	AS12841	CLIP, OUTER -BRUSH CADMIUM PLATE	$	276.25
1	23064637	DIFFUSER ASSY, VANE -FLOW & ADJUST DIFFUSER VANE SEGMENTS	$	255.00
1	23061928	HOUSING, SHROUD -RECOAT SHROUD CONTOUR WITH XPT 268	$	751.40
1	23065591	IMPELLER ASSY, COMP -BLEND FOR EROSION -POLISH BLADES	$	701.25
1	23061239	MANIFOLD, BLEED AIR -BRUSH NICKEL PLATE	$	127.50
1	23007217	MOUNT ASSY, COMP -SKIM PADS TO IMPROVE FLATNESS AND PARALLELISM	$	283.05
1	23065592	ROTOR ASSY, COMP -BALANCE COMPRESSOR ROTOR (IDB)	$	212.50
1	23072862	SCROLL ASSY, COMP -NDT -WELD REPAIR CRACKS -CORRODED TRIANGULAR PAD/S - SKIM ONLY	$	1,835.00

		-ELECTROLESS NICKEL PLATE		
1	23051106	SUPPORT ASSY, FRONT -CLEAN -PRESSURE CHECK -COLDWORK INNER HUB TANG SLOTS	$	515.95
Total			**$**	**4,957.90**

Detail Summary GEARBOX ASSY W/O: 37-07971 CAG-47638

New Parts	$	25,421.24
Labour	$	5,500.00
Reworks	$	9,363.55
Subtotal:	**$**	**40,284.79**

New Parts $ 25,421.24

Qty	Part Number	Description		Extended List Price		Extended Price
1	KIT-250-511A	C47B GEARBOX BUILD KIT -100% replacement	$	18.29	$	14.27
1	KIT-250-511C	C47B GEARBOX POST 72-6016 -100% replacement	$	.30	$	.23
1	KIT-250-522	C30P/C47B OIL FHA KIT -100% replacement	$	2.32	$	1.86
1	23063426	SEAL, DOUBLE LIPPED -Repair required	$	101.00	$	78.78
1	23071792	RING, RETAINING -Worn	$	299.60	$	233.69
1	23088379	POPPET, PRESSURE -Worn	$	39.03	$	30.44
1	500016-1	SLEEVE,OIL FILTER,1.122" -Repair required	$	16.00	$	12.48
1	6809796	SPRING, HELICAL -Distorted	$	40.04	$	31.23
1	6810345	SPRING, HELICAL -Distorted	$	16.91	$	13.19
1	6840380-98	RING, RETAINING -Distorted	$	2.80	$	2.18
1	6889316-2	BEARING CAGE, (STARTER) -Repair required	$	542.29	$	422.99
1	6895007	BEARING, ROLLER -Scored bearing rollers & roller ends	$	4,914.27	$	3,833.13
1	6895007	BEARING, ROLLER -Fretting corrosion on bearing outer race OD s	$	4,914.27	$	3,833.13
1	AN150832	STUD -Cracked	$	3.22	$	2.51
1	AS3085-016	PACKING -100% replacement	$	.30	$	.23
1	AS3209-014	PACKING -100% replacement	$	.20	$	.16
1	AS3209-126	PACKING -100% replacement	$	.70	$	.55
1	AS3216-124	RING, RETAINING PTO -Distorted	$	7.21	$	5.62
1	M250-10080	GEARSHAFT, PTO -Spalled	$	13,328.94	$	10,396.57

1	M250-10116	BEARING, BALL -Fretting corrosion on bearing outer race OD s	$	233.85	$	182.40
1	M250-10121	BEARING, BALL -Oversized bearing ID	$	2,383.36	$	1,859.02
1	M250-10347	BEARING, ROLLER -Scored bearing roller	$	3,527.73	$	2,751.63
1	M250-10398	BEARING, BALL -Bulletin upgrade iaw CEB 72-6071	$	2,168.11	$	1,691.13
1	M250-10767	TUBE, OIL DELIVERY -Bulletin upgrade	$	1,674.03	$	.00
1	M83248/1-012	PACKING -100% replacement	$	.28	$	.22
1	MS124658	HELICOIL 0.3750-24 0.375" -100% replacement	$	2.89	$	2.25
1	MS171592	PIN -Worn	$	1.59	$	1.24
1	MS171592	PIN -Worn	$	1.59	$	1.24
1	MS9486-49	PIN -Worn	$	24.19	$	18.87
	Total		**$**	**34,265.31**	**$**	**25,421.24**

