

INVITATION TO BID

SUPPLY, INSTALLATION AND COMMISSIONING OF A NEW HYDROGRAPHIC MULTIBEAM ECHO SOUNDER (INCLUDING HYDROGRAPHIC INERTIAL NAVIGATION (INS)/GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)) SOLUTION AND SOUND VELOCITY SENSOR.

Bidder Name:			
Bid Number:		NRF/SAIAB/51/2022-23	
Closing Date: Closing Time:		Thursday, 09 February 2023 11.00 AM	
Compulsory Briefing Session:		An online compulsory briefing session will be held. Date: 30 January 2023 at 11:00 AM (Potential bidders are encouraged to join 15 minutes before the session starts to record their attendance). Zoom link: https://zoom.us/j/94599341004?pwd=MDJzR3hlbUtWQTNIOGJEc3ozQ1cvQT09	
Bid Submission:		with the pdf format technical res and the second with the pdf for claimed preference points. The tendered offer folder must be titled with the bidder's compan	eparate electronic zipped folders, one ponse meeting contract requirements, mat tendered financial offer including password protected. Folders must be y name and folder title and the Bid
		delivery receipt option on their entitle to SAIAB	to 25 MB per email. Bidders to select mails to verify they have delivered the bids@saiab.nrf.ac.za post submission al envelope.
Direct enquiries in	writing t	delivery receipt option on their en file to SAIAB Bidders are to send an email to with the password to their financi	mails to verify they have delivered the bids@saiab.nrf.ac.za post submission
Direct enquiries in Section		delivery receipt option on their en file to SAIAB Bidders are to send an email to with the password to their financi	mails to verify they have delivered the bids@saiab.nrf.ac.za post submission
<u> </u>		delivery receipt option on their entitle to SAIAB Bidders are to send an email to with the password to their financi o: hain Management	bids@saiab.nrf.ac.za post submission al envelope.

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INTRODUCTION

INTRODUCTION TO THE NRF

The National Research Foundation Act as amended, Act 19 of 2018, establishes the National Research Foundation ("NRF") as the juristic legal entity that will contract with the awarded bidder. Please visit the NRF website (https://www.nrf.ac.za) for more information.

BACKGROUND TO SAIAB

The South African Institute for Aquatic Biodiversity (SAIAB), based in Makhanda formerly known as Grahamstown, Eastern Cape, is a National Research Facility of the National Research Foundation. SAIAB is an internationally recognised centre for the study of aquatic biodiversity.

PART A – THE CONTRACT

OBJECTIVE OF THIS PROCUREMENT

The South African Institute for Aquatic Biodiversity is a biological sciences Research Institute specialising in aquatic biodiversity, with a specific academic focus on fish (Ichthyology). In addition to foundational taxonomy and systematics, the Institute specialises in providing cutting-edge research infrastructure platforms for research in marine and freshwater environments, the curation and management of biological specimens and tissue samples, molecular biology and genomics and the supervision of postgraduate students

The Institute is seeking to procure a fully functional new multibeam echosounder and inertial navigation system from a sole supplier including downstream support (provision of additional peripheral devices, maintenance, spares replenishment, software, technical and training support). The combined system (multibeam echosounder and inertial navigation) will be commissioned on board RV uKwabelana based in Ggeberha (Annexure I: Vessel 1).

PRE-REQUISITES - COMPATIBILITY WITH SAIAB'S EXISTING SOFTWARE AND COMPONENTS

The solution will be deployed from the institutes existing marine coastal craft (Annexure I) and using existing over-the-side poles with uniform mounts. The new multibeam echosounder system (i.e., including the inertial navigation system, sound velocity sensor and peripheral devices/software as required) will be used for marine scientific research from coastal waters (10 m) to open ocean (800+ m depth).

This procurement will complement existing software and infrastructure rather than replace it thus allowing in-house redundancy rather than duplication of non-compatible infrastructure / resources. Bidders solutions must be compatible

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with the existing hydrographic survey equipment and software suite currently in use including:

- 1) QPS Qinsy (software for Hydrographic Data Collection)
- 2) QPS Qimera (software for Calibrating and Processing Multi-beam, Backscatter and Water Column Data to final products),
- 3) SBG systems Navsight Apogee INS and Qinertia Pro (Full-featured INS/GNSS Post-processing software),
- 4) Valeport Ocean software and sensors (Sound Velocity Profiling; user interface, set up, review and download sound velocity profiles) (Annexure II).

The bidder's solution must be installed, commissioned and the acquired data validated following a Qimera Cross Check Performance test on site, see GCC8: Inspections, tests and analyses.

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ANNEXURE I: EXISTING MARINE COASTAL CRAFT

THE PURPOSE OF THE FOLLOWING TABLE IS TO ASSIST THE BIDDER WHEN PREPARING THE TENDERED FINANCIAL OFFER RELATED TO THIS BID. THE LIST DOES NOT REPRESENT ALL EQUIPMENT THAT MAKES UP THE VESSELS AND THEIR SYSTEMS.

Vessel 1	Specifications	Vessel 2	Specifications	Vessel 3	Specifications
Location	Port Elizabeth Harbour	Location	Durban Harbour	Location	Durban Harbour
Model	Legacy Cat 15.5m CRV	Model	Legacy Cat 1450	Model	Butt Cat XL
SAMSA Category	В	SAMSA Category	В	SAMSA Category	В
Vessel Type	Marine Research Catamaran	Vessel Type	Marine Research Catamaran	Vessel Type	Marine Research
Hull Material	Marine Grade Aluminium	Hull Material	Marine Grade Aluminium	Hull Material	GRP
Length	15.5 m	Length	15.5 m	Length	14.5 m
Breath	5.64 m	Breath	5.2 m	Breath	4 m
Draught	0.75 m	Draught	1 m	Draught	1 m
Gross Register Tonnage	24.95 GT	Gross Register Tonnage	24.6 GT	Gross Registered Tonnage	12 GT
Engine (Prt)	IVECO C87 ENTM	Engine (Prt)	IB Iveco 67 NEF 450	Engine (Prt)	325 hp Suzuki outboard
Engine (Stb)	IVECO C87 ENTM	Engine (Stb)	IB Iveco 67 NEF 450	Engine (Stb)	325 hp Suzuki outboard
Hamilton Jet (Prt)	Hamilton Jet HJ 322	Hamilton Jet (Prt)	Hamilton Jet 292 Twin	Power system	Inverter 3 Kva
Hamilton Jet (Stb)	Hamilton Jet HJ 322	Hamilton Jet (Stb)	Hamitlon Jet 292 Twin		Battery Bank 400 amp
Blue arrow	Hamilton jet blue arrow controls	Blue arrow	Hamilton jet blue arrow controls		Solar power 300w
Prt Generator	Fisher Panda PMGi-8000	Prt Generator	8 KVA diesel Vetus generator		Smart charger / PPT (20-25 amp)
Prt Generator Hrs.	~ 910 Hrs.	Prt Generator Hrs.	~ 2000 Hrs.		
Stb Generator	Fisher Panda PMGi-8000	Stb Generator	8 Kva 50 Hz Dynaset Hydraulic Generator		
Inverter	Victron	Inverter	Vetus Combi Y 3000W		

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ANNEXURE II GEOPHYSICS AND MAPPING PLATFORM

Existing Geophysics and Mapping Platform components:

- 1 x Reson SeaBat 7101 multibeam echosounder system
- 1 x Valeport Ocean SWiFT sound velocity profiler
- 1 x Reson SeaBat 7101 control and data acquisition PC
- 1 x SBG Navsight Apogee inertial navigation system with SBG Systems Qinertia Pro license
- 1 x Supermicro Processing PC
- 1 x QPS Qinsy and Qimera

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TECHNICAL COMPLIANCE

Please indicate on the list below (in the fourth column "Specify") the whether the proposed System meets technical specification*. All specifications required must be specifically indicated in the proposal. Failure to fully complete the list may result in a disqualification.

The contract states the full specification, additional support services, downstream activities to support the equipment being procured.

*i.e., Include the specification of the proposed solution as it relates to the required specification listed in columns two and three.

		BIDDER TO	Specify: PFILL IN THE LAST COLUMN
1.Multibeam hosounder	Туре	Hydrographic Broadband / Wideband Receiver/Projector package for shallow to deep open marine waters	Make and Model:
1.1	Selectable Frequencies	From 80kHz to 500kHz with selectable "low frequency" and "high frequency" options. "Low frequency": Selectable 80kHz - 90kHz and 100kHz – 120 kHz. "High frequency": range of 170kHz - 500kHz	Frequency Range*: Selectable Frequencies: *describe / note available frequencies of proposed solution
1.2	Beamwidth	No more than 0.50° x 0.50° at 450kHz No more than 1.5° x 1.5° at 200kHz No more than 2° x 2° at 90kHz & 100kHz	Beamwidth per frequency*: *describe / note beamwith of proposed solution
1.3	Number of Soundings per Ping	At least 1024 soundings	Number of soundings:
1.4	User-Selectable Swath Sector in Real-Time	10° to 160°	User-Selectable Swath Sector in Real-Time:
1.5	Weight (in air)	Less than 40 kg (total multibeam echosounder unit Rx and Tx mass) as fitted to an "over-the-side" pole mount.	Weight (in air):
1.6	Sounding Depth	Operational depth range of 10 m (or shallower) to >800 m and a minimum swath width of 400+ m at 800 m depth.	Sounding Depth range: Swath width at 800 m depth:

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1.7	Dimensions Receiver	≤ 500 x 110 x 200 (mm) as fitted to an	Dimensions Receiver
1.8	Dimensions Projector	"over-the-side" pole mount ≤ 500 x 110 x 200 (mm) as fitted to an	Dimensions Projector
1.0	Dimensions Projector	"over-the-side" pole mount	Dimensions Projector
1.9	Acquisition speed during	Can collect data at up to10 knots speed	Acquisition speed during
	operation:	over ground of the vessel.	operation:
1.10	Near Field Focusing	Supported	Yes / No
1.11	Pitch stabilized beams	Supported	Yes / No
1.12	Pitch stabilized beams	Supported	Yes / No
1.13	Automated Operation	Automated operation for: power, pulse width, range, gates, slope settings	Automated operation for:
1.14	Sounding Patterns	Minimum user selectable options must include: • Equiangular, • Equidistant, • Ultra/Very High Density* *i.e., high density of soundings	Sounding Patterns*: *describe / note sounding patterns of proposed solution
1.15	Pulse Length	15µs - 2ms (user selectable)	Pulse Length range:
1.16	Pulse Type	Shaped continuous wave	Pulse Type:
1.17	Ping rate	up to 60Hz	Ping rate:
1.18	Bandwidth	up to 60Hz	Bandwidth:
1.19	Immersion Depth	Minimum of 100 m (sea water)	Immersion Depth:
1.20	Bottom Detect Resolution	20 mm or less.	Bottom Detect Resolution:
1.21	Operating Temperature	Standard: between -10°C to 50°C	Operating Temperature:
1.22	Mains Power to Topside unit	90-260VAC, 45-65Hz	Mains power: VAC Hz
1.23	Power consumption	Average less than 120W	Power consumption:
1.24	Uplink/downlink	10/100/1000 Base-T Ethernet	Yes / No
1.25	Sync in, Sync out	TTL	Yes / No
1.26	Deck cable length	15 m	Yes / No
1.27	Mounting Frame, Fairing & Hardware Kit	Must be supplied with OEM mounting frame, fairing and hardware kit for transmit and receive transducers on an over-the-side pole including mount for SV probe and inertial measurement unit	Yes / No
1.28	Mounting hardware to existing over-the-side pole	Mounting hardware must fit onto existing over-the-side pole with a standard four inch, four-hole plate. E.g., adapter supplied	Yes / No
1.29	Sound Velocity Sensor	Must be supplied with a fully Platform	Yes / No

