

17 April 2018

English only

**Committee on the Peaceful
Uses of Outer Space**
Legal Subcommittee
Fifty-seventh session
Vienna, 9–20 April 2018

**Request for observer status with the Committee on the
Peaceful Uses of Outer Space: application of the CANEUS
(CANada-EUROpe-US-ASia-Africa) International
Organization on Emerging Space Technologies for Societal
Applications**

Note by the Secretariat

1. At its thirty-third session, in 1990, the Committee considered guidelines for granting observer status with the Committee to international intergovernmental and non-governmental organizations. The possible criteria suggested by the Outer Space Affairs Division to the Committee at the time were the following:

(a) As part of its programme, the organization should be concerned with matters falling within the competence of the Committee on the Peaceful Uses of Outer Space;

(b) The aims and purposes of the organization should be in conformity with the spirit, purposes and principles of the Charter of the United Nations;

(c) The organization should be a recognized international organization and should have an established headquarters, an executive officer, and a constitution, a copy of which is deposited with the Secretary-General of the United Nations. In the case of a non-governmental organization, it should be a non-profit organization.

2. Having considered the matter, the Committee at its thirty-third session, agreed, that in the future non-governmental organizations which request observer status with the Committee should have consultative status with the Economic and Social Council (ECOSOC) and should, as part of their programmes, be concerned with matters falling within the competence of the Committee.

3. At its fifty-third session, in 2010, the Committee agreed that observer status would be granted to non-governmental organizations on a provisional basis, for a period of three years, pending information on the status of their application for consultative status with the Economic and Social Council. The Committee also agreed that the provisional observer status could be extended for an additional year, if necessary. The Committee further agreed that it would grant permanent observer status to such non-governmental organizations upon confirmation of their consultative status with the Council.



4. While the Committee's decision did not specifically include the elements referred to in 2 (c) above, it has been the practice of the Committee, since its decision in 1990, to have before it the constitution or statutes of the organization or entity requesting observer status.

5. On 17 April 2018 the Office for Outer Space Affairs received an application for observer status with the Committee on the Peaceful Uses of Outer Space from the CANEUS (CANada-EUrope-US-ASia-Africa) International Organization on Emerging Space Technologies for Societal Applications. The following related correspondence received from the CANEUS is attached to this document:

(a) Letter from the CANEUS containing a background information and justifying the intention to become a permanent observer of the Committee;

(b) Terms of Reference of the CANEUS;

(c) CANEUS Corporate Fact Sheet;

(d) Acts of Incorporation;

(e) Articles of Association.



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

January 22, 2018

Ms. Simonetta Di Pippo
Director
Office for Outer Space Affairs (OOSA)
United Nations Office at Vienna (UNOV)
Wagramerstrasse 5, 1220 Vienna, Austria

Dear Ms. Di Pippo,

On behalf of CANEUS (CANada-EUrope-US-ASia-Africa) International Organization on Emerging Space Technologies for Societal Applications, I am writing this letter to formally apply for the status of Observer Organization to the Committee on the Peaceful Uses of Outer Space (COPUOS).

As you are aware, through CANEUS participation in the COPUOS Sessions regularly and through several collaborative initiatives over the past 10+ years, CANEUS is a unique, international non-profit organization with the aim of cost-effectively transitioning emerging technology concepts for space applications to serve to serve the socio-economic needs of the society by bridging the gap between the “haves” and “have-nots.

CANEUS represents a first-of-its-kind approach, created in 1999, by space professionals from the Americas, Europe, Asia and Africa, to address the problem of transitioning new and emerging technologies to achieve the technological maturity required for infusion into space applications.

With the emergence of new approaches in satellite design and construction, specifically small satellites, added with new and increasing number of space actors at all levels; the space and user community worldwide is seeking requisite infrastructure and human capacity to support new initiatives and new concepts for improved delivery of space-based data and capacity building.

There are numerous reasons for these Darwinian odds, chief among them being the lack of a robust mechanism to take new space science and technology concepts to end-user driven implementations, particularly to serve the developing world.

