

# Summits on the Air

## Brazil (PY)

### Association Reference Manual



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## Table of Contents

<b>1 . CHANGE CONTROL.....</b>	<b>3</b>
<b>2 . ASSOCIATION REFERENCE DATA.....</b>	<b>4</b>
2.1 . PROGRAMME DERIVATION.....	4
2.2 . GENERAL INFORMATION.....	5
2.3 . RIGHTS OF WAY AND ACCESS ISSUES.....	5
2.4 . MAPS AND NAVIGATION.....	6
2.5 . SAFETY CONSIDERATIONS.....	6
2.6 . DISCLAIMER.....	7
<b>3 . SUMMIT REFERENCE DATA.....</b>	<b>8</b>
3.1 . ARAGUAIA.....	8
3.2 . BORBOREMA.....	8
3.3 . BODOQUENA.....	9
3.4 . DIAMANTINA.....	9
3.5 . DIVISOR.....	9
3.6 . GRANDE.....	10
3.7 . GUIANAS.....	10
3.8 . GERAL.....	11
3.9 . MANTIQUEIRA.....	11
3.10 . PARECIS.....	12
3.11 . SÃO FRANCISCO.....	13
3.12 . SERRA DO MAR.....	13
<b>4 . REFERENCES.....</b>	<b>14</b>
<b>5 . REGIONS WITHOUT ASSOCIATED SUMMITS (TODO).....</b>	<b>15</b>
5.1 . ESPINHAÇO.....	15
5.2 . CACHIMBO.....	15
5.3 . CANGUÇU.....	15
5.4 . CARAJÁS.....	15
5.5 . GUIMARÃES.....	16
5.6 . PARNAÍBA.....	16

**1 . Change Control**

Date	Version	Details
01-xxx-09	1.0	First formal issue of this document

## 2 . Association Reference Data

Association	Brazil (PY)
Commencement date	01 july 2009
Regions	19
Association parameters <sup>1</sup>	
Summit operation criteria	Operation must be within 50m vertically of the summit
Band 1, score 1 point	<500m ASL
Band 2, score 2 points	≥500m ASL, <1000m ASL
Band 3, score 4 points	≥1000m ASL, <1600m ASL
Band 4, score 6 points	≥1600m ASL, <2000m ASL
Band 5, score 8 points	≥2000m ASL, <2500m ASL
Band 6, score 10 points	≥2500m
Seasonal bonus	Yes
Bonus rationale	See Region References section.
Min. height for bonus	3 Points for activations ≥2000m ASL
Bonus period dates	Dependent on region
Association sponsored awards	None
Association Manager	Paulo Marcondes paulo.pu2pix@gmail.com

### 2.1 . Programme derivation

Brazil SOTA is an extension of similar programmes already active in other countries. Much of the initial list of summits was based on data provided by IBGE. See the References section for details.

The naming of regions strived to find a balance between number of regions, regional diversity, geographical and geological similarity. At some point, awkward decisions were to be made. In such cases, the need for a manageable number of regions superceded other considerations.

Where a summit is situated on the boundary of two or more different Brazilian SOTA regions, it will only be included in one. The Association Manager reserves the right to deviate from this list where it is considered that doing so would be beneficial to the programme.

The summit database is likely to be incomplete because of the large number of potential summits. Activators are asked to submit details of proposed additional summits to the Association Manager together with any supporting documentation. If the summit meets the SOTA criteria it will be added to the list. Summits cannot be counted for points until a reference number has been allocated by the Association Manager. The Association Manager should be contacted preferentially prior to activation and notified of any other proposed amendments.

In case of doubts, refer to the SOTA General Rules, the ARM or the Association Manager. The Association Manager is responsible for querying the SOTA Management Team for further

<sup>1</sup> See General Rules for parameter definitions

clarification. In case of conflict between rules set in this document or between this document and the General Rules, the SOTA General Rules take precedence over this ARM.

