

BRAZILIAN CIVIL AVIATION YEARBOOK

2021



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The background of the page is a composite of three images. The top right is a solid blue triangle. The bottom right is a blue-tinted aerial photograph of a city, likely Rio de Janeiro, showing a large stadium (Maracanã) and a body of water. The left side is a white curved shape containing a blue-tinted image of a large, curved architectural structure, possibly a bridge or a stadium roof.

Air Sports

CHAPTER 5

BRAZILIAN AIR SPORTS MARKET

Opening: Georges de Moura Ferreira and Marina Posch Kalousdian

A potential, a gold mine, a diamond in the rough, in short, a market that has always influenced all areas of the national tourism and aeronautics industry, ranging from instruction to training, from manufacturing to the sale of aircraft, from organizing to making large scale air shows, national and international competitions, local, regional, national and world records, from sports to commercial practice of instruction and/or adventure flights (with forecast established in the future by the new CBA project), from activity to branding.

Today we have hundreds of potential “Capadoccias” in Brazil for air sports. Cities and regions that will mobilize economically to receive tourists captivated by the practice and the visual of free flights, provided by paragliders, hang gliders, gliders, paramotors, trikes, ultralights, manned balloons, aerobatic planes and gliders, drones, model airplanes, etc.

These modalities have been the reference in the growth of many of the 5,600 cities in Brazil. With this, the aim of ADB Brasil, Instituto do Aeroporto Brasileiro, is to record the growth of the sector, its involvement and the need to adapt the rules and standards to the activity, linked to the facilitation by the practicing community, in disseminating good practices and opening up markets for construction, maintenance and training of practitioners throughout Brazil. These operators, aware of their responsibility for the country's growth, will be the cradle of civil aviation for the time when it reaches the levels before the pandemic and surpasses them after stabilization.

Current studies and facts prove that the trend is for the sports and leisure market to move towards the conscious environment and without borders between heaven, earth and water.

THE AIR SPORT MODALITIES

Ballooning

The practice of flying in manned free balloons has been around since the beginning of flight. It can be performed in an amateur or professional way and is intended for leisure and participation in competitions. Its practice today is limited to the use of experimental aircraft and/or according to RBAC 103. Pilots who follow the RBAC 61 qualification rules receive a license in the BLAQ category and those who follow RBAC 103 are registered in the system and receive an Air Sports Registration Certificate.



Ballooning (Photo: Rubens Rosdon Kalousdian)

Motorized Ultralights (On Light Sport Aircraft)

The use of Light Sport Aircraft can have different purposes, such as sport, private means of transport, pilot training tool, among others.

Motorized Ultralights (On Experimental Light Sport Aircraft)

The operation of Experimental Light Sport Aircraft is a subgroup of experimental aviation, which aims to carry out leisure flights or sports competition. Aircraft of this modality can be pendular aircraft (trikes), gyrocopters, amphibious aircraft and aircraft built by amateurs.

To operate both an Experimental Light Sport Aircraft and a Light Sport Aircraft above 750 kg of PMD, the pilot must have a PP license. Below that weight, CPA.



Aerobatics

Aerobatics is the execution of intentional maneuvers that involve sudden changes in altitude or acceleration of an aircraft other than normal flight. This sport has as objectives the individual leisure of the practitioner and demonstrations in air shows and championships.

Aerobatics are divided into POWER and GLIDER, that is, motor and glider. Aerobatics between these divisions can take the form of competition and/or aerial demonstration.

The universe of possible Aerobatic practitioners can be consisted of airplane pilots, ultralight pilots up to the limit of their aircraft characteristics and glider pilots. Therefore, the licenses required for an airplane are: a Private Airplane Pilot license (PP), Commercial Airplane Pilot license (PCM) or Airline Pilot (PLA); for ultralights, the CPA and for gliders it will be the PLAN.



Aerobatics (Photo: ACRO-Associação Brasileira de Acrobacia Aérea)

Air Sports Person

It is everyone who practices air sports governed by the RBAC 103, such as free flight, ballooning, gliding, flying in motorized ultralights in general (paramotors, paratrikes, trikes, conventional ultralights, autogyros, gyrocopters, etc.).

The activities practiced under this regulation are any modalities of air sports that use non-motorized aircraft with a maximum empty weight of up to 80 kg, and motorized aircraft with a maximum empty weight of up to 200 kg, in addition to manned free balloons.