New Parts discount 22.00% = $8,844.07

Labour $ 5,500.00

Qty	Part Number	Description		Extended Price
1	23063393	GEARBOX ASSY -Repair	$	5,500.00
	Total		**$**	**5,500.00**

Reworks $ 9,363.55

Qty	Part Number	Description		Extended Price
1	6899407	CAP, OIL FILTER -PAINT	$	148.75
1	23065470	COVER ASSY, GEARBOX -STRIP PAINT AND CLEAN -CMM, INSPECT/ESTIMATE -SKIM TURBINE MOUNTING PADS -SKIM #3 & #4 BEARING CAGE BORE -REPLACE LARGE BRG CAGE #5. METALLIZE BORE IF REQUIRED. -REPAIR DOWEL HOLES (RI 500006) -PAINT	$	2,187.90
1	AS3222	COVER, ACCESSORY DRIVE -PAINT	$	155.55
2	AS3221	COVER, ACCESSORY DRIVE -PAINT	$	311.10
1	23007248	GEARSHAFT, FUEL CONTROL -GRIND INDICATED SEAL JOURNAL/S TO CLEAN UP	$	178.50
1	23030990	GEARSHAFT, OIL PUMP -CHROME PLATE SEAL/BEARING JOURNAL/S	$	2,272.25

1	6892285	GEARSHAFT, STARTER -GRIND INDICATED SEAL JOURNAL/S TO CLEAN UP -CHROME PLATE SEAL/BEARING JOURNAL/S	$	1,330.00
1	23084248	GEARSHAFT, TORQUEMETER -PMI C0011 - MOLY COATING OF T/M GEARS	$	844.05
1	23076082	HOUSING ASSY, GEARBOX -STRIP PAINT AND CLEAN -CMM, INSPECT AND ESTIMATE -INSTALL HELICOILS IN OIL PORTS (PRPL 2-C003, ITEM 5) -REPAIR CORROSION AS INDICATED (PRPL 2-C003) -REPLACE STUDS AND/OR THREADED INSERTS AS INDICATED -METALLIZE COMP PILOT DIAMETER #6 -SKIM COMPRESSOR MOUNTING PADS -PAINT	$	1,637.95
1	23035105	HOUSING, OIL FILTER -REPAIR PRESSURE REGULATOR BORE (RI 500016) -PAINT	$	297.50
	Total		**$**	**9,363.55**

Detail Summary TURBINE ASSY W/O: 37-07972 CAT-44930

New Parts	$	43,692.04
Labour	$	7,494.00
Reworks	$	18,885.70
Subtotal:	**$**	**70,071.74**

New Parts $ 43,692.04

Qty	Part Number	Description		Extended List Price		Extended Price
1	KIT-250-512	C40/47 TURBINE OH -100% replacement	$	2,059.02	$	1,606.04
1	KIT-250-512A	C30R/3 TURBINE OH -100% replacement	$	40.24	$	31.39
1	23004203	SEAL,INNER BALANCE C20B P -Cracked	$	1,239.35	$	966.69
1	23004205	COVER -Cracked	$	230.56	$	179.84
1	23030982	NUT, PT INNER -Used locks	$	246.75	$	192.47
1	23032345	COUPLING, TURB COMP -Worn splines	$	2,733.90	$	2,132.44
1	23034927	THERMOCOUPLE ASSY, TURB -Cracked probe missing a pice	$	2,178.03	$	1,698.86
1	23038136	SHAFT, OUTER -Corroded/pitted	$	5,267.63	$	4,108.75
5	23055441-01	KEYS C28,C30 #2 NOZZLE -Repair required	$	620.10	$	483.68
1	23058137	PLATE, THRUST -Warped	$	317.93	$	247.99
1	23060164	SEAL, OMEGA RING -Cracked	$	1,264.91	$	986.63
1	23065575	DOME -Cracked	$	242.41	$	189.08

