

# LETTER OF AGREEMENT

Between

Romania vACC

and

Hungary vACC

Bucharest FIR

Budapest FIR

Effective: 01/12/2015

Version: 1.0

**Purpose:** The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Romania vACC and Hungary vACC when providing ATS to (GAT/OAT), (IFR/VFR).

**Operational Status:** Both vACC units shall keep each other advised of any changes in the operational status of their facilities and navigational aids which may affect the procedures specified in this Letter of Agreement.

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## GENERAL REGULATIONS:

- 1) All traffic, including VFR traffic, intending to cross the international borders shall mandatorily submit a complete and valid flight plan for the entire journey. Traffic not complying with the present rule shall not obtain by the Air Traffic Services any en route clearance beyond the airspace of the originating nation.
- 2) All traffic, IFR and VFR, submitting a complete and valid flight plan shall be considered as authorized to enter the foreign airspace, unless explicit denial is notified as part of the individual controller to controller coordination. Border crossing may be denied only in case of grave and proven operational limitations.
- 3) Handoff of communication shall be made at least 1 minutes prior the established limit of jurisdiction.
- 4) En route clearance limit of VFR traffic crossing the international borders shall be set to the limit of jurisdiction itself. Handoff of communication for VFR traffic shall be performed at least 5 minutes before the foresaid clearance limit, in order for the traffic to obtain the required en route clearance for transit within the foreign airspace.
- 5) Upon handoff, traffic shall be considered as **NOT released** for climb, descent, turns or change of airspeed unless otherwise specified in the provisions below.
- 6) Traffic is to be transferred clear of conflicts, and complying in particular with the following separation restrictions:
  - 5 NM longitudinal separation between traffics is at equal or faster assigned speed or between two traffic at different Flight Level.
- 7) **Traffic** shall be handed off on a valid ATS route or on defined waypoints **at RFL** using the semi-circular cruising level system (even/odd), **(West EVEN, East ODD)** in case of NFRAB this will also implemented in base the direction of the flight.
- 8) To avoid additional workload in relation to the transfer of radar identification and separation on radar track the accepting unit should not perform the operation of "LABEL ASSUME" until it has made two-way contact with the traffic and the other ATC.
- 9) Both ATS units shall transfer aircraft on verified discrete codes assigned in accordance with the VATSIM Squawk Code Range, any change of SSR code by the accepting ATS Unit may only take place after the transfer of control point and the accepting ATS Unit shall be notified of any observed irregularity in the operation of SSR transponders.
- 10) Individual coordination between the active controllers takes priority over the provisions specified in the present LoA. In order to prevent unnecessary workload, individual coordination shall be limited to cases of effective need (e.g. weather cells, congested sectors/airports, aircraft performance limitations).
- 11) All Handover procedures described below they need to be verbalize in the SEL and SIL, in order not to cause further confusion to the controller.
- 12) VFR flights are not permitted in the AoR of Romania ACC and Hungary ACC above FL195, unless specific coordination has been coordinated between the ATS Units.
- 13) If RFL is above or below the Cleared FL the climbing/descending condition shall be coordinated verbally with Bucharest ACC or Budapest ACC as appropriate.

In order to have a suitable altitude for approach in Romania and Hungary Airspace the following limits are established: Page 6

## **ABBREVIATION:**

**vACC:** Virtual Area Control Center  
**RFL:** Requested Flight Level  
**ATS:** Air Traffic Service  
**LoA:** Letter Of Agreement  
**IFR:** Instrument Flight Rules  
**VFR:** Visual Flight Rules  
**SEL:** Sector Exit List  
**SIL:** Sector Inbound List  
**FIR:** Flight Information Region  
**ACC:** Area Control Centre  
**GAT:** General Air Traffic  
**OAT:** Operational Air Traffic  
**UNL:** Unlimited  
**SFC:** Surface

## **DEFINITIONS:**

### **General Air Traffic (GAT):**

All movements of civil aircraft, as well as all movements of State aircraft (including military, customs and police aircraft) when these movements are carried out in conformity with the procedure of ICAO.

### **Operational Air Traffic (OAT):**

All flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.

### **Release for Climb:**

An authorization for the accepting unit to climb (a) specific aircraft before the transfer of control.

Note:

The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

### **Release for Descent:**

An authorization for the accepting unit to descend (a) specific aircraft before the transfer of control.

Note:

The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

### **Release for Turn:**

An authorization for the accepting unit to turn (a) specific aircraft away from the current flight path by not more than 45° before the transfer of control.

