

Brazil's 4th Special Border Squad, based at Estirao do Equador, on patrol during Operation 'Agatha 7'.

Beefing up the border

Ahead of major international commitments Brazil recently staged an unprecedented military operation with the mobilisation of more than 35,000 troops across the armed forces to patrol its vast land frontier. **Janet Tappin Coelho** reports on Operation 'Agatha 7'

When a small aircraft failed to identify itself as it flew without approval outside allocated airspace, 200 km from the city of Porto Velho in the Amazon state of Rondônia, a Brazilian Air Force (Força Aerea Brasileira – FAB) Mil Mi-35M 'Hind' (AH-2 Sabre in FAB service) attack helicopter was dispatched from Porto Velho Air Base to intercept it, with instructions to force the aircraft to land if necessary.

At the same time, the crew from the 2nd Squadron of the 8th Aviation Group radioed the aircraft to identify its status. The response was relayed to air traffic control. This incident, which ended benignly, was one of hundreds of missions performed by more

than 35,000 troops deployed by Brazil's armed forces from 18 May to 5 June this year. The services were patrolling the land, air and sea along the country's vast 16,885 km-long land border, shared with 10 different South American nations, as part of Operation 'Agatha 7' – the country's biggest-ever military exercise.

The unprecedented mobilisation of thousands of army personnel and hundreds of vehicles, aircraft and vessels was part of the country's Strategic Border Plan: a long-term strategy, introduced in 2011, in which the Ministry of Defence (MoD) has granted Brazil's armed forces the combined and integrated responsibility of defending and protecting its

citizens and the integrity of its border.

The objectives are achieved through the organisation of missions such as Operation 'Agatha' that combat and tackle the rising levels of illicit activity and violent cross-border crimes associated with drugs and people trafficking; arms and ammunition smuggling; deforestation; and illegal gold mining. The army was supported by hundreds of federal police officers and government agencies.

"Our aim was to have a visible and substantial presence of the military along our frontier and to stamp our authority on our border as a no-man's land for contraband activities," General José Carlos de Nardi, Brazil's joint chief of staff of the armed forces, told *IHS Jane's*.

The seventh in a series of border manoeuvres launched in 2011, the latest iteration of Operation 'Agatha' was by far the most ambitious. The first operation, held in August 2011, was performed by 5,000 troops in the Amazonas state along the Javari river, close to Tabatinga. In October 2012, Operation 'Agatha 6' concentrated on the Amazon and took around 12,000 troops to the states of Rondônia, Mato Grosso do Sul and Acre.

Protection of citizens

"This time around [for 'Agatha 7'] we were given authority to cover the whole border area because of our major international commitments with the Confederations Cup, the papal visit, the forthcoming World Cup in 2014 and the Olympics in 2016," Gen de Nardi explained. "By understanding and protecting our borders we can protect our citizens, and that protection extends to the many visitors who are likely to come to our shores during these events."

It is the first time Brazil's army, navy and air force have operated jointly under a single national command. This, according to the MoD, is the long-term modern operational structure envisaged for Brazil's armed forces. An extract from Brazil's 2011 White Paper on National Defence states that the armed forces should be "modern, integrated, trained and balanced, and [display] growing professionalism, operating jointly and [be] properly deployed in the national territory".

While Operation 'Agatha' was ostensibly about fighting transnational crime, the exercise is nonetheless integral to the Brazilian National Defence Strategy.

"One of the guidelines of the National Defence Strategy is to deter hostile forces at land borders, including through surveillance and patrolling tasks," explained an MoD spokesperson. "Operation 'Agatha' fits into this context, allowing the consolidation of an integrated monitoring and control system from the units that participate in the operation. At the same time, these units potentiate themselves as instruments of defence through their involvement at a strategic and tactical level."

The scale of this year's military task was an organisational challenge largely because of Brazil's immense and complex border landscape, which is made up of 7,360 km of dry land; 9,520 km of rivers, lakes and canals; and 23,414 km of motorways compris-

ing 27% of the country. Military planners initially drafted in 25,000 troops to carry out Operation 'Agatha 7', but at the last minute they were forced to deploy more personnel, bringing the total to 33,563.

"This is the first time we have done such a huge operation, and we had some logistical problems because we simply underestimated how big the area is," admitted Gen de Nardi. "For example, in the Amazon we found we needed more transportation support with airplanes to take our troops. With more aircraft operating, we had to bring in extra people for equipment maintenance and to help on the runways."