1	23065580	DEFLECTOR -Cracked	$	189.95	$	148.16
1	23076529	ADAPTER, SPLINED TURB -Corroded/pitted	$	1,892.88	$	1,476.45
1	23090049	RING, RETAINING -Bulletin upgrade	$	55.99	$	43.67
1	23090547	SEAL, FORWARD LABYRINTH -Damaged	$	244.61	$	190.80
1	560PLAST-004	PLASMA HARD-MASK -Repair required	$	10.12	$	7.89
1	6748072-187	RING, INTERNAL RETAINING -Fretted	$	6.00	$	4.68
8	6844422	DAMPER, BEARING -Scored	$	491.44	$	383.32
2	6844422	DAMPER, BEARING -Scored	$	122.86	$	95.83
1	6848996-3	WASHER, FLAT -Worn	$	91.52	$	71.39
1	6850314	BOLT -Worn	$	29.13	$	22.72
1	6859073	RING, RETAINING -Broken	$	54.72	$	42.68
3	6876097-03	BOLT, DOWEL -Worn	$	677.34	$	528.33
3	6876097-03	BOLT, DOWEL -Worn	$	677.34	$	528.33
4	AN117004	SCREW -Damaged threads	$	22.84	$	17.82
1	M250-10106	BEARING, NO.5 -Fretted bearing outer race OD surface	$	823.14	$	642.05
1	M250-10117	BEARING, ROLLER -Silver plate peeled-off / de-bonding from bea	$	720.34	$	561.87
1	M250-10117	BEARING, ROLLER -Fretted bearing outer race OD surface	$	720.34	$	561.87
1	M250-10227	WHEEL, 1ST STAGE TURBINE -Time expired	$	13,027.42	$	10,161.39
1	M250-10658	WHEEL, 2ND STAGE TURB -Time expired	$	19,711.47	$	15,374.95
1	MS9432-06	BOLT, TEE HEAD -Damaged threads	$	5.10	$	3.98
	Total		**$**	**56,015.38**	**$**	**43,692.04**

New Parts discount 22.00% = $12,323.34

Labour $ 7,494.00

Qty	Part Number	Description		Extended Price
1	23063354	TURBINE ASSY -Overhaul	$	7,494.00
	Total		**$**	**7,494.00**

Reworks $ 18,885.70

Qty	Part Number	Description		Extended Price
1	23060495	COLLECTOR, EXHAUST -FULL WELD FLOW SPLITTER & BRACKETS -METALLIZE BEARING & SEAL BORES, AND SHOULDER	$	1,069.30

1	6898945	COVER, GP OIL -METALLIZE WORN AND/OR DISTORTED FLANGE	$	601.80
1	23062062	COVER, OIL SUMP -CLEAN -NDT -INSPECT/ESTIMATE -METALLIZE BOTH SEAL BORES	$	786.25
1	23069704	FIREWALL, HORIZONTAL -STRAIGHTEN SHEET METAL AS INDICATED	$	134.30
1	6892826	FITTING, DRAIN -P/N 6892826 - SKIM TO RESTORE CHAMFER PER PRINT (RI 500061)	$	297.50
1	23062061	NOZZLE ASSY, 1ST STAGE -WELD REPAIR CRACKS/DEFECTS -FLOW TO MINIMUM	$	854.25
1	23075935	NOZZLE ASSY, 2ND STAGE -CLEAN -NDT -INSPECT/ESTIMATE -REPLACE KEYS ONLY OR REPAIR LOOSE DIAPHRAGM -#1 BLADE PATH & FORWARD FLANGE - METALLIZE -#2 BLADE PATH - METALLIZE	$	1,665.15
1	23064583	NOZZLE, 3RD STAGE -FURNACE BRAZE CRACKS -FLOW AND ADJUST	$	1,210.80
1	23064596	NOZZLE, 4TH STAGE -FLOW AND ADJUST	$	276.25
1	23054648	RING, ENERGY ABSORBING -REPAIR WORN TANGS -BLEND WEAR ON OD, ID, OR END FACE AS INDICATED	$	474.30
1	23074531	ROTOR ASSY, GP -BALANCE GP ROTOR ASSEMBLY	$	.00
1	23064627	ROTOR ASSY, PT -BALANCE PT ROTOR ASSEMBLY	$	.00
1	23073566	SHIELD, 1ST STAGE NOZZLE -REPLACE DOME AND DEFLECTOR - FOR P/N 23073566 & subsequences	$	657.90
1	6893029	SUMP ASSY, EXTERNAL -RESTORE FITTING CHAMFER -RESTORE SEALING SURFACE	$	276.25
1	23058145	SUPPORT ASSY, GP -CLEAN -NDT -CMM TANG SLOTS TO BEARING BORE & CONTAINMENT PADS ONLY -INSPECT AND ESTIMATE -WELD REPAIR NOZZLE TANGSLOTS -WELD REPAIR CONTAINMENT RING TANGSLOTS -PMI D0006 - ADD CONTAINMENT RING TANGSLOTS -CONTAINMENT RING PADS - THERMAL SPRAY REPAIR -FLANGE S - SKIM ONLY	$	1,932.90
1	23062056	SUPPORT ASSY, PT -CLEAN -NDT -PRE-MACHINE 19-24 SEAL FOR ESTIMATE -PRESSURE TEST CLOVERLEAF COVER AND STRUTS -CMM - DAMPER GROOVES, TANG SLOTS TO BRG BORE, SEALS (A/R) -INSPECT AND ESTIMATE -PMI D0029 - REPLACE 19-24 SEAL & CLOVERLEAF COVER(CEB72-3281	$	8,500.00

