



CIVIL AVIATION AUTHORITY OF SRI LANKA

BIDDING DOCUMENT FOR

**IMPLEMENTATION AND MAINTENANCE OF THE
FULLY AUTOMATE PLATFORM FOR UNMANNED
AIRCRAFT SYSTEMS.**

(APUAS)

IFB/SP/2021/010

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Letter of Invitation

Implementation and Maintenance of the Fully Automated Platform for Unmanned Aircraft Systems (UAS)

Sealed Bids are hereby invited from ONLY qualified reputed and experienced development firms to implement and maintain a fully automated online platform for unmanned aerial vehicle operation (APUAS) as described in the attached “**Terms of Reference**”- **Section 1** for efficient and systematic conduct of Registration of Personal, Drones and issuing Operational Approvals.

1. Proposed APUAS should facilitate to overall management and fully automated online platform for unmanned aerial vehicle operations in Sri Lanka. The system should facilitate to record data of all registered drones, remote pilots, UAV operators, flights plans and questions bank as stipulated in the IFB document No: IFB/SP/2021/10.
2. Bidders shall comply with the following minimum qualification criteria to be eligible for the bid.
 - Vendors with experience of handling similar projects.
 - Having experience development of similar projects, preferably 3 projects within last 5(five) years.
3. Bidding will be conducted through International Competitive bidding (ICB) process
4. Interested eligible bidders may obtain further information relating to this bid from Environment, Research and Projects Section, Civil Aviation Authority of Sri Lanka at No. 152/1, Minuwangoda Road, Katunayake (Phone: 011 2358824). Bidding documents may be inspected free of charge at the above office
5. Bidding documents will be issued from the Environment Research and Project Section of CAASL from 26/10/2021 to 16/11/2021 during 9.00am till 3.00pm on working days and a non-refundable sum of Rs.2, 500.00 (+VAT) will be collected for the bidding documents.
6. All Bids shall be accompanied by a Bid-Security of Rs.100,000.00 (One Hundred Thousand) unconditional on demand Bid bond obtained from a commercial bank approved by the Central Bank of Sri Lanka which shall be valid up to 120 Calendar days from the date of closing of Bid and included in the “Technical” envelope.
7. Completed proposals are required to be submitted both Technical and Financial proposals in two envelopes with the signatures of authorized individuals/ official stamp shall be hand delivered or posted under registered cover addressed to the Chairman, Departmental Procurement Committee, 152/1, Minuwangoda Road (Opposite Radar Hill), Katunayake. with the marking “**IMPLEMENTATION AND MAINTENANCE OF THE FULLY AUTOMATED PLATFORM FOR UAS**” at the top left-hand corner of the envelope with two sets marked “Financial” and “Technical” separately.
8. A “Pre bid meeting” will be held on 2nd November 2021 at 1000 hrs at the Head Office Building, at No 152/1, Minuwangoda Road, Katunayake.

9. Closing date of submission of Bids is 17th November 2021 at 2.00 pm. and late submissions will be rejected.
- 10 . Successful bidder is required to render an unconditional Performance Bond in the name of CAASL for the value of 10% of the total contract value. The Civil Aviation Authority will have the right of claiming the Performance Bond value on demand if the company does not provide a satisfactory service.

Chairman
Department Procurement Committee
Civil Aviation Authority of Sri Lanka
No.152/1, Minuwangoda Road
Katunayake

Chapter 1 Terms of Reference

1.1 Introduction

The CAASL was established under the Civil Aviation Authority Act No 34 of 2002 on 27th December 2002. It is deemed a Public Enterprise for the purpose of audit of accounts under Article 154 of the Constitution of the Democratic Socialist Republic of Sri Lanka. The primary function of the CAASL is to regulate local civil aviation industry under the legislative provisions stipulated in the Civil Aviation Authority of Sri Lanka Act No 34. of 2002 and Civil Aviation Act No.14 of 2010, and in conformity with the applicable International Standards and Recommended Practices adopted by the International Civil Aviation Organization (ICAO) aiming at higher performance in safety, security, efficiency, regularity and environmental responsiveness of the industry that contributes to growth of the national economy, for enhancement of quality of life of citizens of the country.

Pursuant to the Section 80 of the Civil Aviation Act No 14 of 2010, any unmanned aircraft operation within the territory of Sri Lanka requires permission from Director General of Civil Aviation.

An unmanned aerial vehicle (UAV) commonly known as a drone, is an aircraft without a human pilot on board. UAVs are a component of an unmanned aircraft system (UAS), which include a UAV, a ground-based controller, and a system of communications between the two.

UAVs were originated mostly for military applications. However, with the rapid development of technology the use of drones was expanded in many more applications including aerial photography, product deliveries, agriculture, surveys, surveillance, infrastructure inspections, researches and drone racing. Due to the capability of use for various applications, number of drones operated within the country has been tremendously increased.

Being the regulatory entity, the Civil Aviation Authority of Sri Lanka (CAASL) has an urgent requirement to implement a mobile based online system, with a view to provide efficient service for the users of drones in Sri Lanka. When compared with the same systems in other countries, all of them have implemented automated systems which are efficient enough to cater the requirements of local and foreign customers.

The online system shall be user friendly and compatible with all mobile devices, desktop devices and novel technology which fulfills the need of the customers namely UAS operators, remote pilots, UAS owners and model aircraft flying clubs.

1.2 Background of the CAASL

The CAASL is the regulatory authority changed for the regulation of civil aviation industry in conformity with the implementation of International Standards and Recommended practices stipulated by the International Civil Aviation Organization and conducted of Safety Oversight of Civil Aviation in the country. Main responsibility of the CAASL is to ensure “Safety and Security” of passengers in civil aviation. In this connection, the regulating of manned and unmanned aircraft operations are utmost important.

Aviation Safety Monitoring Unit is dealing with the registration of both Drones and Drone operators and issuing Approvals for drone flying in Sri Lanka. The proposed on line platform is to integrate all activities in to one system to provide user friendly services to customers.

1.3 Existing system of CAASL

Registration of drones and issuance of operational approvals are currently handle by manual forms. All forms are available at CAASL web site and customers request for the services mainly through emails.

Upon receiving of the completed application for the registration of drones, the data will be included manually to the current drone registration data base, an email will be sent to acknowledge the sender with the CAASL registration number. In respect of the issuance of the operations approvals, payment link and the approval letter also sent via email.

Chapter 2 Software Requirements and Scope of Work

The Civil Aviation Authority seeks to build an efficient and effective Mobile Application and web based system (iOS, Android & Web) to improve productive and efficient conduct of Drone operations within Sri Lanka.

