

The Air Transport Crisis in Brazil: 2006 and 2007¹

*Written by Amâncio Jorge de Oliveira, Janina Onuki e Sônia Naves David Amorim²
(2009)
With Teaching Note*

1. Introduction

This case study addresses the crisis that befell the Brazilian air transport sector in 2006 and 2007 and was referred to by the media as “aviation chaos” or “aviation blackout”. The crisis, which was kickstarted by a major aviation accident, had as its main players the air-traffic controllers who, under the suspicion of operational failure and due to the difficulty to communicate with the authorities, reacted by starting a work-to-rule protest (“white strike”) which, coupled with insufficient personnel, led to the lack of operational control in the main airports in the country from November 2006 to mid-2007, with great losses for users. A new airline accident during the crisis caused the crisis to deepen, bringing to Brazilian public opinion, doubts on the structural and professional efficiency of an area that had so far been considered safe, even by international standards.

The case reports the attempts by the authorities responsible for the air transport policy to solve the crisis vis-à-vis the discontentment and grievances of air traffic controllers and the rage of society.

The report comprises two different moments: the accident involving the GOL Airlines flight and an Embraer Legacy jet owned by an American company, in September 2006, and the accident involving the TAM airplane at Congonhas Airport in São Paulo, in July 2007.

The case focuses primarily on the initial moments of the crisis, especially the negotiations that took place between air traffic controllers and Brazilian government authorities. The description of the second event in the crisis is only used to justify the worsening of the situation and clarify the context in which the negotiations with air traffic controllers were to take place from that moment on.

The initial objective of the case study, which was originally used in a workshop on public sector negotiation, was to illustrate a situation of crisis and a negotiation process.

However, the case could also be used on a broader scope, offering support material for public policy and public management studies addressing, *inter alia*, the following topics:

- Negotiation
- Crisis management
- Communication
- Management of public litigation matters
- Strategic Planning

2. The institutional context

The institutional structure of the Brazilian aviation sector helps give an understanding of the context in which the crisis and the negotiations between air traffic controllers and Brazilian authorities developed.

Air traffic control in Brazil is run by the military sector through the Aviation Command, which is linked to the Ministry of Defense - MD.

The Ministry of Defense was created in 1999, with the mission of exercising supreme control over the Armed Forces, consisting of the Navy, the Army and the Air Force, within the framework of a set of institutional reforms in the field of military-civilian relations, with a view to ensuring greater adjustment to the reality of the democratic regime. Since its inception, the Ministry has been headed by civilians, which has led to occasional organizational culture shocks.

The responsibility for managing the Brazilian aviation sector as a whole is shared by the Air Force Command and several institutions, of which the most important are the Brazilian Air Force (FAB), the National Civil Aviation Agency (ANAC) and the Brazilian Airport Infrastructure Company (Infraero).

ANAC's role consists of regulating and inspecting civil aviation activities. The Agency was set up in 2002 to substitute the Civil Aviation Authority (DAC). It is a federal regulatory agency operating under a special autocratic regime and linked to the Ministry of Defense.

It is important to ratify that even after ANAC was created, air traffic control and accident investigation activities remained within the Air Force Command and the Ministry of Defense. Regulation and inspection responsibilities involve setting flight safety standards and defining the air traffic network as well as minimum airport and port infrastructure conditions and economic consumption relations within the scope of civil aviation.

Infraero, in turn, is responsible for managing the main airports in the country. With the status of a Brazilian government corporation, the company is also linked to the Ministry of Defense. Like ANAC, Infraero has no direct responsibility for air traffic control.

The direct responsibility for air traffic control belongs to the Air Force. The structure of air traffic control is carried out by units called Integrated Air Traffic Control and Air Defense Centers (Cindacta). Each of these units carries out commercial and military air traffic control activities and keeps watch over Brazilian airspace and commands the country's defense actions. The system is made up of four units: Cindacta I (Brasília); Cindacta II (Curitiba); Cindacta III (Recife) and Cindacta IV (Manaus).

A fundamental feature of the air traffic control system, which was in the eye of the crisis, is the air traffic controller, also known by the international recognized abbreviation, ATCO. The profession has not yet been regulated by the Brazilian government. The flight controllers' function is to issue and give the necessary instructions and information within the airspace in their jurisdiction in order to prevent collisions between aircraft and obstacles in the vicinity of airports.

