



MEMORANDUM

The City of
OKLAHOMA CITY
Police Department

TO: Matt Lindsey, Captain
Bricktown

FROM: Terry Dickerson, Lieutenant
Air Support Unit

DATE: October 18, 2023

SUBJECT: Helicopter Completion



In 2014 the Air Support Unit purchased two new Airbus H125 helicopters. The aircraft were delivered in a "green" condition, which required the department to contract with a vendor for completion of the aircraft. Hangar One was awarded the contract through the competitive bid process and subsequently performed all the necessary work to make the aircraft mission ready. Hangar One provided the Air Support Unit with very detailed mechanical drawings, wiring diagrams and component schematics. These details have been critical to the maintenance and troubleshooting of issues since the aircraft were delivered. Hangar One provides this information as part of their very detailed installation and completion process.

In 2017, funds were identified to purchase new mission equipment for the aircraft. This allowed the Air Support Unit to purchase new camera systems, new mapping systems and new crash resistant fuel tanks for each aircraft. Hangar One was awarded the installation of these items. Hangar One has knowledge of our current aircraft and has designed the internal operability between the current mission equipment systems. This knowledge of the current design and the need for continuity between the mission equipment systems and the airframe avionics systems in the new design, allows for a much safer and reliable installation. The FLIR camera system, as well as the searchlight, Bambi bucket, external mirrors and belly hooks will be moved from aircraft to aircraft. The aircraft needs to be wired exactly alike to facilitate this operation and eliminate any interface issues.

In December 2022, the City Council approved the purchase of a new Airbus H125 helicopter to add to the existing fleet. This is the same make and model aircraft the Police Air Support Unit currently operates. The final completion is an extensive process. The completion entails extensive modifications to the aircraft and installation of additional police mission equipment. The added equipment consists of; police radios, internal and external communication systems; searchlight and camera mounts and connections; addition of the second set of controls for the co-

pilot; addition of a hoist and belly hook; various avionics upgrades not offered from the factory including a mapping system.

The systems installed on the aircraft are intertwined with each other. The mapping system talks to the camera which communicates with the searchlight. The communications system is connected to multiple devices throughout the aircraft. This work is very involved and specialized. To save money the Air Support Unit will not be purchasing a new camera or searchlight for the new aircraft. Instead, this mission equipment will be moved from the current aircraft over to the new aircraft and back as needed. With the extensive wiring that will need to be completed this installation has to be identical to our two existing helicopters.

The components to include the dash that mounts all the avionic mission gauges, radio equipment and computer screen for the mapping system along with the console that houses addition radios and controls are custom made by Hanger One. For pilot safety these completion items must be exactly the same on all three aircraft. This is imperative for the pilots during an unforeseen emergency situation, as time is very critical to preserve life and equipment. Having all three aircraft completely identical by Hanger One makes all pilot training uniform across all three aircraft, therefore, reducing training costs for the pilots and the mechanics.

For this reason, I am requesting the competitive bidding process be waved and Hanger One be awarded the contract.

Finance Use Only	REQ:	PO:	RCVR:
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OCPD PURCHASE ORDER REQUEST

Date: 09/29/23 Budget Year: 23/24



Dept: 4200621 POLICE PATROL

Ship To: PDA OCPD Air Support, 5505 South Portland Ave, Oklahoma City, OK, 73119

Vendor and Contract Information

[Procurement's Vendor & Contract Listings](#)

Vendor Code	Vendor Name				Contract	
161134	Hangar One Avionics					
Address		City	St	Zip	Phone	Fax
2026 Palomar Airport Road		Carlsbad	CA	92011	760-929-2270	760-683-6980

Accounting Information

Line	Account Code	Operating Unit	Fund	Dept	Program
1	54164010	0290	055	4203600	11059 Project BU:PUBSF Project: F0007
	54164010	1784	741	4203800	11059 Project BU:PUBSF Project: F0007
	54164010	0101	020	4205500	11059 Project BU:PUBSF Project: F0007

Commodity Information

Comm Line	Acct Line	Description / Mfg Name / Contract Item	Category	Qty	Unit Cost	Total
1	1	Completion of N740KC	951610	1	\$1,804,774.26	\$1,804,774.26
		Installation of police mission equipment, radios, rescue				\$0.00
		equipment, etc,				\$0.00
		Ref quote #20230928-1, dated Sept 28 2023				\$0.00
		Quote good through Dec 30 2023				\$0.00
						\$0.00
		055-0290 \$170,847.50				\$0.00
		741-1784 \$1,543,309.00				\$0.00
		020-0101 \$90,617.76				\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
Page Total:					\$1,804,774.26	

