Documentation for ATC service in Paraguay

Summary

1-LETTER OF AGREEMENT (LoA)

1.1 Divisions:

- Argentina (AR): SARR
- Bolivia (BO): SLLF
- Paraguay (IVAO): SGFA

1.2 Date:

Date: 28-11-2020

Validity: Permanent

1.3 Purpose:

The purpose of this Letter of Agreement (LoA) is to define the coordination procedures to be applied between Asunción, La Paz, Curitiba y Resistencia when providing Air Traffic Services (ATS), operating under IFR or VFR.

1.4 General procedures:

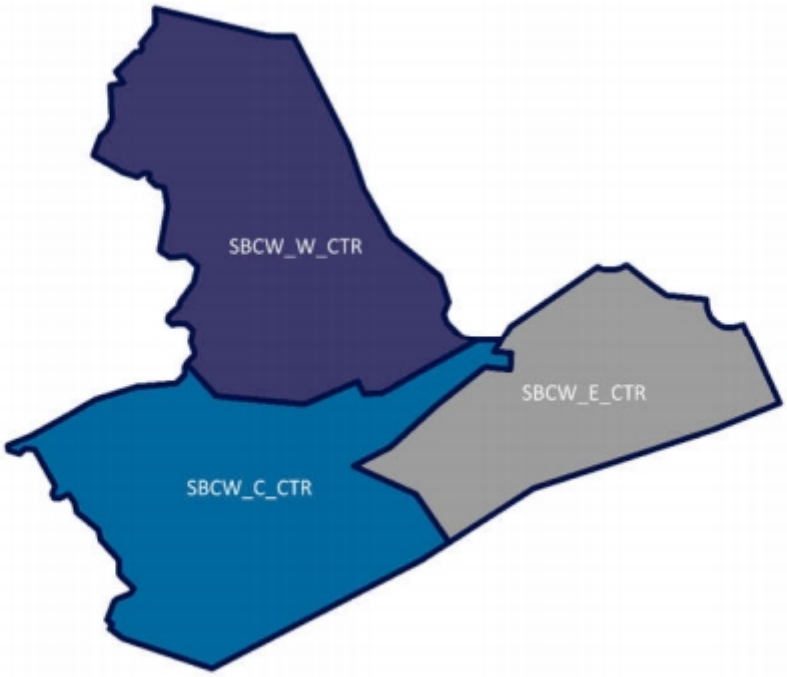
IFR traffics at same level shall be handed over at sequence with a minimum longitudinal spacing of 10 minutes. This separation must be constant (aircrafts restrained to the same speed) or increasing (succeeding aircraft is not faster).

Traffic shall be handed over as soon as practical and minimum 5 minutes before the limits of airspace. Traffic in sequence shall be handed over properly separated and clear of any conflict. Unless the receiving ATC unit issue a clearance modifying the route, altitude or speed, the transferring sector remains responsible for separation. The accepting unit will not modify the route, altitude or speed until the traffic is inside his Area of Responsibility, unless transferring unit releases it.

Flights deviating for any of the conditions laid below are subject to an approval request.

1.5 ATS POSITIONS

ATC POSITION	CALLSIGN	FRECUENCY	REMARKS
Asunción			
Asuncion approach	SGAS_APP	119,300	1000AGL-195FL
Asuncion Center	SGFA_CTR	128,400	-
Argentina			
Resistencia control	SARE_TMA_APP	119,400	2000AGL-195FL
Resistencia centro	SARR_CTR	124,300	
Posadas Torre	SARP_APP	120,100	1000AGL-095FL
Bolivia			
La Paz Control	SLLF_CTR	128,200	-
Brasil			
Curitiba control	SBCW_C_CTR	135,850	-
Curitiba control	SBCW_W_CTR	133,600	-
Curitiba control	SBCW_E_CTR	133,500	-
Curitiba Control	SBCW_CTR	124,000	-
Foz Control	SBWI_APP	119,150	-