According to a Ministry of Labor study carried out in 2007, there were 2700 people involved in this activity, a number that was considered insufficient to meet the country's demand.

In Brazil there are two categories of air traffic controller: military controllers (sergeants), numbering around 2,200 (81.14%); and civilians controllers, totaling approximately 500 (18.51%) people, part of which is linked to Infraero and part is made up of civilian Air Force employees belonging to the DACTA group. The groups are governed by different legislations as regards salaries and retirement rules. Civilian controllers are trained at the Airspace Control Institute (ICEA), in São José dos Campos, in the state of São Paulo, and the military controllers are trained at the Air Force Specialists School (EEAR), in Guaratinguetá, also in the state of São Paulo.

3. Origin and development of the crisis

The air transport crisis can be characterized as a complex event, given the multiplicity of actors involved and facts that occurred as it unfolded.

To put it simply, one could say that the crisis comprised seven main moments: the generating event (the 1st accident) '! the institutional crisis (the air traffic controllers' 'mutiny') '! the harder-line position adopted by the military '! negotiations (civil command) '! the new event and new crisis outbreak (2nd accident) '! the resumption of military control of the crisis management '! punishment and return to normality.

3.1. The first moment of the crisis: September 2006

The crisis started in September 2006 with the collision between the Boeing 737-800 belonging to GOL Airlines, which was carrying 154 passengers, and an Embraer Legacy Executive jet, on its way to being

delivered to an American client. Both were flying on the air route Brasilia-Manaus.

The crash, which led to the death of 154 people who were onboard the Boeing, had been the worst in the history of Brazilian aviation to that date.

During the investigations, all plausible hypotheses for why the accident had happened were considered.

The main theories involved human error on the part of the North Americans, technical faults in the Legacy Jet, especially failure of the transponder, communication problems between the pilots of the two aircrafts, technical faults in the air traffic control equipment, and human error on the part of the air traffic controllers.

The blame, which had initially fallen on the American pilots of the Legacy was soon transferred to the air traffic controllers on duty at the time of the accident, drawing controllers to the center of the crisis.³ During the investigations, 18 air traffic controllers were temporarily removed from duty, thus overburdening those that remained in activity and causing great tension among the staff.

Under pressure, the controllers soon reacted by leaking to the press problems related to the quality of the equipment in use and of the flight monitoring system and made accusations against the treatment the class was getting from the authorities, their double affiliation (civilian and military), and unfavorable working conditions.

To manage the situation, the government established a working group that included three ministries (Finance, Defense and Planning), the Solicitor General's Office (AGU), the Air Force Command, the National Civil Aviation Agency, the National Flight Protection Workers' Union, the National Aviation Workers' Union, and the National Airline Union.

On October 17, the working group held its first meeting to propose solutions to the crisis. Among other suggestions, the Minister of Defense proposed the demilitarization of air traffic control as a way of resolving the deadlock.

On October 22, 2006, the air traffic controllers held a secret meeting. According to a press report (Folha de São Paulo - October 27, 2008), the most radical of the proposals discussed by the 60 or so professionals present concerned a strike of civilian controllers, or a "work-to-rule", expressed in the form of intentional delays to flights, as a way of showing dissatisfaction with the precarious working conditions at the time.

The Brazilian Air Force (FAB) immediately published a note denying that there had been any meeting involving professionals that were actively involved in air traffic control. The note also highlighted the professionalism of the military personnel operating in air traffic control

and the efforts of the President of the Controllers Association to operate in partnership to overcome the crisis refuting, therefore, any opportunist positions aimed at obtaining improved salaries or short-term demands. The main concern of the FAB note was to simultaneously show coordination and repel any rumors of fractures in the line of command.

On October 28, air traffic controllers at Cindacta I region started a work-to-rule operation which resulted in flight delays and cancellations in the South and Southeast of the country, as well as disturbances and passenger protests in the airports.

As part of the work-to-rule operation, each air traffic controller started to monitor a maximum of 14 aircrafts. This limit was in keeping with international air safety standards, according to the International Air Traffic Controllers Federation. This was, in fact, the argument used by the Brazilian International Air Traffic Controllers' Federation (Febracta) to deny that they had started a work-to-rule operation, and that, in fact, their version claimed that this measure was taken to adapt the air traffic controllers workload to the levels established in international regulations. Febracta made a number of public announcements, where it presented this work-to-rule as an initiative aimed at guaranteeing the safety of the system.