Paramotor (Photo: Sergio Kawakami)

Parachuting

Parachute jumping is an ancient activity that, in addition to its interest as a sport, has tactical importance when used by military corporations and security forces. For its practice, skydiving requires the aircraft to be led by a parachute launch pilot to the jump point of the practitioners.



Parachuting (Photo: Luiz Henrique Tapajós)

Gliders

Gliding is one of the oldest forms of flying. In many situations, it is an excellent mean of training pilots. The practice of soaring uses gliders and motor gliders of different categories and requires some integration with the aeronautical infrastructure. The glider pilot has his/her license in the PLAN category.

For gliders and skydivers it is necessary to have the tug and launcher pilot with a license of Private Airplane Pilot (PP), Commercial Airplane Pilot (PCM) or Airline Pilot (PLA), and follow the experience and training determined by the RBAC 61 Amendment 13 article 31(g).



Glider (Photo: Bolaflly - Marco Antônio Rodrigues da Silva)

Aeromodelling and drones

Model airplanes are remotely piloted unmanned aircraft used for recreation or competition. The drone is a remotely piloted aircraft (RPA) and, in the context of Air Sports, it is for sport, leisure and recreation purposes. Model aircraft with a maximum take-off weight (including the weight of the equipment, its battery and eventual charge) of up to 250 grams do not need to be registered by ANAC. Model aircraft operated in a desired visual line 400 feet above ground level must be registered and, in these cases, the model's remote pilot must have a license.

REGULATORY BOX OF AEROSPORTS PRACTICES AT ANAC

In Brazil, air sports are shared with different regulatory bodies and associative entities. We have the pilot ruled by RBAC 61, the pilot ruled by RBAC 103, the model aircraft pilot and the "drone driver" ruled by RBAC 94, and the parachutists. Below are the regulations for each modality:

	Modality	Regulation
1	Aerobatics	61
2	Aeromodelling	94
3	Balloonin	61 and 103
4	Drones	94
5	PQD launch pilot	61
6	Hang Gliding	103
7	Gyrocopter Flights	61 and 103
8	Helicopter Flights	61
9	Paramotor Flights	103
10	Paraglider Flights	103
11	Paratrike Flights	103
12	Glider Flights	61 and 103
13	Trike Flights	61 and 103
14	Ultralight Flights	61 and 103

RBAC nº 61 and 91: they are subject to general aviation requirements (pilot certificate, airworthiness certificate, etc.) as they have greater interaction with the civil aviation system.

RBAC-103: An exclusive regulation for sport activities, characterized by the low level of integration with the civil aviation system, to which they are subjected to a basic operational restriction, guaranteeing the safety of third parties and the civil aviation system.

RBAC-94: The instruction is in charge of associative entities and the regulation of these aircraft follows the Brazilian Civil Aviation Regulation number 94. And the Aeronautics Command Instruction number 100-40 of ANAC and DECEA.

For each license to fly, whether in 61, 94 and 103, there are equivalent regulations for their aircraft.

The air sports practice includes:

1. Licenses or Certifications;
2. Certificates of flight authorization for aircraft or aircraft registration;
3. Conscious use of airspace.

In Aerosport, we have divided 61 licenses into 6 modalities, which are:

1. Ballooning;
2. CPA – Air Sport Pilot Certificate –RBAC 61.
Before, there were CPD and CPR licenses, which are migrating to CPA;
3. Glider Flight;
4. Glider Towing Pilot;
5. Aerobatics
6. Parachute launch pilot – not the parachutist.

REGULATORY BOX OF AEROSPORTS PRACTICES FOR DECEA

Airspace control is under the coordination of DECEA - Department of Airspace Control and the Brazilian Air Force, FAB, and the aerosports practice is regulated by the entity's publications, such as ICA - Aeronautics Command Instructions, AIC - Aeronautical Information Circular, AIP – Aeronautical Information Publication,

ROTAER – Auxiliary Air Routes Manual, and other regulations that regulate the shared use of airspace.

For the analysis of airspaces, information from Regional Organizations subordinated to DECEA and the Aeronautical Cartography Institute (ICA) were taken.