CANEUS has recognized this gap, and has spearheaded the creation of a smoothly functioning development "pipeline," by bringing all of the stakeholders namely, the inventors, system developers, end-users, policy-makers and investors, under one roof.

CANEUS' novel approach is to create limited objective demonstration projects through Public-Private-Partnerships for transitioning essentially emerging technology ideas such as small micro-nano-pico-satellites, AI, robotics, big data, 3D printing, nano-bio-medicine, etc, into the global supply chain, rapidly and effectively, while reducing the costs, time and risks.

Over these years, CANEUS has created international Consortia covering public-private-partnerships of stakeholders within Asia, Africa, Americas, Europe and Oceania for developing, integrating and testing affordable space technology solutions through sharing of cost and benefits for collective safety, security and prosperity - CSSP.



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

CANEUS core purpose, and it genuinely believes is that a shared development effort will promote cooperation, trust and interdependence, to the mutual benefit of all partners. Furthermore, complementary resources from across nations are needed to meet the evolving needs of diverse stakeholders worldwide. CANEUS has been working towards its vision to become the “*Virtual World Collaboratory*” by providing a coordinated shared platform for international cooperation.

The biennial CANEUS Conferences and Workshops, hosted by Space Agencies worldwide are the world's premier international forums devoted to advance the CANEUS mission, e.g. NRCC-2000, CSA-2002, NASA-2004, CNES-2006, JAXA-Brazil 2008, NASA-2009, ESA-2010, ROSCOMOS-2012, India-2014-16,

These CANEUS Conferences / Workshops co-organized with professional societies worldwide, e.g. AIAA, IAA, COSPAR, IAF, IEEE, ASME, SPIE, IEC, IEI, etc. are unlike any others in that they provide attendees with tangible, measurable deliverables, offering participants an exceptional opportunity to take part, firsthand, in the creation of continuous, smoothly functioning technology development “pipelines” for transitioning emerging concepts to meet end- user needs.

Additionally, CANEUS Workshops held at several UN World Conferences and Global Platforms, e.g. UN GP DRR 2011, 2013, 2015, 2017, have contributed towards creating new global partnerships, through coordinated and shared approach, turning their problems into roadmaps for projects to produce a solution.

CANEUS participated in several Technical Advisory Missions undertaken by the UN-SPIDER, UNDP, World Bank, etc and further assisted governments to set up early warning systems and disaster preparedness, by undertaking Limited Objectives Demonstration pilot projects, to develop data standards and determine implementation barriers.

Therefore, CANEUS brings to COPUOS more that *18 years of investments* and proven PPP experience covering the four pillars of 2030 agenda, what are strategic interest to UN Member States.

Recently, CANEUS has undertaken to develop Global capacity development facilities to strengthen UNOOSA's efforts to offer developing countries a simplified and increased access to satellite technologies and capacity building.

These facilities would also support a broad cross section of stakeholders, e.g. agencies, educational institutions, small & medium enterprises, for the design and development of both the component / sub-systems as well assembly, integration, tests as well as hands-on training for satellite developers worldwide.

We believe that these are contributing to priority theme 7: Capacity Building for the 21st Century.

/Page 2



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

The CANEUS objectives are in harmony with the mission of the United Nations Committee on Peaceful Uses of Outer Space. Furthermore, as a Permanent Observer to UN COPUOS, we are sure that we will be in an even better position to pursue such goals, particularly in view of the organization of UNISPACE + 50 in 2018.

CANEUS already cooperates with other UN agencies and related bodies and is also in the process of securing “Consultative Status” with ECOSOC.

Attached to this letter please find following supporting documents to the application:

- (a) Terms of reference
- (b) CANEUS Corporate Fact Sheet
- (c) Acts of Incorporation
- (d) Articles of Association

We would be grateful for your consideration of our application at the earliest opportunity. In the meantime, we remain at your disposal to provide any further information you may require.