More than six million Brazilians living in 710 cities in 11 states were directly affected by the manoeuvres. For the 10 countries on the opposite side of the border to Brazil, the massing of thousands of military personnel deployed from the South American country's battalions, platoons and fleets could easily have been misconstrued as a show of force and an aggressive defence of its territories. However, before Brazil launched its military campaign it held diplomatic talks with every nation to ensure the purpose of the exercise and the strategy behind it was explained.

"[Operation 'Agatha'] is also about building good relationships with our neighbours, as our work helps to protect their citizens as well. We made it clear from the very beginning that there was no covert or hostile agenda," said Gen de Nardi.

Three months before the operation began, Brazilian intelligence investigated a number of locations along the border to determine where the army needed to place its forces. Thousands of troops were eventually positioned in strategic points on the frontier. However, the highest concentrations of personnel were stationed in areas with a significant volume of illegal activity, such as Ponta Pora in Mato Grosso do Sul, which is based on the Paraguayan border; the Iguassu Falls in Paraná, and Assisi Brazil in Acre (because of the triple frontier they hold with Uruguay and Argentina, and Peru and Bolivia respectively); and Tabatinga in Amazonas. This city's tri-border status with Colombia and Peru makes it a highly sensitive region. The town is said to have become a critical and preferred route for drug traffickers and contraband smugglers.

To combat the illegal activity, the Solimões Frontier Command/8th Jungle Infantry Battalion set up a 24-hour checkpoint on the main road entering Tabatinga from its sister city Leticia in Colombia. Dozens of soldiers carrying IMBEL (Industria de Material Belico do Brasil) IA2 assault rifles stopped and searched cars, motorbikes and buses, while individuals were searched for illicit possessions as they crossed the invisible frontier line. Hundreds of similar army border checkpoints were implemented, resulting in 267,590 vehicles and 17,165 pedestrians being investigated. The army also used EE-11



A Brazilian Army checkpoint on the border of Brazil and Bolivia.

Brazilian marine presence on the Solimões River during Operation 'Agatha 7'.



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Urutu armoured personnel carriers and EE-9 Cascavel armoured cars in strategic border points to deter potential counterattacks on their forces, and Agrale Marruá cross-country vehicles and Land Rover Defenders moved troops around.

Waterways control

On the tributaries and rivers permeating the extensive boundary, the 5th, 6th and 9th Naval Districts used flagships as moving checkpoints. The frigates were supported by fast inshore patrol craft. Eurocopter AS350 (UH-12) Esquilo helicopters were also used for surveillance and patrol support. A total of 17,587 vessels were inspected.

In the airways some of the aircraft operated by the FAB during the manoeuvres included Brazilian-built Embraer EMB-314 (A-29) Super Tucano light attack aircraft jets; US-made Sikorsky S-70A-36 (H-60L) Black Hawk helicopters; Northrop F-5EM aircraft, modernised by Israel's Elbit Systems and Embraer and refitted with new electronic warfare systems and Grifo F radar; and the Embraer E-99 airborne early warning and control aircraft equipped with the Erieye airborne radar from Saab Microwave Systems of Sweden.

In the case of the aircraft intercepted near Porto Velho by the AH-2 Sabre attack helicopter, the FAB's concern at the time was the aircraft's possible attempt to avoid detection and the trafficking of narcotics. Porto Velho

shares a border with Bolivia.

The AH-2 comes equipped with twin 23 mm GSh-23V cannon on a chin-mounted moving turret. If the aircraft had been forced to land, the Sabre helicopter would have protected the troops approaching it on the ground. Furthermore, if the small aircraft had acted evasively to escape the range of the Sabre, A-29 Super Tucanos would have flown in as part of the air force's support procedures.

All flight instructions and communica-

tions were relayed through the FAB's Air Operations Centre (COA) a new command and control system set up during Operation 'Agatha 7'. This was the first time the centre had been tested in a real-life military operation. Alongside the communications, the air force used the COA to plan and co-ordinate all of the FAB's missions during the military campaign. The COA structure was erected next to the General Command of Air Operations (COMGAR), based in Brasilia, and run 24 hours a day by 130 military operatives.

The COA handled the movement of about 70 aircraft used throughout the region covered by the exercise.

This included recently upgraded Lockheed Martin P-3AM Orion maritime patrol aircraft equipped with a fully integrated tactical system supplied by Airbus Military. The Orion was flown by the 1st Squadron, 7th Aviation Group, and performed aerial reconnaissance patrol missions up and down the border. During the flights, crews transmitted real-time images and videos to the COA in Brasilia.