Proposed system should have following requirements,

1. Operator Registration System
2. Drone Registration System
3. Flight Plan Submission and Approval System.
4. Development of a Digital Map
5. Online Exam system
6. Online Payment
7. UAS monitoring system
8. Access levels

2.1 Operator Registration System

Description – Person or a company who operates drone(s) shall require to register with the CAASL as per the Implementing Standard SLCAIS-053 issued by Director General of Civil Aviation.

- Operator can be a natural person (person) or a legal person (company).
- Remote pilot shall be a natural person.
- Operator registration is common for both “Open”, “Specific & Certified” categories of operation.
- Operator can add “Open”, “Specific & Certified” Remote Pilots to its profile.
- Operator can add “Open”, “Specific & Certified” drones to their profiles.
- User hand book has to be available for all users of the system.(including back end users)
- A guidance will be provided for “certified” operators.
- Be able to extract the data from previous drone registry databases
- Be able to generate statistics reports

2.1.1 Basic Details

- A. Option to choose to register as a Company or a Person
- B. If an “Operator” is a Person;
 - I. Full Name of the Operator
 - II. Permanent Address
 - III. Nationality
 - IV. Date of Birth
 - V. NIC/ PP No
 - VI. Email (confirmation required)
 - VII. Mobile Number (confirmation via SMS)

- C. If an “Operator” is a Company
 - I. Name of the Company
 - II. Permanent Address of the main office
 - III. Business Registration No
 - IV. Name of the Accountable Manager(AM)
 - V. Date of Birth of the AM
 - VI. NIC/PP No of AM
 - VII. Email (confirmation required)
 - VIII. Mobile Number (confirmation via SMS)

2.1.2 Direction to Exam

Information on how to take the exam before adding remote pilots. (Every remote pilot, any person who intends to operate drone shall have to complete the exam based on the operation category and shall obtain Flyer ID)

Flyer ID– Should be unique. One Flyer ID can be in more than one operator account.

2.1.3 Add or Remove Remote Pilots (Operator has the right to add or remove remote pilot)

Multiple persons can be added as remote pilots

- A. Full Name of the Remote Pilot
- B. Permanent Address
- C. Nationality
- D. Date of Birth
- E. NIC/PP No
- F. Photo of the Pilot
- G. Flyer ID (to be obtained after completing the competency exams. This ID will define the category of remote pilot)
- H. Email (confirmation required)
- I. Mobile Number (confirmation via SMS)
- J. Expire date of the Flyer ID (automatically added)
- K. Renewal Option (Notification to renew will be displayed 3 months prior to the expiry date.)
 - I. Remote pilot can update his information under the above field during renewal.
 - II. Direct to the renewal payment.

2.2Registration of Device

Description - all drones, excluding any drone in which the MTOM is less than 250g which is not fitted with any data collecting device, shall require to register with CAASL. Drone registration can be under three options. Depending on the operation type, drone can be registered either “Open” category, “Specific” or “Certified” category. When a drone is to be used for leisure, recreational, hobby or research, such drone require to be registered under “Open” category. On the other hand if a drone is to be used for any commercial purpose (excluding transportation of human, delivery of dangerous goods), it has to be registered under “Specific” category.

For the drones which are to be used for transportation of human, delivery of dangerous goods shall require to undergo an airworthiness certification, and those will be registered as “certified” category.

2.1.1 “Open” Category Device (Leisure/Recreational/ Hobby/ Research & Development)

Guidance about the registration and how to proceed with privately built drone registration shall be available in the system page. (With accesses to privately built registration form)

2.2.1.1 Registration

- A. Select Brand (from drop down list)
- B. Select Model (from drop down list)
- C. Serial No.
 - 3.1 Option to upload a photo for confirmation
 - 3.2 A note to be displayed, when there is an issue in the photo.
- D. Color
- E. A guidance to be given on “how to read the serial number of your drone”
- F. Expire date of the Drone (automatically added)
- G. Renewal Option (Notification to renew will be displayed 3 months prior to the expiry date.) and direction to the renewal payment.
- H. De-registration (Devise data will be preserve for 3 years)
- I. Option to upgrade the device registration from OPEN to SPECIFIC and CERTIFIED by admin

2.2.1.2 Online Payment

After adding details, online payment has to be done in order to generate a registration number.

2.2.1.3 Issuing Registration Number (with QR & CAA Stamp)

Unique registration number should be generated as per the guidelines given by the CAASL with a QR code and a CAASL Stamp, which is to be pasted on the device. CAASL Stamp, shall contain the CAASL logo and registration number. The CAASL stamp and an email has to be generated with Registration Number, owner’s National Identity Card number, his/her emergency contact numbers, date of registration and the expiry date of registration by the system. The CAASL stamp has to be pasted on the device by the drone owner.(Both will be sent via email to users).

2.2.2 “Specific” Category Device (Commercial Photographers, Arial Survey, Broadcasting, Agriculture)

Guidance about the registration and how to proceed with privately built drone registration to be provided. (With accesses to privately built registration form)

2.2.2.1 Registration

- A. Select Brand
- B. Select Model
- C. Serial No. (upload a photo for confirmation)
- D. Color
- E. A guidance to be given on “how to read the serial number of your drone”
- F. After adding the serial number system should auto save the details and direct the applicant to go for the inspection with the CAA designated drone inspectors. (Information

about the inspection/ certification process and the list of the CAA designated drone inspectors should be available at this point).

- G. After the inspection system admin (CAA) has to manually approve the drone in the back end for the next step, which is the online payment. When approving the drone two admins shall have an option to make remarks.
- H. After the online payment, a unique registration number has to be generated through the System.
- I. Expiry date of the Drone has to be added automatically.
- J. Renewal Option (Notification to renew will be displayed 3 months prior to the expiry date.)
 - 7.1 direct to the renewal payment.
- K. De-registration (Device data will be preserved for 3 years)

2.2.2.2 List of Designated Drone Inspectors

Designated Drone inspectors list will be available. Applicants are required to contact them and do the inspection.

2.2.2.3 Approval for the Registration after inspection

Administrator (super admin and admin level 1) shall have the power to approve the device for registration, after receiving the confirmation from the designated drone inspector.

2.2.2.4 Online Payment

After the inspection, admin will approve the drone from back end to complete its registration. Then online payment shall activate and applicant can make the payment to generate the registration number.

2.2.2.5 Issuing Registration Number (with QR & CAA Stamp)

Unique registration number should be generated as per the guidelines given by the CAASL with a QR code and a CAASL Stamp, which is to be pasted on the device. CAASL Stamp, shall contain the CAASL logo and registration number. The CAASL stamp and an email has to be generated with Registration Number, owner's National Identity Card number, his/her emergency contact numbers, date of registration and the expiry date of registration by the system. The CAASL stamp has to be pasted on the device by the drone owner. (Both will be sent via email to users).