Sincerely,

Milind Pimprikar
Chairman

ATTACHMENTS

- 1.0 TERM OF REFERENCE**
 - 2.0 CORPORATE FACT SHEET**
 - 3.0 ACTS OF INCORPORATION**
 - 4.0 ARFICLES OF ASSOCIATION**
-
-



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

ATTACHMENTS

1.0 TERM OF REFERENCE

Vision

The vision of CANEUS is to “become a Virtual Global Aerospace Collaboratory to serve the socio-economic, safety and security needs of the global community to bridge the gap between the “haves” and “have-nots by fostering the coordinated, international development of innovative space technology-based solutions by nurturing the creation of collaborative environment aimed at accelerated adoption, adaptation, of innovative technologies.

CANEUS envisions a new philosophy for accelerating innovation to serve the global societal needs of which is:

“anchored in the collective strengths and resources of international partners and capitalizing on the investment to address present and future requirements, challenges, and opportunities by combining the skills, expertise, and assets and focusing on activities identified by the partners with aim of finding cost-effective innovative solutions, for sustainable development.”

With the new emerging space technologies initiatives and concepts being generated worldwide, the shared space-based data and infrastructure enable exciting applications to really support the fulfillment of the 17 Sustainable Development Goals across the board in different ways.

Specifically, with new approaches in satellite design including of small satellites, the coordinated conception of satellite constellations (with future and existing satellites), offer opportunities for covering the entire globe with images which can be helpful in agriculture, food and water security, health, gender equality, etc.

We expect that the proposed coordinated approach covering emerging space technologies, through a global public-private partnership (PPP) effort, will embrace innovation and offer new opportunities to drive implementation of the SDGs, and strengthen the engagement of leading innovative companies and individuals in relevant intergovernmental processes.

Mission

CANEUS is the catalyst for the creation of a Synergistic Collaborative Innovation Environment to support and accelerate international public / private partnerships for undertaking initiatives / projects that meet the societal stakeholder needs timely and cost-effectively.

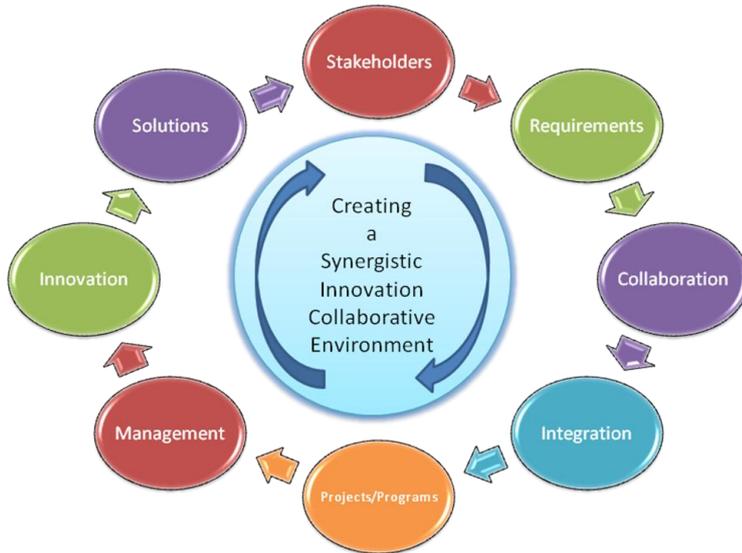
This is done by:

- Capitalizing on its worldwide partnership (governments, industry and universities) by:
 - Syndicating resources from all stakeholders and reducing the time, costs and risks associated with space technologies.



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

- Creating a collaborative virtual innovation environment for stakeholders to develop state of the art and leading edge based solutions focused on an integrated supply chain.