The sixth day of the work-to-rule operation coincided with the eve of the All Souls Day holiday and resulted in delays of up to six hours at airports.

The President, in a meeting with his advisors, reacted strongly and asked if the country was being "held to ransom by the controllers". The meeting was attended by the Air Force Commander, the Minister of Defense, the Chief of Staff, and the Presidents of Infraero and ANAC.

At this time, according to the press report, the President had asked ANAC to justify its reasons for authorizing aviation companies to operate new routes, in spite of the shortage of controllers to monitor the airspace. The President also demanded an explanation from the Air Force of why it had cancelled a public examination to hire 144 controllers, which had been set for June of that year. Finally, the President asked the Chief of Staff for information about what had happened to a Civil Aviation Council (Conac) study carried out in October 2003, which had drawn attention to the risk of a collapse in the air control system as a result of investment cutbacks in the sector.

The limit on the number of aircrafts that were being monitored was not, however, the only tactic adopted by air traffic controllers as a means of protest.

In November 2006, a group of controllers took sick leave. The Air Force Command immediately adopted a more hard-line position and

decided to confine 200 air traffic control sergeants to their barracks. This confinement did not have the desired effect and flight delays continued all over Brazil. As a result, the head of the Airspace Control Department was relieved of his post.

On November 16, 2006, after hearing air traffic controllers the Air Force Command released a preliminary report showing that there had been communication problems between the Legacy pilots and air traffic control and the Air Force commander publicly admitted to human error on the part of air traffic controllers, as one of the causes of the accident.

At the same time, the Federal Police started an inquiry and began to hear the air traffic controllers involved.

This tense situation dragged on through the end of 2006 and into the beginning of 2007, reaching its peak at the end of March 2007. On March 29, Cindacta I (Brasília) controllers went on strike. The decision to down tools all over the country was a reaction to the warnings issued by the unit's commander who would not hesitate to "use the rule book", which meant imprisonment for going on strike⁴. There were now 260 controllers confined to their barracks in Brasília, Manaus, Salvador, Curitiba and Rio de Janeiro. This was a significant number, representing something like 10% of the total number of active controllers. The controllers told their superiors that they would only authorize the landing of aircrafts that were already airborne, on emergency missions or carrying transplanted patients.

As a consequence, Infraero decided to suspend air traffic at all 49 commercial airports in Brazil, whilst air traffic controllers were on strike.

The extension of this strike action and the absence of any short-term viable alternatives made the entire system vulnerable and put the government in a difficult situation.

The only option available to the government at that time was to hire foreign controllers. In the event of an emergency, the Brazilian legislation allows public service workers to be hired without the need for a public examination, which is traditionally a very slow process.

The effectiveness of this alternative was, however, questionable. According to the aviation workers' union, it takes at least two months for a new hire to become au fait with the job. The worsening crisis would not allow for a solution that took so long to be put into practice.

The strikers had five basic demands:

1. An end to persecution and the immediate return of the associations' representatives and supervisors that had been removed from their original jobs;
2. The creation of an emergency bonus for air traffic controllers and the development of a career plan for these workers;

3. A beginning to the demilitarization process, with the voluntary absorption of the labor force working as military air traffic controllers;
4. The setting up of a committee with representatives of the executive authorities and controllers (both civilian and military) to monitor the changes in Brazilian Air Traffic; and
5. Modernization of the equipment used in air traffic control.

Out of these complaints, the most complex concerned the demilitarization of the career of air traffic controller. A statement issued by the President of the Brazilian Air Traffic Controllers Association, at the end of 2006, clearly showed just how unsatisfied they were with the militarization of the sector: "(...) The controller is a sergeant who cannot earn a differentiated salary, because this would cause problems with the other sergeants. On the other hand, we have only one rung on our ladder, which is inconsistent with a military job. This career is not compatible with the military area." (Mattedi, November 6, 2006) This statement was categorical with respect to the preference for the sector to be controlled by civilians.

As the situation worsened, Minister of Defense decided to meet with aviation sector leaders, so that steps to deal with the crisis could be taken. The Minister held a press conference soon after the meeting, which showed that a weak, hesitant position had been assumed in view of the magnitude of the crisis. The information that the government would not negotiate directly with the strikers was to be contradicted almost immediately. Furthermore, the Minister of Defense was seen to have little knowledge of the technical aspects concerning air traffic control and did not disclose the measures that would be taken to overcome the crisis. Because of his political biography, as a political exile during the military dictatorship, the minister was rejected by most of the military.

