San Francisco Police Dept - Critical Upgrade of Existing 3D Sonar System – IJ#1

Equipment

Budget Narrative: The San Francisco Police Department (SFPD), will purchase the following (or similar):

-New Coda Octopus 3D Connect Survey Version for 600W Echoscope video processor- to replace endof-life technology which will render this sonar system unusable if not update;

-Upgrade system to provide pan/tilt capability via ISAR 500m with Aluminum Construction – to reduce operational time by allow remote changes in sonar angle and scanning without manual position changes -Upgrade system to provide control via Pan and Tilt IPT Deck Cable (20M) – to connect ISAR -Upgrade system to provide XD Upgrade to sonar head to add 240kHZ frequency transducer – allows wide angle scans to increase resolution of searches and reduce search times

-Provide 3-Year Warranty and Through Life Support (TLS) Package which includes:

- 24/7 telephone and/or email technical support to ensure uninterrupted functionality support
- Hardware warranty for whole system, including loaner equipment during repairs
- All software upgrades for duration of TLS
- 5-day on-site training annually, ensuring sustained system operation regardless of staff changes

Equipment will be stored and deployed from the SFPD Marine Unit Headquarters. Included training will be conducted locally in Port Area waters.

AEL: 14SW-02-SONR

AEL: 21GN-00-MAIN

Item	Computation	Cost
Coda Octopus, 3D Connect Survey	Package Price	\$ 54,880.00
Version for 600W Echoscope, ISAR		
500m Aluminum Construction, Pan		
and Tilt IPT Deck Cable (20M) and		
XD Upgrade to sonar head to add		
240kHZ frequency transducer		
3D/UIS/TEAM/TLS (non-tax)	3 year price with multi-year discount	\$ 67,500.00
Shipping and Handling		\$ 955.20
Tax (8.5%)		\$ 4664.80
	Total Fauinment	¢ 100 000 00

Total Equipment \$ 128,000.00

Budget Category	Federal Amount	Non-Federal Amount
D. Equipment	\$ 128,000	\$ 0

Total Requested Federal Amount	Total Non-Federal Amount	
\$ 128,000	\$ 0	
Combined Total Project Costs		
\$ 128,000		

San Francisco Police Dept - Vessel Mounted Thermal Camera System – IJ#2

Budget Narrative: The San Francisco Police Department (SFPD), will purchase the following thermal camera and high resolution touchscreen display monitor (or similar):

- (1) FLIR M400XR Stabilized and cooled Thermal/visible camera with JCU (NTSC) to view and control camera options
- (1) RayMarine Axiom Pro 16 multifunction touchscreen display to view camera images and control target tracking.

Equipment will be stored and deployed from the SFPD Marine Unit Headquarters. Included training will be conducted on the equipment in the Port Area waters.

AEL : 04MD-01-IRED – Camera, Infared (IR) 04MD-03-DISP (Multi-Function Display)

Item	Computation	Cost
FLIR M400XR Stabilized	Package Price	\$ 93,880
Thermal/Visible Camera with JCU,		
RayMarine Axiom Pro 16		
Multifunction Display, FLIR M400		
Adapter plate		
Tax (8.5%)		\$ 7,979
	Total Equipment	\$ 101,859

Budget Category	Federal Amount	Non-Federal Amount	
D. Equipment	\$ 101,859	\$ O	
	Total Requested Federal Amount	Total Non-Federal Amount	
	\$ 101,859	\$ 0	
	Comb	ined Total Project Costs	
	\$ 1	\$ 101,859	

San Francisco Police Dept - Training Course for Advanced Underwater ROV Operations – IJ#3

Travel

Budget for travel expenses to allow four members of the San Francisco Police Department Marine Unit to attend a 4-day hands-on ROV training course presented by the manufacturer's representative. Travel to Florida training facility in order to learn operations and techniques in clear water conditions.

Purpose of Travel	Location	Item	Computation	Cost
TRAINING: ROV pilot, navigation and sonar	Florida	Airfare	\$505 X 3 travelers	\$1,515
training course for 4 days with manufacturer's		Hotel	\$200/night X 5 nights X 3 travelers	\$3,000
representative.		Rental Car	\$40/day X 5 days	\$200
4 members of the SFPD				
Marine Unit to attend.				
			Total Travel	\$4,715

Other Costs: Training Course

Budget Narrative: Budget for four members of the San Francisco Police Department Marine Unit, to attend a formal hands-on ROV training course presented by the manufacturer's training representative – Van Meter VideoRay Academy Training Center. The course includes 3 Days of Open Enrollment training and piloting for the Defender Class ROV and 1 Day VideoRay Navigation and Sonar training. The course is only offered at the Key Largo, FL training facility.