Note:

The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

### **Area of Responsibility:**

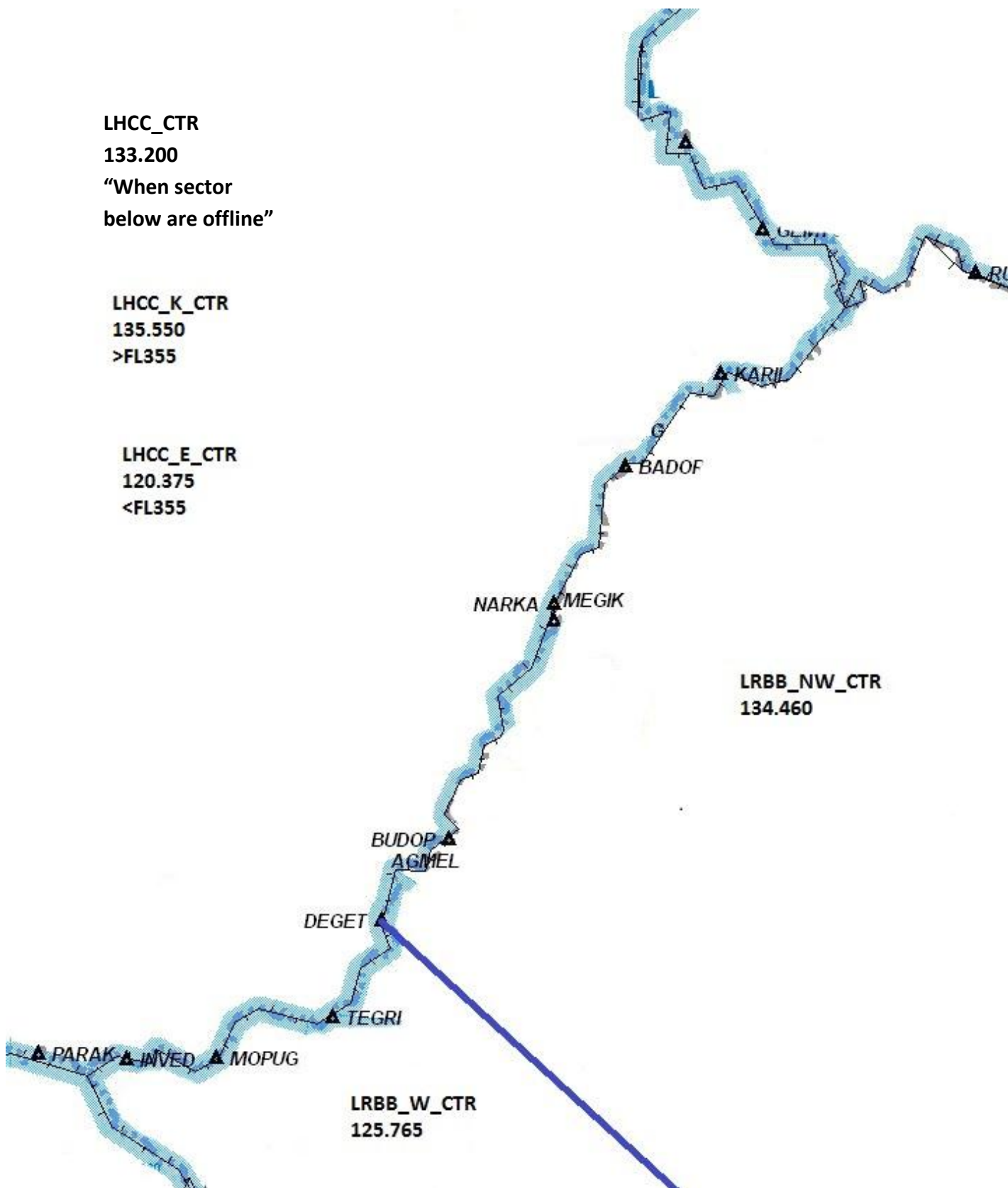
An airspace of defined dimensions where a sole ATS unit has responsibility for providing air traffic services.