		-CHROME PLATE BRG BORE AND METALLIZE 19-24 SEAL -SUMP FACE - SKIM TO TRUE UP -SKIM 25-28 SEAL DIAMETER TO IMPROVE RUNOUT		
1	6898976	TEE, OIL PRESSURE -P/N 6898976 - SKIM TO RESTORE CHAMFER PER PRINT (RI 500061)	$	148.75
1	6898663	WHEEL, 3RD STAGE TURB -PMI D0035 - INSPECTION OF P/N 6898663 (CEB-A-72-6078)	$	.00
	Total		**$**	**18,885.70**

Specific Terms and Conditions

1. *The estimate has been compiled based on findings during detail inspection; should there be any adjustments, we will notify you in writing without delay.*
2. *This estimate is subject to satisfactory functional test of the fuel/electrical accessories.*
3. *This estimate is subject to satisfactory completion of subcontract repairs.*
4. *This estimate includes serviceable used parts. Please be reminded that we can't guarantee availability without signed approval.*

We are holding work on your unit pending receipt of your signed authorization for us to proceed.

Please sign in the space below to accept these costs and Vector Aerospace's Terms and Conditions.

Total Estimate	**$**	**146,180.85**

Should this estimate cause your amount to exceed your established credit limit, you may be contacted by our credit department prior to the anticipated shipment of your unit.

Authorized Signature: _____ **Date:** _____

Please advise your required return date for this unit: (MM/DD/YY) _____

Please initial if you would like scrap parts returned: ___

Unit to be shipped to the address indicated on the PO unless otherwise stated

Vector Aerospace would like to thank you again for the opportunity to provide our services.

Please do not hesitate to contact the undersigned should you have any questions or concerns regarding the above quote.

_____ *Date:* _____

MICHAEL MONES, *Customer Support Representative, Vector Aerospace*

Terms & Conditions

IMPORTANT – Please read carefully

1. **Estimate Approval.** The customer is responsible for approving or rejecting this estimate within thirty (30) days of the date of the estimate. After such time, if the estimate has not been approved or rejected, Vector may invoice the customer the cost of the teardown and inspection. Vector may also charge storage fees for holding the customer unit or aircraft.

2. **Escalation & Taxes.** All pricing is in 2017 U.S. Dollars and may be subject to escalation in future years. All taxes (including but not limited to sales, excise and withholding taxes), tariffs, duties, levies, fees (including export licensing costs) and surcharges are the responsibility of the customer.

3. **TAT.** The estimated turnaround time (TAT) for the stated workscope is from the date of receipt of the unit/aircraft, receipt of the purchase order or approval of the estimate, whichever is later, until the date of completion. This TAT is subject to parts availability, additional work requirements (AWRs), customer holds or delays, and any event(s) beyond Vector's reasonable control, including but not limited to supplier shortages, export licensing and events of force majeure.

4. **Safety.** Customer will provide compliance status for all applicable mandatory directives and bulletins. Vector reserves the right to refuse to test a unit or fly an aircraft with any outstanding flight safety issues.