		compatible online sound velocity sensor including 15 m cable as per specification below.	
1.30	Multispectral Backscatter	Must be able to collect, output multispectral Backscatter data (e.g., multiple frequencies in one single pass).	Yes / No
1.31	Multiapectral Bathymetry	Must be able to collect, output Multispectral Bathymetry data (e.g., multiple frequencies in one single pass).	Yes / No
2.1	Topside unit	IP rating: IP67 (rugged) or better	IP rating:
2.2	Internal GNSS receiver	Must have GPS and GLONAS receive capabilities, L1/L2/L5 and RTK positioning.	Receive capabilities:
2.3	Processing components	Contained in Topside unit (i.e., not housed in the inertial measurement unit).	Yes / No
2.4	GNSS receiver support for positioning services	Must support Precise Point Positioning (e.g., Marinestar, or, TerraStar, or, Veripos, or, OmniSTAR, or equivalent) required.	Yes / No* Marinestar, Yes / No TerraStar, Yes / No Veripos, Yes / No OmniSTAR, Yes / No requivalent (state which)
			*Circle as appropriate
2.5	Mode/quality indicators lights	Topside unit must have mode/quality indicator lights.	Mode: Yes / No Quality: Yes / No
2.6	Power supply	Must be able to run on DC power (9 to 36 VDC).	Yes / No
2.7	Tough Case	Must come with tough case to carry <u>all</u> INS components (e.g., Pelican Case or equivalent)	Yes / No
2.8	Precise Time Protocol (PTP) & Network Time Protocol (NTP)	Must contain professional PTP Grand Master Clock server and an NTP server.	PTP Grand Master Clock server: Yes / No NTP server: Yes / No
2.9	NTRIP Client	Must have an integrated NTRIP client to	Yes / No

		access NRTK (Network Real Time Kinematic) / VRS (Virtual Reference Station) correction services	
3.1	IMU housing	Titanium	Yes / No
3.2	IMU Depth Rating	200 m minimum	Yes/ No
3.3	Environment	Subsea installation	Yes / No
4.1	IMU Roll & Pitch	0.008° or better (RTK, 0 s outage)	Accuracy:
	Accuracy		
4.2	IMU Roll & Pitch Accuracy	0.005° or better (PPK, 0 s outage)	Accuracy:
4.3	GNSS-based heading accuracy	0.025° or better (Dual antenna, 4m baseline, 0 s outage)	Accuracy:
4.4	PPK-based heading accuracy	0.02° or better (Dual antenna, 4m baseline, 0 s outage)	Accuracy:
4.5	Position accuracy	1 cm (with GNSS receiver, 0 s outage)	Accuracy:
4.6	Position accuracy	1 cm (with GNSS receiver RTK, 0 s outage)	Accuracy:
4.7	Position accuracy	1 cm or less (PPK, 0 s outage)	Accuracy:
4.8	Internal Data Logger	> 6GB, 48 hour (minimum recording	Internal Data Logger: Yes/No
		space for post-processing data)	Capacity (hr):
4.9	Calibration	Maintenance free/remote calibration.	Yes / No
4.10	Real-time Heave accuracy	5 cm, or better	Real-time Heave accuracy:
4.11	Delayed Heave accuracy	2 cm, or better	Delayed Heave accuracy:
4.12	INS/GNSS Post- processing software	Must be in-house developed by the OEM with on-going support and development.	I
4.13	Software post- processing solutions	Capable of off-line RTK and PPK/PPP solutions	Yes / No
4.14	Virtual base stations	Must enable virtual base station solutions	Yes / No
5.1	Online Sound Velocity Sensor)	Compatible with supplied Multibeam Echosounder system	Yes / No (OEM confirmation)
5.2	Sound Velocity Range	1375 – 1900 m/s	Range:
5.3	Resolution	0.001 m/s	Resolution:
5.4	Sample Rate	1Hz to 60Hz, Selectable based on configuration	Selectable sample Rate:
5.5	Housing Material	Titanium	Yes/No
5.6	Cable length	15 m	Cable length:
5.7	Sensor Legs	Carbon Composite	Yes/No
5.8	Weight	1 kg or less	Weight:

5.9	Transducer Window	Polycarbonate	Yes/No
5.10	Software	Must be supplied with control and configuration software	Yes/No
5.11	Sound Velocity Accuracy	±0.020m/s or less.	Sound Velocity Accuracy:
5.12	Sound velocity format	User selectable: mm/s, m/s to 3 decimal places, m/s to 2 decimal places.	Sound velocity format:
Spares			
6.1	1 x Spare Multibeam Ecos	ounder Sonar cable (Dry end to wet end)	Yes/No
6.2	Spare set of INS antenna	cables (pair)	Yes/No
6.3	Spare IMU cable (Topside	box to wet end)	Yes/No
6.4	Spare Sound Velocity Sen	sor cable (Dry end to wet end)	Yes/No
6.5	Spare IMU cable (Topside	box to wet end)	Yes/No
6.6	Spare Sound Velocity Sen	sor cable (Dry end to wet end)	Yes/No
6.7	Spare IMU cable (Topside	box to wet end)	Yes/No
7. Transport boxes			
7.1	Transport boxes for all components	The follow transport boxes (or pelican cases or equivalent): • Multibeam Echosounder • Inertial Navigation system • Sound Velocity sensor	Yes/No
8. Operations Manua			<u>'</u>
8.1		Full operations manual (electronic and hard copy) in English to be provided and must include: Operational instructions All electrical circuit diagrams All component dimensional diagrams Schematic diagrams of all serviceable components Fault finding instructions	Yes/No

Bidders that cannot provide written evidence from the original manufacturer/software developer or their agents that their solutions are compatible (e.g. data examples, software drivers, letter from OEM confirming compatibility) to SAIAB's Hydrographic survey software will be disqualified.

Bidders that provide such evidence, yet their specified product does not meet the specifications following validation by

Qimera Cross Check Performance Test will remove the system and pay penalty all costs to provide alternative systems to SAIAB as set out in thus document.

DETAILED SPECIFICATIONS

The purpose of this bid invitation is to appoint a single service provider to supply, deliver, install and commission a new multibeam echosounder, inertial navigation system, sound velocity sensor and peripheral connected devices/software as required) for research purposes. A fully operational system must be provided.

The proposed system must comprise fully compatible components and software, and ready to install, commission and validate upon delivery.

The service provider will be expected to provide a 5-year service plan for the multibeam echosounder system

The service provider to conduct all routine maintenance and repairs and upgrades to the multibeam echosounder system including peripheral devices and software upon request by SAIAB.

1.Multibeam Echosounder	Туре	Hydrographic Broadband / Wideband Receiver/Projector package for shallow to deep open marine waters
1.1	Selectable Frequencies	From 80kHz to 500kHz with selectable "low frequency" and "high frequency" options.
		"Low frequency": Selectable 80kHz - 90kHz and 100kHz – 120 kHz.
		"High frequency": range of 170kHz - 500kHz
1.2	Beamwidth	No more than 0.50° x 0.50° at 450kHz
		No more than 1.5° x 1.5° at 200kHz
		No more than 2° x 2° at 90kHz & 100kHz
1.3	Number of Soundings per Ping	A minimum of 1024 sounding per ping.
1.4	User-Selectable Swath Sector in Real-Time	10° to 160°
1.5	Weight (in air)	Less than 40 kg (total multibeam echosounder unit Rx and Tx mass) as fitted to an "over-the-side" pole mount.
1.6	Sounding Depth	(a) Operational depth range of 10 m to >800 m
		(b) A minimum swath width of 400+ m at 800 m depth.
1.7	Dimensions Receiver	≤ 500 x 110 x 200 (mm) as fitted to an "over-the-side" pole mount
1.8	Dimensions Projector	≤ 500 x 110 x 200 (mm) as fitted to an "over-the-side" pole mount
1.9	Acquisition speed during operation	Collect data at up to10 knots speed over ground of the vessel.
1.10	Near Field Focusing	Must have Near Field Focusing capabilities
1.11	Roll stabilized beams	Must have roll stabilized beams capabilities

1.12	Pitch stabilized beams	Must have pitch stabilized beams capabilities
1.13	Automated Operation	Automated operation for power, pulse width, range, gates, slope settings
1.14	Sounding Patterns	Minimum user selectable options must include:
1.15	Pulse Length	15μs - 2ms (user selectable)
1.16	Pulse Type	Shaped continuous wave
1.17	Ping rate	up to 60Hz
1.18	Bandwidth	up to 60Hz
1.19	Immersion Depth	Minimum of 100 m (sea water)
1.20	Bottom Detect Resolution	20 mm or less.
1.21	Operating Temperature	Standard: between -10°C to 50°C
1.22	Mains Power to Topside unit	90-260VAC, 45-65Hz
1.23	Power consumption	Average less than 120W
1.24	Uplink/downlink	10/100/1000 Base-T Ethernet
1.25	Sync in, Sync out	TTL
1.26	Deck cable length	15 m
1.27	Mounting Frame, Fairing & Hardware Kit	Must be supplied with OEM mounting frame, fairing and hardware kit for transmit and receive transducers on an over-the-side pole including mount for SV probe and inertial measurement unit
1.28	Mounting hardware to existing over-the-side pole	Mounting hardware must fit onto existing over-the-side pole with a standard four inch, four-hole plate. adapter supplied
1.29	Sound Velocity Sensor	Must be supplied with a fully Platform compatible online sound velocity sensor including 15 m cable as per specification below.
1.30	Multispectral Backscatter	Must be able to collect, output multispectral Backscatter data (e.g., multiple frequencies in one single pass).
1.31	Multiapectral Bathymetry	Must be able to collect, output Multispectral Bathymetry data (e.g., multiple frequencies in one single pass).
Inertial Navigation System Topside unit	Туре	Open ocean, shallow to deep water capable with GNSS receiver
2.1	Topside unit	IP rating: IP67 (rugged) or better
2.2	Internal GNSS receiver	Must have GPS and GLONAS receive capabilities, L1/L2/L5 and RTK positioning.
2.3	Processing	Contained in Topside unit (i.e., not housed in the inertial
	i	ı

	components	measurement unit).
2.4	GNSS receiver support	Must support Precise Point Positioning (e.g., as supported by the following standards/providers Marinestar, TerraStar, Veripos, OmniSTAR, or equivalent).
2.5	Mode/quality indicators lights	Topside unit must have mode/quality indicator lights.
2.6	Power supply	Must run on DC power (9 to 36 VDC).
2.7	Tough Case	Must come with tough case to carry <u>all</u> INS components (i.e, Pelican Case or equivalent)
2.8	Precise Time Protocol (PTP) & Network Time Protocol (NTP)	Must contain professional PTP Grand Master Clock server and an NTP server.
2.9	NTRIP Client	Must have an integrated NTRIP client to access NRTK (Network Real Time Kinematic) / VRS (Virtual Reference Station) correction services
3.0 Inertial Measurement Unit (IMU)	Technology	Open ocean, shallow to deep water capable; Micro-Electro-Mechanical Systems (MEMS) gyroscopes and accelerometers
3.1	IMU housing	Titanium
3.2	IMU Depth Rating	200 m minimum
3.3	Environment	Subsea installation
4.0 IMU System accuracy and software	Hydrographic	High-accuracy system, for open ocean hydrographic survey
4.1	Roll & Pitch Accuracy	0.008° or better (RTK, 0 s outage)
4.2	Roll & Pitch Accuracy	0.005° or better (PPK, 0 s outage)
4.3	GNSS-based heading accuracy	0.025° or better (Dual antenna, 4m baseline, 0 s outage)
4.4	PPK-based heading accuracy	0.02° or better (Dual antenna, 4m baseline, 0 s outage)
4.5	Position accuracy	1 cm (with GNSS receiver, 0 s outage)
4.6	Position accuracy	1 cm (with GNSS receiver RTK, 0 s outage)
4.7	Position accuracy	1 cm or less (PPK, 0 s outage)
4.8	Internal Data Logger	> 6GB, 48 hour (minimum recording space for post-processing data)
4.9	Calibration	Maintenance free/remote calibration.
4.10	Real-time Heave accuracy	5 cm, or less