2.2.3 "Certified" Category Device (Commercial Delivery of dangerous goods and people)

Guidance about the registration and how to proceed with privately built drone registration to be provided. (With accesses to privately built registration form)

2.2.3.1 Registration

- A. Select Brand
- B. Select Model
- C. Serial No. (upload a photo for confirmation)
- D. Color
- E. A guidance to be given on "how to read the serial number of your drone"

- F. After adding the serial number system should auto save the details and direct the applicant to go for the inspection with CAA. (Information about the inspection and certification process should be available at this point).
- G. After the inspection system admin (CAA) has to manually approve the drone in the back end for the next step, which is the online payment. When approving the drone two admins shall have the option to make remarks.
- H. After the online payment unique registration number has to be generated.
- I. Expiry date of the Drone (automatically added)
- J. Renewal Option (Notification to renew will be displayed 3 months prior to the expiry date.) and direction to the renewal payment.
- K. De-registration (Device data will be preserve for 5 years)

2.2.3.2 List of Designated Drone Inspectors

Designated Drone inspectors list will be available. Applicants are required to contact them and do the inspection.

2.2.3.3 Approval for the Registration after inspection

Administrator (Super admin and Admin level 1) shall have the power to approve the device for registration, after receiving the confirmation from the designated drone inspector.

2.2.3.4 Online Payment

After the inspection admin shall approve the drone to register. Then online payment shall activate and user can make the payment to generate the registration number.

2.2.3.5 Issuing Registration Number (with QR & CAA Stamp)

Unique registration number should be generated as per the guidelines given by the CAASL with a QR code and a CAASL Stamp, which is to be pasted on the device. CAASL Stamp, shall contain the CAASL logo and registration number. The CAASL stamp and an email has to be generated with Registration Number, owner's National Identity Card number, his/her emergency contact numbers, date of registration and the expiry date of registration by the system. The CAASL stamp has to be pasted on the device by the drone owner. (Both will be sent via email to users).

2.3 Flight Plan Submission and Approval System.

Description – prior to each flight, a flight plan has to be submitted through the system. Authorization or permission shall be obtained from respective organizations upon the submission of the flight plan. If any organization is not in a position to approve the flight which is to be flown over their location, they can reject request. In such cases the operator/remote pilot will be notified via email & SMS.

There are three operations (Options).

Option 1- Recreational/ Hobby/ Research & Development

Option 2- Commercial Photographers, Arial Survey, Broadcasting, Agriculture

Option 3 – Commercial Delivery of dangerous goods, Transportation of People.

Flight plan submission should be allowed as follows.

Remote Pilot (Flyer ID Cat)	Registered Drone Type	Approved Operating Category		
		Open	Specific	Certified
Open	Open	√	X	X
	Specific	√	X	X
	Certified	X	X	X
Specific	Open	√	X	X
	Specific	√	√	X
	Certified	X	X	X
Certified	Open	√	X	X
	Specific	√	√	X
	Certified	X	X	√

2.3.1 “Open” Category Operation (Recreational/ Hobby/ Research & Development)

Remote pilot can only fly for above purposes.

2.3.1.1 Select Device

User should select the device from the registered list of drones under their profile. (Any Drone registered as “Open” & “Specific” can be selected)

2.3.1.2 Select Remote Pilot(s)

User (Operator) should select the Remote Pilot(s) for the intended operation from the list under their profile. (“Open”, “Specific” and “Certified” can be selected)

2.3.1.3 Select Location (Submit Flight Plan)

- A. User shall choose the operating area using the current location of the Mobile or drag dropping a pin in a certain area in the digital map.
- B. Input the operation detail,
 - I. Altitude
 - II. Operating area or path
 - III. Duration of the operation (Date with start time)
 - IV. Purpose of the operation
- C. If the location is inside a Green area (no restriction) approval should be granted autonomously.
- D. If the location is inside a Yellow, Red or any other restricted area, approval shall be granted by the authorities manually in the backend.
- E. The flight plan submission will not success, if the period of validity of Flyer ID and drone registration have been expired.

F. Approval should be sent via email and SMS to the remote pilot.

Details about the Digital Map is described in section 2.4.

2.3.2 “Specific” Category Operation (Commercial Photographers, Arial Survey, Broadcasting, Agriculture)

2.3.2.1 Select Device(s)

User should select the device(s) from the registered list of drones under their profile. (Drones registered under “Specific” Category shall only be selectable)

2.3.2.2 Select Remote Pilot(s)

User (Operator) should select the Remote Pilot(s) for the intended operation from the list under their profile. (Only remote pilots under “Specific and Certified” can be selected)

2.3.2.3 Select Location (Submit Flight Plan)

- A. User shall enter the **Authorization Number** given by CAASL for the operation. System shall check the authorization number with the CAA data base and verify details (if no authorization number, then how to obtain authorization from CAASL has to be displayed in the system)
- B. System shall provide an easy access window (CAA data base) at the backend to fill by super admin and admin level 1(CAASL) with Authorization Numbers, period of validity, remote pilot flyer ID and drone registration.
- C. The flight plan submission will not success, if the period of validity of the authorization, validity of Flyer ID or drone registration have been expired, or any other parameters are not match,
- D. User shall choose the operating area using the current location of the Mobile or drag dropping a pin in a certain area in the digital map.
- E. Input the operation detail,
 - I. Altitude
 - II. Operating area or path
 - III. Duration of the operation (Date with start time)
 - IV. Purpose of the operation
- F. If the location is inside a Green area (no restriction) approval should be granted autonomously.
- G. If the location is inside a Red restricted area, approval shall be granted by the authorities (multiple authorities) manually at the backend.
- H. Overall control shall be with the CAASL.
- I. Approval should be sent via email and SMS.
- J. Details about the Digital Map is described in Section 2.4.

