



Air Navigation Services of the Czech Republic

AMENDMENT 2 to the Contract for Work No. 293/2018/IS/160 dated February 21, 2019 amended by Amendment No 1 dated June 28, 2019

(hereinafter referred to as the "**Amendment**")

1. Parties

Air Navigation Services of the Czech Republic (ANS CR),

a state enterprise existing and organized under the laws of the Czech Republic

With its registered office at: Navigační 787, 252 61 Jeneč, Czech Republic

Represented by: Mr. Jan Klas, Director General

Company Identification Number: 49710371

Tax ID Number (DIČ): CZ699004742

IBAN: CZ1203001712800000088153

SWIFT code: CEKOCZPP

Registered in the Commercial Register maintained by the Municipal Court in Prague, Section A, Insert 10771,

(hereinafter referred to as the "**Client**")

and

ROHDE & SCHWARZ – Praha, s.r.o.

With its registered office at: Evropská 2590/33c, 160 00 Praha 6, Czech Republic

Represented by: Mr. Pavel Šalanda, Managing Director

Company Identification Number: 62906127

Tax ID Number (DIČ): CZ62906127

Bank details: UniCredit Bank Czech Republic and Slovakia, a.s.

Account Number: 1759000/2700 CZK

1759115/2700 EUR

IBAN: CZ3627000000000001759115

BIC: BACXCZPP

Registered in the Commercial Register maintained by the Municipal Court in Prague, Section C, Insert 34376,

(hereinafter referred to as the "**Contractor**")

The "Client" and the "Contractor" hereinafter individually or commonly referred to as the "**Party**" or "**Parties**".

2. Preamble

2.1 Considering that:

- 2.1.1. on February 21, 2019 Parties signed „Contract for Work - Renewal of SIMU VCS systems” (hereinafter referred to as the „**Contract**“),
- 2.1.2. stage 8 delivery was intended for extending the SIMU ROSE+PAR system at new CANI premises, however these simulators will not be extended by the Client so there is no need for extending the VCS systems at this location,
- 2.1.3. stage 9 delivery was intended for extending the SIMU TWR system at new CANI premises, however this simulator will not be extended by the Client so there is no need for extending the VCS systems at this location,
- 2.1.4. all the 10 VCS positions from Stage 8 and all the 16 VCS positions from Stage 9 will be used for the new tower simulator at IATCC, Jeneč and because the premises where the new simulator will be installed, are not prepared by the Client for the installation of the VCS system yet, the dates for SAT of Stage 8 and Stage 9 needs to be postponed,
- 2.1.5. due to training and operational needs the Client identified a list of technical requirements which are part of this Amendment. The main requirements and the reasons for implementing them are:
 - 2.1.5.1. virtualization of all the HW servers to limit the risk of HW failure,
 - 2.1.5.2. upgrading the operating system to a supported version which allows installation of updates to avoid the cybersecurity vulnerabilities,
 - 2.1.5.3. upgrading the SW version to version R17 which will be supported by the Contractor even after the end of the warranty period,
 - 2.1.5.4. user requirements to enhance the system functions,
- 2.1.6. the Amendment is concluded in accordance with Section 222(3) and Section 222(4) of Act No. 134/2016 Coll., on Public Procurement,

the Parties have agreed to conclude this Amendment.

3. Subject matter of the Amendment

3.1 In article 2 of the Contract, a provision on the new Annex 3 is added to paragraph 2.1 of the Contract, which now reads as follows:

“2.1 Upon the terms and subject to the conditions herein contained, the Contractor undertakes to supply “Renewal of SIMU VCS systems” on Client’s simulators at his own risk and cost as described in Annex 1, Annex 2 and Annex 3 to this Contract (hereinafter „the Work”) and the Client undertakes to pay the price to the Contractor for the Work under the terms and conditions defined hereafter. The Price of the Work is agreed in Article 3 of this Contract.”

3.2 Paragraph 3.1 of the Contract is hereby deleted and replaced by the following:

“3.1 The contractual price of the duly performed Work is fixed according to the Price Act No. 526/1990 Coll., as amended. The total contractual price for the Work specified in Article 2 of this Contract, calculation of which is given in Annex 2 to this Contract is:

2.133.278 EUR

(in words: two million one hundred thirty three thousand two hundred seventy eight EUR).“

3.3 A new paragraph 3.2.19. shall be inserted in article 3 of the Contract, which shall read as follows:

“3.2.19. Payment amounting to 100 % (hundred percent) of the Stage 10 total price [REDACTED] shall be paid by the Client on the basis of an invoice issued by Contractor after successful SAT10 fulfilment.”