TEMPORARY EAC

Temporary EAC - SBRF Recife Region

SBRF – Recife region	2016	2017	2018	2019	2020	TOTAL
UAV	58	-	-	-	-	58
RPA	3	242	-	-	-	245
Ultralight	1	1	-	-	-	2
Free Flight	-	-	-	44	22	66
Paramotor	-	-	-	48	22	70
Free Flight and Paramotor	-	-	-	8	-	8
TOTAL	62	243	-	100	44	449

Temporary EAC - SBSP São Paulo Region

SBSP – São Paulo Region	2016	2017	2018	2019	2020	TOTAL
UAV	228	-	-	-	-	228
RPA	10	92	5	-	-	107
Ultralight	-	1	-	-	-	1
Free Flight	13	10	7	12	6	48
Paramotor	-	-	-	14	7	21
Gliding	3	-	-	-	-	3
Ballooning	-	-	-	2	-	2
TOTAL	254	103	12	28	13	410

Temporary EAC - SBCT Curitiba Region

SBCT – Curitiba Region	2016	2017	2018	2019	2020	TOTAL
UAV	2	-	-	-	-	2
RPA	31	24	-	-	-	55
Ultralight	2	1	-	1	2	6
Free Flight	21	18	2	16	-	57
Paramotor	1	-	-	9	11	21
Aeromodelling	1	3	5	11	2	22
Ballooning	-	-	2	1	5	8
TOTAL	58	46	9	38	20	171

Temporary EAC - SBBR Brasília Region

SBBR – Brasília Region	2016	2017	2018	2019	2020	TOTAL
RPA	31	92	9	-	-	132
Free Flight	-	-	-	58	-	58
TOTAL	31	92	9	58	-	190

Temporary EAC - SBGE Manaus Region

SBEG – Manaus Region	2016	2017	2018	2019	2020	TOTAL
RPA	22	62	-	-	-	84
Free Flight	-	-	-	-	6	6
TOTAL	22	62	-	-	-	90

PERMANENT EAC

Permanent EAC - SBCW Curitiba FIR

SBCW FIR – Curitiba	2016	2017	2018	2019	2020	TOTAL
UAV / RPA	-	-	2	2	-	4
Ultralight	-	2	9	3	3	17
Free Flight	-	-	9	10	10	29
Paramotor	-	-	1	-	-	1
Free Flight and paramotor	-	-	1	1	1	3
Aeromodelling	-	-	1	-	-	1
Aerobatics	-	-	4	3	3	10
Parachuting	-	-	1	2	1	4
Gliding	-	-	2	5	1	8
TOTAL	-	2	30	26	19	77

Permanent EAC - SBBS Brasília FIR

FIR SBBS – Brasília	2016	2017	2018	2019	2020	TOTAL
UAV / RPA	-	-	-	-	-	-
Ultralight	-	1	-	2	-	3
Free Flight	-	-	1	3	13	17
Paramotor	-	-	-	-	3	3
Free Flight and paramotor	-	-	-	-	-	-
Aeromodelling	-	-	1	-	1	2
Aerobatics	-	-	-	2	-	2
Parachuting	-	-	-	1	-	1
Gliding	-	-	6	2	-	8
Ballooning	-	-	-	-	1	1
TOTAL	-	1	8	10	17	37

Permanent EAC - SBBS Recife FIR

FIR SBRE – Recife	2016	2017	2018	2019	2020	TOTAL
Ultralight	-	-	3	-	-	3
Free Flight	-	-	3	1	10	14
Aerobatics	-	-	-	-	2	2
TOTAL	-	-	6	1	12	19

Permanent EAC - SBAZ Amazônia FIR

FIR SBAZ – Amazônia	2016	2017	2018	2019	2020	TOTAL
Ultralight	-	-	1	-	-	1
TOTAL	-	-	1	-	-	1

Operational agreements for air sports practice between 2016 and 2021

Regional Body	Operational Agreement Letter
CINDACTA I	13 agreements
CINDACTA II	07 agreements
CINDACTA III	03 agreements
CINDACTA IV	02 agreements
CRCEA-SE	05 agreements

POTENTIAL FOR AEROBATIC PILOTS, PARACHUTE LAUCHER PILOTS AND GLIDER TOWING PILOTS

Until June 2, 2021, were issued in Brazil, since 1950, according to ANAC, the data:

PLA (Airline Transport Pilot): 13.854;

PCM (Commercial Airplane Pilot): 34.381;

PPR (Private Pilot): 69.494.