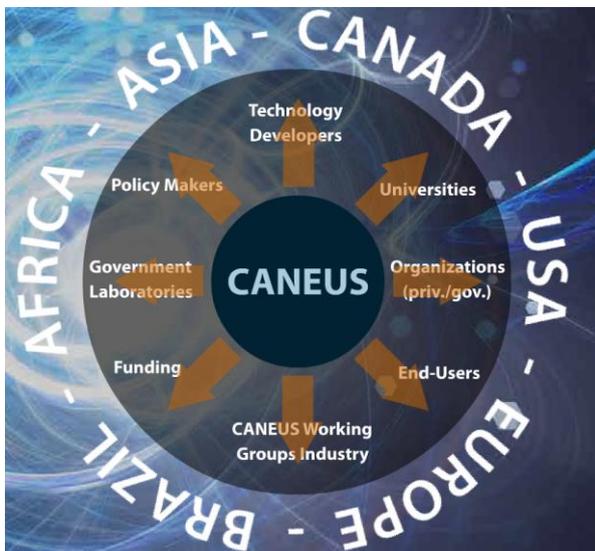


- Capitalizing on the investments of its partners by integrating the skills, experience, and research assets of government, university, industry, and R&D organizations.
- Developing a portfolio of projects focused on meeting the current and emerging needs of stakeholders and providing an economically viable solution in doing so.
- Creating a value chain that will result in rapid and efficient development of new products and solutions.

Implementation

As a Global not-profit organization, it CANEUS can address the needs of the stakeholders by creating a collaborative environment where they can work together by pooling resources (financial, human, assets, R&D infrastructure, etc.) to find/develop solutions.

CANEUS’s success is intimately linked to the success of its stakeholders: develop innovative solutions by leveraging collective knowledge and emerging technologies to accelerate their introduction to bridge the gap between the “have’s” and “have-nots”.



CANEUS brings together stakeholders (technology developers, end-users, governmental policy makers and investors) from across the world and creates a synergistic collaborative environment which is key to reducing developmental costs and time.





**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**
From Concepts to Systems

The strength of CANEUS is rooted in the strengths and resources of its partners to develop and execute projects/programs. Once the objectives, plans and outcomes of the programs/projects have been agreed upon, the execution of the projects/programs is the responsibility of a team created specifically for the particular project or program. CANEUS relies on the partners of its teams to identify the leader of the team. CANEUS provides administrative and management support functions, which is consistent with the mandate and vision of CANEUS: a virtual global organization that serves societal needs.



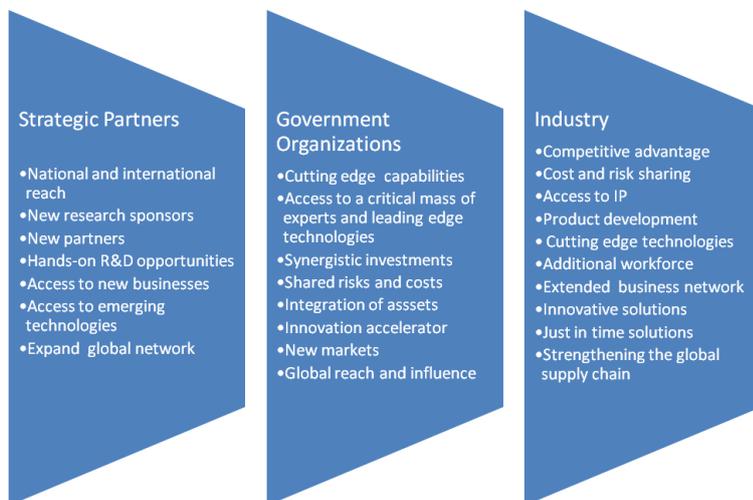
Stakeholders develop and agree on the strategic focus areas which are aligned with their critical needs.



CANEUS facilitates the organizational infrastructure to support the development of the strategic technology that focuses on key areas identified by the stakeholders' through conferences and working groups. CANEUS ensures the follow-through by identifying the technologies that are aligned with stakeholder's requirements, defining projects/programs with outcomes, creating projects/programs

teams drawn from the stakeholders, supporting projects/programs by facilitating infrastructure and syndicating financial resources.

By focusing on the development and application of identified needs of its stakeholders, CANEUS is an effective and efficient vehicle to accelerate the development of solutions through international collaboration.