4.11	Delayed Heave accuracy	2 cm, or less	
4.12	INS/GNSS Post- processing software	Must be in-house developed by the OEM with on-going support and development.	
4.13	Software post- processing solutions	Capable of off-line RTK and PPK/PPP solutions	
4.14	Virtual base stations	Must enable virtual base station solutions	
5.0 Online Sound Velocity Sensor	Туре	Sound velocity sensor for hydrographic purposes.	
5.1.	Compatibility	Compatible with supplied Multibeam Echosounder system	
5.2	Sound Velocity Range	1375 – 1900 m/s	
5.3	Resolution	0.001 m/s	
5.4	Sample Rate	1Hz to 60Hz, Selectable based on configuration	
5.5	Housing Material	Titanium	
5.6	Cable length	15 m	
5.7	Sensor Legs	Carbon Composite	
5.8	Weight	1 kg or less	
5.9	Transducer Window	Polycarbonate	
5.10	Software	Must be supplied with control and configuration software	
5.11	Sound Velocity Accuracy	±0.020m/s or less.	
5.12	Sound velocity format	User selectable: mm/s, m/s to 3 decimal places, m/s to 2 decimal places.	
5.13	Baud Rate	2400 - 115200	
5.14	Protocol	8 data bits, 1 stop bit, No parity, No flow control	
6 Spares	Compatible spares provided with initial purchase		
6.1	Spare Multibeam Ecoso	under Sonar cable (Dry end to wet end)	
6.2	Spare set of INS antenna cables (pair)		
6.3	Spare IMU cable (Topside box to wet end)		
6.4	Spare Sound Velocity S	ensor cable (Dry end to wet end)	
7. Transport boxes			
7.1	Transport boxes for all components	The follow transport boxes (or pelican cases or equivalent): • Multibeam Echosounder	

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	 Inertial Navigation system Sound Velocity sensor
8. Manuals	Full operations manual (electronic and hard copy) in English to be provided and must include: Operational instructions All electrical circuit diagrams All component dimensional diagrams Schematic diagrams of all serviceable components Fault finding instructions
12. Supply, Install, and Commission Service	Bidder to supply, install on site, test, and commission the product.
12.1	Bidder must validate the data acquired by multibeam and INS solution during on-site commissioning using the Qimera Cross Check to create statistics relative to a reference surface. Must meet, or be better than, IHO Order 1b standards (including but not limited to "Scatter Plot", "Uncertainty Plot", "Histogram Plot" and IHO "Statistics Computations")

Spares replenishment:

The SAIAB will place purchase orders for spares as needed when not supplied by the servicing agent in doing the service.

To ensure that the local agent and SAIAB have access to the latest technology and spares to support the equipment, SAIAB requires that the OEM issues a Guarantee of spare parts for components over a duration of 10 years including the OEM support for at least 10 years. i.e., components will not become redundant and no longer supported for 10 years from installation. GCC 14.2 applies where OEM ceases production of components and spares

Servicing plans/Maintenance Plans and updates there of

Downstream	Bidder to provide a 5-year service schedule for relevant components, as required by OEM.
upgrades, repairs	
and spares	

The OEM to supply a five-year service schedule for each component, listing as a minimum the following

- Component, type of work required, frequency,
- Service location (i.e., local or international)

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- What consumables are required as set by OEM (and can these be locally sourced)
- What components need replacement and at what frequency

OEM to update SAIAB when the servicing/maintenance plans are updated

OEM to provide SAIAB update manuals as set out in 9 above when updated

SERVICING RESPONSIBILITIES

	11.1	Service, as required by the OEM, of relevant components
-		

	13	3.Support Services	Bidder to provide on-site and virtual support via remote access software as required
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13.1	Bidder to provide, when required, servicing, replacement components, calibration services,
	software, spares and consumables to the equipment comprising the ACEP Geophysics And
	Mapping Platform for the duration of the contract

Define what type of servicing is done on site

Define what servicing is done by the appointed local agent

Define what servicing has to be done at the OEM's site

Communication channels between SAIAB and Local Agent

The supplier shall: Only when notified of the acceptance of the bid by the issuing of the order, commence with and carry out the delivery of the services in accordance with the contract, to the satisfaction of the purchaser.

Provide all of the necessary materials, labour and equipment required for the delivery of the services, including any temporary services that may be required.

The local agent will manage the movement of equipment between SAIAB and the OEM premises

Call ad hoc meetings with the supplier, as and when required during the course of the contract. The supplier will be required to attend such meetings, reasonable notice having been given by the purchaser.

Issue orders for the goods required under this Contract. No liability for payment will ensue for any work done if an order has not been issued to the supplier.

Regularly have progress meetings with the Supplier to establish that the services are being performed in compliance with the contract.

Give any instructions and/or explanations and/or variations to the supplier including any relevant advice to assist the supplier to understand the contract documents.

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Grant or refuse any extension of time requested by the supplier to the period stated in clause 10.

Communication Channel between SAIAB, Local Agent, and OEM

The supplier shall: Only when notified of the acceptance of the bid by the issuing of the order, commence with and carry out the delivery of the services in accordance with the contract, to the satisfaction of the purchaser.

Provide all of the necessary materials, labour and equipment required for the delivery of the services, including any temporary services that may be required. GeMaP manager to contact supplier via email. Ad hoc work: quote requested from supplier as required.

Call ad hoc meetings with the supplier, as and when required during the course of the contract. The supplier will be required to attend such meetings, reasonable notice having been given by the purchaser.

Issue orders for the goods required under this Contract. No liability for payment will ensue for any work done if an order has not been issued to the supplier.

Regularly have progress meetings with the Supplier to establish that the services are being performed in compliance with the contract.

Give any instructions and/or explanations and/or variations to the supplier including any relevant advice to assist the supplier to understand the contract documents.

Grant or refuse any extension of time requested by the supplier to the period stated in clause 10.

SPECIAL CONDITIONS OF SERVICE MANAGEMENT

All parties in a joint venture or consortium shall be jointly and severally liable to the purchaser in terms of this contract and shall carry individually the minimum levels of insurance stated in the contract, if any.

The parties shall comply with all laws, regulations and bylaws of local or other authorities having jurisdiction regarding the delivery of the goods and give all notices and pay all charges required by such authorities.

SERVICE LEVEL RESPONSE TIMES (GCC 22 and 25)

22	Penalties			
Substitu	ıte clause 22.1 with the followi	ng:		
22.1	Subject to GCC Clause 25, is contract, the purchaser shall, Performance Measures			the period(s) specified in the apply the following penalties –
	Performance requirement	Deliverable	Trigger	Penalty
	Delivery time of all components	All components to be delivered to SAIAB within	Late delivery	R 1000/day

	3 months of delivery date stated on the issued purchase order.		
Turnaround time to assist with technical support	Acknowledgement of request for technical assistance within 1 working day.	Longer than 1 day response time	Poor reflection on contract review — repeat occurrence may result itermination of contract
Telephonic technical support	Telephonic support from technician within 1 working day of requesting support.	Longer than 1 day response time	Poor reflection on contract review – repeat occurrence may result itermination of contract
On-site technical support	Technician to be dispatched to site within 72 hours of problem diagnosis of problem.	Longer than 72 hours to dispatch technical support.	Poor reflection on contract review – repeat occurrence may result itermination of contract
Turnaround time for routine services.	Service to be completed within 6 weeks of receipt of instrument at workshop. A 6 week lead time will be arranged so that preparations can be made. Does not apply if unforeseen repairs are required that need parts to be sources, in which case a reasonable timeframe will be agreed upon.	Service takes longer than 6 weeks unless reasonable explanation can be provided.	Poor reflection on contract review — repeat occurrence may result itermination of contract

Use of Purchase orders to convey instructions under the contract

CONTRACT PERIOD

The contract will be valid for a period of one (1) year plus four (4) years from the date of signing the contract, unless the procured equipment has been withdrawn and not supported. The four (4) years are based on budget availability and need.

Commencement will be the date of final signature on the SBD 7 Contract Form.

BIDDER QUALIFING REQUIREMENTS

The bidder must provide evidence of the following:

- Bidder is an authorised distributer/reseller of the OEM in South Africa
- Bidder must have been in the hydrographic Survey industry for >10 years in South Africa (must provide evidence of multibeam bathymetry survey data collection/processing)
- Bidder must have provided sales, dimension control and calibration services, multibeam/inertial navigation system installation and integration, marine hydrographic surveys (e.g., Government, Oil and Gas sites, Mines, Engineering projects) to the Hydrographic Survey/Commercial industry for >10 years.

Failure to provide satisfactory documentation of evidence of the above requirements will result in disqualification of bid.

ORIGINAL MANUFACTURER REQUIREMENTS

- i) The OEM must have been in the Hydrographic Survey and/or Inertial Navigation Systems industry for a minimum of 10 years (Bidder must provide copy of company profile).
- ii) To ensure a reputable multibeam echosounder system is provided, the OEM must have sold a minimum of 15 similar systems (Bidder to provide portfolio).
- iii) To ensure a reputable brand of inertial navigation system is provided, the OEM must have sold a minimum of 15 similar systems (Bidder to provide portfolio).
- iv) To ensure a reputable brand of sound velocity sensor is provided, the OEM must have sold a minimum of 15 similar systems (Bidder to provide portfolio).

Failure to provide documentation of evidence of the above requirements will result in disqualification of bid.

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SPECIAL CONDITIONS OF CONTRACT

These Special Conditions of Contract must be cross-referenced against the General Conditions of Contract (GCC). The Special Conditions of Contract qualify or augment specific clauses of the GCC, or introduce conditions not included in the GCC.

The following are special conditions of the contract:

1	Definitions
1.21	"Purchaser" means the National Research Foundation (NRF).
Substitu	Ite Clause 1.24 with the following:
	"Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
	Special Condition to 1.24: All services in 1.24 are included in the services listed under the detail specification including all obligations relating to calibration and keeping the equipment in optimum performance
5	Use of contract documents and information
Add the	following clause after Clause 5.4:
5.5SC	The recipient of confidential information shall be careful and diligent as not to cause any unauthorised disclosure or use of the confidential information, in particular, during the contract term and after termination of the contract. The recipient shall not:
5.5.1	Disclose the confidential information, directly or indirectly, to any person or entity, without the purchaser's prior written consent.
5.5.2	Use, exploit or in any other manner whatsoever apply the confidential information for any other purpose whatsoever, other than for the execution of the contract and the delivery of the deliverables or
5.5.3	Copy, reproduce, or otherwise publish confidentiality information except as strictly required for the execution of the contract.
5.6SC	The recipient shall ensure that any employees, agents, directors, contractors, service providers, and associates which may gain access to the confidential information are bound by agreement with the recipient both during the term of their associations with the recipient and after termination of their respective associations with the recipient, not to -
5.6.1	Disclose the confidential information to any third party, or
5.6.2	Use the confidential information otherwise than as may be strictly necessary for the execution of the contract,
5.6.3	The recipient shall take all such steps as may be reasonably necessary to prevent the confidential information from falling into the hands of any unauthorised third party.
5.7 SC	The undertakings set out in this clause shall not apply to confidential information, which the recipient is able to prove:
5.7.1	Was independently developed by the recipient prior to its involvement with the purchaser or in the possession of the recipient prior to its involvement with the purchaser;
5.7.2	Is now or hereafter comes into the public domain other than by breach of this contract by the recipient;
5.7.3	Was lawfully received by the recipient from a third party acting in good faith having a right of further disclosure and who do not derive the same directly or indirectly from the purchaser, or
5.7.4	Required by law to be disclosed by the recipient, but only to the extent of such order and the recipient shall inform the purchaser of such requirement prior to any disclosure.
5.8 SC	The recipient shall within one (1) month of receipt of a written request from the purchaser to do so, return to the purchaser all material embodiments, whether in documentary or electronic form, of the confidential information including but not limited to:
5.8.1	All written disclosures received from the purchaser;