## **2.2 . General information**

Brazil is the fifth largest country by geographical area, occupying nearly half of South America, the fifth most populous country, and the fourth most populous democracy in the world. Bounded by the Atlantic Ocean on the east, Brazil has a coastline of over 7,491 kilometers (4,655 mi). It is bordered on the north by Venezuela, Suriname, Guyana and the overseas department of French Guiana; on the northwest by Colombia; on the west by Bolivia and Peru; on the southwest by Argentina and Paraguay and on the south by Uruguay. Numerous archipelagos are part of the Brazilian territory, such as Fernando de Noronha, Rocas Atoll, Saint Peter and Paul Rocks, and Trindade and Martim Vaz.

Brazil was a colony of Portugal from the landing of Pedro Álvares Cabral in 1500 until its independence in 1822. The Federation is formed by the union of the Federal District, the 26 States, and the 5,564 Municipalities.

Brazil is also home to a diversity of wildlife, natural environments, and extensive natural resources in a variety of protected habitats.

Brazilian topography is also diverse, including hills, mountains, plains, highlands, and scrublands. Much of Brazil lies between 200 metres (660 ft) and 800 metres (2,600 ft) in elevation. The main upland area occupies most of the southern half of the country. The northwestern parts of the plateau consist of broad, rolling terrain broken by low, rounded hills. The southeastern section is more rugged, with a complex mass of ridges and mountain ranges reaching elevations of up to 1,200 metres (3,900 ft). These ranges include the Mantiqueira Mountains, the Espinhaço Mountains, and the Serra do Mar. In north, the Guiana Highlands form a major drainage divide, separating rivers that flow south into the Amazon Basin from rivers that empty into the Orinoco River system, in Venezuela, to the north. The highest point in Brazil is the Pico da Neblina at 2994 metres (9,822ft), and the lowest point is the Atlantic Ocean.

An equatorial climate characterizes much of northern Brazil. There is no real dry season, but there are some variations in the period of the year when most rain falls. Temperatures average 25 °C (77 °F), with more significant temperature variations between night and day than between seasons. Over central Brazil rainfall is more seasonal, characteristic of a savanna climate. This region is as large and extensive as the Amazon basin but, lying farther south and being at a moderate altitude, it has a very different climate. In the interior northeast, seasonal rainfall is even more extreme. The semiarid climate region generally receives less than 800 millimetres (31 in) of rain, most of which falls in a period of three to five months and occasionally even more insufficiently, creating long periods of drought. From south of Bahia, near São Paulo, the distribution of rainfall changes, where some appreciable rainfall occurs in all months. The south has temperate conditions, with average temperatures below 18 °C (64 °F) and cool winters; frosts are quite common, with occasional snowfalls in the higher areas.

## **2.3 . Rights of way and access issues**

Footpaths in Brazil are often not very well marked. You will find many different marking systems and systematic preservation work is rare. Footpaths are changed frequently because of private building work, and you are not allowed to across private property - even if there was once a footpath there. By contrast the footpaths in the more mountainous areas are generally more clearly designated.

Most summits are located in protected areas, parks or other public land. However, not all are free access areas. It is the Activator responsibility to check whether they need official authorisation to enter that patch of land and apply for it.

## **2.4 . Maps and navigation**

The Instituto Brasileiro de Geografia e Estatística (IBGE – <http://www.ibge.gov.br>) is responsible for the publication of Brazilian maps. For most of Brazil, there are good maps at scales of 1: 50 000 and 1:100 000. However, the only series that cover the whole country is the 1:250 000 scale. Another issue is availability of paper maps. Although they are cheap, usually around US\$ 4 each 1:50 000 map, several of the more interesting maps are out of print. In some sort of attempt to overcome the scarcity of paper maps, IBGE provides for free downloads of their data at [http://www.ibge.com.br/home/geociencias/default\\_prod.shtm](http://www.ibge.com.br/home/geociencias/default_prod.shtm). The Instituto de Cartografia Aeronáutica (ICA) also has available for download the 1:1 000 000 World Aeronautical Charts in PDF format through <http://www.aisweb.aer.mil.br>.

In some very restricted areas the IBGE also publishes 1:25 000 topographic maps. More detailed maps might be available in some areas, but you need to be lucky to know, or even to get one of those.