2.3.3 “Certified” Category Operation (Commercial Delivery, Transportation of People)

2.3.3.1 Select Device(s)

User should select the device(s) from the registered list of drones under their profile. (Drones registered under “Certified” Category shall only be selectable)

2.3.3.2 Select Remote Pilot(s)

User (Operator) should select the Remote Pilot(s) for the intended operation from the list under their profile. (Only remote pilots under “Certified” can be selected)

2.3.3.3 Select Location (Submit Flight Plan)

- A. User shall enter the **Authorization Number** given by CAASL for the operation. System shall check the authorization number with the CAA data base and verify details. (if no authorization number, then how to obtain authorization from CAASL has to be displayed in the system)
- B. System shall provide an easy access window (CAA data base) at the backend to fill by super admin and admin level 1 (CAASL) with Authorization Numbers, period of validity, remote pilot flyer ID and drone registration.
- C. The flight plan submission will not success, if the period of validity of the authorization, validity of Flyer ID or drone registration have been expired, or any other parameters are not matched.
- D. User shall choose the operating area using the current location of the Mobile or drag dropping a pin in a certain area in the digital map.
- E. Input the operation detail,
 - I. Altitude
 - II. Operating area or path
 - III. Duration of the operation (Date with start time)
 - IV. Purpose of the operation
- F. If the location is inside a Green area (no restriction) approval should be granted autonomously.
- G. If the location is inside a Red restricted area, approval shall be granted by the authorities (multiple authorities) manually at the backend.
- H. Overall control shall be with the CAASL.
- I. Approval should be sent via email and SMS.
- J. Details about the Digital Map is described in Section 2.4.

2.4 Digital Map

2.4.1 Users End

- A. A Digital Map to be developed with Airfields, Prohibited, Restricted, Danger and other sensitive areas (Zones) with in territorial airspace of Sri Lanka.
- B. All data (coordinates) will provide by the CAASL once the contract is signed.

- C. All Contact details of controlling authorities of each zones shall be appeared on the Map.
- D. Users are able to see those details and a method to request an Approval / No-objection from respective controlling authority through this system shall be available.

2.4.2 Administrators End

1. Admin who has add or remove access rights, shall be able to add or remove restricted zones at any given time.
2. Admin who has the approval rights shall be able to send a message via app and SMS to users in a certain area or within a certain time period to cancel their operation.
3. Admin shall be able to see the live locations of the drone operations occurring via a Map.
4. System will not allow to submit flight plan if the registration of the Drone, Flyer ID or validity of the authorization has expired.
5. CAASL has the Super admin and admin level 1 (2.nos).
6. The other admin levels are as described under paragraph 2.8 and rights & privileges will be decided by CAASL.

2.5 Online Exam system

Exam page must contain 3 main sections. (“Open”, “Specific” & “Certified”) and be able to generate statistics reports.

2.5.1 “Open” Category Exam (Recreational/ Hobby/ Research & Development)

Description (CAASL will provide) - comprise with 40 questions with 4 subjects.

The number of questions will be collected as follows;

1. UAS Safety and Operating Principles (13)
2. Aviation Regulation (Q-12)
3. Meteorology (5Q)
4. UAS Flight Performance (10)

2.5.1.1 Adding basic details of the Remote Pilot

- A. Full Name
- B. Permanent Address
- C. Nationality
- D. NIC/ P.P No
- E. Email (confirmation needed)
- F. Mobile Number (OTP confirmation)
- G. Security Clearance no: User shall enter the Security Number given by Ministry of Defence. System shall check the security number with the internal data base and verify. Details on how to obtain security clearance from MOD must be displayed.
- H. System shall provide a window in backend for one admin level (Ministry of Defence /MOD) to add the security clearance details into the internal database.

2.5.1.2 Access to Study Material

Study Material (in a PDF or any other similar mobile friendly format) will be available to remote pilot to access before taking the exam. (CAASL will provide the study material)

2.5.1.3 Online Payment

After successfully completion of the exam payment shall be done by Remote Pilot using a credit/debit card.

2.5.1.4 Online Exam

- A. MCQ exam with 40 questions.
- B. With count down timer
- C. All other details such as combination of questions, details about question bank and other details are provided in Annex 1.
- D. Res-sit requires a payment before exam.

2.5.1.5 Generate Flyer ID

After successful exam, an unique Flyer ID shall be generated. (Combination of the ID will be provided by CAASL)

2.5.2 “Specific and Certified” Category Exams (Commercial Photographers, Arial Survey, Broadcasting, Agriculture, Transport of goods and people)

CAA will provide the description and Details on above exams.

- A. Approved training school list.
- B. Details on how to sit for exam (Written, Practical and Medical).
- C. Details on obtaining SIS clearance will also be available.

2.6 Payment System

Either to integrate with the existing CAA payment system through an API or to have a separate payment system.

2.7 UAV monitoring system

2.7.1 The System shall be able to get data from device remote identification of Unmanned Aircraft (UA) or any other method (without attaching any device to UA) and shall display on the current monitoring screen (i.e Digital Map screen). Below are the details which required to retrieved from Unmanned Aircraft;

- A. UAS registration number.
- B. Serial number of the Unmanned Aircraft (UA).
- C. Geographical position of the UA and its height above the ground level.
- D. Geographical position of the remote pilot or, if not available, the take-off point;

In case for the Unmanned Aircraft is not equipped with an inbuilt remote identification system or any other similar method, the System shall be able to get data given under paragraph 2.7.1, above, through a transponder. This transponder shall not be disturbed the

aerodynamics, payload limit, airworthy and other specifications of the UA as recommended by the manufacturer.

Live traffic data shall be available to both admin and end user. However end user should only see the Geographical position of the UA (live location) and registration number of the drone. All details shall be available only to the admins.

Warning alert notification to the remote pilot when a potential breach of airspace limitations is detected/ unauthorized access to any restricted airspace.

2.8 Access Levels

1. Super admin shall be the CAASL.
2. Super admin has the ability to create other admins, users and assign roles & privileges levels within the system as given in below sample.
3. The rights & privileges of each admin level will be decided by CAASL

	View (Geographical location of the Drone, Registration Number and Contact details of the operator.)	View (Geographical location of the Drone and Registration Number only)	Approve flight plans	Add & remove restricted areas	Approve device registration	Override
Super admin	√ - view all data	√	√	√	√	√
Admin level 1	√- view all data	√	√	√	√	-
Admin level 2	√	√	√	√	-	-
Admin Level 3	√	√	-	-	-	-
Admin Level 4	√	√	√ (only geographical zones controlled by Aerodromes)	-	-	-
Admin Level 5	-	√	-	-	-	-

2.9 Reports & Statistics

A. Operator Registration System

- I. Number of Operators and remote pilots registered, monthly, yearly
- II. Number of recreational ('Open'), commercial ('Specific') and commercial (certified) pilots' are registered.
- III. Daily, Weekly, Monthly and Yearly report option.

B. Registration of Device

- I. Number of devices registered.
- II. Number of recreational ('Open'), number of commercial ('Specific') and certified devices registered.
- III. Number of devices under each brand and model.
- IV. Daily, Weekly, Monthly and Yearly report option.