1.6Cruise transfers

1.6.1AR-PY

Asuncion	To (FIX)	Airway	Resistencia	Even or odd
	VES-KALOM	M789		Even
	VES-ARPAS	A428		Even
	BOBIX	A307		Even
	REPAM	A556		Even
	COATI-POS	A430		Odd
	ORUGA-POS	B688		Odd
	KUBIR	UL793		Even
	AKNEL	UM799		Even
	VAS-KALOM	UM789		Even
	VES-ARPAS	UM529		Even
	BOBIX	UL531		Even
	REPAM	UP526		Even
	SIMOR	UM402		Even
	DOKBA	UM657		Even

As a general rule, traffics that fly west must fly even altitudes and those that fly west must fly odd altitudes

1.6.2 PY-BO

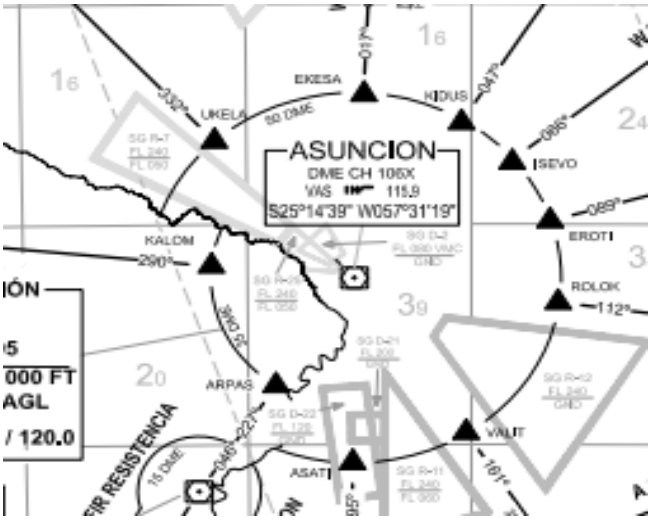
Asuncion	To (FIX)	Airway	Resistencia	Even or odd
	VES-KALOM	M789		Even
	VES-ARPAS	A428		Even
	BOBIX	A307		Even
	REPAM	A556		Even
	COATI-POS	A430		Odd
	ORUGA-POS	B688		Odd
	KUBIR	UL793		Even
	AKNEL	UM799		Even
	VAS-KALOM	UM789		Even
	VES-ARPAS	UM529		Even
	BOBIX	UL531		Even
	REPAM	UP526		Even
	SIMOR	UM402		Even
	DOKBA	UM657		Even

1.7 Delegated airspace

1.7.1 PY-AR

Airway B687 and UB687 are delegated to the ATS services of Resistencia, according to local AIP and by approval of the Aregentina division