**AREA OF RESPONSIBILITY & AIRSPACE DELEGATION:**

For the purpose of this LoA the boundary between Romania Bucharest FIR and Hungary Budapest FIR consists of a line connecting the waypoints:

KARIL – BADOR - NARKA – MEGIK – BUDOP – DEGET – TEGRI – MOPUG - INVED

**See attachments below:**



## ATC SECTOR INFORMATION:

CONTROLLER	FREQUENCY	CALLSIGN	VERTICAL LIMITS
LRBB_NW_CTR	134.460	Bucharest Radar	SFC – UNL
LRBB_W_CTR	125.765		
LHCC_E_CTR	120.375	Budapest Radar	
LHCC_K_CTR	135.550		
LHCC_CTR	133.200		
LHCC_I_CTR	119.350	Budapest Information	
LRAR_APP	127.250	Arad Approach	SFC - FL175
LROD_APP	120.200	Oradea Approach	SFC – FL55
LRSM_APP	118.800	Satu Maru Approach	
LHDC_I_TWR	125.900	Debrecen Info	SFC – 9500 AMSL
LHBC_I_TWR	123.250	Bekescsaba Info	SFC – 4000 AMSL

## SECTOR OWNERSHIP:

CONTROLLER	1 <sup>st</sup> ALT	2 <sup>nd</sup> ALT	3 <sup>rd</sup> ALT
LRBB_NW_CTR	LRBB_N_CTR	LRBB_S_CTR	//
LRBB_W_CTR			
LHCC_E_CTR	LHCC_CTR	//	
LHCC_K_CTR	LHCC_E_CTR	LHCC_CTR	//
LRAR_APP	LRBB_W_CTR	LRBB_N_CTR	LRBB_S_CTR
LROD_APP	LRBB_NW_CTR	LRBB_N_CTR	LRBB_S_CTR
LRSM_APP	LRBB_NW_CTR	LRBB_N_CTR	LRBB_S_CTR
LHDC_I_TWR	LHCC_E_CTR	LHCC_CTR	LHCC_I_CTR
LHBC_I_TWR	LHCC_E_CTR	LHCC_CTR	LHCC_I_CTR
LHCC_I_CTR	LHCC_E_CTR	LHCC_CTR	//

## HANDOVER FREQUENCY:

### Frequencies from Hungary vACC to Romania vACC

>LRBB\_NW\_CTR Sector Frequency: 134.460 MHz

For Traffic via: KARIL – BADOR - NARKA – MEGIK – BUDOP

### Frequencies from Hungary vACC to Romania vACC

>LRBB\_W\_CTR Sector Frequency: 125.765 MHz

For Traffic via: DEGET – TEGRI – MOPUG - INVED

### Frequencies from Romania vACC to Hungary vACC

>LHCC\_E\_CTR Sector Frequency: 120.375MHz

For Traffic via <FL355 via: KARIL – NARKA – MEGIK – BUDOP – DEGET – TEGRI – MOPUG – INVED

### Frequencies from Romania vACC to Hungary vACC

>LHCC\_K\_CTR Sector Frequency: 135.550MHz

For Traffic via >FL355 via: KARIL – NARKA – MEGIK – BUDOP – DEGET – TEGRI – MOPUG - INVED

## HANDOVER PROCEDURES FROM ROMANIA vACC TO HUNGARY vACC

### Transit Sector (Below FL355):

ATS Route	FIX	Cleared FL	Vertical Limits	Handover Controller
T33	KARIL	EVEN FL, RFL	FL50 – FL195	LHCC_E_CTR
UM406			FL290 - UNL	
L/UL604			FL110 - UNL	
UP193			FL290 - UNL	
L/UL619			FL100 - UNL	
N/UN127			FL110 - UNL	
L/UL620	BADOR		FL100 - UNL	
L/UL140	NARKA		FL110 - UNL	
Z/UZ650			FL80 - UNL	
UL622			FL290 - UNL	
N/UN133			FL110 - UNL	
UL40	MEGIK		FL290 - UNL	
Y/UY572	BUDOP		FL100 - UNL	
L/UL850			FL110 - UNL	
L/UL602 UQ26			FL180 - UNL	
L/UL746	DEGET			
L/UL851				
Y/UY553				
UP184		FL290 - UNL		
M/UM859	MOPUG	FL180 - UNL		
N/UN618				
P993		FL180 – FL195		

### Transit Sector (Above FL355):

ATS Route	FIX	Cleared FL	Vertical Limits	Handover Controller
T33	KARIL	EVEN FL, RFL	FL50 – FL195	LHCC_K_CTR
UM406			FL290 - UNL	
L/UL604			FL110 - UNL	
UP193			FL290 - UNL	
L/UL619			FL100 - UNL	
N/UN127			FL110 - UNL	
L/UL620	BADOR		FL100 - UNL	
L/UL140	NARKA		FL110 - UNL	
Z/UZ650			FL80 - UNL	
UL622			FL290 - UNL	
N/UN133			FL110 - UNL	
UL40	MEGIK		FL290 - UNL	
Y/UY572	BUDOP		FL100 - UNL	
L/UL850			FL110 - UNL	
L/UL602 UQ26			FL180 - UNL	
L/UL746	DEGET			
L/UL851				
Y/UY553				
UP184		FL290 - UNL		
M/UM859	MOPUG	FL180 - UNL		
N/UN618				
P993		FL180 – FL195		