Description	Computation	Cost
4 Day Training ROV Course	\$3,995 per person x 3 people	\$ 11,985
	Total Other	\$ 11.985

399

Budget Summary

Budget Category	Federal Amount	Non-Federal Amount
C. Travel	\$ 4,715	
G. Other (Training Course)	\$ 11,985	

Total Requested Federal Amount	Total Non-Federal Amount	
\$16,700	0	
Combined Total Project Costs		
\$16,700		

San Francisco Police Dept - Deck Safety Upgrade and Hull Refurbishment of Response Vessel - IJ#4

Budget Narrative:

The Marine Unit will refurbish the deck and hull (above waterline) of the SFPD marked patrol vessel "SF Marine 7", a 2012 Moose Boats patrol vessel, 37' catamaran with enclosed all weather cabin.

The project includes the removal of all failed paint and deck safety non-skid material surfaces to bare aluminum and replacement with new, high quality safety non-skid on all applicable deck surfaces. All other surfaces will be left bare aluminum to negate future repainting requirements. These processes will provide safe use of vessel deck for both normal crew working in wet conditions, as well as rapid deployed special operators utilizing the deck as a launch platform for tactical assault missions.

This work will correct deck and hull protection coating deficiencies and allow 8-10 years of continued vessel service life.

Item	Computation	Cost
Deck and hull refurbishment	Package Price	\$ 33,000
Down rig, prep, blast all failing paint and non-skid; clean surfaces, prep install safety non-skid, trim edges; up rig		
	Total Equipmen	t \$ 33,000

Budget Category	Federal Amount	Non-Federal Amount	
D. Equipment	\$ 33,000	\$ O	
	Total Requested Federal Amount	Total Non-Federal Amount	
	\$ 33,000	\$ 0	
	Comb	oined Total Project Costs	
	\$ 1	\$ 33,000	

San Francisco Police Dept – Fast Response Vessel for Threat Mitigation and Security – IJ#5

Equipment

Budget Narrative: The San Francisco Police Department (SFPD), will purchase the following (or similar):

-New 11 Meter Rigid Hull Inflatable Boat (RHIB), fully outfitted and powered by twin 350 HP outboard motors, and include;

- FLIR forward looking thermal camera system to navigate in low light and inclement weather.
- Electronic Navigation System including duel screens, GPS, Radar and AIS to navigate in all weather conditions and identify navigational and hazard targets.
- 3D Sonar (side scan and down scan type) to provide depth and underwater search capabilities.
- shock mitigating seats for crew comfort during lengthy missions and heavy sea states.
- Full law enforcement equipment including lights, sirens, visible "Police" marking and police radios to allow for law enforcement patrol capabilities.
- 3-Axle travel trailer for vessel delivery throughout region and to assist partner agencies.
- Post-delivery commissioning and training for vessel orientation and familiarization.

Equipment will be stored and deployed from the SFPD Marine Unit Headquarters. Included training will be conducted locally in Port Area waters.

AEL: 17WC-00-BOAT AEL: 14SW-02-SONR AEL: 04MD-01-IRED-Camera, Infrared AEL: 04AP-03-GISS – System (GIS) AEL: 04MD-03-DISP – Display, Video AEL: 12TR-00-TEQP – Trailer.

Item	Computation	Cost
11 Meter, Response Vessel, RHIB w/T-	Package Price	\$ 803,554
top, 2-350hp Outboard Motors, shock		
mitigating seats, FLIR thermal camera		
system, navigation MFD, with 3D sonar,		
HD radar, AIS transceiver, full LE		
equipment outfitting, 3-axle trailer		
Shipping		
Training, commissioning (on site)		\$ 7,889
Tax (8.5%)		\$ 2,526
		\$ 68,302
	Total Equipment	¢ 000 071

Total Equipment \$ 882,271

Budget Category	Federal Amount	Non-Federal Amount	
D. Equipment	\$ 882,271	\$ O	
	Total Requested Federal Amount	Total Non-Federal Amount	
	\$ 882,271	\$ O	
	Combined T	Combined Total Project Costs	
	\$ 882,271		