C. Flight Plan Submission and Approval System

- I. Number of flight plans submitted, approved and rejected.
- II. Number of operations over geographical zones
- III. Flight logs per remote pilot (FlyerID).
- IV. Daily, Weekly, Monthly and Yearly report option.

D. Online Exam system

- I. Number of participants sit for exams
- II. Number of failed /passed participants / sittings
- III. Number of FlyerIDs issued.
- IV. Daily, Weekly, Monthly and Yearly report option.

E. Access levels

- a. Admin activity logs of each admin levels

F. Audit logs

Proposed system should have a proper method to manage system and audit logs as appropriate.

Audit log has records providing information about who has accessed the system and what operations he or she has performed during a given period of time. Audit logs capture events which can show "who" did "what" activity and "how" the system behaved. Audit logs are useful both for maintaining security and for recovering lost data.

Chapter 3 - Final outputs, Reporting Requirements, Time Schedule for Deliverables

- **Bidding stage**

1. At first stage bidder should send software development proposal with including architectural diagram for proposed system.
2. Requirement hardware specification of the software.
3. Development time schedule.
4. Requirement for 3rd party software and license.
5. Requirement of the proprietary software and specify the requirement for the use.

- **After Award of Contract**

1. Quality Assurance (QA) Plan, Test Cases and QA Reports
2. IS Audit Approval by SLCERT (or any other party recommended by SLCERT)
3. User manual for operation and maintain system
 - Following document need to submit and should be drafted and finalized with the approval of CAASL and handed over to the CAASL at the time of sign-off.
 - a. System Requirement Specification (SRS)
 - b. Test reports
 - c. System Administration manual.
 - d. User Management manual

4. User Training

Chapter 4 — Mandatory Conditions for Proposal

1. The Bidder shall provide an installation and completion timetable.
2. Required server facilities will be provided by CAASL.
3. Bidders should ensure the high availability of the system.
4. Proposal should describe system for data backup, system backup plan, RTO, RPO and data restoration.
5. Proposal should explain and describe the future upgrade policy and disaster management clearly.
6. Proposal should explain the method of handling alterations to requirement and modifications during System development.
7. Proposal should describe the data security practices used to safeguard of data.
8. Proposal should explain the process of detailed requirement verification (capturing detail wise requirement) within the SDLC.
9. Proposal should clearly explain the process of data verification.
10. Proposal should explain the process/mechanism to import previous data to the proposed system.
11. Proposal should explain the method of load testing and capacity according to the hardware.
12. Proposal should explain the Network, hardware and data center requirements.
13. Bidder should have more than 05 years' experience in developing and servicing the software in similar Software field and development of mobile application.
14. Bidder should forward the proposal with proof of development of at least 5 years similar software development experiences (private or government) and respective contact information for the verification purposes.
15. Bidder should provide a comprehensive solution to cover Registration, Certification, Operations and Monitoring of all types of UAVs and operators.
16. Bidder should provide minimum 05 years of warranty for software.
17. Bidder should provide 24/7 technical assistance and a SLA (Service Level Agreement).
18. Proposal should explain the process of ensuring the Web page security
19. Proper data filtering method should be included in the proposed system.
20. Late proposals will not be considered.
21. All costs incurred in the preparation of a proposal responding will be the responsibility of the bidder and will not be reimbursed by CAASL.

Chapter 5 - Maintenance of the System

The Bidders should provide necessary technical support within the warranty period. After 5 years, the Bidders may sign for Service Level Agreement (SLA) for technical support as decided by the CAASL.

Chapter 6 -Preparation of Bids

- **The bid shall comprise the following**

The bid Submission Form using the form furnished in Annex IX. (This form should be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested).

- **Bidders are required to present a breakdown of the cost as bellow.**

1. Development cost.
2. Maintenance and update the implementing platform.
3. Other cost (pls specify)
4. VAT shall be indicate separate column.

- **Price and Discounts.**

1. Unless specifically stated in the Data Sheet, all items must be priced separately in the Price Schedules.
2. The price to be quoted in the Bid Submission Form shall be the total price of the Bid, including any discounts offered.
3. The applicable VAT shall be indicated separately:
4. Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. A bid submitted with an adjustable price shall be treated non responsive and may be rejected.
5. The Bidders shall quote only in Sri Lankan Rupees.

- **Documents to Establish the Conformity of the APUAS.**

1. The Bidder shall furnish as Part of its bid the documentary evidence that the System conformed to the technical specific Specifications & Compliance with specifications.
2. The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the system, demonstrating substantial responsiveness of the system to the technical Specifications, and if applicable, a statement of deviations and exception to the provisions of the technical specifications given.
3. If stated in the Data Sheet the Bidder shall submit a certificate from the manufacturer to demonstrate that it has been duly authorized by the Provider of the System.
4. Period of Validity of Bid; Bids shall remain valid for the period of Ninety (90) days after the bid submission deadline date.
5. Format and signing of Bid; The bid shall be typed in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder.
6. Submission and Opening of Bid; Bidders may submit their bids by Registered mail or by hand in sealed envelope addressed to the CAASL indicated in the "Data Sheet" bearing the specific identification of the contract number.
7. If the bid is not sealed and marked as required, the CAASL will assume no responsibility for the misplacement or premature opening of the bid.

8. Bids must be received by the CAASL at the address set out in Annex -II "Data Sheet", and no later than the date and time specified in the Data Sheet.
9. CAASL shall reject any bid that arrives after the deadline for submission of bids.
10. CAASL shall reject any bid which does not comply with the Mandatory conditions as prescribed in Chapter 4 above.
11. CAASL shall conduct the opening of bids in public at the address, date and time in the Data Sheet.
12. A representative of the bidders may be presented and mark their attendance.
13. Documents to be submitted;
 Following documents need to be submitted along with the proposals in formats given in Annexures. All the documents should be signed by the Authorized Signatory/s and placed official stamp and date.

Annex II		-	Data sheet
Annex III		-	Schedule of price Bid
Annex IV		-	Assignments of similar nature successfully completed during last 05 years
Annex V		-	Work Plan Time Schedule
Annex VI		-	Approach and Methodology
Annex VII		-	Composition of the Team Personnel and the task/s which would be assigned to each Team Member
Annex VIII		-	Format of Curriculum Vitae for members of Bidder's Team
Annex IX		-	Work Programme and Time Schedule for Key Personnel
Annex X		-	Format for Bid Security
Annex XI		-	Format for Performance Bond
Annex XII			Letter of Acceptance
Annex XIII			Acknowledgment

14. Bidding process will be carried out according to the procurement guideline 2006.

Ownership of the System

1. The Bidders should provide soft copies of fully functioning source codes, databases, graphics, design documentations and other related documents used in the system to CAASL.
 2. If required third party software or licenses (ex: SSL certifications) need to purchase under CAASL ownership.
 3. Any proprietary software components belonging to the system development, company shall be licensed to Bidder for perpetual use. The Bidders shall require making appropriate arrangements to make available the source code of the said proprietary software to CAASL in the event of either bankruptcy or winding up or merger of the Bidders Company.
 4. System super admin account details, password and Technical & Operation Manuals should be handed over to CAASL after signing off. The passwords can be obtained from CAASL during maintenance period.
 5. Company should require to update Technical and Operation Manuals as required.
-

Chapter 8 - Cost Breakdown

Bidders are required to present a breakdown of the cost as bellow.