A total of 117,729 licenses and, of these, we had active on 06/13/2021 a total of 26,391. This number includes 7% to 10% of other qualifications that are not eligible for training in aerial acrobatics, as they are from ballooning, gliding and helicopter. At this time, it is not possible to count who has multiple valid qualifications in order to suppress them from the count. To this number, it can be added the potential of CPA and PLAN pilots interested in aerobatics.

The amount of 26,391, between 7% and 10%, is a potential for parachute launchers and glider towing pilots.

For aerobatics, Upset Recovery courses, taught by pilots with knowledge and experience in aerobatics, promote situational awareness for adverse situations, teaching PP and PC how to get out of it in case of a stall, prevention and recovery of spins.

For parachute launchers and glider towing pilots, a qualified instructor must endorse the pilot's CIV, attesting to his/her ability to perform the operation. The pilot must have a license for the aircraft used for the operation, at least 100 hours in command of the aircraft and, if he/she has received specific instruction, on the ground and in flight, to carry out the operations.

Air Sport Pilot Certificate

Until June 2, 2021, ANAC has registered the issuance of the following number of ultralight pilots:

CPA, since 2018 to 2021: 1.148;

CPD, since 2006 to 2019: 592;

CPR, since 2001 to 2019: 3.178.

We cannot add them all up, as CPD and CPR licenses are migrating to CPA. What we can assess is how many are currently active, as shown in the table below:

Therefore, we currently have 1,379 active pilots, which is the sum above without the ICPA. Of these 1,379 pilots, 31 are ICPA instructors.

Number of active licenses related to air sports and experimental activities		
Current designation for CPA	Number of CPA qualifications	Current Description - IS 61-004 Rev Q
GIRO	24	Gyrocopter
AAFT	1056	Fixed Wing Light Sport Aircraft - Land
AAFA	189	Fixed Wing Light Sport Aircraft - Sea or Amphibious
AAPT	66	Pendular Light Sport Aircraft - Land
AAPA	2	Pendular Light Sport Aircraft - Land or Amphibious
ICPA	31	Flight Instructor ICPA (Light Sport Aircraft)
Previous designation for CPD and CPR	Number of CPD and CPR licenses	Previous designation - IS 61-004 Rev L
UATE	18	Advanced Ultralight - Land
UBTE	11	Basic Ultralight - Land
UAAF	4	Advanced Ultralight - Amphibious
ULTK	9	Trike

Air Sport in movement



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GÚNAR ARMIN HALBOTH

Athlete and world record holder

A SUCCESSFUL STORY IN BRAZILIAN AND WORLD SPORT AVIATION



Born in Rio de Janeiro, 54 years old, he is part of the Brazilian air sports as a practitioner of some modalities and an example of challenge for all of us.

Since he was young he has been involved with aerospports and has already practiced 4 of the 12 sports listed by the International Aeronautical Federation (FAI).

He started very young in aeromodelling, then at 16 years old he graduated as a glider pilot, when he discovered aerobatics, later also in airplanes. The 'Experimentals' were also always present in his life. Even with experimental aircraft designed by a Brazilian university, having the opportunity to break nine FAI world speed records. All still valid.

What are the most significant achievements you can name in air sports?

Well, in 1986 I participated in the Alberto Berteli Air Ralie, promoted by the aeronautical authority, the DAC. It consisted of navigation and precision landings. From all over Brazil, together with my partner Guilherme Mascarenhas, I managed to take second place. This fact earned me a very important award:

a one-week trip to Natal with expenses paid, where I got to know my wife!

After that, already more dedicated to Aerobatics, I was Brazilian champion in the advanced category twice and once in the unlimited category, the highest of all. I used a small Pitts S-1S biplane with a four-cylinder engine.

Later on, I had the privilege of getting involved in projects at the Federal University of Minas Gerais (UFMG) headed by Professor Paulo Iscold. There were two unique experimental aircraft, the first, CEA-308 in the FAI category with a maximum takeoff weight of 300 kg. It was designed by Paulo Iscold when he was still a student at the university. Its construction was in wood and foam. In December 2010 I flew this aircraft to conquer four world speed records in the distances of 3 km with 360.13 km/h, of 15 km with 329.1 km/h, of 100 km with 326.8 km/h and climb to 3 km in 8 minutes and 51 seconds.

