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BILATERAL ACTIVITIES BETWEEN RCAF AND BRAZILIAN AIR FORCE

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AIM

1. The aim of this paper is to analyze the bilateral activities between Royal Canadian Air Force (RCAF) and Brazilian Air Force (henceforth designated by its acronym in Portuguese, FAB, which stands for *Força Aérea Brasileira*), since the year of 2012. Based in the activities that occurred so far and in each service's current strategic planning, some suggestions will be made, in order to improve strategic alignment and long term success of bilateral relationship between RCAF and FAB.

INTRODUCTION

2. Canada and Brazil share some similar features, such as the vastness of the territory, overall size of their economies, and the preference to deal with international disputes via international organisms, such as the United Nations, vice relying on heavily- build military forces. Like in most western democracies, both Canadian and Brazilian Defence senior leadership entered the 21st century establishing a comprehensive strategy, to match the emerging threats and to explore the opportunities of the ever-evolving technologic environment. Both the current version of Canada's Defence Policy, mostly known by its brand acronym SSE (*Strong, Secure, Engaged*), and Brazilian National Defense Policy/Strategy (PND/END, in its Portuguese acronyms), articulated in the FAB as the Aeronautics Strategic Military Plan (*Plano Estratégico*

Militar da Aeronáutica - PEMAER), set the footprint for future development of its respective Air Forces, with emphasis in technologic research and development, human resources education and proper support, and modern equipment procurement.

3. Another common feature between SSE and PEMAER is the opening towards international relationships.¹ While still in its first steps and far from being each other's main international partner, the RCAF and the FAB already started this partnership process, via the so-called "Staff Talks" to discuss and plan bilateral activities.² The discussion part of this paper will analyse these activities both in quantitative terms (assessing the ratio of success in activity completion vice what was planned) as well as a concise qualitative overview, assessing how the activities were distributed among the six Air Force Functions, as stated in RCAF Doctrine (Command, Sense, Act, Shield, Sustain and Generate).³ From this preliminary analysis, SSE and PEMAER will be assessed, in order to find common areas of interest for future activities. Based on these findings, this paper will provide a suggestion of prioritized list of areas for partnership development and effective courses of action to achieve it.

¹ Minister of National Defence (MND), D2-386/2017E, *Strong, Secure, Engaged – Canada's Defence Policy* (Ottawa: MND, 2017), 89-92; Comando da Aeronáutica (COMAER), PCA 11-47, *PEMAER – Plano Estratégico Militar da Aeronáutica – 2016-2041* (Brasília: COMAER, 2016), 42.

² To this day, five Staff Talks meetings were held, the first in Ottawa, in 2011, and since then alternated between a location in Brazil and one in Canada, in 2012, 2013, 2015 and the most recent one in Ottawa, December 2017. The Records of these meetings are the source of the data presented in this paper's tables.

³ 2 Canadian Air Division, B-GA-400-000/FP-000, *Canadian Force's aerospace Doctrine* (Winnipeg: Air Force Doctrine and Training Division, 2010), 35.

DISCUSSION

4. From the second Staff Talk, which took place in Manaus, Brazil, in 2012, each meeting assessed what was performed from the previous meeting planned activities, and set a new plan for the coming two-year period. The compilation of all Staff Talks bilateral activities, planned and accomplished, is condensed in Table 1.

Table 1 – Activity distribution and rate of success per year (2012-2019)

Visitor	Activity Status	2012	2013	2014	2015	2016	2017	Current Total	2018	2019
RCAF in Brazil	Planned	10	10	11	7	4	4	46	3	4
	Executed	5	6	1	3	3	4	22	N/A	N/A
	Rate of Success	0.50	0.60	0.09	0.43	0.75	1.00	0.48	N/A	N/A
FAB in Canada	Planned	9	12	10	9	5	4	49	3	6
	Executed	5	5	1	1	3	2	17	N/A	N/A
	Rate of Success	0.56	0.42	0.10	0.11	0.60	0.50	0.35	N/A	N/A

Source: Records of the five Staff Talks between RCAF and FAB.