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5.8.2	All written transcripts of confidential information disclosed verbally by the purchaser; and
5.8.3	All material embodiments of the contract intellectual property.
5.9	The recipient acknowledges that the confidential information is made available solely for the execution of the contract and for no other purpose whatsoever and that the confidential information would not have been made available to the recipient, but for the obligations of confidentiality agreed to herein.
5.10	Except as expressly herein provided, this contract shall not be construed as granting or confirming, either expressly or impliedly any rights, licences or relationships by furnishing of confidential information by either party pursuant to this contract.
5.11	The recipient acknowledges that the unauthorised disclosure of confidential information may cause harm to the purchaser. The recipient agrees that, in the event of a breach or threatened breach of confidentiality, the purchaser is entitled to seek injunctive relief or specific performance, in order to obtain immediate remedies. Any such remedy shall be in addition to and not in lieu of any other remedies available at law, including monetary damages.
5.12	Copyright and Intellectual Property
	The third party hereby gives SAIAB permission, in terms of the Protection of Private Information Act 4 of 2013, to process, collect, receive, record, organise, collate, store, update, modify, retrieve, alter, consult, use, disseminate, distribute, merge, link, erase or destroy personal information received. By submitting a bid, the third party gives its voluntary explicit consent to the terms of this special condition.
11	Insurance (GCC 11)
Substitut	e Clause 11.1 with the following:
11.1	The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or dam incidental to manufacture or acquisition, transportation, storage and delivery.
11.2SC	(a) Without limiting the obligations of the supplier in terms of this contract, the supplier shall effect and maintain the following additional insurances:
	(b) Registration / insurance in terms of the Compensation for Occupational Injuries and Disease Act, Act 130 of 1993. This can either take the form of a certified copy of a valid Letter of Good Standing issued by the Compensation Commissioner, or proof of insurance with a licenced compensation insurer, from either the bidder's broker or the insurance company itself
	(c) The supplier shall be obliged to furnish SAIAB with proof of such insurance as SAIAB may require from time to time for the duration of this Contract.
13	Incidental Services
Substitut	e Clause 13.1 with the following:
GCC13. 1	The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
	13.1.1 Performance or supervision of on-site assembly and/or commissioning of the supplied goods; 13.1.2 Furnishing of tools required for assembly and/or maintenance of the supplied goods;
	13.1.3 Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
	13.1.4 Performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
	13.1.5 Training of the purchaser's personnel, at the supplier's plant and/or on-site, conducted in assembly, start-up operation, maintenance, and/or repair of the supplied goods.
GCC13. 1SC	Any incidental services required for the delivery of the contract shall be agreed upon in advance by the parties and will only be valid if confirmed through the issue of a written purchase order that specifies, where applicable, quality, quantity, description, unit price, and delivery date.
15	Warranty
Substitut	e clause 15.2 with the following:
15SC	The supplier must provide a minimum warranty of 36 months on all installed equipment from date of commissioning.
	Bidder to provide a minimum 3-year OEM supported warranty on components with extended OEM warranty where available. A minimum 3-year OEM warranty for all components is required with maximum extended warranty terms where available (e.g., 3-year OEM warranty extended to 5-year OEM warranty).

16.		
A -1 -1 41 C	Payment Special condition	
Add the fo	ollowing clause after clause 16.4:	
16.5sc	The Supplier's invoices must meet the following minimum requirements:	
	(a) Reference the purchase order number	
	(b) Detailed line items as specified in purchase order	
	(c) Include statement of account	
16.6	The SAIAB authorised representative will conduct tests confirming performance/delivery in accordance with prescribed quality and/or quantity, conformance to specification upon delivery.	
	The SAIAB authorised representative conducts verification that unit pricing in accordance with that stated on the purchase order issued in terms of the contract.	
16.7	Invoices must be accompanied by the SAIAB authorised representative's signature, confirming performance/delivery in accordance with prescribed quality and/or quantity, conformance to specification, and unit pricing in accordance with the contract and any purchase orders issued in terms of the contract.	
31	Notices	
Substitute	titute Clause 31 with the following -	
31.1	Any notice, request, consent, approvals or other communications made between the Parties pursuant to the Contract shall be in writing and forwarded to the addresses specified in the contract and may be given as set out hereunder and shall be deemed to have been received when:	
	(i) hand delivered – on the day of delivery;	
	(ii) registered mail – five (5) working days after mailing;	
	(iii) email – after it has been sent	

GENERAL CONDITIONS OF CONTRACT

In this document words in the singular also mean in the plural and vice versa, words in the masculine mean in the feminine and neuter, words "department" means organs of state inclusive of public entities and vice versa, and the words "will/should" mean "must".

The National Research Foundation cannot amend the National Treasury's General Conditions of Contract (GCC). The National Research Foundation compiles separate Special Conditions of Contract (SCC) relevant to this bid where applicable supplementing the General Conditions of Contract. Where there is conflict, the provisions of the Special Conditions of Contract shall prevail.

1.1 Closing time* means the date and hour specified in the bidding documents for the receipt of bids. 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein. 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations. 1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procuremen process or in contract execution. 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its product internationally. 1.6 "Country of origin" means the place where the goods were mined, grown, or produced, or from which the services are supplied. Goods produced when through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components. 1.7 "Delivery' means delivery in compliance of the conditions of the contract or order. 1.8 "Delivery' means delivery in compliance of the conditions of the contract or order. 1.9 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance will the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt in obtained. 1.11 "Dumping" occurs when a private enterprise abroad markets its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the poletnial to harm the local industries in the RSA. 1.12 "Force majeure" means an event beyond the control of the supplier and nof		Definitions of Contract shall prevail.
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GCC2	Application
2.1	These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and
2.1	the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
2.2	Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
2.3	Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.
GCC 3	General
3.1	Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
3.2	With certain exceptions (National Treasury's eTender website), invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za
GCC 4	Standards
4.1	The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.
GCC 5	Use of contract documents and information
5.1	The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure made to any such employed person is in confidence and shall extend only as far as may be necessary for purposes of such performance.
5.2	The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
5.3	Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
5.4	The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.
GCC6	Patent rights
6.1	The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
GCC7	Performance security
7.1	Within thirty days (30) of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
7.2	The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
7.3	The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
	7.3.1 bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
	7.3.2 cashier's or certified cheque.
7.4	The performance security will be discharged by the purchaser and returned to the supplier within thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.
GCC8	Inspections, tests and analyses
8.1	All pre-bidding testing will be for the account of the bidder.
8.2	If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the purchaser or an organization acting on behalf of the purchaser.
8.3	If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period, it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
8.4	If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
8.5	Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the supplier shall defray the cost in connection with these inspections, tests, or analyses.
8.6	Supplies and services referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
8.7	Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies are held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies, which do comply with the requirements of the contract. Failing such removal, the rejected supplies shall be

	returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplie further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
8.8	The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract because of a breach of the conditions thereor or to act in terms of Clause 23 of GCC.
GCC9	Packing
9.1	The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, a indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt, and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
9.2	The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressl provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.
GCC10	Delivery and Documentation
10.1	Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other document to be furnished by the supplier are specified in SCC.
10.2	Documents submitted by the supplier specified in SCC.
GCC11	Insurance
11.1	The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture of acquisition, transportation, storage and delivery.
GCC12	Transportation
12.1	Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.
GCC13	Incidental services
13.1	The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
	13.1.1 Performance or supervision of on-site assembly and/or commissioning of the supplied goods;
	13.1.2 Furnishing of tools required for assembly and/or maintenance of the supplied goods;
	13.1.3 Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
	13.1.4 Performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that the
	service shall not relieve the supplier of any warranty obligations under this contract; and
	13.1.5 Training of the purchaser's personnel, at the supplier's plant and/or on-site, conducted in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
13.2	Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the partie and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.
GCC14	Spare parts
14.1	As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare par manufactured or distributed by the supplier:
	14.1.1 Such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of an warranty obligations under the contract; and
	14.1.2 In the event of termination of production of the spare parts:
	14.1.2.1 Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirement and
	14.1.2.1 Following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested
GCC15	Warranty
15.1	The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models and those they incorporate a recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under the contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
15.2	This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepte at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
15.3	The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
15.4	Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective good or parts thereof, without costs to the purchaser.
15.5	If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedia action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.
	supplier under the contract.

GCC16	Payment
16.1	The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
16.2	The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
16.3	Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
16.4	Payment will be made in Rand unless otherwise stipulated in SCC.
GCC17	Prices
17.1	Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.
SCC	No additional special conditions other than stated in the price section in this document.
GCC18	Contract amendment
18.1	No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.
GCC19	Assignment
19.1	The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.
GCC20	Subcontract
20.1	The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.
GCC21	Delays in supplier's performance
21.1	Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
21.2	If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration, and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
21.3	No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
21.4	The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
21.5	Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
21.6	Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.
GCC22	Penalties
22.1	Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.
GCC23	Termination for default
23.1	The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
	23.1.1 If the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
	23.1.2 If the supplier fails to perform any other obligation(s) under the contract; or
	23.1.3 If the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
23.2	In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
23.3	Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
23.4	If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

23.5	Any restriction imposed on any person by the Accounting Authority will, at the discretion of the Accounting Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Authority actively associated.
23.6	If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
	23.6.1 the name and address of the supplier and / or person restricted by the purchaser;
	23.6.2 the date of commencement of the restriction
	23.6.3 the period of restriction; and
	23.6.4 the reasons for the restriction.
	These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.
23.7	If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than ten (10) years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to Section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.
GCC24	Anti-dumping and countervailing duties and rights
24.1	When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other amount which may be due to him.
GCC25	Force Majeure
25.1	Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
25.2	If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event
GCC26	Termination for insolvency
26.1	The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.
GCC27	Settlement of disputes
27.1	If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
27.2	If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
27.3	Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
27.4	Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
27.5	Notwithstanding any reference to mediation and/or court proceedings herein,
	27.5.1 the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
	27.5.2 the purchaser shall pay the supplier any monies due the supplier.
GCC28	Limitation of liability
28.1	Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;
	28.1.1 the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
	28.1.2 the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.
GCC29	Governing language
29.1	The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

GCC30	Applicable law
30.1	The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.
GCC31	Notices
31.1	Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
31.2	The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.
GCC32	Taxes and duties
32.1	A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
32.2	A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
32.3	No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid, the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services
SCC	No special condition applicable, unless specified elsewhere in this document.
GCC33	National Industrial Participation Programme
33.1	The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.
SCC	No special condition applicable, unless specified elsewhere in this document.
GCC34	Prohibition of restrictive practices
34.1	In terms of Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is/are or a contractor(s) was/were involved in collusive bidding (or bid rigging).
34.2	If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has/have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.
34.3	If a bidder(s) or contractor(s), has/have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and/or terminate the contract in whole or part, and/or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and/or claim damages from the bidder(s) or contractor(s) concerned.

THE BID SELECTION PROCESS

This bid will be evaluated in three stages as follows:

STAGE 1: SUBMISSION OF RETURNABLE DOCUMENTS AND SCHEDULES

Bids will be evaluated for compliance with the procedural requirements of the bid, which entails the completion and/or submission of the returnable documents and schedules specified in the Returnable Documents and Schedules Checklist in page 30 below.

Failure to comply with the mandatory requirements in this stage may result in bid disqualification. However, SAIAB may apply the discretion to allow bidders to complete and/or sign returnable schedules not completed and/or signed in the first instance or to submit returnable documents not submitted in the first instance. Such returnable schedules or documents must be of a purely administrative nature (such as SBD forms or B-BBEE certificate), and may not pertain to the substance of the bid such as to affect the competitive position of bidders by giving one or more bidders a second and unfair opportunity to augment the quality (substantive) aspects of their bid. No award will be done without complete provision of returnable documents and schedules.

STAGE 2: TECHNICAL EVALUATION

Each bid will be evaluated against the technical/quality criteria outlined in pages 31 - 44 below.

Bids which fail to meet the requirements of Stage 2 will be disqualified and not evaluated further in Stage 3.

STAGE 3: PRICE AND PREFERENCE POINTS SCORING

Bid price proposals are compared on an equal and fair basis, considering all aspects of the bid pricing requirements. Qualifying bids are ranked on price and preference points claimed in the following manner:

- (i) **Price** with the lowest priced bid receiving the highest price score as set out in the Preferential Procurement Regulations 2022;
- (ii) **Preference** preference points as claimed in the preference claim form (SBD 6.1) supported by a valid B-BBEE certificate or sworn affidavit, in the case of EMEs and QSEs, are added to the price ranking scores.

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STAGE 1 – SUBMISSION OF RETURNABLE DOCUMENTS AND SCHEDULES

All mandatory criteria need to be complied with to move on to the next stage of evaluation. All SBD forms indicated as mandatory must be completed and signed by bidders failing which, a bid submission may be disqualified for non-compliance. SAIAB may apply the discretion to allow bidders to complete and/or sign returnable schedules not completed and/or signed in the first instance or to submit returnable documents not submitted in the first instance. Such returnable schedules or documents must be of a purely administrative nature (e.g. SBD forms, B-BBEE certificate), and may not pertain to the substance of the bid such as to affect the competitive position of bidders by giving one or more bidders a second and unfair opportunity to augment the quality (substantive) aspects of their bid.