The President of the Republic, who at that time was on official visit to the United States, was urged to change the approach and thus nominated the Minister of Planning, Budgeting and Management to start up direct negotiations with the controllers' representatives. For the second time, the president had resorted to choosing a civilian minister to negotiate with the controllers. In November 2006 the Labor Minister had been asked to do the same.

The foundations for an agreement were laid down in a meeting with the controllers, which was also attended by the Air Force Commander and the director of the Infraero Airspace Control Department. These negotiations had an immediate effect and the controllers decided to call off the strike. One of the agreements reached during these negotiations between the Minister and the strikers was that a meeting would be held with the President where the controllers' grievances could be aired.

The decision to negotiate directly with the controllers and to grant them substantial concessions was a calculated risk. The government ran the risk of setting a precedent and stimulating other public sectors, both inside and outside the Armed Forces, to protest in the same way. One example where this risk was apparent was the case of the Federal Police, which had gone on strike for better salaries not long before the controllers were confined to their barracks.

The negotiations between the Minister of Planning, Budgeting and Management and the controllers' representatives took place on March 30, 2007 at Cindacta I, in Brasília. The negotiators also requested the presence of the Chief of Staff who could not attend as she was away on an official trip. The controllers' strategy was to request the presence of authorities that had actual decision power as a way to reinforce the guarantees that whatever was agreed would be actually implemented.

After some government concessions an agreement was reached that put an end to the strike. In the agreement signed by the Minister of Planning, Budgeting and Management and the Deputy Chief of Staff, the Government committed:

First, to review all disciplinary acts, including work transfers and layoffs, so as to ensure that those involved would not be punished.

Second, to establish a permanent negotiation channel with the representatives of air traffic controllers, to discuss the gradual demilitarization of air traffic control in Brazil.

Third, to establish, in the short term, a negotiation channel to discuss issues related to the salaries of both civilian and military controllers.

In addition to these three formal commitments, it was also informally agreed that a meeting would be arranged between the controllers and the President of the Republic.

According to analysts, the agreement had no solid ground to stand upon.

The weakness of the first commitment stems from the fact that the military are governed by specific disciplinary codes of their own. Given that most controllers were military, it was impossible to ensure them that they would not be punished.

In fact, the hybrid composition of the controllers' movement owing to the presence of both military and civilian controllers was an Achilles heel in that the potential cost was higher for military than for civilian controllers.

The weaknesses of the other commitments were clear and regarded the fact that they only mentioned establishing a dialogue and negotiations, i.e., no actually substantial commitments were made.

Despite these weaknesses, the negotiations between the Minister and controllers were the most decisive factors to overcome the crisis, in that it led controllers to step back.

The other alternative would be to arrest the controllers by charging them with contempt, but this could cause the tensions to re-emerge and the conflict to scale up, with unpredictable developments. This means that two clearly opposite strategies were in confrontation at that moment: the *coercive* strategy defended by the military command and the *persuasive* strategy defended by the president and carried out by the Minister of Planning, Budgeting and Management.

The end of the strike at Cindacta I set off a chain reaction. The other Centers (Cindactas) also went back to work. In addition to ending the strike, the controllers' decision was marked also by a public manifest of apology to Brazilian society. ABCTA, the entity representing the controllers issued the following communiqué, which was posted on their website:

"May March 30 be remembered as 'a cry for help from Air Traffic Controllers' and not a simple military rebellion. We apologize to Brazilian society and ask for peace so that we can go back to doing our job with excellence".

The persuasive line of negotiations, however, was soon to go sour. Shortly after the meeting with the Minister Planning, Budgeting and Management, the President reestablished military authority and announced that the negotiations would again be led by the Air Force. More specifically, the President stated that the Air Force Commander would resume control of the negotiations in place of the Minister of Planning and Management.

The reason for this change in position was to ensure that the Armed Forces were once again in charge of the negotiations. The Air Force Commander had threatened to resign his position as he felt his authority had been undermined due to the confusion between the military approach, with its threats of punishment, and the civil approach of negotiations and concessions. To the press, the Air Force Commander denied feeling that his authority had been undermined by the President of the Republic.

The President's decision to reestablish the military authority before the controllers was interpreted by some organized sectors of society and the media as a breach of contract. In the opinion of these critics, the government had thrown out the agreement signed. The new context enhanced the prospects of punishment for protesting controllers, based on the Military Inquiries (IPMs) proposed by the Public Prosecutor's Office.

