SAO PAULO (Guarulhos) (GRU/SBGR)

Elevation 2,459ft

CATEGORY B

AV brief not required

GENERAL

- Airfield pronounced 'Gwa-rule-ihos'
- Situated in the northeastern outskirts of Sao Paulo
- English is generally a distant third to Portuguese and Spanish in Brazil – slow and standard R/T gives the best results

Threats

CFIT
- The airfield sits in a wide valley running NE-SW
- Immediately north of the airfield terrain reaches nearly 3,900ft amsl at 5 NM N and 4,700ft amsl 9 NM E. On base leg 09L/R the terrain reaches nearly 4,200ft amsl
- Between Sao Paulo and the coast are hills reaching 3,900ft amsl at 25 NM S and 4,400ft amsl at 40 NM E

Runway Excursion
- Anecdotal evidence suggests all SIDs/STARs were designed and tested for A320s, so proactive energy management may be required in larger types
- Refer to 'Hot and High Operations' brief for guidance on operations to High Density Altitude airfields.

Mid Air Collision
- Birds, kites and balloons are common

Runway Incursion
- Landing traffic can expect to hold short of 09L/27R after landing

ARRIVAL

Diversion Airports

CAMPINAS	VCP/SBKP	045 nm/305°T	CAT B
RIO DE JANEIRO Intl	GIG/SBGL	182 nm/078°T	CAT B
BELO HORIZONTE	CNF/SBCF	269 nm/031°T	CAT B
BRASILIA	BSB/SBBR	463 nm/350°T	CAT A

Should a diversion be likely, an early decision is better as there is limited handling capacity at all alternates.

Approach

- ATIS in Portuguese and English

- Initial descent with Brasilia Centre. STAR clearance will only be issued later by Sao Paulo Approach and is often different to the flight plan. Consider loading the most likely alternative in to RTE2 to reduce workload.
- "Descend via" used, particularly if quiet
- 09R/09L – STAR clearance may deliberately increase track miles to allow ATC time to organise arrival traffic – also strops traffic automatically turning on to approach following downwind
- As traffic becomes sequenced, revised STARs or direct routings may be given to reduce track miles. Whilst the STAR may not be formally changed, routing should be confirmed approaching the end of the arrival. Beyond this point there is relatively little ability to lose excess energy – a suggested configuration is F5/180kt level at 7,000ft.
- Rwy 27L/R – expect a shortened route to the localiser
- In good weather expect ILS 'T' 09R, in poor weather the ILS 'V' will be used
- Procedural approaches are used – it is important to consider "how" these will be flown compared to radar vectoring. For instance, once cleared for the procedure no further descent clearances are issued – what strategy will be used for setting MCP altitudes?
- DME references and ability to check glidepath changes depending on the procedure – note that BCO is 6 NM beyond the threshold
- A localised tailwind is often encountered on base leg as you pass over the terrain to the north

GROUND

- Normal stand on Apron 5/6 of T3. Remote stands may be used if significantly off-schedule

DEPARTURE

- If performance is critical, contact ATC for the latest temperature
- 'Climb via' SID terminology occasionally used. Departure route climbs toward arriving traffic so altitude restrictions are common and can occur at short notice.

Enroute

- Recife Centre will ask for your Mach Number – this is your intended speed over the ocean for separation purposes
- Proactive climbs whilst still under radar control should be considered
- No Oceanic clearance is required if you are on one of the airways of the EUR-SAM corridor (e.g. UN866). However if the route transits Santa Maria clearance should be requested at least 40 mins prior to entry both northbound and southbound.

WEATHER

- Radiation fog common in the mornings during colder months (Apr-Oct), forming at sunrise and lasting 1-2 hrs. Thick overnight fog can also form in the coldest winter months.
- The normal diversion airfield Campinas (VCP/SBKP) is usually clear but prone to occasional unforecast bad weather
- Afternoon Cbs and Thunderstorms occur daily during hotter parts of the year. They can be extremely violent, occur at short notice and produce significant turbulence and windshear.

OPERATIONAL INFORMATION

Handling Agent	BA (Pax) PROIR (Ramp)
Handling Agent VHF	131.7
Potable Water	Uplift permitted

IF ONLY Electrical Power is required	Use ground power at all times
If BOTH electrical power and air conditioning is required:	Use both ground services at all times