Document description	Weight	Criteria (All criteria are weighted equally to each other)	Assess ment Methodo logy	Bid Section Reference	SCM Verification
SBD 1 Form (Invitation to Bid)	Mandatory	Has the bidder completed and signed the SBD 1 Invitation to Bid form?	Yes/No	Page 52	
SBD 3.1 Form (Pricing Schedule) – submitted in a separate electronic folder	Mandatory	Submitted in a separate electronic folder	Yes/No	Page 50	
SBD 4 Form	ure) Mandatory	Has the bidder completed and signed the SBD 4 form?			
(Bidder's Disclosure)		Has the bidder disclosed any conflict of interest which would preclude it from responding to this bid?	Yes/No	Page 55	
SBD 6.1 Form (Preferential Points Claimed)	Mandatory	Is the bidder claiming price preference points? Has the bidder completed and signed the SBD 6.1 form? Are these supported by BBBEE verification documents	Yes/No	Page 57	

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STAGE 2 – TECHNICAL EVALUATION

<u>NOTE</u>: Bidders must carefully review the evaluation criteria and instructions below and ensure that they understand what information is required, including all documentation that is required to be submitted in this stage of evaluation. No second opportunity will be given to submit documentation not submitted, except in the case where there is no competition (i.e. one bid is received) and therefore no prejudice will accrue to any other bidder.

Bidders must meet all mandatory requirements below (i.e. requirements marked as 'Mandatory') in order pass this stage of evaluation and move on to the next stage of evaluation.

Evaluation Criteria	Evidence required	Page Reference	Weight	Assessment Methodology
Meets technical specification	Full technical specification documents for all components to be provided including completed technical compliance		Mandatory	Go / No Go
The bidder must demonstrate that the proposed multibeam echosounder system is appropriate for use in challenging open ocean, shallow to deep water settings.	The bidder must supply supporting documents that the multibeam echosounder system have been used (collected good data) in open oven conditions (case study, project reports, test reports, or similar)		Mandatory	Go / No Go
The bidder must demonstrate a usable swath collected at 800 to 1000 metres (i.e., 400+ m swath at 800 m depth).	The bidder must supply documents supporting a minimum swath width of 400 m ad 800 m depth. (supporting data/reports must be provided from previous projects/use cases).		Mandatory	Go / No Go
The bidder must demonstrate that the inertial navigation system is suitable for shallow (10 m) to deep water (800 m+) use in the open ocean.	The bidder must supply supporting documents that the inertial navigation system has been used (collected good data) in open oven conditions (case study, project reports, test reports, or similar) (supporting data/reports must be provided from previous projects/use cases).		Mandatory	Go / No Go
Authorised distributor/reseller of OEM	OEM letter as distributor/reseller to be provided		Mandatory	Go / No Go
Supplier has provided hydrographic survey and multibeam echosounder training in South Africa.	Documents in support to be provided		Mandatory	Go / No Go

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Supplier has been Hydrographic Survey operations, sales and servicing business for >10 years	Supplier Company registration documents to be provided. Bidder to provide a portfolio demonstrating Hydrographic Survey operations, sales and servicing business for >10 years		Mandatory	Go / No Go
OEM has been Hydrographic Survey operations, sales and servicing business for >10 years	OEM Company registration documents to be provided. In addition, provide proof OEM portfolio demonstrating Hydrographic Survey operations, sales and servicing business for >10 years		Mandatory	Go / No Go
OEM has been Hydrographic Survey operations, sales and servicing business for >10 years	Portfolio to be provided		Mandatory	Go / No Go
Guarantee of spare parts for components over a duration of 10 years	Guarantee letter form OEM to be provided that all supplier components will receive OEM support for at least 10 years. i.e., components will not become redundant and no longer supported for 10 years from installation.		Mandatory	Go / No Go
Two (2) written references, with contact details for those customers for whom the bidder has completed work within the last sixty months (preferably last thirty-six months) that meets the minimum threshold of "Meets requirements." e.g., supply, installation, dimension control and calibration of hydrographic Survey systems	Has the bidder submitted two reference letters from clients relevant to this bid? Do all reference letters indicate that the services provided meet requirement?	61	Mandatory	Go / No Go
Two (2) written review letters from users of similar Multibeam Echosounder systems (same make and model as the one proposed in this bid), with contact details for those customers for whom the OEM has supplied within the last sixty months (preferably last thirty-six months) that meets the minimum threshold of	Has the bidder submitted two review letters from users relevant to this bid? Do all review letters indicate that the multibeam echosounder is suitable for shallow to deep water operations (800 to 1000 m)?	62	Mandatory	Go / No Go

"Meets requirements."				
Two (2) written review letters from users of similar Inertial Navigation Systems (same make and model as the one proposed in this bid), with contact details for those customers for whom the OEM has supplied within the last sixty months (preferably last thirty-six months) that meets the minimum threshold of "Meets requirements."	Has the bidder submitted two review letters from users relevant to this bid? Do all review letters indicate that the Inertial Navigation System is suitable for shallow to deep water operations (800 to 1000 m)?	63	Mandatory	Go / No Go
Selectable Frequencies: From 80kHz to 500kHz with selectable "low frequency" and "high frequency" options. "Low frequency": Selectable 80kHz - 90kHz and 100kHz – 120 kHz. "High frequency": range of 170kHz - 500kHz	Supply OEM technical documents which confirm the required specification is met.		Mandatory	Go / No Go
Beamwidth: No more than 0.50° x 0.50° at 450kHz No more than 1.5° x 1.5° at 200kHz No more than 2° x 2° at 90kHz & 100kHz	Supply OEM technical documents which confirm the required specification is met.		Mandatory	Go / No Go
Number of Soundings per Ping: At least 1024 Soundings per Ping	Supply OEM technical documents which confirm the required specification is met.		Mandatory	Go / No Go
User-Selectable Swath Sector in Real-Time: 10° to 160°	Supply OEM technical documents which confirm the required specification is met.		Mandatory	Go / No Go

Weight (in air) Less than 40 kg (total multibeam echosounder unit Rx and Tx mass) as fitted to an "over-the-side" pole mount.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Sounding Depth Operational depth range of at least 10 m to >800 m and a minimum swath width of 400+ m at 800 m depth.	 Supply OEM technical documents confirming operational range (which must be from at least 10 m to 800 m). Supply data examples of 400+ m swath at 800 m depth. 	Mandatory	Go / No Go
Dimensions Receiver: ≤ 500 x 110 x 200 (mm) as fitted to an "over-the-side" pole mount	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Dimensions Projector: ≤ 500 x 110 x 200 (mm) as fitted to an "over-the-side" pole mount	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Acquisition speed during operation: Can collect data at up to10 knots speed over ground of the vessel.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Near Field Focusing	Supply OEM technical documents which confirm the required specification is met (Near Field Focusing supported).	Mandatory	Go / No Go
Roll stabilized beams	Supply OEM technical documents which confirm the required specification is met (beams are roll stabilized).	Mandatory	Go / No Go
Pitch stabilized beams	Supply OEM technical documents which confirm the required specification is met (beams are pitch stabilized).	Mandatory	Go / No Go

Automated Operation Automated operation for power, pulse width, range, gates, slope settings	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Sounding Patterns Minimum user selectable options must include: • Equiangular, • Equidistant, • Ultra High Density	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Pulse Length 15µs - 2ms (user selectable)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Pulse Type Shaped continuous wave	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Ping rate up to 60Hz	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Bandwidth up to 60Hz	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Sonar Immersion Depth Minimum of 100 m (sea water)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Bottom Detect Resolution 20 mm or less.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Operating Temperature Standard: between -10°C to 50°C	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go

Mains Power to multibeam echosounder Topside unit 90-260VAC, 45-65Hz	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
System power consumption Average less than 120W	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Uplink/downlink 0/100/1000 Base-T Ethernet	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Sync in, Sync out TTL	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Deck cable length 15 m (top side to wet end)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Mounting Frame, Fairing & Hardware Kit: Must be supplied with OEM mounting frame, fairing and hardware kit for transmit and receive transducers on an over-the-side pole including mount for proposed SV probe and inertial measurement unit	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Mounting hardware to existing over-the-side pole: OEM mounting frame must fit onto the existing over-the-side pole with a standard four inch, four-hole plate. I.e., offset adapter to be supplied with initial purchase.	Technical drawing supplied showing offset adapter solution to fit existing four hole, four inch pole plate, with documented evidence of previous pole mounts supplied by the bidder	Mandatory	Go / No Go

Must be supplied with a fully platform compatible online sound velocity sensor including 15 m cable as per specification below.	Provide confirmation from OEM that the online sound velocity sensor/probe is compatible with the system as a whole (i.e., document confirming compatibility).	Mandatory	Go / No Go
Multispectral Backscatter Must be able to collect, output multispectral Backscatter data (e.g., multiple frequencies in one single pass	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Multifrequency Bathymetry Acquisition. Must be able to collect, output multispectral Bathyetry data (e.g., multiple frequencies in one single pass).	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Navigation System Topside unit IP rating: IP67 (rugged) or better	. Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Navigation System Internal GNSS receiver. Must have GPS and GLONAS receive capabilities, L1/L2/L5 and RTK positioning.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Navigation System: Processing. Contained in Topside unit (i.e., not housed in the inertial measurement unit).	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Navigation System GNSS receiver support. Must support Precise Point Positioning services (e.g., Marinestar, or, TerraStar, Veripos, or, OmniSTAR, or equivalent).	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go

Inertial Navigation System Mode/quality indicators lights. Topside unit must have mode/quality indicator lights.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Navigation System Power supply. Must run on DC power (9 to 36 VDC).	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Navigation System Tough Case for transport of all INS components (e.g., Pelican Case or equivalent).	Bidder to provide documents showing transport case solution that will be provided.	Mandatory	Go / No Go
Inertial Navigation System Precise Time Protocol (PTP) & Network Time Protocol (NTP)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Measurement Unit (IMU) IMU housing made of titanium.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Measurement Unit (IMU) IMU Depth Rating of 200 m minimum.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Inertial Measurement Unit (IMU) Environment: Subsea installation.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software: Roll & Pitch Accuracy of 0.008° or less (RTK, 0 s outage)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software: Roll & Pitch Accuracy of 0.005° or less (PPK, 0 s outage)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go

IMU System accuracy and software: RTK-based heading accuracy of 0.025° or less (Dual antenna, 4m baseline, 0 s outage)	Supply OEM technical documents which confirm the required specification is met. Supply OEM technical documents which	Mandatory	Go / No Go
IMU System accuracy and software: PPK-based heading accuracy of 0.025° or less (Dual antenna, 4m baseline, 0 s outage)	confirm the required specification is met.	Mundatory	SO / NO SO
IMU System accuracy and software: Altitude (Z) accuracy of 2 cm or less (with GNSS receiver RTK, 0 s outage)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software: Position accuracy (X,Y) of 1 cm (with GNSS receiver RTK, 0 s outage)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software Internal Data Logger: > 6GB, 48 hours (minimum recording space for post-processing data)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software Calibration: Maintenance free/remote calibration (i.e., does not require annual return to OEM for maintenance/calibration)	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software: Real-time Heave accuracy of 5 cm or less.	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go

IMU System accuracy and	Supply OEM technical documents which	Mandatory	Go / No Go
software: Delayed Heave accuracy of 2 cm or less.	confirm the required specification is met		
IMU System accuracy and software INS/GNSS Post-processing software: Must be in-house developed by the OEM with on-going support and development	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software Post-processing solutions: Capable of off-line RTK and PPK/PPP solutions	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
IMU System accuracy and software Virtual base stations: Must enable virtual base station solutions	Supply OEM technical documents which confirm the required specification is met.	Mandatory	Go / No Go
Online Sound Velocity Sensor: Compatibility: Compatible with supplied Multibeam Echosounder system	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Sound Velocity Range of 1375 – 1900 m/s	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Resolution of 0.001 m/s	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Sample Rate of 1Hz to 60Hz, Selectable based on configuration	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go

Online Sound Velocity Sensor: Housing Material is Titanium.	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Cable length is 15 m.	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Sensor Legs are carbon composite	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Weight is 1kg or less in air.	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Transducer Window is Polycarbonate	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Must be supplied with control and configuration software	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Sound Velocity Accuracy of ±0.020m/s or less.	Supply OEM technical documents which confirm the required specification is met ±0.020m/s or less.	Mandatory	Go / No Go
Online Sound Velocity Sensor: Sound velocity format: User selectable: mm/s, m/s to 3 decimal places, m/s to 2 decimal places.	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go
Online Sound Velocity Sensor: Baud Rate of 2400 – 115200	Supply OEM technical documents which confirm the required specification is met	Mandatory	Go / No Go

	Online Sound Velocity	Supply OEM technical documents which	Mandatory	Go / No Go	
	Sensor: Protocol 8 data	confirm the required specification is met			
	bits, 1 stop bit, No parity,				
	No flow control				
L					

BIDDER IS ABLE TO DELIVER THE SPECIFICATION?	YES - PASS TO PRICING	NO – DISQUALIFIED

STAGE 3 - PRICE AND PREFERENCE POINTS SCORING

Bids which meet the minimum requirements in Stage 2, will be evaluated on price and B-BBEE status level (Stage 3) as follows -

CRITERIA	POINTS
PRICE	80
SPECIFIC GOALS (B-BBEE STATUS LEVEL OF CONTRIBUTION)	20
TOTAL POINTS FOR PRICE AND B-BBEE MUST NOT EXCEED	100

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PART A.1 – BID PREPARATION

BIDDING INSTRUCTIONS

Bidders are urged to carefully study these bidding instructions, as well as all corresponding instructions pertaining to the bid evaluation criteria, scope of works, pricing and returnable, contained in this bid document. Failure to comply with these instructions will be at the bidder's risk, and may affect the evaluation of its bid.