Argentina delegates the western part of the TMA of Asunción from

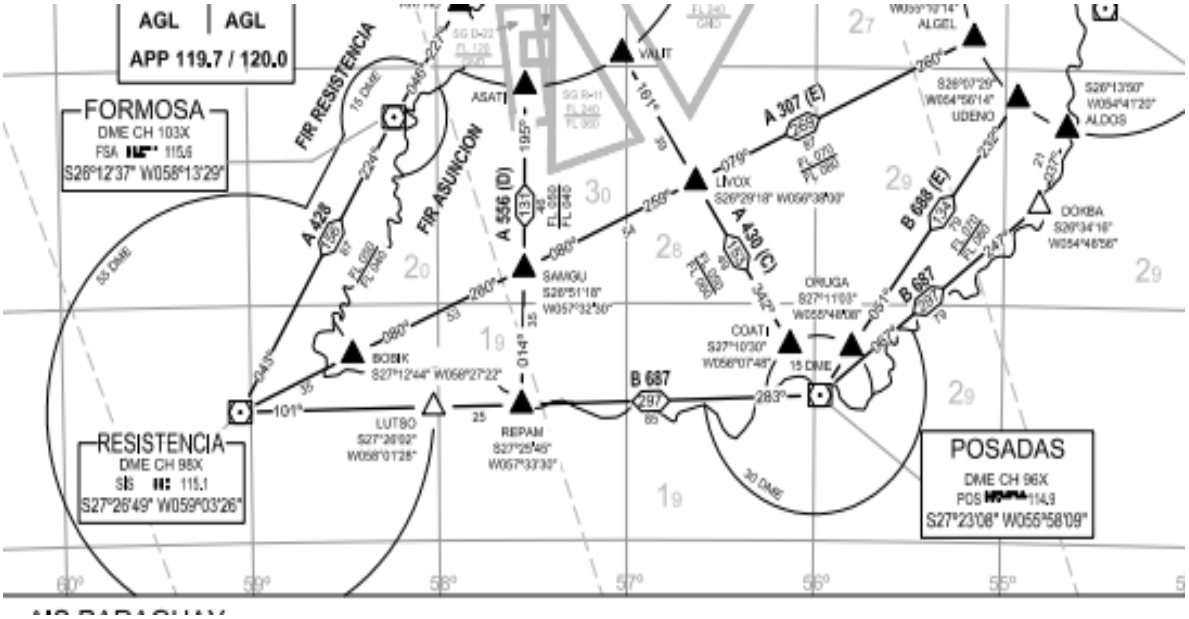


2000AGL to 195FL. The space forms a circumference from radial 215 to 313 with 35 miles distance from the VOR of VESAII

Traffic that flies from La Paz to Resistencia through the UM784 airway or vice versa will be transferred directly from La Paz to Resistencia (or vice versa) but will never be transferred to Asunción.

Asunción delegates to Resistencia the air space between 2000AGL and 195FL from radial 071 to 182 at a distance of 15 miles from the FSA Vor

Asunción delegates to Resistencia (Posadas TMA) the airspace between the 280 to 100 radial with a distance of 15 miles from the Posadas VOR, from 1000AGL to 095FL



1.7.2 PY-BR

The FOZ TMA is explained in IVAO Brazil, for more information, click here

1.7.3 PY-BR

2-General information

2.1 Geographical Information

Country	Paraguay
Timezone	UTC-3
AIP	http://www.dinac.gov.py/v3/index.php/ais/aip-paraguay