3.4 In article 4, paragraph 4.1 of the Contract, the terms of performance for the two milestones are changed as follows:

“ Stage 8 – SAT8 T0 + 9 months,”

“ Stage 9 – SAT9 T0 + 9 months,”

and another two milestones are added as follows:

“Stage 10 – FAT10 T0 + 16 months

Stage 10 – SAT10 T0 + 18 months.”

and at the end of the paragraph, the following sentence is added:

„Whereas T₀ is the date of publication of the Amendment in the Register of contracts (see the paragraph 4.3 of the Amendment).“

3.5 In article 5, paragraph 5.1 of the Contract, the place of performance for the two milestones is changed as follows:

“Stage 8, 9 IATCC Prague - Navigační 787, 252 61 Jeneč,”

and another place of performance is added as follows:

“Stage 10 IATCC Prague - Navigační 787, 252 61 Jeneč.”

3.6 Paragraph 7.2 of the Contract is hereby deleted and replaced by the following:

“7.2 The Contractor provides the Client with a 2 (two) years warranty period for the HW (hereinafter “the HW warranty period”). The HW warranty period for each of Stages 1 – 9 starts on the day of signing the relevant Site Acceptance Certificate (SAT 1 - 9) of the Work.”

3.7 Paragraph 7.3 of the Contract is hereby deleted and replaced by the following:

“7.3 The Contractor provides the Client with a warranty period for the entire SW (hereinafter “the SW warranty period”). The SW warranty period starts on the day of signing the SAT1 Certificate and ends 2 (two) years after signing SAT10 Certificate.”

3.8 In article 19, paragraph 19.4 of the Contract, in the Annex 2 – Price calculation, the calculation for stage 10 is added after the stage 9 calculation as follows:

Total price excluding VAT for Stage 10:	[REDACTED]
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and the last line of Annex 2– Price calculation is therefore amended as follows:

Total price excluding VAT for Stages 1-10:	2 133 278,00
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- 3.9 In article 19, paragraph 19.4 of the Contract, the “*Annex 3 – Additional technical specification*”, is added.

4. Final Provisions

- 4.1 All the other Articles of the Contract are not changed by this Amendment.
- 4.2 The Contractor acknowledges that the Client is obliged to publish this Amendment in accordance with Act No. 340/2015 Coll., on special conditions for the effectiveness of certain contracts, the publication of such contracts, and the contract register (the Contract Register Act), as amended.
- 4.3 This Amendment shall enter into force on the date of its signing by the Parties and shall become effective on the day of its announcement in the Register of Contracts.
- 4.4 **This Amendment has been signed electronically, only in one electronic copy.**
- 4.5 The following annex to the Contract forms an integral part of this Amendment:

Annex No. 3 – Additional technical specification



.....
the Client
Mr. Jan Klas, Director General
Air Navigation Services of the Czech Republic (ANS CR)



.....
the Contractor
Mr. Pavel Šalanda
Managing Director
ROHDE & SCHWARZ – Praha, s.r.o.

Ing. Jan Wagner  Digitally signed by Ing. Jan Wagner
Date: 2025.09.22 11:34:27 +02'00'

Additional technical specification

Voice Communication Systems for Simulators

ID	Item	Description	Stage from which the requirement is valid
VCS-ECR00	Upgrade to version R17	Entire SW of the SIMU VCS system shall be upgraded to version R17, including upgrade of the operating system.	10
VCS-ECR01	Change of exercise during run	It shall be possible to change the exercise configuration (change assigned roles, add or remove positions) without the need to restart the exercise. When changing the assigned roles the position shall not be restarted. Purpose of this requirement is to be able to simulate resectorization during the exercise.	10
VCS-ECR02	Automatic reboot	It shall be possible to automatically reboot selected equipment groups at given time/interval. Acceptable solution is a script with the description for ANS CR how to modify it when needed. Equipment group may be defined by a list of IP addresses. Due to the scale of the system and because the system is running permanently, sometimes positions are frozen after a long time without restart. This modification would make it possible to set an automatic restart e.g. every day at night and thus improve the stability of the system.	10
VCS-ECR03	PTT setting as functional button	It shall be possible to define the PTT function switch as a separate button and place it anywhere in the VCS layout. VCS includes functionality where the instructor can use the PTT button to communicate with the pseudo-pilots (without being heard by the student), however, switching between frequency keying and this function is only available from the audio setup page, making it difficult for the instructor to access it. This modification would allow the switching to be placed directly on the main VCS layout page.	10