APPROVED

By pdds1237pc at 9:55 am, 9/29/23

AUTHORIZED REQUISITIONER (SIGNATURE)

Contact Person: Marc Foreman

Contact Number: 405-297-1182

APPROVED

By PDBJ0891PC at 3:08 pm, 10/1/23



Bill To: Oklahoma City Police

Attn: Marc Foreman
Ph: 405-297-1182
Fx:
Email: marc.foreman@okc.gov

QUOTATION

Date: 9/28/23
Quote #: 20230928-1
Quote Valid Until: 12/30/2023

TERMS Net 30
Aircraft Reg: N740KC
Aircraft Type: H125
Aircraft S/N: TBD
Completion Time 4.5 months

STATEMENT OF WORK

Qty	PART NUMBER	DESCRIPTION	LABOR	PARTS	TOTAL
1	Extended Seat Rail	AIRBUS to install the Copilot Extended Extended Seat Rail before leaving factory- Pilot side is also an option	AIRBUS	AIRBUS	AIRBUS
1	Battery Relocation	Install Airbus Canada Aft Battery relocation kit with RG390 battery.	AIRBUS	AIRBUS	AIRBUS
1	Wear Strips	Install stainless steel wear strips on LH and RH baggage doors. Prevents sliding door from rubbing on baggage door.	AIRBUS	AIRBUS	AIRBUS
1	Door Configuration	Airbus Canada pilot and copilot High Vis door.	AIRBUS	AIRBUS	AIRBUS
1	PAINT	Paint Aircraft	AIRBUS	AIRBUS	AIRBUS
1	Dual Controls	Install Copilot Flight Controls	AIRBUS	AIRBUS	AIRBUS
1	350A73-1590-01	Copilot Collective Quick Disconnect Mod - Includes Pip-Pin for copilot cyclic.	1,500.00	10,134.75	11,634.75
2	350A41-TU46-20-RP & 350A08-2207-21-RP	Install full Length Carbide Skid Shoes	2,000.00	9,812.50	11,812.50
1	Cabin Flooring	Install LonCoin Cabin flooring	4,500.00	1,250.00	5,750.00
1	Air Conditioning	AirCom Air Conditioning System - RH baggage condenser.	18,500.00	51,841.18	70,341.18
1	Engine Filter	AFS Engine Barrier Filter	16,500.00	48,768.75	65,268.75
1	1741320	Install a Facet Engine Oil Filter	4,000.00	5,972.80	9,972.80
1	Instrument Panel	Install an Airbus Expanded Instrument panel STC Kit.	15,000.00	36,747.14	51,747.14
1	200-470-00	Install Onboard System Cargo Hook Swing System with load cell	13,000.00	72,581.35	85,581.35
1	350-200264-03	Install a RH cargo Mirror kit from Airbus Canada	2,000.00	2,831.52	4,831.52
1	BAMBI	Electrical Provisions for a Bambi Bucket	6,500.00	1,250.00	7,750.00
1	130-700414	Airbus Blade Tie-Down Kit	500.00	2,798.33	3,298.33
1	646.4001	Install Dart Wire Strike Protection Kit.	12,000.00	24,070.63	36,070.63
2	3501CC-2032-3 and -4	Tech-Tool Aft sliding door cabin comfort window without vent. Light Smoke Gray #2256. Includes new window seals.	3,500.00	9,612.94	13,112.94
1	Collective Barrier	Collective Barrier - Custom design, includes Storage with 2 USB charge ports. Mounts between pilot and copilot seats.	3,500.00	3,125.00	6,625.00
1	100-5352	Life Port One (1) Wall Rack Assembly	9,000.00	3,527.06	12,527.06
1	375-3550-KIT	Life Port One (1) Wall Rack Install Kit		4,178.82	4,178.82
4	100-7115-03-1	Life Port Standard 16 inch flip up seat with 2 inch cushion - Color is dark grey.		69,082.35	69,082.35
2	16-00101-05-POO	Life Port Utility rag and tube flip up seat		18,258.82	18,258.82
2	ST2-267-01	Lifeport Cargo pallet with brownline. Will attach to AFT wall seat rack for equipment mounts.		7,376.47	7,376.47
1	Autopilot	Install a Garmin GFC-600H Autopilot system	32,000.00	89,319.06	121,319.06
1	Rescue Hoist	Install a Goodrich Rescue-Hoist System.	25,000.00	338,823.53	363,823.53
1	Grab Bar	Install Hangar One Grab Bar mounted on the Lifeport Wall Rack.		7,647.06	7,647.06
1	Hoist Maint Training	Goodrich Onsite Hoist Maintenance Training. •Training – O level – in person, to certify up to 6 participants. This is the course that is recommended to take which helps learn about the hoist maintenance.		9,037.65	9,037.65
1	350A82-1576-11	Install a Whelen Belly Mounted LED beacon and replace Tail Beacon with a Whelen style light assy.	4,500.00	8,057.44	12,557.44
1	PA SYSTEM	Install AEM PA System. Includes AMP, PA controller, and Speaker housing.	15,000.00	32,103.86	47,103.86
1	Thommen Searchlight	Install a customer supplied Thommen Searchlight.	30,000.00	11,764.71	41,764.71
1	Searchlight mount	Install a AMTECH AMT342 A frame searchlight mount. Includes dovetail mount	5,000.00	19,117.65	24,117.65
1	FLIR-380HDc	Install a customer supplied (CFE) FLIR-380HD camera system.	35,000.00	11,764.71	46,764.71
1	Laser Arming	FLIR-380 Laser Arming Panel		3,750.00	3,750.00
1	FLIR380 Cable	FLIR-380 Hangar One Custom Cable Kit with belly disconnect.		18,750.00	18,750.00
1	DownPost and Dovetail	Purchase and Install AirFilm Downpost Utility Mount for Camera System. Includes Dovetail set.	4,500.00	16,647.06	21,147.06
1	ARS750	Install an Churchill ARS750 mapping computer with AK-4 sliding keyboard. Includes RTX device for sending waypoint info to Garmin GTN.	30,000.00	145,675.00	175,675.00
1	Modem	Install a cradle Point IBR1700 broadband router with mimo antenna.	5,000.00	3,125.00	8,125.00
1	Monitor	Purchase and Install a MacroBlue 17" Monitor HD Monitor with Touchscreen and NVG.	10,000.00	23,750.00	33,750.00
2	Police Radios	Install two customer supplied police radios.	20,000.00	37,500.00	57,500.00