The second was the Anequim, in honor of the fastest shark, in the category of up to 500 kg of maximum takeoff weight. Revolutionary design.

Revolutionary design. It was built entirely with noble materials such as carbon and titanium parts, with all molds cut in CNC. With it, in October 2015, we had even more world records, there were five, including the 3 km with 521.08 km/h, the 15 km with 511.19 km/h, the 100 km with 490.14 km/h, 500 km – this with most of the flight over water in a plane with less than 25 hours of total flight – with 493.74 km/h to finish the climb to 3 km in just 2 minutes and 26 seconds! Some of the records were over 100 km/h apart!

These are projects so advanced that until today, more than ten years after the records of CEA-308 and five years of Anequim, they have not been overthrown. Proof that Brazilian engineering is doing very well, thank you!

Gúnar Armin Halboth, what are your plans for the future?

Recently, I'm involved with the remotorization of Anequim, so that we can beat our own records. Also, I am involved with the construction of Elanus. This is also a Brazilian project, by the engineer Quintino Romagna. It will be a unique, extremely light and slow



aerobatic airplane thought to be able to perform unthinkable maneuvers for today's aerobatics.

Gúnar, how do you see sport and commercial aviation? Do you think they are interconnected?

Interesting that, when I started in aviation, I thought sports would be just a step in my career as an aviator. Today, having flown airline jets, executive airplanes and helicopters around the world as big as the B 747, I find myself at 54 on my days off flying gliders, aerobatics and experimentals. Long live sport aviation!!

How do you see the air sport today, its growth potential?

I believe that Brazil's potential in this air sport industry is enormous. We have a large territorial area with minimally used air traffic. Perfect scenario to be explored and become protagonists in this industry that can be extremely profitable and crucial for mastering new technologies.

How have you contributed to the growth of Brazilian Air Sport?

I believe that I contributed by participating in aircraft projects with performance (technology) superior to any other produced in the world in its field. We keep Brazil at the forefront of aeronautical engineering.

I am currently involved in the development of aerobatic aircraft which I believe has the potential to be a game changer in this technology, as well as being involved with gliders, known to be the most efficient aircraft that exist in aerodynamic terms.

How do you think the world sees Brazilian air sport?

Without a doubt with a lot of respect. In view of our Anequim project which, without provocation, was not only the subject of international reports, but the cover story of most of the main aviation magazines in the world, such as Flying, Air & Space (USA), Flieger (Germany), Info Pilote (France) and Flyer (England). You can be sure they know us very well!

To have a dimension of this achievement, what were the records before Anequim?

Old records and those of Anequim:

For the record, the Nemesis is now at the Smithsonian Museum, and the Pushy Galore at the EAA Museum in Oshkosh. The others are still in flight.

1) Speed over 3 km with restricted altitude

Previous Record: Nemesis DR-90 – 466,83 km/h (Jon Sharp)

Current Record with Anequim: 521,08 km/h

2) Speed over 15 km

Previous Record: Nemesis DR-90 – 455,8 km/h (Jon Sharp)

Current Record with Anequim: 511,19 km/h

3) Speed over 100 km

Previous Record: W. Air Race – 389,6 km/h (Richard Young)

Current Record with Anequim: 490,14 km/h

4) Speed over 500 km

Previous Record: VariEze – 387,4 km/h (Klaus Savier)

Current Record with Anequim: 493,74 km/h

5) Time to climb up to 3.000 m

Previous Record: Pushy Galore – 3 min e 8 sec (Bruce Bohannon)

Current Record with Anequim: 2 min e 26 sec

Finally, I would like to say that, although I am only involved with rigid and heavier-than-air wings, I have a deep respect for other sports, which have represented us so well on the world air scene.

Ballooning

Until June 2, 2021, ANAC had issued a total of 305 licenses since 1982, grouped as follows:

License issued in the ballooning modality

Modality	Licenses issued		
	PP	PC	TOTAL
Ballooning	289	16	255

Of these 255 licenses issued, 35 are INVB instructors.

Of the active on June 2, 2021, we have 150 licenses, of which 21 are INVB, instructors.

Glider

Until June 2, 2021, ANAC had issued a total of 5,536 licenses since 1951, of which 531 are active and of these, 185 are INPL, instructors.

