Detailed description of the purchase order

I. ORDER CHARACTERISTIC

1. The object of the procurement procedure is a delivery – purchase a license to operate computer software with an examination program assessing, in compliance with ICAO requirements, the level of English language proficiency of pilots who conduct operations in the international air space. The order covers the installation of the above mentioned computer software on the Civil Aviation Office servers and a training package for conducting assessment examinations and managing the system.

2. In compliance with Annex 1 to the Chicago Convention, the Polish Aviation Authority is obliged to conduct aviation English language proficiency examinations for pilots, in the scope of standard phraseology in radiotelephony communications and the ability to use colloquial language in standard and unusual situations, in a manner adequate to the requirements set by the International Civil Aviation Organization. The above mentioned assessment examinations have to be conducted for pilots, who today hold aviation licences and, in the future, in a continuous manner for all candidates applying for a pilot's licence. The above mentioned assessment examination shall be used by the Civil Aviation Office for licencing aviation personnel.

3. Basic characteristics of the assessment examination program (based on ICAO Annexes 1, 6, 10 & 11 and Doc. 9835 „Manual on the Implementation of ICAO Language Proficiency Requirements" as well as ICAO Cir 318 Language Testing Criteria for Global Harmonization) should:
   a. allow to assess pilots' fluency in English in the following areas:
      - ICAO phraseology in radiotelephony communications,
      - colloquial language used in standard and unusual situations or when an unexpexpected turn of events occurs, in aviation context. Academic and business examaminations do not comply with ICAO requirements.
   b. consist of two parts: listening (checking comprehension) and speaking (checking ability of appropriate conversation). Examinations prepared to check grammar, reading, writing skills or knowledge of technical language or specify context vocabulary are not sufficient;

c. be developed by a team of specialists of various domains: linguists, aviation operational personnel: pilots, air traffic controllers, teachers/aviation English language trainers, aviation training department employees. It is desired, that the subject developing the examination shall have solid experience in developing language proficiency assessment tools;

d. be earlier tested on a representative professional group;

e. include a rating procedure;

f. be equipped with administrative tools to store data;

g. allow to assess the aviation language fluency according to the ICAO Rating Scale;

h. be based on the so called Holistic Descriptors, Annex 1, which allow to assess the level of language fluency with the use of communication through radio/radiotelephone and in face-to-face situations and also verify the efficiency of communication in situations related to the pilot's work environment, using a dialect/pronunciation intelligible to the aeronautical community;

i. allow to assess the aviation language fluency basing on 6 linguistic criteria : pronunciation, structure, vocabulary, fluency, comprehension and interaction (conversation) – basing on the Rating Scale, and the level given to pilot should be the lowest level given in every particular criteria;

j. allow to conduct that part of the examination which assesses language comprehension computer based, as this will allow to conduct the examination simultaneously for several candidates. The part assessing speaking skills is conducted by an examiner authorized by the Polish Civil Aviation Office. Each part of the assessment examination should last about 30 minutes;

4. Training package concerning with conducting and rating examinations assessing pilot's fluency in English should contain below mentioned trainings:

I. Training designed for a group of Polish examiners / raters, who are the holders of accreditation for examining / rating. The aim of the training is maintaining and verification of their knowledge. The training should be organized as a 4 – day refresher course (2 days for examiners and 2 days for raters).

20 people will attend the training.

During the training its participants will gain below mentioned skills:

1. Revise key elements of typical radiotelephony correspondence;

2. attain skills of conducting examinations with the test;

3. attain skills of rating examinations with ICAO rating scale;

4. participants will get the knowledge of operating the test and rating the examination with the test;

5. the Tenderer will make an examination for the training participants and will issue certificates / accreditations authorizing participants to conduct / rate examinations.

The above mentioned training is to be completed in the first instance, in the time agreed by the Tenderer and contracting authority, but no later than 15 days from agreement coming into force.

II. Training designed for a group of Polish examiners / raters not having examining / rating authorization. The training should be organized in two stages:

a) I stage – 5 – day aviation phraseology training, conducted in time and according to the programme agreed by the contracting authority and the Tenderer;

b) II stage – 5 – day initial training, 3 days for raters and 2 days for examiners.

15 people will attend the training.

During the training its participants will gain below mentioned skills:

1. gain the knowledge of of typical radiotelephony correspondence;

2. attain skills of conducting examinations with the test;

3. attain skills of rating examinations with ICAO rating scale;

4. participants will get the knowledge of operating the test and rating the examination with the test;

5. the Tenderer will make an examination for the training participants and will issue certificates / accreditations authorizing participants to conduct / rate examinations.