1.	Late bids
	Bids received after the closing time and/or date shall not be considered.
2.	Authority of bid signatory
	The bid must be signed by a person duly authorised to do so.
3.	Clarification of the bid
3.1	A bidder requiring any clarification of the bid documents may direct the request for clarification in writing, to the SAIAB representatives listed on the cover page of this bid document.
3.2	A response will be provided by SAIAB in writing. The response (including an explanation of the query, but without identifying the source of the query) will be sent to all prospective, identifiable bidders.
3.3	The last date for the submission of requests for clarification is 2 nd February 2023.
4.	Bid preparation costs
	Bidders will be responsible for all costs associated with the preparation and submissions of their bids.
5.	Tender Briefing Session
5.1	Bidder will be required to attend the online tender briefing session.
6.	Counter proposals
	No counter proposals will be accepted.
7.	Alterations to the bid document
	Bidders may not make any alterations or additions to the content of this bid document, except to comply with the instructions issued by SAIAB, i.e. the completion of the schedules indicated as mandatory for completion. Any alterations made to the content of this bid document other than those mandated by SAIAB will result in the invalidation of a bidder's submission.
8.	Submitting a tender offer
8.1	Bidders may submit one tender offer only, either as a single tendering entity or as a member of a joint venture or consortium, unless otherwise stated in this bid document.
8.2	Each party to a joint venture or consortium must individually complete and submit the SBD returnable schedules included in this bid document.
8.3	Bidders must return all returnable documents and schedules after completing them in their entirety, preferably electronically, or by writing legibly in non-erasable ink. The bid document must be submitted in its entirety.
10.	Clarification of bidder's tender offer after submission
10.1	Bidders may be required by SAIAB, to provide clarification or additional details of their tender offer during the bid evaluation or adjudication stages. This may include providing a breakdown of rates or prices, or correction of arithmetical errors by the adjustment of certain rates or item prices (or both).
10.2	No change in the competitive position of bidders or substance of the tender offer may be sought, offered, or

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	permitted.
11.	Two envelope system
11.1	SAIAB utilises the two-envelope system to minimise any form of price bias in the technical evaluation phase.
11.2	All responses must be submitted in two electronic folders; the first folder shall contain the technical, and compliance response and the second shall contain only the pricing response.
11.3	Bidders must ensure that they do not include any pricing details in the first folder, as SAIAB reserves the right to disqualify such bids.
11.4	Bidders are required to package their bid as follows:
	Folder 1: Compliance and Technical Response
	Folder 2: Pricing Response
12.	Central Supplier Database registration
	Bidders must be registered on the National Treasury Central Supplier Database ('CSD') in order to be recommended for the award of this bid, and must provide their CSD supplier number in their bid submission.
13.	Tax compliance status
13.1	Bidders must ensure that their tax matters are in order. No award will be made to any bidder whose tax matters have not been declared to be in order by the South African Revenue Services (SARS).
13.2	Each party to a joint venture, consortium or partnership must comply with the above requirement.
13.3	In the event that the bidder's tax matters are shown not be in order, and the bidder fails to ensure that its tax matters are in order within such timeframe as may be granted by SAIAB in writing, no award will be made.
14.	<u>Invalid bids</u>
	Tenders shall be invalid if –
14.1	In a two-envelope system, a bidder fails to submit both a technical proposal and a separate financial offer.
14.2	The bidder has been listed on the National Treasury's Register for Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, or has been listed on the National Treasury's List of Restricted Suppliers and who is therefore prohibited from doing business with the public sector.
14.3	The bidder has been restricted from doing business with any Organ of state.
15.	Price negotiations prior to award
15.1	The award of this bid may be subject to price negotiations with the preferred bidder or bidders, where there are opportunities for realising cost savings, or where bid prices are not market related.
15.2	SAIAB reserves the right to reject overpriced or under-priced bids outside the identified price range for the bid.
16.	SAIAB's right to vary requirements at time of award
	SAIAB reserves the right, at the time of making the award, to decrease the quantity of goods specified in the pricing schedule without any change to the unit price(s), or the terms and conditions of the bid, provided that the items to be decreased were specified in the bid document to be optional, or to be quoted on for indicative purposes.
17.	Cancellation of the bid prior to award
	SAIAB reserves the right to cancel this bid at any time before award, where -
17.1	Due to changed circumstances there is no longer a need for the services specified in this bid.
17.2	Funds are no longer available to cover the total envisaged expenditure for the project.
17.3	No bids meet the required specifications.
	<u> </u>

17.4	There is a material irregularity in the bid process.
18.	Bid award
18.1	The bid will be awarded after approval by the NRF's Delegated Authority, to the bidder with the highest combined score for Price and B-BBEE status level, unless other objective criteria, specified in the bid document, applies.
	Due diligence may be carried out on the recommended bidder, as such the recommended bidder may be required to submit at least three client references from clients to whom similar services have been provided.
18.3	Reference letters must be completed in the template provided in this bid document or in the same format, and must indicate that expectations were met.
18.4	The award will be subject to final verification of the bidder's tax compliance status.
19.	Collusion, fraud and corruption
	Any effort by the bidder to influence evaluation, comparisons, or award decisions in any manner will result in the rejection and disqualification of the bidder concerned.
20.	<u>Fronting</u>
20.1	SAIAB supports Government's Broad-based Black Economic Empowerment (B-BBEE) initiatives, recognising that real empowerment is achieved by individuals and businesses conducting themselves in accordance with the Constitution and in an honest, fair, equitable, transparent, and legally compliant manner. Therefore, SAIAB condemns any form of fronting.
20.2	SAIAB's evaluation committees may conduct or initiate investigations to determine the accuracy of bidders' B-BBEE representations.
20.3	Should SAIAB have reasonable grounds to suspect any form of fronting, the bidder in question will be notified and given 7 days from the date of notification to provide evidence refuting the finding of fronting.
20.4	Should the bidder be unable to refute the finding to the satisfaction of SAIAB, SAIAB reserves the right to reject the bid submitted by the bidder or cancel any contracts entered into with the bidder, and apply to National Treasury to restrict for the bidder to be restricted from conducting business with the public sector for a period not exceeding 10 years, and exercise any other remedies SAIAB may have against such a bidder.
21.	<u>Disclaimers</u>
	SAIAB has produced this document in good faith. The NRF, its agents, and its employees and associates do not warrant its accuracy or completeness; make no representation, warranty, assurance, guarantee or endorsements to any third parties concerning the document. SAIAB has no liability towards the bidders in connection therewith.
22.	General definitions
22.1	"B-BBEE" means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act.
22.2	"B-BBEE status level of contributor" means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act.
22.3	"Bid" means a written offer in a prescribed or stipulated form in response to an invitation by the National Research Foundation for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals.
22.4	"Broad-Based Black Economic Empowerment Act" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003).
22.5	"Contract" means the entire bid document inclusive of scope of work, specification, price conditions, price quote table, service delivery conditions, performance conditions with their key performance indicators, and general

	conditions when attached to the Standard Bidding Document 7 (SBD 7) which has been signed by the awarded bidder and the National Research Foundation.
22.6	"EME" means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act.
22.7	"Functionality" means the ability of a bidder to provide goods and\or services in accordance with specifications as set out in these bid documents.
22.8	 "Proof of B-BBEE status level of contributor" means: B-BBEE Status level certificate issued by an authorized body or person; A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; Any other requirement prescribed by the B-BBEE Act.
22.9	"QSE" means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act.
22.10	"Equipment" means the operational unit including spares, replacement components, consumables, subsystems, firmware and software that delivers the specified output.
22.11	"NRF" means the National Research Foundation and it is used interchangeably with its business units managing the contract being SAIAB.

PART B.1 - PRICING

	PRICING INSTRUCTIONS				
1.	Applicable currency: All prices shall be quoted in South African Rand.				
2.	Completion of pricing schedule: Bidders shall complete the pricing schedule in full, inserting all the information required therein, namely, the cost of hardware labour, maintenance and data connectivity.				
	In addition to the pricing schedule in this bid document, bidders may prepare a more detailed pricing schedule should they wish to do so, and include this in their pricing proposal, provided that such additional pricing schedule is in line with the deliverables on the SAIAB issued pricing schedule.				
3.	Price Quotation Basis : prices quoted must be inclusive of all applicable taxes including VAT , less all unconditional discounts, plus all costs to deliver the services and/or goods. Where imported goods/services are to be used, and pricing is subject to exchange rate fluctuations, the exchange currency against the Rand must be stipulated, as well as the exchange rate at the time of bidding. The portion of the bid price subject to exchange rate fluctuations must be stated.				
4.	Submission of pricing: bidders must submit their pricing proposals in a password protected, unzipped electronic folder. The password must be emailed to bids@saiab.nrf.ac.za. The pricing folder must be clearly labelled as such. (See Annexure III: Electronic Bid Submission – Guideline for Bidders)				

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BID PRICE SCHEDULE (SBD 3.1) (Submit pricing in separate password protected, unzipped electronic folder)

SBD 3.1 PRICING SCHEDULE

	QTY	DESCRIPTION	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
Year	1				
1	1	Multibeam echosounder (including installation and commissioning)	each		
2	1	INS system (including installation and commissioning)	each		
3	1	Sound Velocity Sensor (at sonar)	each		
4	1	Spare sonar cable	each		
5	1	Spare antenna cable (set of two)	each		
6	1	Spare IMU cable	each		
7	1	Spare sound velocity sensor (surface) cable	each		
8	1	3-day Training course on site (relevant training for use)	each		
9		INS system / post-processing software (incl 5-years MP)	Full course Per person		
Year	2		•	1	
13	1	Annual routine service/calibration of sound velocity sensor - 1 year (incl. labour, shipping)	Full service		
14	1	Labour cost (unforeseen maintenance)	10 hrs		
15	1	On-site maintenance, repairs, upgrades, technical support, dimension control survey (including on-site support by technicians if required) as required	Provisional s	um	R100,000.00
16	1	Training course (relevant training for hydrographic surveying)	Per person		
Year	3				
17	1	Annual routine service/calibration of sound velocity sensor - 2 year (incl. labour, shipping)	Full service		
18	1	Labour cost (unforeseen maintenance)	10 hrs		
19	1	On-site maintenance, repairs, upgrades, technical support, dimension control survey (including on-site support by technicians if required) as required	Provisional s	um	R100,000.00
20	1	Training course (relevant training for hydrographic surveying)	Per person		