5. **Shipping.** Vector will make all units available to a mutually agreed common carrier in accordance with the terms of Ex-Works (EXW – Incoterms 2010) at Vector's facility located in Richmond or Langley (as applicable), British Columbia, Canada.

6. **Removed Parts.** Parts identified to be removed or replaced shall be disposed of, which may include mutilation or destruction, as mandated by OEM requirements or, in the absence of such requirements, shall be retained by and become the property of Vector unless otherwise directed by the customer at the time of approving this estimate.

7. **Customer Parts.** Any customer-supplied parts will be subject to an incorporation fee of 7.5% of the value of the part, up to a maximum of $5,000.00 per part.

8. **Validity.** This estimate is valid for 30 days from the date of this estimate and is subject to approved credit terms.

9. **Payment.** Unless trade credit terms are established and account is in good standing, payment for all invoices is due prior to shipment.

10. **Warranty.** Vector's standard workmanship warranty applies to all Vector-supplied services. OEM warranties apply on all new Vector-supplied parts and equipment. Please contact your customer service representative for detailed information.

11. **Exchanges.** ***(if applicable)*** All core units must be received by Vector within 45 days after customer receipt of an exchange unit. Supplemental charges may result unless core units are accompanied by complete records and removal entries without evidence of abnormal conditions, including but not limited to FOD, over-speed, over-temperature, hard landing, saltwater immersion or accident.

12. **Helicopter Operation.** ***(if applicable)*** The customer is responsible for all procedures and costs related to releasing the aircraft back to service after completion of work by Vector, including any and all costs associated with the operation of the helicopter, including but not limited to pilot fees, fuel and oil costs.

13. **Shipping Containers.** ***(if applicable)*** Vector will not retain perishable shipping containers beyond ninety (90) days from the completion of work or customer rejection of the estimate. Any resulting costs related to the disposal of such containers are the responsibility of the customer.

14. **Travel.** ***(if applicable)*** Pricing does not include travel-related expenses, including but not limited to airfare, accommodation, local transportation, actual or per diem living allowances, permits and/or visas, and hourly or daily rates for travel time, if applicable.

ADMINISTRATIVE AWARD
BID No.: XF-0367-17

DESCRIPTION OF GOODS/SERVICES: Recommend approval of award to Vector Aerospace Helicopter Services, Inc. to provide Inspection/Overhaul of Rolls-Royce Allison 250-C47B Engine Turbine Section Inspection and Overhaul Bell 407, N314JP Helicopter Engine, S/N CAE-847638 Turbine Section S/N 44930, in the amount of $40,323.52.

FUNDING SOURCE: SHPO011CAAV-04603 to be encumbered by purchase order.

ATTACHMENTS: Recommendation Memo; Tabulation; Terms & Conditions; Specifications.

FOR AGENCY/DEPARTMENT: Jacksonville Sheriff's Office

REQUISITION NUMBERS: N/A

NUMBER FIRMS SOLICITED: 8 **NUMBER FIRMS BIDDING:** 3

REASON FOR LESS THAN REQUIRED MINIMUM SOLICITATION/QUOTATION: N/A

RECOMMEND AWARD TO: Vector Aerospace Helicopter Services, Inc.

CONCURRENCE BY: Michelle Cook, Director of Patrol & Enforcement, Jacksonville Sheriff's Office

PRICE: $40,323.52. **TERMS:** NET 30

Analyst **Manager of Purchasing Services, Asst.**

4/5/17 4/5/2017

Date **Date**

APPROVAL:

Gregory Pease, Chief, Procurement Division 4/6/17 **Date**

Jacksonville Sheriff's Office

Duval County, Florida

Mike Williams, Sheriff

501 E. Bay Street
Jacksonville, FL 32202

To: Gregory Pease
Chief of Procurement

Thru: Bill Clement, CPA
Chief of Budget & Management Division

From: Michelle Cook
Director of Patrol & Enforcement

Subject: XF-0367-17 Overhaul Inspection of Rolls Royce Allison 250-C47B Turbine Engine

Date: April 3, 2017

We are recommending approval of award to the lowest responsive, responsible bidder Vector Aerospace Helicopter Services, Inc., in the not to exceed expenditure amount of $40,323.52, for Bid XF-0367-17 Overhaul Inspection of Rolls Royce Allison 250-C47B Turbine Engine. The funding source is SHPO011CAAV – 04603.