1. Cost of Software
 2. Development / Integration with CAASL's finance system or for a separate finance system.
 3. Development / Integration with other systems (depend on Bidder's requirement)
 4. Maintenance and update the implementing platform
 5. Other Certifications
 6. Any other cost associated with the software solution (Pls specify)
 7. VAT shall be indicate separate column
-

Chapter 9 - Evaluation of the Bid

1. To assist the examination, evaluation and comparison of the bids, CAASL may, at its discretion, ask any Bidder for a clarification of its bid through Procurement Committee. Any clarification submitted by a Bidder in respect of its bid which is not in response to a request by the CAASL shall not be considered.
2. CAASL's request for clarification and the response shall be in writing.
3. CAASL will determine the responsiveness of the bid with the documents based on the contents of the bids received.
4. If a bid is evaluated is not substantially responsive to the documents issued, it may be rejected by CAASL.
5. CAASL shall only evaluate bids that has been determined to be substantially responsive.
6. To evaluate the Bid the purchase may consider the following
 - a. The price as quoted.
 - b. Price adjustments for correction of arithmetical errors.
 - c. Price adjustments due to discounts offered.
7. The Purchase's evaluation of a bid may require the consideration of other factors, in addition to the price quoted if stated in Annex II - Data Sheet. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the system of APUAS.
8. The CAASL reserves the right to accept or reject all bids at any time prior to acceptance of procurement committee, without thereby incurring any liability to bidders.
9. From the time the Proposals are opened to the time the Contract is awarded, the Bidders should not contact CAASL on any matter related to its Technical and/or Financial Proposal. Any effort by Bidders to influence CAASL in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Bidders' Proposal. Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.
10. The CAASL shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub criteria, and point system specified in the Evaluation Sheet. Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it does not respond to important aspects of the bid document, and particularly the Terms of Reference or if it fails to achieve the minimum technical score indicated as follows:

Criteria for evaluation of APUAS			
No	Method/Criteria for evaluation of APUAS Developer	Point	Remarks
1	Identification of the CAASL Requirements & Timely delivery		
1.1	Time plan (Delivery to the CAASL)	1	
1.2	Submission of proposals including data backup, system backup plan, RTO, RPO, data restoration, future upgrade policy, disaster management, Network, hardware and data center requirements. (0.3 for each)	3	
2	Experience of the Bidder		
2.1	Recent 5 years' experience in similar nature software (mobile application) development. Each year 0.8 mark and maximum 4.	4	
2.2	Well educated and experienced (more than 5 years' experience in the field) Project with Designated Software Engineers 1 mark, Designated Project Manager with PMP or other project management certification 1 mark, Tech Lead 1 mark and Quality Analyst 1 mark.	4	
3	Proposed System by the Bidder		
3.1	<u>Operator Registration System-</u> Option to choose between Person or Company and Adding basic details -0.5, Email confirmation and Mobile number confirmation – 0.5 <u>Adding Remote Pilot-</u> Option to add multiple RPs – 0.5, Adding basic details – 0.5, Flyer ID confirmation-0.5, Email & Mobile confirmation -0.5, expired date & renewal alert- 0.5	3.5	
3.2	<u>Device Registration System –</u> <u>Open Category</u> Clear guidance & user friendly interface - 0.3, Option to select UAS brand and model from a list – 0.4, Photo upload & a note to display any issue- 0.3, Issuing unique registration number – 0.5, expiry date and renewal alert- 0.5 <u>Specific Category</u> Clear guidance & user friendly interface – 0.3, option to select band name, model from a list – 0.4, Photo upload – 0.3, Approve/Decline option for admin – 0.5, Issuing unique registration number – 0.5, expiry date and renewal alert- 0.5 <u>Certified Cat</u> Clear guidance & user friendly interface - 0.3, option to select band name, model from a list – 0.4, Photo upload- 0.3, Approve/Decline option for admin – 0.5, Issuing unique registration number – 0.5, expiry date and renewal alert- 0.5	7	
3.3	Flight Plan Submission & Approval System – <u>Open Category</u> Selecting device – 0.2, Selecting RP – 0.2, Selecting location – 0.2, Adding flight details – 0.2, Autonomous Approval for green area – 1.5, Manual access to give approval on restricted area –1, Approval deliver via email & SMS – 0.3, Clear guidance & user friendly interface – 0.2, Option to reject flight plan submission, in case the	15.5	

	<p>validities of Remote Pilot Flyer ID and Drone registration have been expired- 0.7</p> <p><u>Specific Category</u> Selecting device – 0.2, Selecting RP –0.2, Selecting location – 0.2, Identifying Authorization Number – 1, Adding flight details – 0.2. Autonomous approval of green area – 1.5, Manual access to give approval on restricted area – 1, Approval deliver via email & SMS – 0.3, Clear guidance & user friendly interface – 0.2 Option to reject flight plan submission, if the validities of authorization, Remote Pilot Flyer ID and Drone registration expired- 0.7</p> <p><u>Certified Category</u> Selecting device – 0.2, Selecting RP –0.2, Selecting location – 0.2, Identifying Authorization Number –1, Adding flight details – 0.2. Autonomous approval for green area – 1.5, Manual access to give approval on restricted area – 1, Approval deliver via email & SMS – 0.3, Clear guidance & user friendly interface – 0.2, Option to reject flight plan submission, if the validities of authorization, Remote Pilot Flyer ID and Drone registration expired - 0.7</p>		
3.4	<p><u>Digital Map –</u> Marking the Restricted areas – 6, Adding contact data & method to contact respective authorities through the app – 2, Zones add or remove option to admin – 2, Option to send alerts via SMS to users in a selected area of the Map – 2</p>	12	
3.5	<p><u>Online Exam System</u> Clear guidance & user friendly interface – 0.5, High security of the question bank – 3, Ability to feed, remove, update questions – 3, Ability select questions from the question bank, making of question papers, deliver exam & mark the papers autonomously – 4, Timer, displaying count down time & auto submission of exam – 0.5, ability to tally security clearance number via an internal data base as mentioned in Chapter 2.5.1.1 (item 8) - 1</p>	12	
3.6	<p><u>Online Payment System</u> Ability to link with the CAASL current online payment system or New payment system</p>	7	
3.7	<p><u>Live Monitoring – UAVs (ref. Chapter 2.7.1)</u> Ability to retrieve data of UAVs utilizing in-built equipment - 10 or ability to retrieve data of UAVs by any other mode - 10;</p>	20	
3.8	Creation of admin access permission module	5	
3.9	Ability to upgrade in the future & ability to link with any other systems	1	
4	Support & Maintenance		
4.1	24/7 support & maintenance - Clear Explanation of the process	2	
4.2	Warranty Period - Minimum of five years (0.6 for each year)	3	
	Total	100	