The approach adopted by the executive authorities was very different from that taken by the military. The latter tried to quash the strikers by threatening them with prison, intimidation and retaliation; the executive authorities, however chose to try and negotiate with them directly. The President ordered that the arrest warrants issued against the strikers by the military were revoked. Had he not done so, there was a risk that the conflict would escalate, which would have made it more difficult to have the situation return to normal. By reestablishing military control over the negotiations, the government would have, in a second moment, agreed to the coercive approach proposed by the military.

A step back by the government was also seen with respect to the proposal to demilitarize air traffic. One of the possibilities considered entailed transferring, by provisional measure, 1,500 of the 2,200 military controllers to the so-called General Air Traffic Control, an entity of civilian nature linked to the Ministry of Defense. This was an important claim from controllers. According to the president of the Brazilian Association of Air Traffic Controllers (ABCTA), about 90% of all military controllers were willing to join the civilian system. However, demilitarization was actually a never-to-be-fulfilled promise made within the scope of the negotiations led by the Minister of Planning, Budgeting and Management.

The Brazilian Bar Association (OAB) received and accepted an ABCTA request to act as a mediator in the negotiations between controllers and the government. According to the OAB President, the association's role was not to act as the controllers' defense attorney, but rather as civil society's representative in the negotiation process.

The relationship between controllers and civil society was another sensitive issue. Controllers found themselves in a dilemma: if the idea that they had been the victims of precarious working conditions prevailed, there would be a greater chance of their being in a better bargaining position and having their grievances accepted. If their grievances were considered to be opportunistic and exaggerated, they ran the risk of turning public opinion against them and ending up in an even weaker position.

This was a very unusual situation for strikers in a sector that is considered as providing an essential public service to find themselves in. The leaders needed to decide whether to call a strike or not. There was the risk that public opinion would turn against the strike and they would be unable to settle the grievances that had motivated it. On the other hand, if their grievances were met, the movement would be strengthened. Controllers also had to bear in mind that their situation was one that affected the entire country.

In fact, the air traffic controllers' movement split Brazilian public opinion. Part of society, especially the press, started to unleash strong

criticisms of the movement. This case even started to induce pressure to alter the way in which strikes in essential public services are dealt with.

Some organized movements, however, adopted positions backing the air traffic controllers. One of these was the Permanent Air Safety Forum, which had been set up in May 2007, specifically to support the controllers. The formal filing of a public action claiming pain and suffering was one of the first steps taken by the Forum, which was made up of a number of institutions and individuals, such as the São Paulo Regional Public Prosecutor's Office, the Director of the São Paulo Faculty of Public Health, representatives of the Municipality of São Paulo Sanitary Watch, and the Consumer Protection Institute, amongst other institutions (Pera and Stein, 2007). Some left-wing parties, such as the United Socialist Workers Party (PSTU), also declared their support for the air traffic controllers' movement.

Just as the situation looked like it was going to stabilize, in July 2007, there was a second tragedy. The effect of this second event was to significantly intensify the crisis, as described below.

3.2. The second event in the crisis: July 2007.

Amidst efforts to negotiate with the different segments involved, the crisis was worsened by another serious aviation accident in July 2007.

On July 17, 2007, another tragedy was to happen. A TAM Airbus A320 coming from Porto Alegre skidded on the runway at Congonhas Airport, and collided into a cargo terminal belonging to the same company, TAM Express. The total of 199 dead, including passengers, crew and TAM Express employees, made this the worst disaster in Latin American civil aviation history. Not only did the number of victims exceed those killed in the earlier crash, but this accident had a greater impact on public opinion, as it occurred in the center of a huge metropolis and due to the fact that the collision had been filmed and widely screened on television.

The two accidents were not viewed by experts as two separate events but rather as part of a structural, systemic problem that affected the Brazilian aviation sector and led to domestic public opinion casting serious doubts on the efficiency of the aviation sector infrastructure in the country and on the capability of the agencies responsible for managing the sector.

In this scenario, the focus switched from air traffic controllers to the Brazilian Aviation Agency (ANAC), which was blamed with being lenient throughout the crisis. The government then began to pressure the Agency's directors who, by law, could not be removed from office as this would translate into government interference in an independent regulatory agency.