Civil Aviation Instruction Centers

This year's survey was based on CIACs with practical or practical and theoretical instruction, CIAC types 2 and 3, respectively, for the PPA, PPL, PPB, CPA, INVA, INPL, INVB and ICPA modalities, made available by ANAC in May/2021. These data make it possible to

map where the practice of skydiving should exist, due to the presence of flight instruction in airplanes.

55 CIACs, divided between the following courses:

Region	Number of CIACs	Courses Offered				
		Ballooning	CPA	Glider	Airplane	Total
South	15	-	2	3	13	33
Southeast	28	-	4	3	25	60
Northeast	5	-	2	-	3	10
Midwest	6	-	-	-	6	12
North	1	-	-	-	1	2
Total	55	-	8	6	48	117

PSAC - Civil Aviation Service Providers in the Instruction

Distribution of schools by RBHA 141 throughout Brazil by modality, which comply with Resolution

No. 514 of April 25, 2019.

Region	Number of Schools	Courses Offered				
		Ballooning	CPA	Glider	Airplane	Total
South	28	-	1	11	24	36
Southeast	49	-	5	3	45	53
Northeast	8	-	2	-	6	8
Midwest	10	-	2	1	7	10
North	2	-	-	-	2	2
Total	97	-	10	15	84	109

Aircraft Registered with ANAC

In chapter 3 of this yearbook, it is possible to evaluate the Brazilian fleet of aircraft dedicated to aerosport, in the experimental category, divided into the number of balloons, gliders, ultralight and non-ultralight aircraft.

To complete this analysis, the number of aircraft dedicated to aerobatics in the Brazil.

#	MAKE	MODEL	REGISTERED WITH RAB
1	RANS	S-9 CHAOS	8
2	RANS	S-10 SAKOTA	0
3	VANS	RV-4	8
4	VANS	RV-6	18
5	VANS	RV-7 Taildragger	41
6	VANS	RV-7 A	61
7	VANS	RV-8 Taildragger	6
8	VANS	RV-8 A	11
9	CHRISTEN EAGLE	II	2
10	PITTS	S1C	3
11	PITTS	S2C	0
12	PITTS	S1S	2
13	PITTS	S2B	2
14	PITTS	F2X	0
15	SUKHOI	26	1
16	SUKHOI	31	1
17	EXTRA	300	3
18	EXTRA	300L	4
19	EXTRA	300LP	0
20	EXTRA	330LX	0
21	EXTRA	330LT	1
22	EXTRA	330SC	2
23	EXTRA	LASER 230	2
24	CITABRIA	7GCBC	28
25	DECATHLON	8KCAB	19
26	SUPER DECATHLON	8KCAB	19
27	CESSNA	A152L	11
28	ONE DESIGN	DR 107	3
29	ONE DESIGN	DR 109	1
30	KOVACS	K51	1
31	KOVACS	K52	0
32	MUDRY	CAP 10B	7
33	MUDRY	CAP 10C	0
34	BUECKER	BU 131	3
35	ZLIN	L-50	0
36	MEHARI	CEA 309	1
37	PZL Bielsko	SZD 48 Puchacz	28
38	Alexander Schleicher	ASK 21	4
39	Blanik	L23	3
40	Glaser-Dirks	DG 1000	2

AIR SPORT INDUSTRIES

Currently there are no certified industries in Brazil for the modalities of Ballooning, Glider, Aerobatics, free flight and motorized ultralights below 200 kg.

Ultralights

Currently, in Brazil, there are 5 companies that have obtained recognition of their products as eligible to receive a Special Light Sport Aircraft Certificate in accordance with RBAC 21.190, and at least 2 others are in an advanced recognition process.