Generally, navigation on many of the Brazilian summits is not particularly difficult, at least if you stick to the paths and the weather remains fine. It is, however, easy to get disoriented, especially in the more remote areas and during adverse weather conditions. Only the foolhardy will venture there without a compass and the knowledge to use it. A GPS is not an adequate substitute.

## **2.5 . Safety considerations**

Brazil, being a large country has many regional differences, one of special interest is the climate. The south, southeastern and central states usually have the dry (cold) season during May to September. These are usually the less cloudy days too. So, for climbing and hiking in general, this is the preferred season. Be aware, though that in the mountains of the South and Southeast, temperatures can fall below freezing. Blizzards are common and snow less so. Even if it snows, it lasts only during the night and is less than 20cm. Even in the winter, day temperatures might get into the mid 20s, so hats and sun screen are a necessity.

In the northeast and north, there is less temperature variation, but usually the rainy season is called winter and occurs from November to March. Mountain weather in the Northern region, although close to the Equator, is unpredictable. Also, medical support is close to none, and means of locomotion are scarce and slow.

You should never venture into Brazilian major mountains without walking boots, warm clothing, map and compass, and local advice. In summer always ensure that you have an adequate supply of drinking water and some protection from the sun.

Mobile phone coverage in mountainous regions is poor to nonexistent. Major roads and highways, specially in the most developed areas usually have fair to good coverage. If you have one, though, it is worth taking it with you.

### **2.5.1 . Venomous Animals**

Most forested country is home to several snakes. Most are harmless, but the notable Jararaca (*Bothrops sp.*) and Cascavel (rattle snake – *Crotalus Terrificus*) are quite common

and dangerous. There is also the Surucucu (*Lachesis sp.*) that occurs mainly in the Northern region.

The coral snake (*Micrurus sp.*) has a powerful venom but lacks the means to inoculate.

Prevention against snake bites is wearing boots and gloves where appropriate. Avoid sticking your hands in holes, and handling rocks and trunks from the ground. If you must do so, wear thick gloves. It is not advisable to carry the anti-venom, because it needs refrigeration. It is better to ask the local hospital if they have the anti-venom.

Venomous spiders are common in grasslands. The usual precaution is shaking your boots and clothes prior to wearing. Most dangerous are the *Loxosceles spp.* (Brown Spider) common in the southern states, mainly Paraná; *Phoneutria spp.* (Wandering Spider), which has an aggressive behaviour and is common in the southern and southeastern states *Latrodectus spp.* (Black Widow), mainly found in beaches, specially in the northeast, but occurs all over the country. The Crabber spider (*Theraphosa spp.*), wrongly known as Tarantula, although frightening in appearance is not venomous, but its bite is painful and the hairs are allergenic.

In Brazil, the name Tarantula is given to spider of the *Lycosa* genus, it can be identified by an arrow shape in the abdomen.

Scorpions are small and elusive, this is why they are a concern. Most Brazilian scorpions live in rocky terrain and/or rotting wood. The yellow scorpion (*Tityus serrulatus*) has the strongest venom. Accidents reported in northeastern, central, southeastern and southern states.

The Brown Scorpion (*Tityus bahiensis*) has the same distribution as his yellow cousin.

The *Tityus stigmurus* occurs mainly in the northeastern states while the *Tityus cambridgei* and *Tityus metuendus* occurs mainly in the Amazon.

Precautions against scorpion bites are the same as for spiders.

Brazilian Instituto Butantan is the scientific authority on venomous animals. Their website has a wealth of information (<http://www.butantan.gov.br>). There is also good information available at the Fundação Oswaldo Cruz at <http://www.fiocruz.br/sinitox/escorpioes.htm>.

## **2.6 . Disclaimer**

Hiking, hill-walking and rock-climbing are potentially dangerous activities. The SOTA Management Team and their associates assume no responsibility for accidents. Each participant does so at his or her own risk, and must decide, on the basis of their own ability, whether an objective is achievable. The listing of a summit in the reference does not mean that it is easy to reach, and it is always worth seeking local advice for all but the simplest of expeditions.