5. With the annual number of planned missions ranging from 4 to 12 for each country, the flow of bilateral activities can still be considered modest, and the overall trend is one of decline

in absolute numbers. The rate of success of activity completion declined to a lowest point in the 2014-15 period and is on a rise since then. The overall rate of success is of half of the missions in the Canadian side, and of about one-third for FAB. The reasons for mission cancellation, when reported, concentrate mainly in budget restrictions. Looking to the types of activity planned and its persistence (or not) along the years, it can be noticed that there is a slow shift from a previous tactical level approach and mentality to a more strategic interest, in terms of “less missions, but more strategically important ones”. This is a probable cause to the improvement of the success ratio. To have a better grasp in the qualitative aspects of the bilateral activities, Table 2 shows them agglutinated by their nature, according to Air Force Functions, as described in RCAF Doctrine.⁴

Table 2 – Activities grouped by Air Force Function

Air Force Function	Activity type		RCAF in Brazil		FAB in Canada	
			Planned	Executed	Planned	Executed
Command	Ops planning and development		0	0	2	2
	Visits to Staff/HR/budget HQs		2	2	4	1
	Subtotal		2	2	6	3
Act	Aircrew exchange	SAR/Helo	9	4	7	2
		MPA (Maritime Patrol)	4	2	1	0
		Fighter	6	2	3	0
		AAR (Aerial Refueling)	3	0	1	0

⁴ *Ibid.*

	Air Demo	6	3	2	0
	UAS/ISR	1	0	0	0
	Major Air Exercises (Maple Flag, CRUZEX, SAREX)	3	1	7	4
	Air Defence and Air Traffic Management	3	3	1	1
	Space Ops Management	1	0	4 ⁵	0
	Subtotal	36	15	26	7
Shield	Environmental Medicine	5	0	9	3
	Subtotal	5	0	9	3
Sustain	Logistics and Engineering	3	0	5	0
	Subtotal	3	0	5	0
Generate	Flight Safety (mainly courses)	4	3	6	1
	PME courses/visits	3	2	3	2
	Language Courses	0	0	3	1
	Subtotal	7	5	12	4
TOTAL		53	22	58	17

Source: Records of the five Staff Talks between RCAF and FAB.

⁵ All four activities planned are for the 2018-19 period, hence there is no completed activity.

6. From Table 2, the successful activities can be better visualized in Charts 1 and 2, displaying the distribution of completed activities by function, per service.

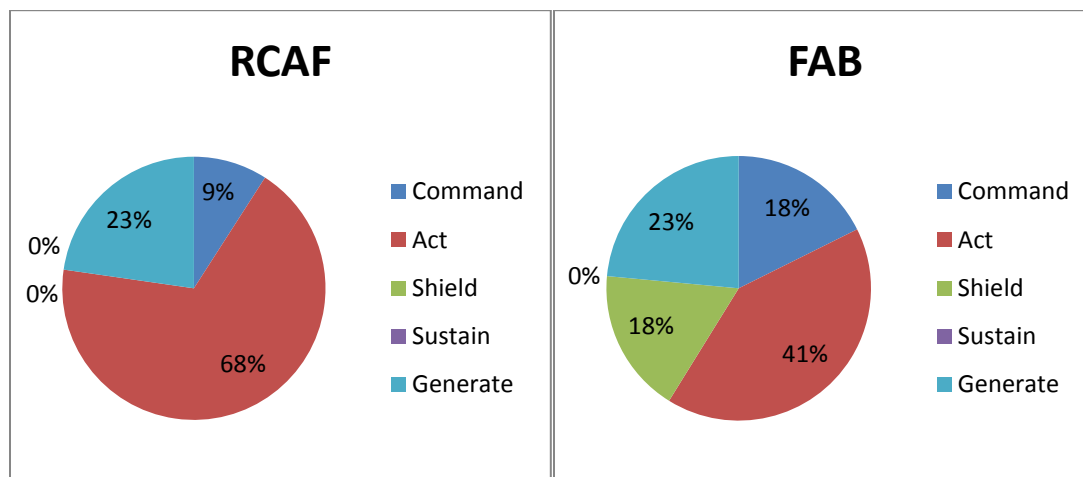


Figure 1 – RCAF activities per function **Figure 2** – FAB activities per function

Source (for both figures): data from Table 2.

7. Here the tactical emphasis of most activities comes to light. The Act function, mostly concentrated in aircrews exchange visits and major operational exercises, shows its weight in the overall account (especially for the RCAF). The Sustain and Shield Functions had most or all of its planned activities cancelled, revealing an apparent lack of priority for those functions, for both services. The Generate function is the second in relative weight, with a share of about one quarter of overall activities. The Command function related activities are a growing trend, especially for FAB, with most of its missions occurring in the last years.