Suspicious activities on the ground and on the waterways were instantly relayed to the army or navy by the ground-based operational staff.

The COA also received real-time images captured by remotely controlled unmanned aerial vehicles (UAVs) during the first joint mission between the FAB and the federal police. In São Miguel do Iguacu, in the southern state of Paraná on the border of Paraguay, the FAB took the unprecedented step of launching two of its four Elbit Hermes 450 UAVs in a collaborative action to patrol the border with

The 2nd Jungle Infantry Brigade, based at Niterói, deploys land troops to São Gabriel da Cachoeira, Amazonas, to patrol the borders.



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the federal police who operated two Israel Aerospace Industries Heron 1 UAVs.

On their first mission together, the co-ordinated action of the UAVs resulted in the seizure of 3.5 tonnes of marijuana on the Paraná-Paraguayan border. Aircraft cameras registered the late-night movement of boats on the Itapúa Lake. The military and federal police located where the boats were moored and uncovered the illegal cargo.

The FAB only has four UAVs and remains reliant on aerial reconnaissance missions and tip-offs from informants for GPS co-ordinates of illegal gold mining and logging.

At the end of May the army used explosives to destroy a clandestine landing strip in Surucucu in Alto Alegre, Roraima, 30 miles from the Venezuelan border. It was being used to support illegal mining on indigenous Indian land.

Soldiers from the 7th Jungle Infantry Battalion and the 6th Engineer Construction Battalion based in Boa Vista, Roraima, and the 4th Army Aviation Battalion headquartered in Manaus, Amazonas, used explosives to blow three craters, 1.5 m wide and 60 cm deep, into the jungle runway.

On this occasion the airstrip had been identified a few days earlier in joint inspections by the FAB and Brazil's National Civil Aviation Agency (ANAC).

The surveillance checks were designed to give ANAC the opportunity to evaluate remote locations and light aircraft found on Brazil's jungle frontier as well as to identify possible irregularities. A total of 35 airfields in austere areas were inspected during the three-week military campaign and the surveillance led to the discovery of an estimated 22 illegal airstrips operating on protected Indian land.

To ensure all joint missions performed by the three services were co-ordinated and backed up by efficient communication systems, three command centres were set up to control operations spanning the length of the border – from the northern point where Brazil is separated from French Guiana by the river Oyapock in Amapá, down to the southern city of Chuí, in Rio Grande do Sul, where the town shares a land border with its sister city Chuy in Uruguay.

The Amazon Military Command in the north operated from the capital, Manaus; the West Command was located in Campo Grande, Mato Grosso do Sul, and the South Command centre was based in Porto Alegre in Rio Grande do Sul. To maintain the link between the various levels of command, a

Communication Centre was installed in Iguassu Falls and operated by the 15th Mechanised Infantry Brigade.

Information was relayed using encrypted transmission equipment in HF, VHF and UHF radios with telephony systems and data integration.

The transmissions unit was supported by the SISCOPIS rapid deployment satellite communication system, developed by Spanish technology company Indra to enable all units in the Brazilian Army to communicate via secure satellite even in the most remote regions.

Maximum interoperability

In addition, a co-ordination centre for logistics and mobilisation (CCOP) was set up to ensure maximum interoperability between the army, navy and air force. The centre's

viability was put to the test for the first time during the operation and successfully handled video conferencing.

Speaking in April this year at the Latin American Aerospace and Defence (LAAD) Sixth International Symposium on Military Logistics in Rio de Janeiro, Brazil's defence minister, Celso Amorim, said the CCOP will help in "the co-ordination of logistics and mobilisation activities. [It will] rationalise the use of resources and thus make savings and generate agility procedures".

Operation 'Agatha 7' ended with a record haul of narcotics. More than 25,300 tonnes of cannabis and 657 kg of cocaine, crack and hashish were seized.

In Tabatinga, a joint effort undertaken by the armed forces of Brazil, Colombia and Peru managed to impede the harvest of the coca plant in Peru, wiping out a crop



A Brazilian Black Hawk helicopter takes off from Tabatinga Airbase.



A Brazilian Esquilo marine helicopter takes off from a launch pad on river patrol frigate *Raposo Tavares* during Operation 'Agatha 7'.

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of approximately 30 ha.

Joint patrols and checkpoints also led to the impounding of hundreds of litres of gasoline and refining equipment used in the production of the cocaine paste.