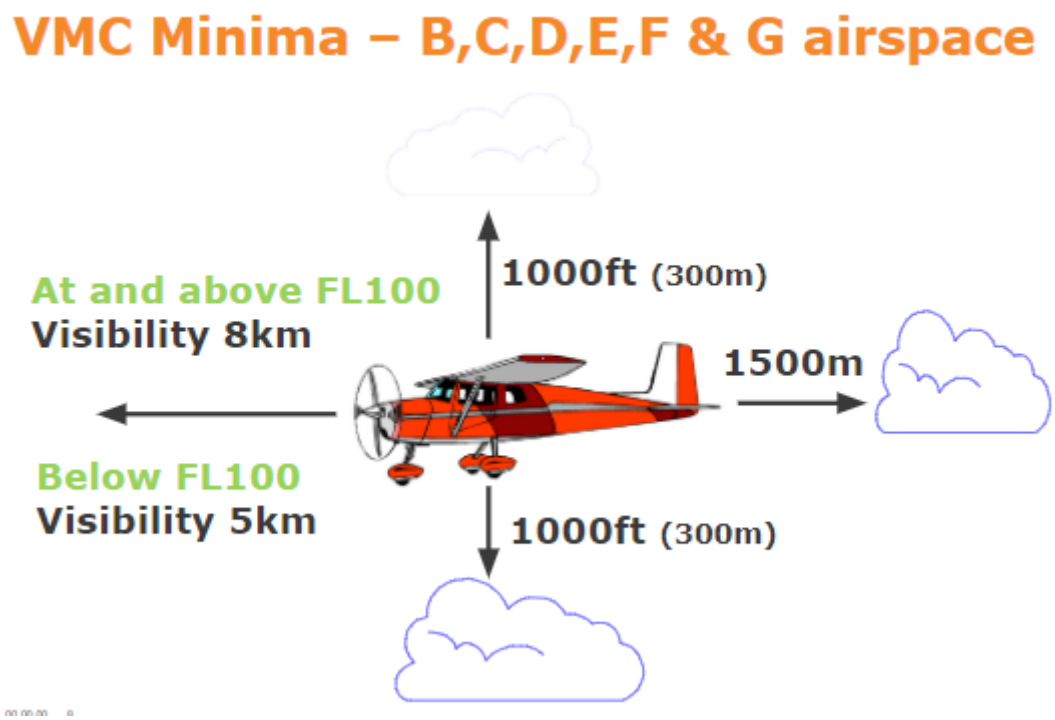
2.2 Units of Measurement

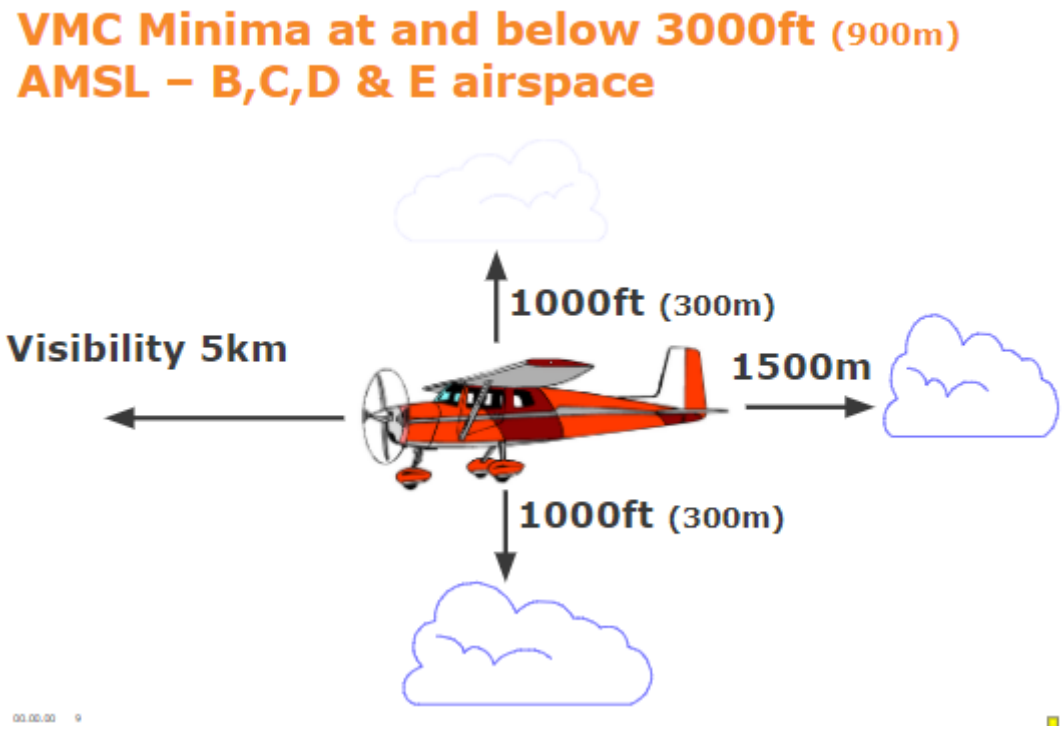
Distance used in navigation, position reporting, etc - generally in excess of 2 NM	Nautical Mile
Relatively short distances such as those relating to aerodromes	Metres
Altitudes, elevations and heights	feets
Horizontal speed including wind speed	knots
Vertical speed	ft/min
Wind direction for landing and taking off	Degrees Magnetic (°)
Wind direction except for landing and taking off	Degrees True (°)
Visibility, incl. runway visual range	<5=meters//>5=km
Altimeter setting	hectopascal
Temperature	Celsius
Weight	kg
Time	Hours and minutes
Volume	Litre