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	QTY	DESCRIPTION	UNIT OF MEASURE	UNIT PRI	CE	TOTAL PRICE Incl. VAT	
Year 4	4						
21	1	Annual routine service/calibration of sound velocity sensor - 3 year (incl. labour, shipping)	Full service				
22	1	Labour cost (unforeseen maintenance)	10 hrs				
23	1	On-site maintenance, repairs, upgrades, technical support, dimension control survey (including on-site support by technicians if required) as required	Provisional sum R1			R100,000.00	
24		Training course (relevant training for hydrographic surveying)	Per person				
Year	5						
25	1	Annual routine service/calibration of sound velocity sensor - 4 year (incl. labour, shipping)	Full service				
26	1	Labour cost (unforeseen maintenance)	10 hrs				
27	1	On-site maintenance, repairs, upgrades, technical support, dimension control survey (including on-site support by technicians if required) as required	Provisional sum			R100,000.00	
28	1	Training course (relevant training for hydrographic surveying)	Per person				
TOTA	TOTAL CONTRACT VALUE OF ABOVE (CEILING PRICE) Incl VAT					R	
Excha	Exchange rate used at time of pricing schedule if applicable						
The p	The portion of the bid price subject to exchange rate fluctuations						

PART C - RETURNABLE SCHEDULES

INVIT	INVITATION TO BID (SBD 1)				
Bid number	NRF/SAIAB/51/2022-23				
Closing date and time	Thursday, 09 February 2023 at 11.00AM				
The NRF recognises the date and time as reco	orded on its systems for closure purposes.				
SUM	MMARY OF BID REQUIREMENTS				
a new and complete multibeam echoso velocity sensor and peripheral conne proposed system should comprise ful commission upon delivery. The service echosounder system and conduct all	The purpose of this bid invitation is to appoint a service provider to supply, deliver, install and commission a new and complete multibeam echosounder system (i.e., including the inertial navigation system, sound velocity sensor and peripheral connected devices/software as required) for research purposes. The proposed system should comprise fully compatible components and software, and ready to install and commission upon delivery. The service provider will be expected to provide a service plan for the multibeam echosounder system and conduct all routine maintenance and repairs and upgrades to the multibeam echosounder system including peripheral devices upon request by SAIAB.				
Bid submission method:	Electronic submissions must be sent to bids@saiab.nrf.ac.za . Bids must be submitted in two separate electronic folders, one with the pdf format technical response, and the second with the pdf format tendered financial offer with preference points where claimed. Technical submissions must be in searchable PDF format. The financial response must be password protected. Folders must be titled with the bidder's company name and folder title. Attachments are limited to 25 MB per email. Bidders are to send an email to bids@saiab.nrf.ac.za post submission with the password to their financial envelope. Receipt will be confirmed by SAIAB via email.				
Compulsory briefing session:	An online compulsory briefing session will be held. Date: 30 January 2023 at 11:00 AM Zoom link: https://zoom.us/j/94599341004?pwd=MDJzR3hlbUtWQTNIOGJEc3oz_Q1cvQT09				
Two envelope system	Yes				
Bid validity period from date of closure	Ninety (90) days				
SUPPLIER INFORMATION					
Name of Bidder					
Doctol Address					
r ostal Address	Postal Address				
Street Address					

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Telephone Number										
Code			Numb	er						
Cell Phon	e Number									
Code			Numb	er						
Facsimile	Number									
Code			Numb	er						
E-Mail Ad	dress									
VAT Regis	stration Num	ber								
Tax (`amplianaa	Tay Can	nlionos				Control Cumplior Dat	lahasa		
Status	Compliance	Tax Con System F			OF	R	Central Supplier Date No.	lavase	MAAA	
D DDEE 6	tatus Level	,		licable Box.	Р	DD	EE Status Level	Tick A	pplicable Box.	
	n Certificate	!	□Yes □				n Affidavit	□Yes □No		
					dovit /f	.	EMEs 8 OSEs) must			a gualifi.
				efer to the SBI		or I	EMEs & QSEs) must	De Sub	mittea in oraer t	o quality
-	<u>.</u>				Δr	e v	ou a foreign-based			
Are you th South Afri	e accredited	l represen	tative in	□Yes □No	⊃ su		lier for the		□Yes □No	
	vices/works	offered?		[If yes enclosed	y		s/services/works	[If yes	s, answer the que	stionnaire
gooda				proof]	off	ere	ed?		below]	
								1		_
Is the ent	ity a resident	of the Rep	ublic of So	outh Africa (RS	A)?				⊒Yes □No	
Does the	entity have a	branch in	the RSA?						⊒Yes □No	
	<u> </u>									\dashv
Does the	entity have a	permaner	it establish	ment in the RS	SA?				⊒Yes □No	
Does the	entity have a	ny source	of income	in the RSA?				[⊒Yes □No	
Is the ent	ity liable in th	e RSA for	any form o	f taxation?				Ţ	⊒Yes □No	
					uiremer	nt t	to register for a tax co			 pin code
	outh African F				100		io regional for a tark co			p 00 d.0
				BID SU	JBMIS	SI	ION			
1.	Bids must be	e delivered	by the stip	oulated time to	the corre	ect	address. Late bid will	not be a	ccepted for cons	ideration.
2.			· ·				rms provided - (not t			
	prescribed i			, , , , , ,			()		31 /	
3.							itions of contract perta			
							Conditions of Contract			
	the NRF and				e include	ea	in this document there	eby torn	ning the contract	petween
4.					nd sian	the	e contract signature fo	rm (SRI	D7) for this contr	
5.					ina sigit	a ic	o contract digitature it	וטט) ווויי	- , ioi tiilo toiltit	<u></u>
-										
4	TAX COMPLIANCE REQUIREMENTS									
1.	Bidders m	ust ensure	compliand	ce with their tax	c obligat	tior	is.			

2.	Where the bidder is registered on the Central Supplier Database (CSD), a CSD number must be provided
3.	Bidders are required to submit their unique personal identification number (PIN) issued by SARS to enable the organ of state to verify the taxpayer's profile and tax status. Application for tax compliance status (TCS) pin is made via e-filing through the SARS website www.sars.gov.za.
4.	Bidders may also submit a printed TCS certificate together with the bid, available via e-filing through the SARS website www.sars.gov.za.
5.	In bids where consortia/ joint ventures/ sub-contractors are involved; each party must submit a separate TCS certificate/PIN/CSD number.
6.	No bids will be considered from persons in the service of the state, companies with directors who are persons in the service of the state, or close corporations with members' persons in the service of the state.

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SBD 4 BIDDER'S DISCLOSURE

1.	PURPOSE	OF THE	FORM
1.	I DIN OUL	UI III	

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2.	BIDDER'S DECLARATION	

contract?

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state?

YES/NO

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2	Do you, or any person connected with the bidder, have a relationship with any person who is employed by t institution?	he procuring /ES/NO
2.2.1	If so, furnish particulars:	
2.3	Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having	a controlling

interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this

YES/NO

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¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

3	DECLARATION	
		in submitting the accompanying ving statements that I certify to be true and complete in every respect:
3.1 3.2	I have read and I understand t I understand that the accomp every respect;	he contents of this disclosure; anying bid will be disqualified if this disclosure is found not to be true and complete in
3.3	The bidder has arrived at the	ne accompanying bid independently from, and without consultation, communication, vith any competitor. However, communication between partners in a joint venture or used as cally size hidding.
3.4	In addition, there have been regarding the quality, quantity market allocation, the intention bid and conditions or delivery	no consultations, communications, agreements or arrangements with any competitor, specifications, prices, including methods, factors or formulas used to calculate prices, nor decision to submit or not to submit the bid, bidding with the intention not to win the particulars of the products or services to which this bid invitation relates. In particulars of the products or services to which this bid invitation relates. In particulars of the products or services to which this bid invitation relates.
3.4	. ,	nd time of the official bid opening or of the awarding of the contract.
3.5	of the procuring institution in provide clarification on the bid	ions, communications, agreements or arrangements made by the bidder with any official relation to this procurement process prior to and during the bidding process except to a submitted where so required by the institution; and the bidder was not involved in the r terms of reference for this bid.
3.6	related to bids and contracts, I and possible imposition of adr may be reported to the Natior conducting business with the	and without prejudice to any other remedy provided to combat any restrictive practices poids that are suspicious will be reported to the Competition Commission for investigation ministrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or nal Prosecuting Authority (NPA) for criminal investigation and or may be restricted from public sector for a period not exceeding ten (10) years in terms of the Prevention and a Act No 12 of 2004 or any other applicable legislation.
		MATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT. E MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF
	PFMA SCM INSTRUCTION 0	3 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN
	MANAGEMENT SYSTEM SH	OULD THIS DECLARATION PROVE TO BE FALSE.
	Signature	Date
	Position	Name of bidder

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 $^{^2}$ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
 - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2 The applicable preference point system for this tender is the 80/20 preference point system.
- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
 - (a) Price; and
 - (b) Specific Goals.
- 1.4 The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

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2. **DEFINITIONS**

- (a) "tender" means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) "price" means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) "tender for income-generating contracts" means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) "the Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

$$Ps = 80\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration
Pmin = Price of lowest acceptable tender

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4. POINTS AWARDED FOR SPECIFIC GOALS

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

Notes to tenderers: The tenderer must indicate how they claim points for each preference point system. The tenderer must submit Proof of B-BBEE status level of contributor.

B-BBEE Status Level of Contribution	Number of points allocated (80/20 system) (between R2 000 and R50 000 000)	Number of points claimed (80/20 system) (To be completed by the tenderer)
1	20	
2	18	
3	14	
4	12	
5	8	
6	6	
7	4	
8	2	
Non-compliant contributor	0	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.1.	Name of company/firm
4.2.	Company registration number:
4.3.	TYPE OF COMPANY/ FIRM
	□ Partnership/Joint Venture / Consortium
	□ One-person business/sole propriety
	□ Close corporation
	□ Public Company
	□ Personal Liability Company
	□ (Pty) Limited
	□ Non-Profit Company
	□ State Owned Company
	[TICK APPLICABLE BOX]

4.4. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the

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preference(s) shown and I acknowledge that:

- The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

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REFERENCE LETTER FORMAT Referee Letterhead (Copy and paste this reference letter onto referee company latter head) Referee Legal Name: **REFERENCE ON COMPANY: Bid Number:** NRF/SAIAB/51/2022-23 **Bid Description:** Describe the service/work the above bidder provide to you below Criteria / risks Below requirements Meets requirements Exceeds requirements Professionalism Completion times Satisfaction with work done Availability of spares Availability of technical support Technology up to date Management of costs Overall Impression Other comments Approximate value of contract Would you use the provider again? □YES □NO Completed by: Signature: **Company Name: Contact Telephone Number:** Contact email address: Date:

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REVIEW LETTER FORMAT

Reviewee Letterhead (Copy and paste this reference letter onto reviewee company letter head)

Reviewer Legal Name:				
REFERENCE ON COMPANY:				
Bid Number:	NRF	/SAIAB/51/2022-23		
Bid Description:	•			
Multibeam Echosounder (Make & r	nodel):			
Describe the type of work you carry	y out us	sing your multibeam ecl	hosounder:	
Your max depth of operation with the	his mul	tibeam echosounder sy	vstem:	
Describe the conditions in which yo etc.):	u have	used your multibeam e	chosounder system (cu	rrent, sea conditions,
Describe the vessel used to deploy	your n	nultibeam echosounder	system	
Criteria / risks		Below requirements	Meets requirements	Exceeds requirements
In your opinion, how suitable is multibeam echosounder system sounding in 800 m water depth?				
How would you rate the mult echosounder system for ease of us				
How would you rate the mult echosounder system for reliability	ibeam			
Availability of spares				
Availability of technical support				
Overall Impression				
Other comments				
Would you purchase this make and	d model	of multibeam echosou	inder again?	□YES □NO
Completed by:				
Signature:				
Company Name:				
Contact Telephone Number:				
Contact email address:				
Date:				

Bid Number: NRF/SAIAB/51/2022-23 Page 62 of 71

REVIEW LETTER FORMAT Reviewee Letterhead (Copy and paste this reference letter onto reviewee company letter head) **Reviewer Legal Name: REFERENCE ON COMPANY: Bid Number:** NRF/SAIAB/51/2022-23 **Bid Description:** Inertial navigation system (Make & model): Describe the type of work you carry out using your inertial navigation system: Your max depth of operation with this inertial navigation system (e.g., water depth of surveys): Describe the conditions in which you have used your inertial navigation system (RTK/Post-processed, sea conditions, etc.): Describe the vessel used to deploy your multibeam echosounder system Criteria / risks Exceeds **Below** Meets requirements requirements requirements In your opinion, how suitable is this inertial navigation system for multibeam bathymetry surveys in 800 m water depth? How would you rate the inertial navigation system for ease of use How would you rate the inertial navigation system for reliability Availability of spares Availability of technical support Overall Impression Other comments Would you purchase this make and model of inertial navigation system again? ☐ YES ☐ NO Completed by: Signature: **Company Name: Contact Telephone Number:** Contact email address: Date:

Bid Number: NRF/SAIAB/51/2022-23 Page 63 of 71

BID SIGNATURE (SBD 1)

I, the bidder, warrant by signature herein, that –

- (i) I have read and accepted each page in this document including any annexures attached to this document.
- (ii) I undertake to supply all the goods, works, and services described in this bid invitation to SAIAB in accordance with the requirements and specifications stipulated herein, at the prices quoted.
- (iii) I confirm that I have satisfied myself as to the correctness and validity of my offer/bid in response to this invitation, covering all my obligations and I accept that any mistakes regarding price(s), rate(s), and calculations are at my own risk.
- (iv) My offer remains binding upon me and open for acceptance by NRF Corporate during the validity period indicated and calculated from the closing time of bid invitation.
- (v) Should the tender be awarded to me, I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me in terms of this document as the principal liable for the due fulfilment of the subsequent contract conditions.
- (vi) During the bidding period I did not have access to any proprietary information of SAIAB or the NRF, or any other matter that may have unfairly placed our bid in a preferential position in relation to any of the other bidder(s).
- (vii) I confirm that I am duly authorised to sign this offer/ bid response.

