Brazilian-Swedish Cooperation in Aeronautics

Col Mats Olofsson
Former Chief Scientist
Swedish Armed Forces
Presently consultant to CISB
Background

- During the 1st Workshop in Aeronautics and Defence (Nov 2014 – more than 500 participants/visitors) a decision was taken to gather a “Strategic Session”, with senior people from relevant actors, to discuss how to create and maintain a coordinated and efficient cooperation in aeronautics. The outcome was positive and a need for continued work was noted.

- In Feb 2015, a research coordination week was performed in Sweden between some of the actors, where many of the issues were discussed.

- In May 2015, the Swedish Minister of Enterprise and Innovation visited Brazil. Thorough preparations were made, Aeronautics became a focus area for the visit. Material for a plenary session, a panel discussion and a round-table discussion was produced and communicated. The outcome was very successful and one suggestion and bilateral decision was to form a “High Level Forum” in Aeronautics.
Aeronautics Committee – activities in 2015

May: The 2\textsuperscript{nd} Workshop in Aeronautics and Defence was arranged in São José dos Campos. As a part of the program, a strategic group was summoned and one outcome was the decision to organize an “Aeronautics Coordination Committee, managed by CISB”. One task was to assist the announced High Level Forum.

Jun: A tele-conf meeting was held, focusing on Road-map and Committee structure.

Sep: A meeting was conducted in Stockholm, discussing the Road-map, Committee tasks and the support to HLG.

Oct: During the visit to Sweden by President Dilma Rousseff, the first formal meeting of the \textbf{High-Level Group} (HLG) on Aeronautics was performed. The \textbf{Aeronautics Committee} was engaged in the preparation of that meeting and it was then also pin-pointed as the Working Group to support the future work of the HLG.

Nov: The Aeronautics Committee met formally in São José dos Campos, during the 3\textsuperscript{rd} Workshop in Aeronautics and Defence.
Both countries stress the opportunities brought about by the increased cooperation on defence matters to further develop joint actions in science, technology and innovation based on the 2009 Additional Protocol to the Agreement on Innovative High Technological Industrial Cooperation, and the 1984 Agreement on Economic, Industrial and Technological Cooperation. In order to build closer ties and address issues of mutual interest in the field of innovation, Brazil and Sweden express their commitment to convene the Working Group set out in the aforementioned Additional Protocol.
Establishment of a High-Level Group on Aeronautics

From the BRAZIL-SWEDEN STRATEGIC PARTNERSHIP NEW ACTION PLAN (agreed 19 Oct, 2015):

The **High-Level Group on Aeronautics**, established during the Joint Committee on Economic, Industrial and Technological Cooperation held in Brasilia on 21 May 2015, is a sign of the **shared ambition to further broaden bilateral cooperation on aeronautics to cover both civilian and military projects**. The High-Level Group on Aeronautics held its first meeting on the occasion of President Dilma Rousseff's visit to Sweden, on 19 October 2015.
During the Brazilian-Swedish Joint Committee on Economic, Industrial and Technological Cooperation held in Brasilia on 21 May 2015, Brazil and Sweden agreed to establish a High-Level Group (HLG) on Aeronautics, at Deputy Minister level, in order to broaden and extend the strategic collaboration in the field of Aeronautics. The HLG, formed under the additional protocol on innovative high industrial cooperation from 2009, is a sign of the shared ambition to develop and deepen the bilateral cooperation in Aeronautics, not only regarding military projects, but, regarding civil and dual use projects as well.
During the HLG meeting on 19 October, Brazil and Sweden jointly agreed to:

- Appoint two contact points for the HLG. Initially these positions will be held by:
  - Swedish contact point: Oscar Stenström, state secretary
  - Brazilian contact point: Jose Augusto Crepaldi Affonso, Brigadeiro-do-Ar, MoD

- **Establish a Working Group under the HLG consisting of targeted persons from both countries, using the established CISB Aeronautics Committee in this regard.**
During the HLG meeting on 19 October, Brazil and Sweden jointly agreed to:

• Set up a meeting for the joint Working Group during 2016 in order to develop a Working Plan detailing project specifications (thus outlining goals, processes and methods for continued cooperation on both civil and military matters) and propose appropriate joint financing mechanisms.