### 3 . Summit Reference Data

Most of the Regions (groups) were defined with reference on IBGE (2006), in that several Relief Units were joined by geographical and/or geological proximity. The Relief Units Map is in the Annex part of this ARM.

Common designations for mountainous terrains (ranges, highlands, hills, mountains, mounts) are: Serra, Serrote, Chapada, Chapadão, Planalto.

#### 3.1 . Araguaia

Association	Brazil (PY)
Region	Araguaia (AG-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Includes: Caraça, Canastra, Barcaça, Saudade, Ponte Alta, Cristais, Pilões, Dourada, Pirineus, Geral do Paranã (GO), Veadeiros, Bocaina (GO, TO), Lajeado (TO), Javaés, Estrondo (or Cordilheiras)

##### 3.1.1 . Regional Notes

##### 3.1.2 . Seasonal Notes

##### 3.1.3 . List of Summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
AG 001	1691	5548	-	-13.9917	-47.4869	1/Jul/2009		6
AG 002	1676	5498	-	-14.0189	-47.5089	1/Jul/2009		6
AG 003	1646	5400	-	-13.9744	-47.5764	1/Jul/2009		6
AG 004	1576	5170	Salto	-14.1350	-47.6919	1/Jul/2009		4
AG 005	1518	4980	-	-14.1417	-47.4575	1/Jul/2009		4

#### 3.2 . Borborema

Association	Brazil (PY)
Region	Borborema (BB-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

##### 3.2.1 . Regional Notes

This Highlands include Cariris Velhos, Cariris Novos, Borborema

##### 3.2.2 . Seasonal Notes

##### 3.2.3 . List of Summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
BB 001	1084	3556	-	-8.1006	-36.7436	1/Jul/2009		4
BB 002	1070	3510	-	-7.9661	-37.3503	1/Jul/2009		4
BB 003	865	2838	-	-5.7006	-44.9278	1/Jul/2009		2
BB 004	859	2818	-	-5.7261	-40.7261	1/Jul/2009		2
BB 005	852	2795	-	-6.3800	-38.4831	1/Jul/2009		2

**3.3 . Bodoquena**

Association	Brazil (PY)
Region	Bodoquena (BQ-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Ranges south of Taquari River, including Bodoquena, Maracaju, and areas near Corumbá (MS)

**3.3.1 . Regional Notes****3.3.2 . Seasonal Notes****3.3.3 . List of Summits**

REF	ASL (m) (ft)	Name	Lat	Long	Valid since	Valid until	Points
BQ 001	1065 3495	Grande	-19.2008	-57.5922	1/Jul/2009		4
BQ 002	976 3202	-	-17.9231	-37.5647	1/Jul/2009		2
BQ 003	971 3186	-	-19.1858	-57.6072	1/Jul/2009		2
BQ 004	898 2946	-	-18.0061	-53.2172	1/Jul/2009		2
BQ 005	879 2884	-	-17.3603	-53.5756	1/Jul/2009		2

**3.4 . Diamantina**

Association	Brazil (PY)
Region	Diamantina (DI-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

**3.4.1 . Regional Notes**

Includes Sincorá, Mangabeira, Angelim, Jacobina, Itiúba and Orobó

**3.4.2 . Seasonal Notes****3.4.3 . List of Summits**

REF	ASL (m) (ft)	Name	Lat	Long	Valid since	Valid until	Points
DI 001	2033 6671	Barbado	-13.2964	-41.8906	1/Jul/2009		8
DI 002	1836 6024	Almas	-13.5272	-41.9642	1/Jul/2009		6
DI 003	1816 5958	Três Morros	-13.0392	-41.8972	1/Jul/2009		6
DI 004	1782 5846	-	-15.2000	-42.0000	1/Jul/2009		6
DI 005	1771 5810	Barro Vermelho	-13.4642	-41.8133	1/Jul/2009		6

**3.5 . Divisor**

Association	Brazil (PY)
Region	Divisor (DV-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