The outcome

The worsening of the crisis after the second air disaster made the position of the Minister of Defense unsustainable. On July 25, 2007, he was relieved of his post in spite of his friendship with the President of the Republic. His removal from office came about for reasons that went beyond the aviation crisis. The minister had always found it difficult to deal with military commands, due to his having been banished into political exile during the military government as well as to some of his personality traits. The military had always thought him to be too indecisive for the job and the crisis had only reinforced this viewpoint.

His place was taken by a politician who was known to be a skilful negotiator and who was widely respected by Congress. His main asset was his ability to operate comfortably in different parts of the federal bureaucracy, which gave him the confidence to make decisions. His introduction started to bring peace to the situation.

Air traffic controllers were forced, especially in the view of the pressure of public opinion and civil and military authorities, to tone down their demands.

The controllers' grievances were only partly met. The main grievance, which was demilitarization of the sector, was put on hold and will be studied. The outcome showed that the controllers had lost the struggle and that the structural problems had not been fully tackled. However, if a hard-line approach had been maintained and if the President of the Republic had not made some concessions, the outcome could have been worse. Mass layoffs and imprisonment of the controllers were not out of the question. In other words, the final result lay somewhere between the worst possible scenario (layoffs) and the best (meeting the grievances).

The trials and punishment of the military controllers started in August 2007. As expected, the military group of controllers had to endure the toughest consequences of the strike. The Military Prosecutor's Office accepted the charges from regional military prosecution services. The military were being accused mainly of promoting a rebellion by jointly refusing to obey their commander's orders. The crime is provided for in Article 149, Paragraph III of the Military Criminal Code. Arrests were made in Curitiba and Manaus. In other words, the coercive approach prevailed.

The main element of weakness in the air traffic controllers' movement was the hybrid composition of the staff, which included both militaries and civilians. The military controllers, who were subject to the military disciplinarian regime, had greater chances of being severely punished. This differential cost undermined the bargaining power of the controllers' representatives in the negotiations, to the point of them

agreeing to giving in and ending the strike as a result of the negotiations with Minister of Planning, Budgeting and Management, on the basis of very vague commitments.

Bibliography

ANAC. Regras e Emendas aos Regulamentos da ANAC (2008). Ministry of Defense. Available online: [<http://www.anac.gov.br>]. Last accessed on December 2, 2008.

ANDRADE, Thompson (2007). A crise da Varig/TAM e o uso do *code share*.

ARBIX, Glauco (2002). Da liberalização cega dos anos 90 à construção estratégica do desenvolvimento. *Tempo Social*, Vol. 14, No. 1, pg. 1-17.

BURLE, Lauro Lobo (2003). Transporte aéreo no Brasil: a crise da aviação civil. *Indicadores Econômicos FEE*, Vol. 31, No. 3, Porto Alegre: FEE, November, pg. 5-18.

CASTRO, Newton and LAMY, Philippe (1993). Desregulamentação do setor de transporte: o subsetor transporte aéreo de passageiros. *Discussion Text No. 319*. Brasília: IPEA.

FAY, Claudia (2001). Crise nas alturas: a questão da aviação civil. Porto Alegre: PPGH/IFCH/ UFRGS. PhD thesis.

GUIMARÃES, Eduardo & SALGADO, Lúcia Helena (2003). A regulação do mercado de aviação civil no Brasil. Rio de Janeiro: IPEA.

MONTEIRO, Cristiano Fonseca (2008). O “apagão aéreo” e as relações entre Estado e Mercado. Study presented at the 6th ABCP Meeting, Campinas: UNICAMP.

NOVAIS E SILVA, Leandro (2008). Tópicos sobre a evolução da aviação comercial no Brasil. Available online: [<http://juas2.uol.com.br/doutrina/texto.asp?id=9133>]. Accessed on November 29, 2008.

OLIVEIRA, Alessandro Vinícius (2007). Regulação da oferta no transporte aéreo: do comportamento de operadoras em mercados liberalizados aos atritos que emergem da interface público-privado. *Working Document No. 024*. São José dos

Campos: Air Transport Competition and Regulation Study Center
- August.

PÊGO FILHO, Bolivar (2002). Setor aéreo e as empresas brasileiras: situação atual e perspectivas. *IPEA Bulletin*, No. 59, pg. 73-78.