• Hold a second meeting of the HLG in Q4, 2016. In good time beforehand, the Working Group shall report the outcome of its work, such that it can be discussed and decided upon during this second HLG meeting.
**(Initial) Members of the Aeronautics Committee**

Coordinating platform = CISB (chairman during the initial years)

<table>
<thead>
<tr>
<th>Type of member</th>
<th>Brazil</th>
<th>Sweden</th>
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<tbody>
<tr>
<td>Ordinary – Govt (Agency)</td>
<td>Air Force (EMAER)</td>
<td>Air Force (Armed Forces HQ)</td>
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<tr>
<td>Ordinary – Govt (Agency)</td>
<td>DCTA (Technical side)</td>
<td>FMV</td>
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<td>ITA</td>
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<td>GKN</td>
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<td>Ordinary – Other</td>
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<td>Min of Enterprise &amp; Innovation</td>
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<td>Vinnova</td>
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<td>Adjunct – Funding org.</td>
<td>SENAI</td>
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Adjunct member:
Since ministries and funding agencies normally avoid sitting in committees to vote for actions, they are suggested to participate on an adjunct basis. They receive all information and are invited to the meetings.
Bilateral Aeronautics R&D Coordination

The High Level Group
Chairied by hosting nation

**BR**
Executive Secretary, relevant Ministry 1 (BR chair)
Executive Secretary, relevant Ministry 2
Chief of the Air Force
Head of DCTA
President of FINEP
CEO of Embraer Defence & Security
XX
YY

**SE**
State Secretary, Min of Enterprise and Innovation (SE chair)
State Secretary, Min of Defence
Chief of the Air Force
Director General of FMV
Director General of Vinnova
CEO of Saab
XX
YY
+ Program Manager of Innovair (Rapporteur)
Role and tasks for the Aeronautics Committee (preliminary)

– Perform the function of a Working Group for the High Level Group
– Maintain a yearly plan for and coordinate activities related to the bilateral aeronautics cooperation

[To be handled by a separate group]

– Identify and suggest funding solutions for aeronautical joint projects/programs
– Suggest MoU/agreement structure, primarily at government level – civil and military

– Perform a study of most relevant and jointly beneficial directions for future cooperation in the area – civilian, military and dual-use
– Present the study results to the HLG for further directions
– Identify and invite suitable new actors for the cooperation, in order to keep it relevant and expanding
Coordination Roadmap:

*) Project activities should continue over time and eventually encompass the complete TRL-scale, from research and technology development, via technology demonstrators all the way to more mature demonstrators and finally products.
High Level Group for Brazilian-Swedish Aeronautics R&D

The CISB Aeronautics Committee

- Draft solutions for High-Level Group tasks
- Coordinate Swedish Brazilian aeronautical R&D, guided by HLG
- Coordinate joint calls, evaluations, approvals and funding
- Research projects portfolio ~30 project
- Initiated projects using ongoing / financed projects
- Building institutional relations between BR-SE stakeholders
- Swedish Endowed Professor Chair at Brazilian Aeronautics Institute of Technology (ITA)
- Annual Workshops Research Networks
- Guest Researcher Scholarship & Exchange programs

A consolidation into “sub working groups” is on-going
R&D Clusters / Project Areas

Note:
The portfolio growth is dependent on signed NDA (Non Disclosure Agreements) between industry and universities, which needs to be finalized.

May be added:
• Human factors
Joint Brazilian-Swedish R&D – Vision

- Joint Gripen 2-seater Development
- Gripen NG
- 5th Generation Fighter Capability
- Future Unmanned Systems
- Future Commercial Aircraft
- Triple Use Technology
- Spin-outs
Present activities for the Aeronautics Committee

• The Committee will meet in Brasilia tomorrow (May 17). A considerable interest has been shown from ministries and funding agencies, so the meeting will have wide and strong attendance.

• Drafts of a Working Plan (a task from HLG) and Terms of Reference for the Aeronautics Committee have been distributed in advance, for further revision during and after the meeting.

• The funding agencies have recently performed separate meetings, in preparation to “propose appropriate joint financing mechanisms” etc.
Overall activities 2016

• The conference “AEROSPACE TECHNOLOGY 2016 – Swedish aerospace technology in a globalised world”, will be arranged in Stockholm 11-12 October, with international participation.

• In conjunction with the Aerospace Technology Conference
  • CISB will arrange the 4th Workshop in Aeronautics and Defence
  • The Aeronautics Committee will hold a meeting

• The projects, professors chair and mobility activities will continue and be gradually enhanced and further coordinated, with project funding being a major challenge. It is also critical that all required agreements are signed between the actors, in order to allow already existing funding to be used for cooperation projects.

• The Aeronautics Committee will deliver the requested material to HLG in September.

• The High-Level Group on Aeronautics will meet in Q4.
OBRIGADO!