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### 3.5.1 . Regional Notes

Ranges that occur west of Acre State, where Brazil borders Peru. Also known as Contamana

### 3.5.2 . Seasonal Notes

### 3.5.3 . List of Summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
DV001	609	1998	-	-7.1742	-73.7625	1/Jul/2009		2
DV002	505	1657	-	-8.0567	-73.6333	1/Jul/2009		2
DV003	495	1624	-	-8.4758	-73.3322	1/Jul/2009		1

## 3.6 . Grande

Association	Brazil (PY)
Region	Grande (GD-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

### 3.6.1 . Regional Notes

The group Grande comprises several ranges in the northeastern states of Piauí, Ceará, Rio Grande do Norte, Pernambuco, Alagoas e Bahia.

Local range names included in this group are Araripe, Dois Irmãos, Grande, Ibiapaba, Apodi and Baturité.

### 3.6.2 . Seasonal Notes

### 3.6.3 . List of Summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
GD 001	1197	3927	Jabre	-7.2525	-37.3839	1/Jul/2009		4
GD 002	1195	3921	-	-8.1603	-36.3919	1/Jul/2009		4
GD 003	1185	3888	-	-7.8228	-38.0556	1/Jul/2009		4
GD 004	1180	3871	-	-8.2131	-36.3944	1/Jul/2009		4
GD 005	1170	3839	-	-8.1514	-36.7228	1/Jul/2009		4

## 3.7 . Guianas

Association	Brazil (PY)
Region	Guianas (GN-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

### 3.7.1 . Regional Notes

This group comprises the mountains that make up the northern frontier from the Cape Orange in the coast of Amapá state, eastward until the point where Traira River joins Caquetá River in Amazonas State. The two highest points (Neblina and 31 de Março) in Brazil and the most unaccessible summit (Roraima) are in this group.

For SOTA purposes, other geographically unrelated ranges are contained in the Guiana Group: Serra do Macaco, Imeri, Urucuzeiro, Parima, Pacaraima, Tapirapecó, Mucajaí, Acaraí ou Acari, Tumucumaque, Lombarda, Maicuru, Iratapuru, Jauaru.

### 3.7.2 . Seasonal Notes

### 3.7.3 . List of Summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
GN 001	2994	9822	Nebolina	0.8003	-66.0069	1/Jul/2009		10
GN 002	2973	9753	31 de Março	0.8061	-66.0047	1/Jul/2009		10
GN 003	2739	8987	Roraima	5.2019	-60.7369	1/Jul/2009		10
GN 004	2596	8517	Cadorna	0.7972	-66.0083	1/Jul/2009		10
GN 005	2500	8202	Imeri (?)	0.4908	-65.3333	1/Jul/2009		8

## 3.8 . Geral

<b>Association</b>	<b>Brazil (PY)</b>
Region	Geral (GR-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Includes: Botucatu, Agudos, Mirante and Jaboticabal (SP), Apucarana, Cinco Irmãos, Urtigueira, Chagu, Furnas, Piquiri and Dourados (PR), Espigão and Pedra Branca (SC) and Alto Uruguai

### 3.8.1 . Regional Notes

### 3.8.2 . Seasonal Notes

### 3.8.3 . List of Summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
GR 001	1827	5994	Boa Vista	-28.1244	-49.4744	1/Jul/2009		6
GR 002	1822	5978	Igreja	-28.1383	-49.5189	1/Jul/2009		6
GR 003	1810	5938	Bela Vista do Guizoni	-27.8839	-49.3100	1/Jul/2009		6
GR 004	1790	5873	Convento dos Padres	-28.1133	-49.5667	1/Jul/2009		6
GR 005	1755	5758	-	-28.1092	-49.5825	1/Jul/2009		6

## 3.9 . Mantiqueira

<b>Association</b>	<b>Brazil (PY)</b>
Region	Mantiqueira (MT-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	June to September