8. This chronological factor in the activity distribution is another interesting feature when analysing the data available. As stated before, the emphasis on the kind of activity planned fell, initially, on tactical-related subjects, not only in the Act function, but in areas such as Logistics, Field Engineering and Environmental Medicine. As the years followed and a great part of these missions were cancelled, the focus of interest shifted towards operational and staff planning, and space operations (mainly by FAB), while maintaining most of the aviation related activities (although with several cancellations), noticeably by RCAF. For the 2018-19 period, for instance, there is a strong emphasis in the space operations management area by FAB, with four of the nine activities planned being in that field, and the other five divided between flight safety courses and aircrew exchanges. In the Canadian side, all seven missions are related to the Act function, spread through the several aviation trades.

9. Therefore, as the bilateral activity between RCAF and FAB goes through its first decade of existence, the long-term strategic relationship starts to take shape. Progressively, the tactical - oriented focus is giving place to more strategic approach in activity planning. In order to enhance this strategic aspect, is important to align the Defence Policies/Strategies of each partner nation, in search for a common ground that could be mutually beneficial and relevant, while taking in consideration what was achieved so far, as well as the existing restrictions. As examples of restrictions, a remarkable one can be pointed: from the six Air Force's functions, one has not even a single activity planned: the Sense function. Obviously, since Brazil is not a NATO or a Five-Eyes member, its access to sensitive information is severely hindered, and rightfully so. Not only in the Sense function, but the type and breadth of Act function missions are also restricted and its mutual benefit greatly reduced for the very same reasons. To avoid that this still growing

partnership falls in a loophole of irrelevance that could undermine its development, it is important to focus on the common ground, already mentioned, and especially in areas with less security restrictions, to start with. Once the mutual trust and benefit is established and the long-term relationship solidifies, progressive layers of trust and areas of integration can be formed, as in any alliance or partnership that was formed throughout history.

10. From the several common areas of strategic interest for SSE and PEMAER, those placed in the “more peaceful” side of the spectrum of conflict, such as Disaster Assistance Response Team (DART) deployments and Non-Combatant Evacuation Operations (NEO), are the most likely to have the greater impact with less possible restrictions to an effective share of knowledge. These type of missions normally involve a broad array of trades and levels of decision, from the aircrews in SAR, Air Transport (of fixed and rotary wings), Maritime Patrol and Mobile Signals units, to Operational level command staffs, such as in Canadian Joint Operations Command (CJOC) and its Brazilian counterpart, the CCOA (*Centro Conjunto de Operações Aéreas*). Areas such as Public Affairs (PA), Civil-Military Cooperation (CIMIC), and Health Support Services (HSS) are also vital to the effectiveness of these emergency response initiatives. It is clear, however, that most of these areas and operational environments have their own caveats and security restrictions, since most of them deal with the full spectrum of operations. Again, the “start small and smart” approach is key. Smaller teams start with visits, leading to longer term interchanges, participation in exercises until enough mutual knowledge and trust is built to result in broader bilateral agreements, which could lead to permanent liaison teams in the host country and/or some sort of pre-arranged response team for emergency situations.

11. Moving towards the core of strategic plans for both services, two technological trends emerge as of mutual interest: space operations and the use of Remotely Piloted Systems (RPS), also referred as Unmanned Aerial Systems (UAS). Since both involve highly sensitive equipment, with the inevitable security precautions that surround its operation, the *crawl-walk-run* approach is necessary again. But as RCAF and FAB are still in their initial steps in building their own space and UAS operational knowledge, the moment is highly favorable to establish a long term partnership, with a clear *win-win* result. Once both areas (space and UAS) are deeply related with the Research and Development (R&D) strategic goals of SSE as well as in PEMAER, the best way to integrate all those areas and to find the common ground upon which the partnership can flourish is to promote meetings between the senior project managers/teams of each area. With a comprehensive view of each nation's capacity and specific needs, a mutually beneficial solution or action plan can be negotiated.