1. Aeroálcool Tecnologia Ltda with its fixed wing model AA-115;
2. Trike Ícaros with its pendular wing model Adventure;
3. Montaer Aeronaves with its fixed wing model MC01;
4. Seamax Aircraft Ltda with its amphibious fixed wing model Seamax M-22;
5. Scoda Aeronáutica with its amphibious fixed wing model Super Petrel LS;

The approved foreign companies in Brazil are:

1. Evektor-Aerotechnik a.s from the Czech Republic with its fixed wing models:
 - 1.1. Sportstar Max;
 - 1.2. Harmony LSA;
2. DirectFly from the República Tcheca with its fixed wing model:
 - 2.1. Alto TG 912;
3. Pipistrel d.o.o. Ajdovscina from Slovênia with its fixed wing motor glider model:
 - 3.1. Sinus;
4. Remos Aircraft, GmbH from Germany with its fixed wing model:
 - 4.1. Remos GX;
5. Flight design from Germany with its fixed wing model:
 - 5.1. CTLS;
6. Tecnam Aircraft from Italy with its fixed wing models:
 - 6.1. P2008;
 - 6.2. P2002 Sierra de Luxe;

- 6.3. P92 Echo Light;
- 6.4. P92 Eaglet / Eaglet NG;
- 6.5. Astore;

7. Cub Crafters Inc from United States of

America with its fixed wing model:

- 7.1. CC11-160;
8. Aeroprakt from Ukraine with its fixed wing model:
 - 8.1. A-22 LS (Only as Experimental Light Sport Aircraft).

MODALITIES WITHIN RBAC 103

RBAC 103 pilots are those who chose to fly according to the Brazilian Civil Aviation Regulation number 103 of ANAC and under the Aeronautical Command Instructions number 100-3, 100-12 and 100-38.

Ballooning

Refers to the practice of purely sports and recreational ballooning, whose manned free balloon that does not hold an airworthiness certificate issued in accordance with RBAC nº 21.

Non-Motorized Ultralights

The flight in non-motorized ultralights refers to the free flight in hang gliders or paragliders (paragliding) is a modality practiced by countless people all over the world and strongly dependent on the local meteorological and geographic conditions.

Motorized Ultralights

The operation of small ultralight motorized vehicles has as main objective leisure and competition. Devices classified as motorized ultralight have peculiar characteristics, which vary according to the model. They fit here, but not restricted to them only:

- paramotors
- paratrikes
- trikes
- ultralights
- gyrocopters

Glider

Operation in which small gliders have leisure and competition as their main objectives. Fit in this profile aircraft called "Foot-Launched Glider" abroad, but not restricted to them.

Operators Registered in RBAC 103

Regulation RBAC 103 is focused on the registration of operators and not on their education and training. Neither RBAC 103 nor RBAC 61 require certified entities for the instruction of these operators. Therefore, there are no schools certified by ANAC in

these modalities, whose practitioners opted for the simplified operation process. The instruction is in charge of associative entities and instructors authorized by these or independent schools.

Accreditation status of registered operators

Registered Operators	Accreditation status			
	Current	Pending	Suspended	Total
Ballooning	56	45	1	102
Gliding	-	67	-	67
Free Flight	2.965	2.162	12	5.139
Motorized Ultralight	369	709	2	1.080
TOTAL	3.390	2.983	15	6.388

Aircraft Registered in RBAC 103

Regulation RBAC 103 is focused on aircraft registration and not on their airworthiness certification. These aircraft do not have a certificate of airworthiness. Neither RBAC 103 nor RBAC 91 require certified entities for the maintenance

of these aircraft. The aircraft accreditation process is a simple photographic and metadata record to certify the limits imposed and traceability of the operation and operator.

Aircraft accreditation status

Registered aircraft	Situação do credenciamento			
	Current	Pending	Suspended	Total
Ballooning	34	104	1	139
Gliding	-	-	-	-
Motorized ultralight	186	723	10	919
TOTAL	220	827	11	1.058

**This table does not include free flight aircraft, as these are exempt from registration, as long as they do not exceed the empty weight limit of 80 kg.*

Accredited Entities

Until March 1, 2021, there were 5 entities accredited to meet the RBAC 103, none in the process of accreditation or any that had been suspended and that had interrupted the service.

These entities are:

1. Brazilian Aerosports Commission (CAB) – serves to ballooning, free flight and motorized ultralights;

2. Brazilian Free Flight Confederation (CBVL) – serves to free flying;

3. Brazilian Ballooning Confederation (CBB) – serves to ballooning;

4. Brazilian Association of Light Aircraft Pilots (ABUL) – serves to motorized ultralight aircraft;

5. Brazilian Association of Paramotor (ABPM) – serves to motorized ultralight aircraft.

It is a great honor to have airport present in the 2021 Civil Aviation Yearbook of the Brazilian Institute of Civil Aviation. A “must”!