Please let me know if you require any additional information. Thank you for your assistance.

TERMS AND CONDITIONS

Inspection/Overhaul of Rolls-Royce Allison 250-C47B Engine Turbine Section Inspection and Overhaul Bell 407, N314JP Helicopter Engine, S/N CAE-847638 Turbine Section S/N 44930 TT:4000 HRS TT: 2000 HRS. CSN:3540

SCOPE

The Jacksonville Sheriff's Office of the City of Jacksonville, Florida, is currently accepting bids to obtain source(s) of supply for the item(s) as outlined in the bid documents provided. The purpose of this bid invitation is to obtain information about your firm and its ability to provide the item(s) and to obtain pricing commitments for the Inspection/Overhaul of Rolls-Royce Allison 250-C47B Engine Turbine Section Inspection and Overhaul Bell 407, N314JP Helicopter Engine, S/N CAE-847638 Turbine Section S/N 44930 TT:4000 HRS TT: 2000 HRS. CSN:3540, as listed in the bid documents.

AWARD

Award will be ALL OR NONE to the lowest responsive, responsible bidder. Bidders must bid on all items to be considered for award. All awards are subject to the availability of funds.

TERM OF AGREEMENT

This is a one-time purchase

PRE-BID CONFERENCE

Not applicable

COMPLIANCE WITH SPECIFICATIONS

The bidder, by affixing their signature to the bid form submitted, agrees to provide items(s) in accordance with the bid documents provided. Bid only a single offering for each bid item. Multiple offerings, alternates (unless stated) and or stipulations may be cause for bid rejection. Bid only on forms provided herein unless otherwise stated. Bid submissions shall be in ink or typewritten. All corrections must be initialed.

STATE CONTRACTS

The City reserves the right to utilize contracts established by the State of Florida and or other governmental agencies for item(s)/service(s) covered under this bid. The City reserves the right to cancel this contract in whole or in part for such item(s)/service(s).

QUANTITES

Quantities indicated are fixed.

PRICES

Prices shall include all freight, delivery and handling charges to and from the delivery location as outlined in the bid documents.

ESCALATION/DE-ESCALATION

N/A

DELIVERY

Jacksonville Sheriff's Aviation unit located at 855-18 St. Johns Bluff Road, Craig Airport, Jacksonville, FL 32225.

PICK UP AND RETURNS

N/A

SUPPLIER ACCESSIBILITY

The City or its representative must be able to contact, during normal business hours, by telephone or email any supplier providing goods or services to the City or its agencies. Any supplier accessibility requirements outlines in the specifications supersede this section.

REPORTING

Suppliers will be required to provide reports requested in the bid specifications.

INVOICING

Invoices will be issued once supplies/services are delivered and/or rendered to the City of Jacksonville or its agencies. At a minimum, invoices must include the purchase order number, item number and description, date of shipment, quantity ordered and shipped, unit prices, unit of measure and extended totals. Payment terms are Net 30 days. All original invoices shall be submitted to: City of Jacksonville, General Accounting Division, 117 West Duval Street, Suite 375, Jacksonville, Florida, 32202.

INSURANCE / INDEMNIFICATION

Each supplier shall maintain, for the entire term of this bid, current insurance coverage as stated in the bid documents. All insurance certificates shall list the City of Jacksonville as an additional insured. A copy of the insurance certificate must be submitted within ten (10) days of award notice. Bid number should be listed on the insurance certificate.

SPECIFICATIONS

Inspection/Overhaul of Rol s-Royce Allison 250-C47B Engine Turbine Section Inspection and Overhaul Bell 407, N314JP Helicopter Engine, S/N CAE-847638 Turbine Section S/N 44930 TT: 4000 HRS TT: 2000 HRS. CSN: 3540

SCOPE

The purpose of this invitation to bid is to establish a vendor for providing an overhaul/inspection of Rolls-Royce Allison 250-C47B Engine Compressor and Gearbox Assembly for the Jacksonville Sheriff's Office Aviation Unit, located in Jacksonville, Florida. The Engine Compressor and Gearbox Assembly shall be separated from the Turbine Assembly. The Turbine Assembly will be disassembled, cleaned, inspected, overhauled, repaired and tested in accordance with the Rolls-Royce Allison 250-C47B Turbine Engine Overhaul/Repair Manuals.