Note:

1. Bidders should obtain minimum of 70 marks to qualify for the financial consideration
2. Final Analysis- 80% on Technical matters and 20% on financial matters
3. Above requirements in the marking scheme should be reflected in the documents submitted and further explained and clarified through a presentation

Chapter 10 - Award of Contract

1. CAASL will award the contract to the substantially responsive bidder.
 2. Prior to the expiration of the period of validity of bid, CAASL will notify the successful Bidder, in writing, that the tender has been awarded.
 3. The successful bidder shall submit an unconditional performance bond of 10% of the total contract value from a reputed bank approved by Central Bank of Sri Lanka valid up to one year period from the date of awarding of the contract. This performance bond shall be submitted within 10 working days from the date of awarding the contract with the letter of acceptance of the contract.
 4. The successful bidder shall sign an agreement with CAASL for the supply of system for APUAS.
 5. Failure of the successful Bidder to submit the abovementioned Performance bond or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security or execution of the Bid Securing Declaration. In that event CAASL may award the Contract to the next lowest evaluated Bidder, whose offer is substantially responsive and is determined by CAASL to be qualified to perform the Contract satisfactorily.
-

Chapter 11 - The Submission of Bids

1. Bids are required to be submitted both Technical and Financial proposals in a sealed envelope separately to be received by Chairman, Departmental Procurement Committee, Civil Aviation Authority of Sri Lanka, No. 152/1, Minuwangoda Road (Opposite Radar hill), Katunayake before 2.00 pm on 17th November 2021.
 2. The proposal must be signed by an individual authorized to contractually bind the company and must state the name, title, address, phone number, Fax and Email address of a contact person who is authorized to provide clarification of the proposal if necessary.
 3. Bid should be submitted as two sets in separate sealed envelopes which marked with “Original” and “Duplicate” on the top left corner of the envelop, together with the subject “Request for Proposal to Implementation and Maintenance of the Fully Automated Platform for Unmanned Aircraft Systems.”
 4. Bid documents which are submitted after the above mentioned time period will be labeled as “Late submission” and it will not be accepted.
 5. All costs incurred in the preparation of a proposal responding will be the responsibility of the bidder and will not be reimbursed by the CAASL.
-

Chapter 12 - Public Opening of Financial Proposals

1. After the technical evaluation is completed, the CAASL shall notify those Bidders whose Proposals did not meet the minimum qualifying mark or were considered non responsive to the bid, that their Financial Proposals will be returned unopened after completing the selection process. The Bidders that have secured the minimum qualifying mark will be informed in writing the date, time and location for opening the Financial Proposals. The opening date should allow Bidders sufficient time to make arrangements for attending the opening.
 2. Bidders' attendance at the opening of Financial Proposals is optional.
-

Chapter 13 - Payment Procedure

1. All payments are linked with the deliverables made by the Bidders. The payment will be released according to the submission and acceptance of deliverables as follows. 10% of retention will be deducted from each interim payment up to the maximum of 5% of the total cost. This will be retained in CAASL for one-year period.

Payment No	Percentage of Payment	Time frame	Applicable requirements
Mobilization Advance	20	At the commencement of assignment after signed the agreement	Subject to the submission of advance guarantee bond
1st Interim payment	30 (1/3 of mobilization advance will be deducted)	As per the agreement	At the acceptance of System Requirements Specifications Document (SRS)
2nd Interim payment	30 1/3 of mobilization advance will be deducted)	As per the agreement	After handed over the test run period
Final Payment	40 (1/3 of mobilization advance will be deducted)	After 12 weeks of commencement of the assignment	At the completion of project after sign user acceptance agreement

ANNEX I - Online Examination System

Exam Structure

1. Online exam shall contain 40 MCQs with 4 answers to choose from.
2. Each attempt require payment (if the operator pass the exam in first attempt, second attempt shall not available)

Question Bank and Exam Delivery System shall contain below features.

1. High Security of the system,
2. Ability to feed, update, amend, remove questions and answers time to time,
3. Ability to deliver examination papers and marking the paper according to the marking schemes (autonomously),
4. Ability to provide statistical analysis,
5. Ability to obtain desired reports,
6. Ability to provide different levels of authority (administrator, Director, Senior Inspector, Inspector),
7. Appear countdown timer when commencing the exam and make it prominent,
8. Auto submit the active examination (answers given) when the allocated time is over,
9. System expansion
10. Ability to amend the examinations standards

Composition of the Online Exam as below

1. UAS Safety and Operating Principles (13 MCQs)
 2. Aviation Regulation (12 MCQs)
 3. Meteorology (5 MCQs)
 4. UAS Flight Performance (10 MCQs)
-

Annex II - Data Sheet

DATA SHEET	
CAASL	The Civil Aviation Authority of Sri Lanka (CAASL).
Less Compliance	The bidder shall quote for all the items specified in the price schedule.
Bid Submission address	Address for submission of Bids; Chairman, Departmental Procurement Committee, Civil Aviation Authority of Sri Lanka, No.152/1, Minuwangoda Road, Katunayake Sri Lanka
Deadline	Deadline for submission of bid is. Date 17 th November By 2.00 pm
Bid Opening Time	The bids will be opened at soon after the deadline close time.
Bid Opening Place	The bid shall be opened at the following address Ground Floor, "Piyapath" Conference Hall Civil Aviation Authority of Sri Lanka, No.152/1, Minuwangoda Road, Katunayake Sri Lanka
Other Factors	Other factors that will be considered for evaluation are as follows: The most substantially responsive bid will be selected which may not necessarily be the lowest bid but essentially abiding by the technical specification and other requirement specified.
Additional Documents	The Bidder shall submit the following additional documents Manufacturer / Agent / reselling authorization document If the bid is submitted by a party other than the manufacturer, such as an importer, a trader, an agent, who will act as the supplier or sign the contract, such bidders shall submit <ul style="list-style-type: none"> ● a statement by the manufacturer certifying that the bidder is authorized to offer system manufactured by him/her and the manufacturer will assume all warranty obligations, ● Manufacturer's printed technical brochures ● A copy of business registrations ● Bidder should have more than 05 year experience in selling and servicing experiences.