### 3.9.1 . Regional Notes

The **Mantiqueira Mountains** (Portuguese: *Serra da Mantiqueira*) are a mountain range in southeastern [Brazil](#), with parts in the states of [São Paulo](#), [Minas Gerais](#) and [Rio de Janeiro](#). They rise abruptly from the northwestern bank of the [Paraíba do Sul River](#) and extend

northeastward for approximately 320 km (200 miles), reaching a height of 2,798 m (9,180 ft) at [Pedra da Mina](#). The mountains, which eventually merge with the [Serra do Espinhaço](#), were originally forest-covered, except for the peaks that rise above the tree line. They provided [charcoal](#) and pasture for cattle; on the lower slopes there are several health and tourist resorts, such as [Campos do Jordão](#), Brazil's highest city. The name *Mantiqueira* derives from a [Tupi-Guarani](#) word meaning "mountains that cry", denoting the large number of springs and streams found there.

The name shows the range's great importance as a source of drinking [water](#), and the waters supply a great number of important cities in the southeast of Brazil. From its brooks are formed the [Jaguari River](#), which supplies the northern region of Greater [São Paulo](#); the [Paraíba do Sul River](#), which crosses a densely populated and highly industrialized region; and the [Grande River](#), which is the source of the [Paraná River](#), one of the longest and most important in South America and the river with the world's largest [hydroelectric](#) output, through a series of power plants way down the river to [Argentina](#) and [Paraguay](#).

Many springs of mineral water lie in the regions of [Caxambu](#) and [São Lourenço](#) in [Minas Gerais](#), and [Campos do Jordão](#) and [Serra Negra](#) in [São Paulo](#).

There are several local names that shall be considered as belonging to the Mantiqueira Group, including: Itatiaia, Passa Quatro, Serra Fina, Brigadeiro, Caparaó, [Cervo](#), Castelo, Araras (RJ), Ibitipoca, Alterosas, Japi, Cantareira, Galga.

It is home to several of Brazilian highest summits, short of Neblina and March 31<sup>st</sup>.

### 3.9.2 . Seasonal Notes

Temperatures in this region can fall below freezing during winter with -10C registered. Occasional frosting and rare snow have been recorded. This group qualify for seasonal bonus.

### 3.9.3 . List of Summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
MQ 001	2892	9488	Bandeira	-20.4344	-41.7956	1/Jul/2009		10
MQ 002	2852	9357	-	NaN	NaN	1/Jul/2009		10
MQ 003	2849	9347	Calçado	-21.4333	-41.8000	1/Jul/2009		10
MQ 004	2818	9245	-	NaN	NaN	1/Jul/2009		10
MQ 005	2798	9181	Mina	-22.4278	-44.8425	1/Jul/2009		10
MQ 006	2792	9158	Agulhas Negras	-22.3797	-44.6611	1/Jul/2009		10
MQ 007	2770	9087	Cristal	-20.4436	-41.8111	1/Jul/2009		10
MQ 008	2670	8760	Sino de Itatiaia	-22.3703	-44.6617	1/Jul/2009		10
MQ 009	2665	8743	Três Estados	-22.4061	-44.8094	1/Jul/2009		10
MQ 010	2665	8743	Altar	-22.3733	-44.6728	1/Jul/2009		10

### 3.10 . Parecis

Association	Brazil (PY)
Region	Parecis (PC-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Includes ranges south of Juína (MT), West of Roosevelt River, east of the Araguaia River, northwest of Paraguai River, including: Parecis, Ricardo Franco, Santa Bárbara, Formosa, Roncador, Providência, Grande , Verde, Tombador, Apiacás and Pacaás Novos.

**3.10.1 . Regional Notes****3.10.2 . Seasonal Notes****3.10.3 . List of Summits**

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
PC 001	1118	3668	-	-16.0633	-59.4589	1/Jul/2009		4
PC 002	1078	3537	-	-15.0417	-60.0997	1/Jul/2009		4
PC 003	1070	3510	-	-16.0672	-59.4075	1/Jul/2009		4
PC 004	1021	3350	-	-16.0661	-59.5244	1/Jul/2009		4
PC 005	1010	3314	-	-16.8942	-51.9544	1/Jul/2009		4

**3.11 . São Francisco**

<b>Association</b>	<b>Brazil (PY)</b>
Region	São Francisco (SF-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Groups unrelated ranges that occur to west of the São Francisco River: Mangabeiras (TO, BA, MA, PI), Ocidental da Bahia, Ramalho, Tropeiros, Geral de Goiás, São Domingos Paratodos, Fonseca, Tiririca, Geral do Rio Preto, Repartimento.