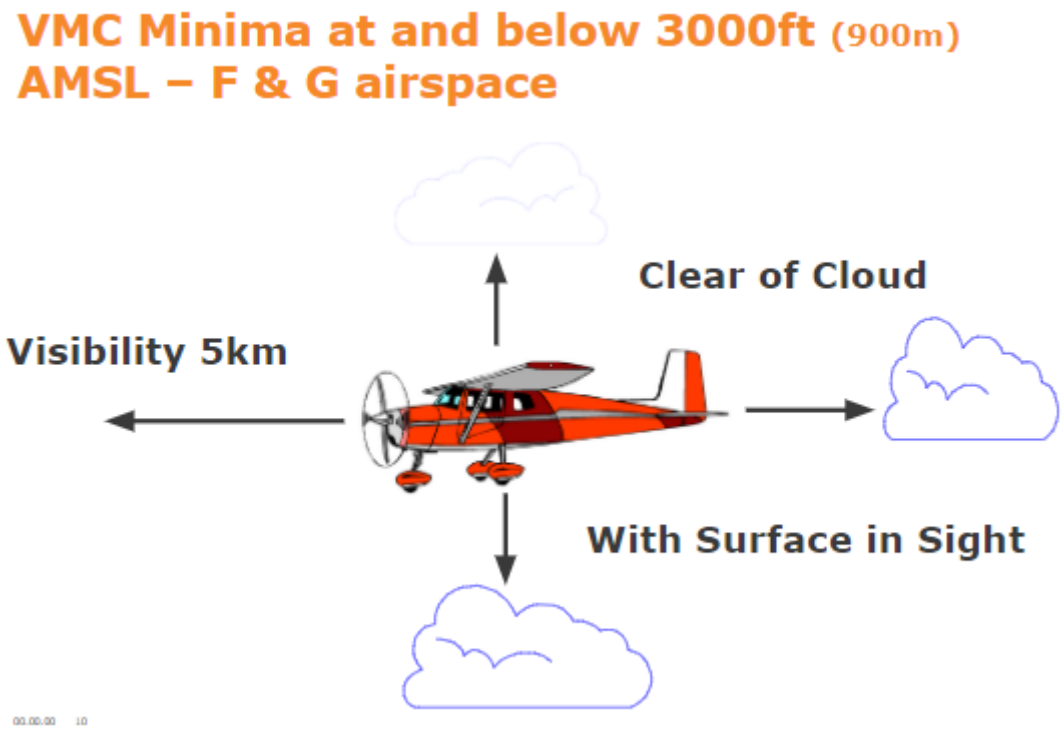
3 General Rules and Procedures

3.1 Visual Flight Rules

VFR flights shall be conducted so that the aircraft is flown in condition of visibility and distance from clouds equal to or greater than those specified in Table below:







In general when we are controlling in an airpace type D, as an ATS service we must take into account and guarantee 5 km of horizontal visibility and 1500 feet of cloud ceiling

In order to fly a special VFR you need a horizontal visibility of 3000 meters and a cloud ceiling of 800 feet.

3.2 Instrument Flight Rules

All flight plans must be submitted. Those IFR flight plans must contain an adequate route to the destination, with the aim of increasing airspace capacity. The sid must be introduced on the route in addition to the transition to facilitate ATS service. On arrival the start must also be implemented on the route

3.3 Surveillance Procedures

In the Asunción sector, radar surveillance is provided in the Asunción TMA, and in an ACC area of 250 miles with the center in VES. This in recent years has helped improve the quality of the ATS service. Even so, not the entire sector is covered by this radar, so the ATS service in the most remote regions continues to be totally conventional, so ATC must be familiar with this procedure. More information here.

3.4 Altimeter Setting Procedures

TA=3000feets

TL=By ATC

ATC should always create a 1000 feets transition layer so a TL of 40 will be standard, but this may vary based on QNH.

3.5 Regional Procedures

3.5.1 Vertical separation minimum withim RVSM airspace

Asunción Fir has RVSM approval, so if two aircraft have it equipped, the separation between 290 and 410 can be reduced to 1000 feet. In general, flights without RVSM approval are not allowed to fly above 290, but the competent authority reserves the right to issue a special permit, in that case the aircraft may enter RVSM airspace but ATC must guarantee the separation of 2000 feet between the other aircraft and this aircraft.

3.5.2Airspace division

According to the AIP of Paraguay, FIS and alert services will be provided throughout the territory from the ground to unlimited. But ATC service is not provided throughout the sector, the CTA is defined as the set of lower airways and some defined parts, such as the TMAs. The UTA (Upper Control Area) is also mentioned, which includes high-altitude airways where ATC service is provided.

The airspace division is established at 245FL

3.5.3 Squawk assignment

Domestic flights will be assigned with a squawk between 1400 and 1477 or 1600 and 1677. International flights will have between 5400 and 5477 or between 7100 and 7177

3.5.4 Flight Level.

The semicircular rule will generally apply. 0 to 179 odd and 180 to 359 even

3.5.5 Highest capacities in the sector

Acording to AIP, Asuncion control may have 11 traffics, Asuncion TMA will never be more than eight traffic.