NB: Failure to provide / or comply with any of the above particulars may render the bid invalid.
--

Signature of bidder:

Capacity under which this bid is signed (Proof of authority must be submitted e.g. company resolution)

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ANNEXURE III - ELECTRONIC BID SUBMISSION – GUIDELINE FOR BIDDERS

This document serves the purpose of providing the bidder with guidelines and prescripts on how to submit their bids to the NRF via e-mail.

Conditions for electronic submissions: This section does not apply to soft copies requested on manual submissions. It applies when email submissions are permitted. In circumstances where they are advisable, the business unit needs to ensure that they have appropriate controls and processes in place, such as:³

- Valid process of ensuring that bidder's electronic signatures complies with legislation such as The Electronic Communications and Transactions Act, 25 of 2002 (the ECT Act),
- System records exact time and date of submission in a manner that provides appropriate probity to stakeholders such as auditors,
- System to prevent unauthorised access and system to show if infringement,
- System of authorised persons to set / change dates for opening data received,
- System allows simultaneous communication,
- System of record-keeping meets legislative requirements such as The National Archives and Records Service of South Africa Act (Act. No. 43 of 1996, as amended).

Prescripts

- All files must be submitted in pdf format unless otherwise stated.
- Pricing submission (including any SBDs where bidder's price is quoted) must be password protected and submitted as a separate file.
- Two envelope system: All bidder's documents must be submitted to the email address specified on the NRF bid document and however the password to the password-protected pricing file must be submitted to a separate email stated in the email specified in the bid document.
- The NRF email size limit is 4MB, bidder must ensure that their submission is no bigger than this limit.
 - O Your files must be Zipped to ensure that your submission is in line with the email size limit
- Timeline for submitting password to NRF
 - The password for pricing file must **not** be submitted before the bid closes.
 - The password may be submitted 1 minute after bid closure and no later than 2 days post bid closure. Failure to submit within 2 days may lead to bid being unable to be evaluated thus rendering them unresponsive.
- The subject of your email quote verbatim the bid name in the exact words provided in the NRF bid document.

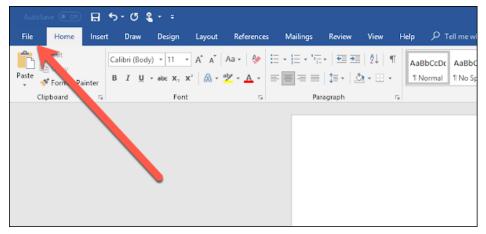
Guidelines

Converting to pdf

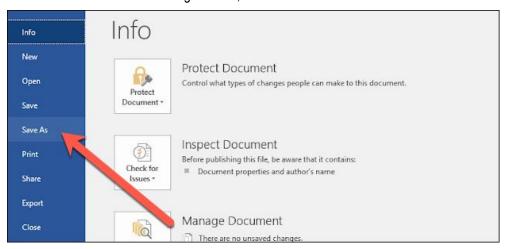
- If you have the desktop version of Microsoft Word, the easiest way to convert your document to PDF is right in Word itself.
- Open the document you want to convert, and then click the "File" tab.

-

³ SANS 10845-1 paragraph 4.7



On the backstage screen, select "Save As" from the list on the left.

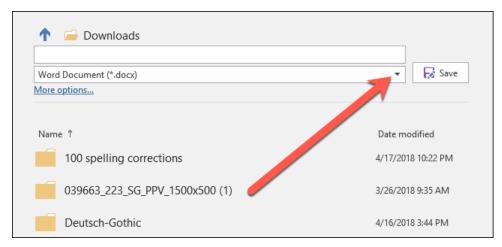


 On the Save As screen, select where you would like the PDF to be saved (OneDrive, This PC, a particular folder, or wherever).

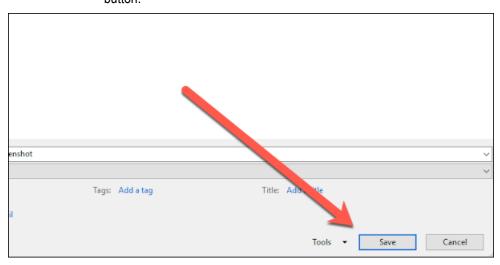


 Next, click the dropdown arrow on the right side of the "Save as type" box, and select "PDF (*.pdf)" from the dropdown menu.

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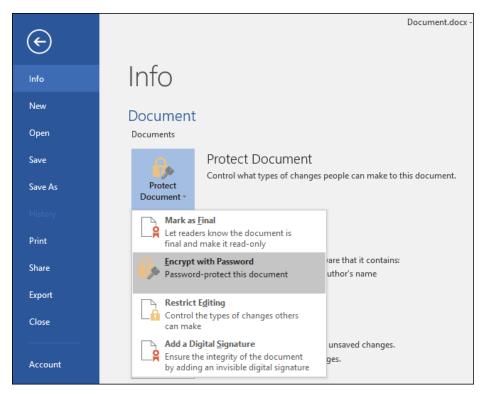
 If you want to, you can change the filename at this time. When you're ready, click the "Save" button.



 After saving the PDF, you'll be returned to your Word document, and the new PDF will open automatically in your default PDF viewer.

Password protecting files

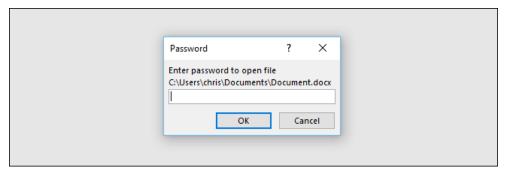
- To password protect an Office document, first open it in Word, Excel, PowerPoint, or Access. Click the "File" menu at the top-left corner of the screen. On the Info pane, click the "Protect Document" button and select "Encrypt with Password."
- The button is only named "Protect Document" in Microsoft Word, but it's named something similar in other apps. Look for "Protect Workbook" in Microsoft Excel and "Protect Presentation" in Microsoft PowerPoint. In Microsoft Access, you'll just see an "Encrypt with Password" button on the Info tab. The steps will otherwise work the same.
- NOTE: If you only want to restrict editing of the document, you can choose "Restrict Editing" here, but as we said, that is not very secure and can easily be bypassed. You're better off encrypting the entire document, if you can.



- Enter the password you want to encrypt the document with. You'll want to choose a good password here. Weak passwords can be easily guessed by cracking software if someone gains access to the document.
- Warning: You'll lose access to the document if you ever forget your password, so keep it safe! Microsoft advises you write down the name of the document and its password and keep it in a safe place.



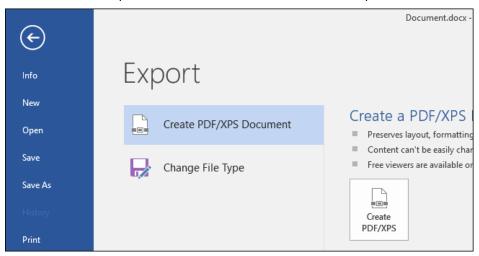
- When a document is encrypted, you'll see the "A password is required to open this document" message on the Info screen.
- The next time you open the document, you'll see an "Enter password to open file" box. If you
 don't enter the correct password, you won't be able to view the document at all.



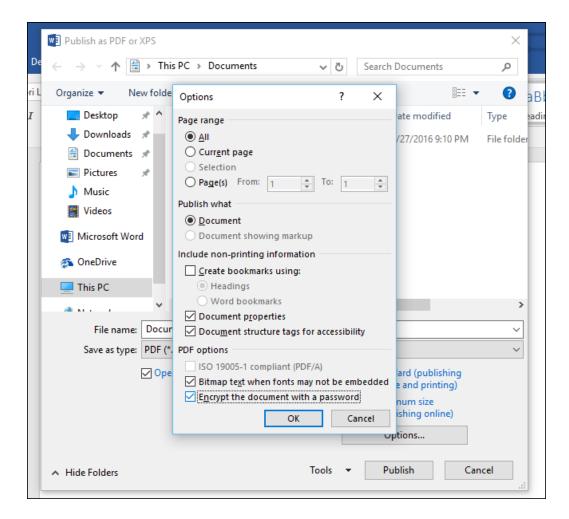
 To remove the password protection from a document, click the "Protect Document" button and select "Encrypt with Password" again. Enter a blank password and click "OK." Office will remove the password from the document.

How to Create a Password Protected PDF File

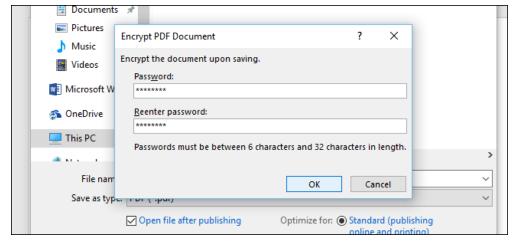
- You can also export an Office document to a PDF file and password protect that PDF file. The PDF document will be encrypted with the password you provide. This works in Microsoft Word but not Excel, for some reason.
- To do this, open the document in Microsoft Word, click the "File" menu button, and select "Export." Click the "Create PDF/XPS" button to export the document as a PDF file.



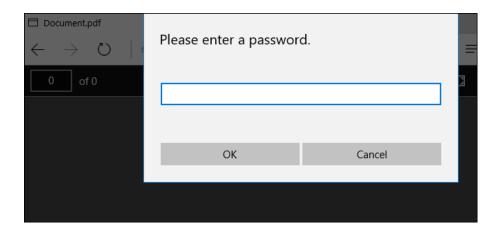
Click the "Options" button at the bottom of the save dialog window that appears. At the bottom
of the options window, enable the "Encrypt the document with a password" option and click "OK."



- o Enter the password you want to encrypt the PDF file with and then click "OK."
- When you're done, enter a name for the PDF file and click the "Publish" button. Office will export the document to a password-protected PDF file.
- Warning: You won't be able to view the PDF file if you forget the password. Be sure to keep track of it or you'll lose access to your PDF file.



You'll have to enter the PDF file's password when you open it. For example, if you open the PDF file in Microsoft Edge–Windows 10's default PDF viewer–you'll be asked to enter the password before you can view it. This also works in other PDF readers.



Zipping your files.

- o Put all the files into a new folder
- o Right-click on the folder to be sent
- Select "Send To" and then click "Compressed (Zipped) folder"
- The files will start compressing
- After the compression process is complete, attach the compressed file with the extension .zip to your email.

Keeping passwords safe.

We recommend that you store the password either as a note on a hardcopy document which is then filed or stored safely or a softcopy that is saved in the bid response folder once the bid has been submitted or in line with your document management policy.

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