1	GRA55	Install a Garmin GRA55 Radar Altimeter System. Includes RT, Two antennas, Radar Altimeter Enablement Card.	15,000.00	14,000.00	29,000.00
1	5G Filter	Install a Garmin 5G filter on the Rx coax of the Radar Altimeter System		2,500.00	2,500.00
1	Audio System	Install an AEM P139 Audio System. (3 Small Mixer Panels P/N G13116). Also includes Jupiter JA34 Bluetooth adapter for cell connection.	40,000.00	56,677.49	96,677.49
1	800-28V-NVG-BAT	Davtron Clock NVG	500.00	442.04	942.04
1	P174	AEM 28V to 14V converter.	3,500.00	1,560.00	5,060.00
4	Drop Cords	Alpine Aerotech coiled drop cords with Vox,PTT, and Volume controls.		2,725.00	2,725.00
1	NVG	Aero Dynamix Cockpit NVG STC SR09456RC.	4,000.00	58,823.53	62,823.53
1	Mode A/C lock	Mode A/C lock enablement for transponder. Disables ADSB out from aircraft.		1,406.56	1,406.56
1	GTS-800 Traffic	Install a Garmin GTS-800 Traffic system with dual GA58 antennas	13,000.00	15,016.07	28,016.07
1	Flight Stream 510	install a Flight Stream 510 SD card - Interfaces IPAD to GTN for flight plan, Traffic, and Weather.		1,495.31	1,495.31
1	Video Enablement	Video enablement card for Garmin G500HTxi - MX-10 and ARS-700 will be displayed in HD on the G500Tx.		1,471.88	1,471.88
1	Search and Rescue	Enable search and rescue feature in the GTN.		1,964.06	1,964.06
2	350A73-1572-02 & 350A73-1572-01	Install Extended Length outboard Tail Rotor Pedals. Pilot and Copilot.	250.00	2,801.88	3,051.88
2	TBD	Install pilot and copilot seat back leather pockets.	600.00	2,941.18	3,541.18
1	Position Light on/off	Install a Position light on/off switch.	500.00	2,000.00	2,500.00
2	Container Holder	Install Pilot and Copilot container holder	200.00	1,000.00	1,200.00
1	Bino Holder	Install a bino holder mounted to the copilot door post.	1,000.00	588.24	1,588.24
2	Soderberg Lights	Install two Soderberg map lights mounted in overhead LH/RH	2,000.00	1,775.00	3,775.00
1	AXNES	Axnes PNG Wireless Intercom System- Includes base station, two antennas, three MP50 portables, 1 Aircraft Charger and 2 Desktop chargers.	12500	54482.88	66982.88
			421,050.00	1,383,724.26	1,804,774.26
			Freight (included)		-
			Sales Tax (7.75%)		Out of State
			Total		\$ 1,804,774.26

Thank you!

2026 Palomar Airport Road, Carlsbad CA 92011 Ph: 760-929-2270