4 Airspace Properties

4.1 Air Traffic Services Airspace

Name	Airspace Class	Frecuency	RMK
Asuncion FIR	AIP	128.400	SGFA_CTR
Asuncion approach	AIP	120.000	SGAS_APP
Asuncion Tower	AIP	118.100	SGAS_TWR
Asuncion ground	AIP	121,900	SGAS_GND
Concepcion tower	AIP	118,400	SGCO_TWR
Encarnacion approach	AIP	120,100	SGEN_APP
Guarani approach	AIP	120,600	SGES_APP
Guarani tower	AIP	118,100	SGES_TWR
Itaipu-Herandarias Approach	AIP	120,300	SGIB_APP
Itaipu-Herandarias Tower	AIP	118,500	SGIB_APP

4.2 Special Routes

NIL

4.3 Special Use Airspace

NIL

5 Aerodromes

5.1 International Aerodromes

5.1.1 SGAS Asunción Silvio Pettisori

To see a description of the airport click here

- Asunción airport has a single runway 02/20. The preferred runway for departures and arrivals is the runway 20 and it should always be used, unless the wind conditions, braking action, road works or the pilot's request, indicate that 02 should be used.
- Intersection C is approved for departure of runway 02 and intersection D is approved for departure of runway 20.
- Whenever the aircraft is equipped with RNAV, these types of departures will be instructed as they are much more efficient.

- The airport has ground, tower and approach position.
    - Approach controls the entire TMA from 1000AG to flight level 195FL. In ascent it will transfer the traffics to Control instructed for flight level 190 and in descent Asunción Control will instruct the traffics in descent for flight level 200FL
    - Tower controls CTR from the ground to 2000 AGL. it will transfer the visual traffic to the approach watch, once the CTR has been cleared, and on the approach arrival it will transfer the VFR traffic 2 minutes before entering the CTR. IFR traffic will be transferred on departure, and on arrival approach transfer them to the tower once established in the ILS or in the final course of the approach that they are making

5.1.2 SGES Guarani International

- Whenever conditions allow, we will use runway 23
- Intersection B is approved for departure from runway 23 and intersection A is approved for runway 05
- Often approximation you can use the MRVA located above the FOZ VOR to vectorize here
- ATS dependencies:There is the approach and tower dependency, but there is not tower biposition, so the gnd dependency cannot be opened.

5.2 Domestic Aerodromes

5.2.1Concepción SGCO

- Concepcion airport only has one runway (03/21) and does not have a preferred runway
- It only has one taxiway so if there is an aircraft on final or doing the app, and we have another aircraft waiting for departure, the second aircraft must wait at the stand, and cannot taxi to the waiting point so as not to block.
- It has neither published sid or start
- ATS dependencies have been explained in the previous chapter

5.2.2 Encarnación SGEN

- Only SGEN_APP is available and it always assumes tower and ground
- There is only one published approach for runway 20
- There is only one taxiway

- Depending on the amount of traffic and the schedule, a service with ATC or simply an AFIS position can be established
- Asunción Control will instruct the traffic to fly dct to the IAF and when they are free of conflict will approve the frequency change to the AFIS station

5.2.3 Dr. Luis María Argaña SGME

- It has not preferred runway
- Has no published departures and arrivals. Only 2 IAC (VOR+RNAV for runway 19/01
- The aerodrome only has one taxiway, therefore if an arrival is expected, the traffic that is going to departure will have to wait at his stand to avoid a conflict on the taxiway
- Depending on the amount of traffic and the schedule, a service with ATC or simply an AFIS position can be established

5.2.4 PROF DR PAC AUGUSTO ROBERTO FU PEDRO JUAN CABALLERO SGPJ

- Airport that only has an AFIS service.
- It does not have a preferred runway and the one required by the pilot will be used depending on the amount of traffic and weather conditions
- It has no published departure and arrival procedures. Only two final approaches, one RNAV and one NDB
- Asunción Control will instruct the traffic to fly dct to the IAF and when they are free of conflict will approve the frequency change to the AFIS station

6. Contributors

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