While the exercise has been praised as a resounding success, some critics argue that the Strategic Border Plan has turned Brazil's army into a 'glorified police force'.

"In a democratic society the federal police should be employed to combat crime – not the armed forces. There appears to be confusion in the lines of responsibility between who does what. This provokes strategic fragility within society because the army is not dealing with enemies but criminals," said Professor Samuel Alves Soares, president of the Brazilian Association of Defence Studies (ABED). The Brazilian government disagrees. "Conventional wisdom associates the military as a body that is just there to fight and defend the country in times of conflict and ignores the impact of the work that these same forces have in times of peace such as the protection of national interests and the day-to-day running of Brazil," said Senator Ricardo Ferraço, chairman of the Foreign Affairs and Defence Committee.

Defensive mindset

While Brazil did not station anti-tank weapons or anti-air missiles on its border during manoeuvres, the deployment of thousands of armed personnel, the intensity of the campaign, which provided active training and relevant experience, and the extensive media spotlight on the event served to fulfil one of the fundamental goals stipulated in the National Defence Strategy: the development of a defensive mindset in civil society.

Furthermore, the MoD confirmed that much of the information gathered throughout Operation 'Agatha' will be used now to guide the planning of future defence actions. In some instances, a spokesperson said, "military troops have acted in regions considered empty and inhospitable, which are true 'blind spots' in the Brazilian territory. The mapping of these situations allows us to create conditions to better meet the needs of these regions in terms of defence and security."

Brazil now has one of the fastest-growing defence expenditures and the 11th largest defence budget in the world.

According to IHS Jane's Defence Budgets data, the South American nation is on track to enter the top 10 by 2018. Part of the boost is down to its hosting of the World Cup in 2014

and the Olympic Games in 2016, both of which requires extensive military security.

However, when compared with the other BRIC (Brazil, Russia, India and China) countries, the share of defence spending in the total Brazilian GDP is still modest – amounting to 1.29% in 2012.

In May in a speech before the senate on the major ongoing projects for the armed forces, Amorim said the government plans to increase defence spending to 2% GDP within 10 years.

"The regularity of investments in the military is absolutely essential, because we have weaponry that is obsolete or does not work: 10 planes, with only five in use," he said. "The constancy of resources – not only for large projects but also for the maintenance of what we have – is vital to our area of defence," the minister added.

Modernisation

In June 2012 the government announced the investment of BRL1.53 billion (USD69 billion) from the Accelerated Growth Program (PAC) to modernise Brazil's military and its defence sector.

A number of programmes are already under way, including the acquisition of 4,170 trucks, 40 Guarani armoured vehicles and 30 Avibras ASTROS 2020 (Artillery Saturation Rocket System) artillery rocket systems.

Under the Joint Plan and Equipment of the Navy of Brazil (PEAMB), naval modernisation will eventually encompass two aircraft carriers, four helicopter carriers, 30 escort ships, 15 submarines, five nuclear submarines and 62 patrol ships.

"In a country with such a huge expanse of territory as Brazil, the availability of [this

level of equipment] is absolutely essential, for example, in the protection of our critical structures and our borders," explained Amorim.

"Sometimes people ask why a peaceful country like Brazil needs a defence. It is important because just by having a defence we are deterring potential threats to our security and our resources. A robust defence is, in our opinion, an indispensable complement of a peaceful foreign policy, there is no contradiction," he added.

It is in the defence of its economic and natural resources, with its bio-resource rich Amazon as well as the vast oil and gas assets on its shoreline and valuable mineral reserves, that Brazil believes a potential threat to its sovereignty may one day emerge.

Since 2005 Brazil has conducted more than a dozen simulated defence exercises along its 8,500 km of maritime shoreline and in areas where its hydroelectric dams are situated, in preparation of a potential threat to its national sovereignty.

These activities include the 2008 exercises Operation 'Atlantic 1' – in which a joint force of 9,000 personnel practised defending the South Atlantic coast oil fields – and Operation 'Poraquê', which saw 5,300 troops simulate a conventional war protecting the resources of the Amazon.

These activities, along with the six previous Operation 'Agathas', have enabled Brazil's armed forces to modernise their operational structures and complete their first national joint force exercise under Operation 'Agatha 7': the most successful joint operation undertaken to date.

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The Brazilian Army has purchased 76 REMAX (Reparo de Metralhadora Automatizada X) systems for the infantry variant of the service's Guarani vehicle fleet.



Brazilian Army: 148200