**3.11.1 . Regional Notes****3.11.2 . Seasonal Notes****3.11.3 . List of Summits**

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
SF 001	804	2638	-	-10.2625	-46.0042	1/Jul/2009		2
SF 002	801	2628	-	-10.2133	-46.0989	1/Jul/2009		2
SF 003	795	2608	-	-10.2506	-45.9997	1/Jul/2009		2
SF 004	788	2585	-	-10.0844	-46.0206	1/Jul/2009		2
SF 005	780	2559	-	-10.2200	-45.9761	1/Jul/2009		2

**3.12 . Serra do Mar**

<b>Association</b>	<b>Brazil (PY)</b>
Region	Serra do Mar (SM-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	June to September

**3.12.1 . Regional notes**

**Serra do Mar** ([Portuguese](#): for Mountain Range of the Sea) is a 1,500 km long system of [mountain ranges](#) and [escarpments](#) in Southeastern [Brazil](#), which runs parallel to the [Atlantic Ocean coast](#), from the state of [Espírito Santo](#) south to [Santa Catarina](#). The main escarpment forms the boundary between the sea-level [littoral](#) and the inland [plateau](#) (*planalto*), which has a mean altitude of 500 to 1300 m. The mountain ranges are discontinuous in several places

and receive local names, such as [Bocaina \(SP/RJ\)](#), [Paranapiacaba](#), [Negra](#), [Órgãos](#). Included in this Group are the ranges locally known as Graciosa, Farinha Seca, Capivari Grande, Virgem Maria, Ibitiraquire, Marumbi, Castelhanos, Araraquara, Araçatuba, Iquiririm, Igreja, Canavieiras and Prata. It also extends to some large islands near the coastline, such as [São Sebastião Island](#) and [Grande Island](#). The highest point of Serra do Mar is the [Pico das Salinas](#), located in the Three Peaks State Park in the state of [Rio de Janeiro](#), with a height of 2,316 m.

For SOTA purposes, island summits along the coast of Santa Catarina, Parana, Sao Paulo and Rio de Janeiro (up to the mouth of Paraíba do Sul river) States count as SM group, as long as they exhibit enough prominence.

Geologically, the Serra do Mar belongs to the massive [crystalline rock](#) platform that forms Eastern [South America](#) and [tectonically](#) is very stable. Most of the elevations of Serra do Mar were formed about 60 million years ago.

At the time of discovery of Brazil (1500), Serra do Mar supported a rich and highly diversified ecosystem, composed mainly by a lush tropical [rain forest](#), called [Mata Atlântica](#) (Atlantic Rainforest). Due to [urbanization](#) and [deforestation](#), however, most of the forest cover was destroyed and it remains almost exclusively in the steep escarpments facing the sea. A chain of national and [state parks](#), ecological stations and [biological reservations](#) now protect the Mata Atlântica and its biological heritage, but [acid rain](#), [pollution](#), [poachers](#), clandestine [loggers](#), [forest fires](#) and encroachment by urban areas and farms are still promoting active destruction, particularly around cities. The large metropolis of [São Paulo](#), [Rio de Janeiro](#), [Curitiba](#) and [Vitória](#) are near the Serra do Mar.

The dry season goes from April until September. The mean annual precipitation is up to 1500mm, and temperatures range from X to XX, depending on latitude.