12. Still in the field of R&D (also named as Science and Technology – S&T), there is a wide spectrum of partnership opportunities to explore, not only in space or UAS domains, but in several others in the aerospace technology. The FAB Department of S&T, DCTA (Departamento de Ciência e Tecnologia Aeroespacial) and its Canadian counterpart, Defence Research and Development Canada (DRDC) have a wide array of research matters to explore and find common interests. As in the previous topic, a good way to start the conversations is by promoting meetings between the main Portfolio or Program managers, in search of the most promising and consensual areas. Following the thread of S&T and future technologies, another promising area of collaboration is in the aerospace equipment procurement and new technology prospection. Brazil's expertise acquired in recent aircraft development and acquisition

programmes, especially the SAAB Gripen and the EMBRAER KC-390, or in the P-3 Orions modernisation can provide useful guidance to similar projects in RCAF, established by SSE. Conversely, Canadian advanced procurement initiatives, such as the Innovation for Defence Excellence and Security (IDEaS),⁶ certainly can provide very useful tools to Brazil. In this case, mutual benchmarking studies in each country's best practices could be an effective tool to achieve this benefit.

13. Finally, as an indirect tool to build strategic partnership, nevertheless a very effective one, in the long run, is the establishment of a steady and routinely exchange of students – and later on instructors – in selected Professional Military Education (PME) programmes. The subject and duration of the courses is dependent on negotiation, but certainly should include those in the areas of the previous topics: operational trades involved in emergency assistance, space and UAS operation basic concepts, R&D, and procurement. But it could also include some niche capabilities of each nation that are valued by its counterpart. Examples of these are languages courses in Canada and flight safety and Air Traffic Control (ATC) specialization in Brazil. Furthermore, core PME courses such as Command and Staff Programmes are certainly advantageous for both services. As is routinely alluded in JCSP, the professional and personal bonds that are formed in these courses are something of great value not only for the individuals that take part on them, but to the institutions in which they will apply the knowledge acquired. When a strategic partnership is at stake, the human factor in it is of utmost importance.

⁶ Minister of National Defence (MND), D2-386/2017E, *Strong, Secure, Engaged...*, 77-78.

14. The suggestions listed above can be summarized in the following table (Table 3).

Table 3 – Prioritized list of suggested bilateral activities

Priority	Area	Relevant Activities
1	DART/NEO missions	Operational staff (CJOC/CCOA) visits/interchange; aircrew exchange missions (SAR, transport, MPA); PA/CIMIC/HSS exchanges; MoU/bilateral agreements; liaison teams.
2	Space Ops	Project managers meetings (Operational and R&D included).
	UAS	Project managers meetings; crew visits/interchange.
3	R&D/S&T	Portfolio/Program managers meetings; MoU/bilateral agreements; common research projects; postgraduation interchange programs.
4	Procurement/future projects prospection	Benchmarking visit/studies to identify best practices in aircraft procurement, offset agreements and strategic project management.
5	PME	Interchange of students and later instructors in

		unclass PME courses.
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CONCLUSION

15. The quantitative and qualitative appreciation of the bilateral missions planned and executed in the previous six years between the RCAF and the FAB showed that from the initial exclusively tactical focus and broad range of missions, the bilateral activities went through a period of high attrition, mainly due to budgetary constraints, to the current state of less activities, with a trend towards strategic focus. Even this being the case, a more detailed analysis both in SSE as in PEMAER, taking in consideration the current state of partnership between the two countries, devised that this strategic focus should aim for a common ground, initially in the unclassified level, in missions out of the full-conflict side of the spectrum. Thus, DART and NEO missions were appointed as the main source of share of experience and operational knowledge, both in the tactical as in the operational level. The approach suggested was one of gradual increment of involvement and information sharing, going from visits to teams operating in each other's countries simulated and real emergencies response.

16. Following in priority, mainly due to the restrictions in current information sharing environment, the areas of space and UAS operations carry the bulk of common strategic interests of both RCAF and FAB. Offering both a valuable source of mutual benefit, as well as a great challenge in terms of critical information sharing, these activities should concentrate initially in meetings between project managers, to identify and negotiate a mutually viable and profitable

solution. The same solution applies to the next area of common interest, Science and Technology. As less critical areas in terms of sensitivity of information sharing, but still of great interest for both countries, follow the procurement and future trends prospection activities and processes, that can be assessed from mutually agreed benchmarking studies to be performed by each service's expert groups in the area.

17. Finally, but still very important for the long term establishment and strengthening of the partnership, comes the Professional Military Education, both in career courses or in technical or specific areas, such as languages or flight safety. These human interactions and share of knowledge are crucial for the establishment of a general environment of trust and mutual respect that is absolutely crucial for any relationship. In this regard, Canada and Brazil are still giving their first steps, and for this very reason is highly important to take special care of each one of them.

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