Marina Posch Kalousdian
President and Director – ADB Brasil

PARACHUTING

Parachuting is an air sport whose control and instruction are carried out through the associative entities that train its instructors. ANAC's parachuting regulation, called RBAC 105, is focused on the launching operation and not on the education and training of the parachutist. In addition, Resolution 377/2016 establishes that the operation of launching parachutists carried out within the scope of associations and clubs, by their own personnel, when practitioners share the costs of the operation to make the practice viable, is not considered a specialized air service. Neither RBAC 105 nor RBAC 61 require certified entities for skydiving instruction. Therefore, there are no parachuting schools certified by ANAC.

SAE – SPECIALIZED AIR SERVICE

For the commercial exploration of activities in Aerosport, we have available the regulation of SAE, Specialized Air Service, which includes the following regulations:

The modalities governed by RBAC 91, whose operator is qualified in the form of RBAC 61 and the aircraft has a standard airworthiness certificate (standard CA) in the appropriate category, and as long as the purposes fit those established in Resolution No. 377/2016, they are subject to approval as a Specialized Air Service (SAE).

SAE for Parachutist Launching :

1. Skydive4Fun Serviço Aéreo Especializado (Boituva-SP) – 2nd largest skydiving company in the world;
2. Amazonaves Táxi Aéreo e Serviço Aéreo Especializado (Manaus-AM);
3. Sky Dive Cerrado (Anápolis – GO).

SAE for Air Show Display:

1. Extreme Demonstração Aérea Ltda;
2. Tri Taxi Aéreo Ltda;
3. Esquadrilha Fox Demonstração Aérea Ltda.

SAE for Sightseeing Flights:

1. Aeroclube de Jundiaí;
2. BTN Informação do Trânsito e Serviços Aéreos Especializados Ltda;
3. AEROSAE Serviço Aéreo Especializado Ltda.

ATA CARNET

On June 28, 2016, the CNI - National Confederation of Industries - signed a Letter of Commitment with the Federal Revenue Service of Brazil (RFB) to start operating ATA Carnet in Brazil. Since then, the Internal Revenue Service of Brazil has recognized temporary admission operations supported by ATA Carnet, under the terms established in Annexes B1, B2, B5 and B6 of the Istanbul Convention. Brazilian customs are also beginning to recognize ATAs from other countries.

With the signing, Brazil became the 75th country in the world to join the system, being the pioneer among Mercosul nations. Since September 19, the operation has been carried out by the industry federations of the states of Minas Gerais, Rio Grande do Sul, Paraná, Rio de Janeiro, São Paulo and Ceará, but the service can be requested at any of the 27 state industry federations linked to the CNI.

ATA Carnet came to simplify the participation of athletes in international events, facilitating the temporary export of their air sports equipment. As well as, in importation, when foreign athletes come to Brazil to participate in our competitive or festive events.

PURPOSES

The Istanbul Convention, which deals with all ATA Carnet rules, is divided by purpose. In other words, an ATA Carnet can be issued if the purpose of its temporary export falls under any option that is in the convention (and if the destination country accepts this purpose):

- Annex B.1 - Exhibition, Fairs, Congresses;
- Annex B.2 - Professional Material;
- Annex B.3 - Samples;
- Annex B.4 - Production Operation;

- Annex B.5 - Educational, Scientific or Cultural Purposes;
 - Annex B.6 - Personal Objects for Travelers and Sports Purposes;
 - Annex B.7 - Tourist Advertising Material;
 - Annex B.8 - Border Traffic;
 - Annex B.9 - Humanitarian Purposes;
 - Annex C - Means of Transport;
 - Annex D - Animals;
 - Annex E - Partial exemption from import duties and taxes.
- 2018 = 12
 - 2019 = 13
 - 2020 = 3
 - 2021 = 1

The number of issues in this demonstration is still low in relation to other purposes, this sample for sports purposes accounted for 3.36% of the total ATA Carnets issued (issue number from 2016 to 03/15/2021).

This form of temporary export and import of all sports equipment is the safest, quickest, easiest and most economical way for our athletes to represent our country in international championships with their personal equipment.

STATISTIC DATA

Below is the number of issues of ATA Carnets for temporary export for sporting purposes (issues until 03/15/2021):

- 2016 = 0
- 2017 = 2

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