Arad/Traian Airport (LRAR/LRTR) Departure:

<b>FIX</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
MOPUG	FL160 released for climb	15 NM Before MOPUG	LRAR_APP -> LHCC_E_CTR

Arad/Traian Airport (LRAR/LRTR) Arrivals:

<b>FIX</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
TEGRI	FL170 released for descend	15 NM Before MOPUG	LHCC_E_CTR -> LRAR_APP

Oradea Airport (LROD) Departure:

<b>FIX</b>	<b>Destination</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
NARKA	LHDC	FL50 released for descend	As soon as possible after Take-Off	LROD_APP -> LHDC_TWR
MEGIK	//	FL50 released for climb	15 NM Before NARKA 15 NM Before MEGIK	LROD_APP -> LHCC_E_CTR

Oradea Airport (LROD) Arrivals:

<b>FIX</b>	<b>Departure</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
NARKA	//	FL60 released for descend	15 NM Before MOPUG	LHCC_E_CTR -> LROD_APP
	LHDC			LHDC_TWR -> LROD_APP

Satu Mare/Baia Mare Airport (LRSM/LRBM) Departure:

<b>FIX</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
KARIL	FL50 released for climb	15 NM Before KARIL	LRSM_APP -> LHCC_E_CTR

Satu Mare/Baia Mare Airport (LRSM/LRBM) Arrivals:

<b>FIX</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
KARIL	FL60 released for descend	15 NM Before KARIL	LHCC_E_CTR -> LRSM_APP

Cluj Airport (LRCL) Arrivals:

<b>FIX</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
NARKA	FL270	15 NM Before NARKA	LHCC_E_CTR -> LRBB_NW_CTR
BADOR	released for descend	15 NM Before BADOR	

# HANDOVER PROCEDURES FROM HUNGARY vACC TO ROMANIA vACC

## Transit Sector:

ATS Route	FIX	Cleared FL	Vertical Limits	Handover Controller
Free Route Airspace	KARIL	ODD FL, RFL	FL50 - UNL	LRBB_NW_CTR
	BADOR			
	NARKA			
	MEGIK			
	BUDOP			
	DEGET			LRBB_W_CTR
	TEGRI			
	MOPUG			
INVED				

### Bekescsaba Airport (LHBC) Departure:

FIX	Cleared FL	Handoff	Handover Controller
DEGET	FL40	15 NM Before DEGET	LRBB_NW_CTR -> LHBC_I_TWR
BUDOP	released for descend	15 NM Before BUDOP	

### Bekescsaba Airport (LHBC) Arrivals:

FIX	Cleared FL	Handoff	Handover Controller
DEGET	FL30	As soon as possible after Take-Off	LHBC_I_TWR -> LRBB_NW_CTR
BUDOP	released for climb		

### Debrecen Airport (LHDC) Departure:

FIX	Destination	Cleared FL	Handoff	Handover Controller
NARKA	LROD	FL60 released for descend	15 NM Before NARKA	LHDC_TWR -> LROD_APP
	//	FL110 released for climb		LHDC_TWR -> LRBB_NW_CTR

### Debrecen Airport (LHDC) Arrivals:

FIX	Departure	Cleared FL	Handoff	Handover Controller
NARKA	LROD	FL50 released for descend	15 NM Before NARKA	LROD_APP -> LHDC_TWR
	//	FL100 released for descend		LRBB_NW_CTR -> LHDC_TWR



Budapest Airport (LHBP) Departure:

<b>FIX</b>	<b>Destination</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
DEGET	LHBP	FL320 released for descend	15 NM Before DEGET	LRBB_NW_CTR -> LHCC_E_CTR
BUDOP			15 NM Before BUDOP	

Budapest Airport (LHBP) Arrivals:

<b>FIX</b>	<b>Cleared FL</b>	<b>Handoff</b>	<b>Handover Controller</b>
TEGRI	FL330 released for climb	15 NM Before TEGRI	LRBB_W_CTR -> LHCC_E_CTR
MOPUG		15 NM Before MOPUG	