VCS-ECR04	PP duplex radio	When PP is transmitting he shall hear the incoming transmission if any other position is also transmitting. Student position shall keep the current behavior (when transmitting he cannot hear other transmissions). When more than one PP position is transmitting then the other positions shall hear all the transmissions simultaneously. Main reason for this requirement is that PP sometime start to transmit almost simultaneously and the one who started later doesn't know that his transmission cannot be heard by anyone.	10
VCS-ECR05	Indication of collision on frequency	There shall be an indication when more than one position is transmitting on frequency. This indication shall be visible on the Garex layout on PP positions. Indication shall be done by red background of the frequency button. Main reason for this requirement is that PPs sometime start to transmit almost simultaneously and the one who started later doesn't know that his transmission cannot be heard by anyone.	10
VCS-ECR06	Configuration of volume control labels	It shall be possible to configure labels of the volume control sliders in the Garex layout. The volume control page is different from the real Garex, the labels for each connector for which the slider adjusts the volume are CON1-CON4, which is unintuitive for the user and they have no idea which slider to use. Modification would allow to change the labels to e.g. STUDENT TEL, INSTRUCTOR RADIO etc.	10
VCS-ECR07	Copying a button in GUI designer	In GUI designer it shall be possible to copy a selected set of buttons (one or more buttons) within one window and also to another window (even when it is used in another area or layout, i.e. copy to another layout/area/window). The copied buttons shall keep their position (the x, y coordinates relative to the upper left corner of the window) when copied into another window In the current version, each button needs to be created separately (setting the role, background color, text color, border color, text size, position etc). Given the number of layouts, each containing hundreds of buttons, this modification would greatly speed up and simplify editing and creating layouts. This should also allow copying a button (or set of buttons) from one layout to another.	10

VCS-ECR08	GUI designer arrows for moving buttons	It shall be possible to move buttons in the GUI designer within a predefined grid. The button shall move with 28 pixel step vertically or horizontally and the first 10 pixels from left and right and first 8 pixels from top and bottom shall not be used. The movement may be done e.g. by CTRL+arrows or keys w,a,s,d. The Garex layout allows button placement in a grid with 35 rows and 28 columns, and the SIMU VCS allows arbitrary button placement within 1024x800 pixels. To make SIMU VCS look like Garex, the button placement must be calculated as a certain number of pixels from the edge (11 horizontally, 9 vertically) plus a multiple of 28 pixels - these values must be calculated manually or read from a prepared table when placing buttons. A modification would allow the buttons to be placed by simply moving the arrows instead of calculating coordinates.	10
VCS-ECR09	Clone position within exercise	It shall be possible to clone in the VCMS web interface a position defined in the exercise. When inserting a new position into the exercise, a number of parameters (position, layout, role, role groups) need to be defined. The modification would allow inserting a new position as a copy of one of the already defined positions and only adjusting the differences.	10
VCS-ECR10	Comment to an exercise and role group	It shall be possible to add comments to individual exercises and role groups in the VCMS. Due to the number of exercises and role groups, it is necessary to be able to add a comment to them so that the administrator can find out what the exercise/role group is used for and choose the right option.	10
VCS-ECR11	VCMS positions overview	There shall be a new table in the VCMS with overview of all the VCS users with class CWP_Users. It shall display these columns: VCS user, status (running/stopped ...), name of the exercise into which they are allocated (or text "not allocated"), layout name and list of the assigned roles. The web control interface does not allow a preview of all the positions to see their current status, which makes it difficult to administer the system.	10
VCS-ECR12	Changing order of roles	It shall be possible to change the order of roles for each position using drag & drop with the mouse in the VCMS web interface. The order of roles for each position affects the configuration of the respective position and the display of roles on the student HMI. In the current system, changes can only be made in a very un-ergonomic way by using the arrows next to each row. Modifying the order of a single position thus involves dozens of mouse clicks.	10

VCS-ECR13	VCMS tables order	VCMS web interface shall remember the set order of each table. Every time the table is loaded, the sorting is set to the default sort by id, which is completely inappropriate for administration, so that almost every time the sorting has to be changed again manually.	10
VCS-ECR14	Searching of roles in exercise	It shall be possible to search the list of roles when assigning roles to individual positions in the VCMS web interface. When assigning roles to positions, it is necessary to make a selection from a height-limited drop-down list where only 8 roles are displayed at a time, to select a role you need to scroll to that role and click to select it. Since there are almost a thousand roles, this is very tedious. A modification would allow a role to be found simply by typing in its name or just its beginning, as is already the case in other parts of the web control interface.	10
VCS-ECR15	Show database links for buttons	There shall be a new table in the VCMS web interface, which shows list of layouts/areas/windows in which a button is used. Purpose of the requirement is to prevent unwanted modifications of buttons used in multiple layouts.	10
VCS-ECR16	Overlay of Areas in GUI designer	It shall be possible to define a window which can be opened on the whole screen even if there are multiple smaller areas defined in the layout. When the window is closed the areas "below" shall be visible.	10
VCS-ECR17	Default window for exercise	It shall be possible to configure which window(s) will be active upon starting an exercise. At CANI we use universal layout with subwindows for ACC/APP/TWR and we want to have it already opened on the proper subwindow when starting the exercise.	10
VCS-ECR18	Virtualisation of servers	All servers shall be virtualised on ANS CR VMware virtual platform to ease maintenance and monitoring. The same server architecture/performance as today shall be kept.	9