Annex III - Price Schedule

	Description of service/Activity	Qty.	Unit Price without Tax (LKR)	NBT (LKR)	VAT (LKR)	Total (LKR)
1.	Design and Development of Operator Registration System					
2.	Design and Development of Drone Registration System					
3.	Design and Development of Flight Plan Submitting and Approval System					
4.	Design and Development of Digital Map					
5.	Design and Development of Online Exam System					
6.	Design and Development of UAS monitoring system					
7.	Integrate with Finance System and Online payment system of CAASL					
8.	Quality Assurance					
9.	Other certification (pls certify)					
10.	Other costs (Pls specify)					
11.	Total Price					
12.	Grand Total Price in Words:					
13.	Maintenance Services (Annual Maintenance Cost after completion of Warranty Period referred in below No. 14):					
	1 st year					
	2 nd year					
	3 rd year					
	4 th Year					
	5 th Year					

14. Warranty Period *(minimum 5 years):

I hereby confirm that the above prices are final, and will not be subjected to further conditions and/or changes/amendments.

Signature of the Bidder:

Name: Rubber Stamp:

Designation: Company Name:

Annex IV - Assignments of Similar Nature Successfully Completed During Last 5 Years

1. Brief Description of the Firm/Organization:
2. Outline of recent experience on assignments of similar nature:

S No.	Name of assignment	Name of project	Owner or sponsoring authority and name of contact person	Cost of assignment	Date of commencement	Date of completion	Was assignment satisfactorily completed
1	2	3	4	5	6	7	8

Note: Please attach certificates from the Organizations by way of documentary proof.

Annex V - Work Plan Time Schedule

Sl. No.	Item ¹	Week wise Programme ²													
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 ^t _h	11 ^t _h	12 th		

1. Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as CAASL approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.
2. Duration of activities shall be indicated in the form of a bar chart.

Annex VI - Approach and Methodology

A short note outlining the various steps proposed in performing the assignment. (One or two pages)

**Annex VII - Composition of the Team Personnel and the Task/s which
would be assigned to Each Team Member**

1. Technical/Managerial Staff

No.	Name	Position	Task assigned

2. Support Staff

No.	Name	Position	Task assigned

Annex VIII - Format of Curriculum Vitae for Members of Bidder's Team

1. Name:

2. Profession:

Present Designation:

3. Years with the Firm/Organization:

Nationality:

4. Area of Specialization:

5. Proposed Position on Team:

6. Key Qualifications:

(Under this heading, give outline of staff member's experience and training most pertinent to assigned work on proposed team. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use up to half-a-page.)

7. Education:

(Under this heading, summarize college/university and other specialized education of staff member, giving names of schools/colleges, etc., dates attended and degrees obtained. Use up to a quarter page.)

8. Experience:

(Under this heading, list all positions held by staff member since graduation, giving dates, names of employing organization, title of positions held and location of assignments. For experience in last five years, also give types of activities performed and CAASL references, where appropriate. Use up to three quarters of a page.)

9. Languages:

(Indicate proficiency in speaking, reading and writing of each language by 'excellent', 'good' or 'poor'.)

Signature of Staff Member

Date:

Annex IX - Work Program and Time Schedule for Key Personnel Weeks

Name of Bidders	Position	1	2	3	4	5	6	7

Name of the Development	Duration	Full Time/Part Time
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

- Indicate whether full time or part time in the relevant field

Annex X - Bid Security (Bank Guarantee)

Form: Bid Security (Bank Guarantee)

(Enclosed in envelope marked, "Envelope 1 – Qualification & Experience –Technical Bid")

Whereas, [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated [Date] for providing Services for [name of Contract] (hereinafter called "the Bid").

Know all people by these presents that We[name of Agency] having our registered office at[address] (hereinafter called "the Bank") are bound unto[name of Employer] (hereinafter called "the Employer") in the sum of Sri Lankan Rupees[The Bidder should insert the amount of the Guarantee in words and figures] for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this [day] day of [month], [year].

The conditions of this obligation are:

1. If, after Bid opening, the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid; or
2. If the Bidder having been notified of the acceptance of his Bid by the Employer during the period of Bid validity:
 - a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
 - b) fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or
 - c) does not accept the correction of the Bid Price,

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer's having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him/her is due to him/her owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date [Usually 28 days after the end of the validity period of the Bid.] days after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

Date..... Signature of the Bank.....

Witness..... Seal.....

.....
[Signature, name, and address]

Annex XI - Form of Performance Guarantee (Unconditional)

Number:

Date:

Sum Guaranteed:

To: [name and address of Employer]
(Herein after called and referred to as "the Employer")

..... [address of Employer]

Whereas[name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No.[Number] dated[date] to execute[name of Contract and brief description of Services] (hereinafter called "the Contract");

And whereas it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract ;

And whereas we have agreed to give the Contractor such a Bank Guarantee;

Now therefore we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Rupees [amount of Guarantee] [amount in words], such sum being payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Services to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall be valid until a date 28 days from the date of issue of the Certificate of Completion.

Signature and seal of the Guarantor.....

Name of Bank.....

Address.....

Date.....

Witness

Annex XII - Letter of Acceptance

[Address]

[Date]

Dear Sir,

LETTER OF ACCEPTANCE

I am pleased to inform you that the Department Procurement Committee of the Civil Aviation Authority of Sri Lanka has decided to award the contract for to after the evaluating the bid datedthat has been submitted by the Of the grand total (Excluding Taxes).

Accordingly is hereby instructed to commence execution of the works specified in the bid document in accordance with the Contract Agreement which is to be entered between CAASL and

Please acknowledge the receipt of this Letter of Acceptance by signing and returning same to us duplicate copy of this letter within seven days of receipt.

Yours Faithfully,

Capt. Themiya Abeywickrama
Director General of Civil Aviation and
Chief Executive Officer

Annex XIII - Acknowledgement

Acknowledgement

We, the, hereby acknowledge the receipt of the letter of Acceptance for the
' for Civil Aviation Authority of Sri Lanka under the terms
and conditions stipulated therein.

For and behalf of the

Name and Signature

Designation

Address

.....

Date.....

Seal of the

Witness:

Name and Signature

Designation

Address

Date.....