Contracting authority reserves the right to select the above mentioned trainings.

III. Training for system administrators – designed and prepared for two administrators and completed in the time when the system is being implemented at the contracting authority promptly after the system installation and it should contain:

1. acquainting with the rules of system functions and administering;

2. updating and introducing improvements;
3. debriefing of files circulation (sending and converting);
4. acquainting with the way of recording examinations (audio devices debriefing).

Training for administrators will organized free of charge.

Apart from that the Tenderer is obliged to conduct, at least once a year that is at least twice in agreement duration, refresher trainings for examiners and raters as well as issue reaccreditations authorizing to examining and rating. The trainings should be organized in time allowing conducting and rating examinations correctly and continuously.

All trainings in the training package will be organized in Warsaw, in PCAO training center, with an experienced trainer from the Tenderer's company.

5. The test provider is obliged to deliver the test sample on an electronic data carrier (e.g. CD). The sample should contain recording of an example examination.
6. The contract shall be signed for 3 years.
7. Polish Civil Aviation Office predicts that during the agreement duration about 1700 pilots will be examined. Taking above into consideration it is desired that the test has many different versions in order to avoid repeatability. Furthermore the Tenderer is obliged to deliver different test versions appropriately for IFR and VFR flights.

II. SAFETY REQUIREMENTS

Minimal safety requirements for the Aviation Personnel Examination – English language proficiency module (SEPL-ET).

1. The system has to guarantee a high level of safety and protection of processed, stored and transferred data.
2. The system has to guarantee protection against unauthorized access to the system from outside or inside.
3. The system has to guarantee identification of identity and verification of users' authorizations.
4. The system must provide an access authorization prioritization mechanism to its data base.
5. The system has to guarantee that it processes data access verification.
6. The system has to allow the possibility of identification of examiners and raters.

7. SEPL-ET has to guarantee the possibility of setting the exam duration time, and after the time has ceased the system should automatically log out the user if he leaves the computer on, and the computer is not used.

8. The system has to be resistant to the work station "freezing", ie. a malfunction of the work station whilst logged in the system can not lead to the instability of the SEPL-ET working system for the remaining users (the interrupted session can be resumed on other computer station).

9. The system must allow managing of users and their authorizations centrally.

10. The system must be integrated with authentication mechanisms of Active Directory.

11. The supplier has to develop repair procedures for incidents of malfunction for each element of the system that will allow for the system to return to the state preceding the malfunction. The regeneration time for each element of the system shall not exceed 4 hours.

12. The supplier has to deliver the system together with source codes.

13. The system should be produced in a three layer technology with a viewer on the client's level.

14. The system should faultlessly work with MS SQL Server 2003 data base (owned by CAO).

15. The system must be resistant to intervals in access to the data base server and applications by work stations. On renewing the connection with the data base server and application, the work station returns to the interrupted session.

III.   IT ENVIRONMENT

Information about the IT environment

- At least 40 simultaneous system users.
- Work stations (for conducting examinations) as terminals without own logic working with the application server.
- Examination managing stations – a computer equipped with MS Windows XP Prof. operational system not worst than P4 2 GHz or equivalent in Centrino mobile technology.
- The server system used is MS Windows Serwer 2003 in domain environment.
- The system must operate basing on an interactive data base MS SQL Server 2000 ent.

IV.   INFORMATION ON CONTRACTING AUTHORITY'S COMMUNICATION AND INFORMATION INFRASTRUCTURE.

IT system operated in the CAO is based on Windows 2003 Active Directory server environment. The application designers will have access to authentication mechanisms used in the above environment. There is also access to a dedicated application server described above as a hardware platform operating in W2003 environment with access to Fibre Channel matrix. The data base server operates under the surveillance of SQL 2000 ENT also basing on the Fibre Chanel matrix. The data bases are protected by backup mechanisms using tape drives LTO. Additional detailed information concerning the IT environment, necessary protective mechanisms and the net topology shall be available at the contract delivery stage. Contracting authority's computers operate under the surveillance of MS Windows XP system, on computers not worst than P4 2 GHz, 512 MB memory RAM, HDD not less than 40 GB. MS Office XP/2003 Prof. package installed. About 20 flat bed USB scanners available.

V.   DOCUMENTATION

The Tenderer should deliver documentation:

- Containing safety rules proving system confidentiality.
- Defining rules of test actualization so that it is updated with ICAO requirements at all time of the agreement duration.
- For each group of system users (administrators, examiners, raters), and this documentation should contain requirements on technological infrastructure.