PERA, Géssica and STEIN, Leila. Greve e complexidade, dilema do movimento dos controladores de tráfego aéreo no Brasil (2006-2007). Study presented at the 31st ANPOCS Meeting. Caxambu/2007.

PEREIRA, Aldo (1987). Breve história da aviação comercial brasileira. Rio de Janeiro: Europa.

SALGADO, Lucia & MOTTA, Ronaldo (orgs.). Regulação e concorrência no Brasil: governança, incentivos e eficiência. Rio de Janeiro: IPEA.

participants to make intense use of the techniques learned during the course; and ii. That the objectives consolidate the main negotiation concepts and theory.

It is important to point out that while the case to be simulated was based on a real life situation in the federal public administration, participants should address it as if it were something totally new to them. In other words, they should make their own decisions rather than following those made in the actual case. The real life case is used for reference purposes alone.

Following presentation of the general instructions, the class is broken down into six groups: **1.** Air Force Command; **2.** Ministry of Defense; **3.** Ministry of Planning, Budgeting and Management; **4.** Workers' Union President; **5.** Civil Society Representatives; and **6.** Representative of Air Traffic Controllers.

2. Reading and preparing negotiations (30 min).

The groups will be given their instructions, which contain 4 topics arranged on a single card (personal profile, interests, justice standards and facts). This information will give the groups a good idea of their goals and the conditions required for achieving them.

3. Knowledge and survey of interests (1h).

The groups will then be allowed a first conversation with one another. This is a phase for making introductions and surveying interests. At this point, the groups will convey their points of view and interests to one another in a very preliminary fashion.

Annex I

The Brazilian civil aviation sector in numbers:

- In March 2008, there were sixteen companies operating domestic flights and seven Brazilian operating international routes
 - Around 11,400 registered aircraft, compared to 9,768 in 1996.
 - According to Infraero, in January 2008, Brazilian airline companies carried 9.97 million people. This represents a 2.8% increase over the previous year.
 - A Ministry of Labor study carried out in 2007 showed that there were 2,700 air traffic controllers in Brazil, a number that was considered insufficient to meet the country's growing demand for this activity. The same source reported that air traffic was expanding at a rate of around 9% a year, whereas new controllers were being hired a rate of no more than 3% a year.
 - The three largest airports in Brazil are, in order of capacity: Cumbica, in Guarulhos, Galeão, in Rio de Janeiro and Congonhas, in São Paulo.
 - The two main domestic companies, namely TAM and GOL, together employ more than 50,000 people considering all their structure
- Sources: ANAC, Infraero and the Ministry of Labor.

Annex II

LIST OF ABBREVIATIONS

CBAer	Brazilian Aviation Code
ANAC	National Civil Aviation Agency
NSCA	Aviation Command System Standards
RBAC	Brazilian Civil Aviation Regulations
IAC	Civil Aviation Instruction
MD	Ministry of Defense
FAB	Brazilian Air Force
INFRAERO	Brazilian Airport Infrastructure Company

Footnotes

- ¹ This is the second case study of the new line of research of the General Coordination of Research/Brazilian National School of Public Administration (ENAP), which was initiated in 2008 with the release of the Case Studies' Serie "The environmental licensing for hydroelectric dams on the Madeira River." The objective is to consolidate the case studies as a methodology for the training of public servants with a focus on applied learning. The case was finalized in October 2009.
- ² Amâncio Oliveira and Janina Onuki are instructors in the negotiation course offered by ENAP and professors at the Brazilian Center for International Negotiation Studies – CAENI, at the University of São Paulo. Sônia Amorim is Technical Advisor of the General Research Coordination Unit, Communication and Research Board, ENAP.
- ³ In the Federal Police report of May 2007, the American pilots were charged with having contributed to the accident, as they had unintentionally turned off the transponder. The Public Prosecutor's Office subsequently submitted the case to the Federal Court of the city of Sinop, in the State of Mato Grosso. In December 2008 the pilots and air traffic controllers involved were acquitted of some of the charges by the Federal judge of the city of Sinop. Based on a report issued by the Center for the Investigation and Prevention of Aviation Accidents, the Public Prosecutor's office filed an appeal in May 2009 and submitted a new lawsuit to the Federal Court including other charges, which however is still pending.
- ⁴ The context was similar to that of an air traffic controllers' strike that took place in the USA in 1981, during the Ronald Reagan government. In this case, however, the government decided to stand firm and 48 hours after the strike began, 12,000 employees had been fired (Pera and Stein, 2007).