All work must be performed and completed in accordance with any applicable Rolls-Royce/Allison Service Bulletins, Commercial Engine Bulletins (CEBs) and Commercial Service Letters (CSLs).

VENDOR REQUIREMENTS

The vendor providing a bid submission on the overhaul of the must meet the following conditions:

1. The vendor MUST be a Rolls-Royce/Allison approved overhaul/repair facility.
2. The work must be completed within twenty (20) working days after receipt of the engine. In the event that you are not able to complete the overhaul within this timeframe do to event beyond the vendor's control, the vendor will notify the Jacksonville Sheriff's Office Aviation Unit by way of e-mail or fax to provide a reasonable timeframe for completion of required services.
3. The vendor will do a full performance test run on the compressor and gearbox section after overhaul and repairs are completed. A copy of the test results will be provided to the Jacksonville Sheriffs Office Aviation Unit accompanying the overhauled compressor and gearbox section.
4. Freight charges for shipping the engine to the vendor via air freight and freight charges for returning the engine after the overhaul via air freight to the Jacksonville Sheriff's Aviation unit located at 855-18 St. Johns Bluff Road, Craig Airport, Jacksonville, FL 32225, will be paid by the vendor and will be included on the bid proposal form.
5. The minimum warranty for the engine will be as follows:

   Elapsed Time: 0 to 500 hours of operation will equal 100% parts and labor and 500 to 1000 hours of operation will be prorated. The warranty period shall commence when engine is placed into service as evidenced by the Jacksonville Sheriff's Office Aviation unit records.
6. A copy of all warranties should be included with the bid submission.
7. The vendor will provide, within forty eight (48) hours, a technical representative to be on site at the Jacksonville Sheriff's Office Aviation unit in the event that technical assistance is required during the installation of the engine into the aircraft and initial run-up of the overhauled engine.
8. All parts must be new. No used or refurbished parts allowed.

ADDITIONAL INFORMATION

After inspection of the engine and the turbine section, the vendor will provide the Jacksonville Sheriff's Office Aviation Unit with a detailed report of their findings of all serviceable and non-serviceable items. The report will include all costs required to repair/replace each item. The vendor will provide the discount (if any) to be given off the Rolls-Royce/Allison spare parts list for any additional parts required. **Prior approval must be granted by the Jacksonville Sheriff's Office Aviation Unit for any repair items that are not included in the scope of the overhaul.** These additional repairs must be processed by a formal change order through the procurement process.

If the vendor feels it cannot accept these specifications as the true required repair and parts needed to complete the 3500 hour overhaul/inspection of the Compressor and Gearbox section, they should include in their bid all costs required to meet their company standards.

ATTACHMENTS

Inspection, Maintenance, Overhaul, Transfer and Modification Documentation

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QWS3270X 7/6/2017 10:48 AM
FAML6350 V5.1 ** NW COJ FAMIS PRODUCTION ** 07/06/2017
LINK TO: ACCOUNT SUMMARY INQUIRY 10:48 AM

FISCAL MO/YEAR : 10 2017 CURRENCY CODE :
INDEX CODE : SHPO011CAAV AVIATION
SUBOBJECT : 04603 REPAIRS AND MAINTENANCE
PROJECT :
PROJECT DETAIL :
GRANT :
GRANT DETAIL :
USER CODE :

S	JULY 2017	ANNUAL BALANCE	ALL YEARS BALANCE
ESTIMATED REVENUES	.00	.00	.00
REVENUES	.00	.00	.00
UNREALIZED REVENUES	.00	.00	.00
BUDGET	.00	680,128.40	680,128.40
EXPENDITURES	.00	205,575.50	205,575.50
ENCUMBRANCES	.00	197,409.32	197,409.32
PRE-ENCUMBRANCES	.00	.00	.00
REMAINING BALANCE	.00	277,143.58	277,143.58

F1-HELP F2-SELECT F4-PRIOR F5-NEXT
F9-LINK F10-PRIOR-MO F11-NEXT-MO

G014 - RECORD FOUND