### 3.12.2 . Table of summits

REF	ASL		Name	Lat	Long	Valid		Points
	(m)	(ft)				since	until	
SM001	2680	8793	Couto	-22.3844	-44.6969	1/Jul/2009		10
SM002	2453	8048	Assentada	-22.3992	-44.6608	1/Jul/2009		8
SM003	2310	7579	Médio de Friburgo	-22.5761	-42.7267	1/Jul/2009		8
SM004	2275	7464	Sino	-22.4617	-43.0311	1/Jul/2009		8
SM005	2270	7448	Urubu	-22.4106	-44.6650	1/Jul/2009		8

## 4 . References

[http://en.wikipedia.org/wiki/Serra\\_do\\_Mar](http://en.wikipedia.org/wiki/Serra_do_Mar)

[http://pt.wikipedia.org/wiki/Serra\\_do\\_Mar](http://pt.wikipedia.org/wiki/Serra_do_Mar)

[http://en.wikipedia.org/wiki/Mantiqueira\\_Mountains](http://en.wikipedia.org/wiki/Mantiqueira_Mountains)

[http://pt.wikipedia.org/wiki/Serra\\_da\\_Mantiqueira](http://pt.wikipedia.org/wiki/Serra_da_Mantiqueira)

[http://www.montanhasbrasil.org.br/territorio\\_mont.htm](http://www.montanhasbrasil.org.br/territorio_mont.htm)

IBGE, 2006, Mapa de Unidades de Relevo. Brasília. Scale 1:5 000 000. Policonic Projection.

<http://en.wikipedia.org/wiki/Brazil>

## 5 . Regions without associated summits (TODO)

### 5.1 . Espinhaço

Association	Brazil (PY)
Region	Espinhaço (EP-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Includes Cipó, Negra (MG) Noruega, Aimorés, Cabral, Curral, Moeda, Mombuca, Geral (BA) and Tabatinga (BA)

#### 5.1.1 . Regional Notes

#### 5.1.2 . Seasonal Notes

#### 5.1.3 . List of Summits

### 5.2 . Cachimbo

Association	Brazil (PY)
Region	Cachimbo (CC-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Ranges in Mato Grosso and south of Pará and Amazonas states, West of Jamanxim river, east of Roosevelt River. Includes: Cachimbo, Apiacás, Bonnet, Sucunduri, Caiabis, Dardanelos,

#### 5.2.1 . Regional Notes

#### 5.2.2 . Seasonal Notes

#### 5.2.3 . List of Summits

### 5.3 . Canguçu

Association	Brazil (PY)
Region	Canguçu (CG-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Highlands and Rages south and southwest of Rio Grande do Sul, bordering Argentina and Uruguai.. Includes Canguçu, Tapes, Herval, Iguariaça, Encantadas, Coxilha de Santana, Coxilha Pedras Retas, Caçapava do Sul Highlands and the Campanha Gaúcha region.

#### 5.3.1 . Regional Notes

#### 5.3.2 . Seasonal Notes

#### 5.3.3 . List of Summits

### 5.4 . Carajás

Association	Brazil (PY)
Region	Carajás (CJ-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Includes ranges in Pará state east of Jamanxim River, including: Carajás, Fortalezinha, Bacajá, Escalado, Cerrado, Estragado, Fortaleza, Seringa, Gradaus, Cubencranquém, Gorotire, Urubuquara

**5.4.1 . Regional Notes**

**5.4.2 . Seasonal Notes**

**5.4.3 . List of Summits**

**5.5 . Guimarães**

Association	Brazil (PY)
Region	Guimarães (GM-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Ranges north of Taquari river. Includes Guimarães, Araras (MT), Azul, São Lourenço, São Jerônimo, Caiapó, Saudade, Furnas, Estrela, Divisões (or Santa Marta) east of Claro and Verde (or Verdão) rivers.

**5.5.1 . Regional Notes**

**5.5.2 . Seasonal Notes**

**5.5.3 . List of Summits**

**5.6 . Parnaíba**

Association	Brazil (PY)
Region	Parnaíba (PN-xxx)
Region manager	Refer to Association Manager
Seasonal Bonus	TBD

Includes: Penitente Uruçuí, Bom Jesus da Guguéia, Alparcatas, Gurupi in the states of Maranhão, Piauí, Bahia and Tocantins.

**5.6.1 . Regional Notes**

**5.6.2 . Seasonal Notes**

**5.6.3 . List of Summits**