Emerging Space Technologies for Societal Applications
 International Collaborative Aerospace Development
From Concepts to Systems

**ATTACHMENT
 2.0 CORPORATE FACT SHEET**

CANEUS International
 Headquarter: Montreal Canada



CANEUS Affiliates:

CANEUS USA (non-profit corporation)

- CANEUS Europe (non-profit association)
- CANEUS India Foundation, non-profit societal and educational organization
- CANEUS UAE non-profit organization
- CANEUS MENA, Non-profit Consortium
- CANEUS Brazil, Non-Profit Consortium
- CANEUS South Africa, Non-profit Consortium

| | |
|--------|--|
| 2017 | CANEUS Global capacity Building Facility with UNOOSA at Bangalore, India |
| 2016 | CANEUS Small Satellite for Disaster Management with IUSSTF, UNISDR, Bangalore, India |
| 2015 | CANEUS GlobalSat for DRR at UN World Conference in Sendai with UNOOSA |
| 2014 | CANEUS/IISc/ LM SSTDM Conference at Bangalore, India |
| 2013 | CANEUS India Foundation conference at Belgaum, India |
| 2012 | CANEUS 2012 conferences in Ottawa, Canada, Russia, Vietnam and Singapore |
| 2011 | CANEUS with UN-SPIDER in Vietnam, ISU and African Leadership Congress |
| 2010 | CANEUS 2010 conference hosted by ESA and CSSP Conference with 58+ Countries in Italy |
| 2008-9 | CANEUS 2008 and CANEUS 2009 conferences in Brazil, Japan and NASA Ames |
| 2007 | CANEUS/NASA Fly-by-Wireless Consortium launched |
| 2006 | CANEUS 2006 conference in France hosted by CNES, EADS, EC, ESA, Airbus |
| 2005 | CANEUS Small Satellite launch with the State visit by the King and Queen of Sweden of Sweden |
| 2004 | CANEUS 2004 conference on November 1-5 2004 in California, organized by AIAA and NASA CANEUS Organization initiated a worldwide pilot project concepts topics |
| 2003 | • CANEUS USA Inc. was incorporated at NASA Ames • CANEUS developed Concepts to Systems model with NASA/CNES/ESA/JAXA/ISA/EADS/LM/Boeing, etc |
| 2002 | Historic CANEUS workshop hosted by the Canadian Space Agency with participation of 108 Speakers. 2 Nobel laureates, CANEUS framework was developed. |
| 2001 | First International Workshop at NRCC with representation from Canada, US, Europe, Japan |
| 2000 | Launch of Canada-Europe-USA Consortium for Collaborative Aerospace Development |
| 1999 | Launch of Canada-Europe-USA Consortium for Collaborative Aerospace Development |

CANEUS Evolution since 1999



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

Governance and Infrastructure

- **Values**

CANEUS should act with integrity, openness, respect and honesty in all relationships, dealings and transactions. It will strive to earn and convey trust through these values.

CANEUS will keep faith with the public trust through efficient cost effectiveness and stewardship of resources.

- **Commitment to Inclusivity and Diversity**

CANEUS will respect all people's race, religion, ethnicity, gender, age, socioeconomic status, sexual orientation and ability and should not allow differences to affect a person's opportunities.

- **Conduct organization – wide Planning & Monitoring**

Planning, monitoring and evaluation are part of an integrated process towards the ultimate goal of achieving the CANEUS mission.

- **To ensure the financial health of CANEUS**

There are four key financial measures:

1. Ensuring there are adequate financial resources for the work of CANEUS. This may include responsibility for fund-raising.
2. Oversee financial expenditures and is accountable to funders and the community for the management of funds received.
3. Manage CANEUS' assets to protect its future.
4. Ensure financial controls are in place.

Financial management

- Approving and developing annual budget
- Developing financial controls and procedures
- Establishing and monitoring financial record keeping system
- Ensuring financial reporting systems are in place
- Monitoring revenue and expenditures of the organization.

Fundraising

- Establishing fundraising targets, based on the needs of the organization
- Developing goals, objectives and critical path for success
- Recruiting champions and volunteers.

Capital management

- Include capital expenditures in budget

- **To Ensure the CANEUS has Sufficient and Appropriate Human Resources**

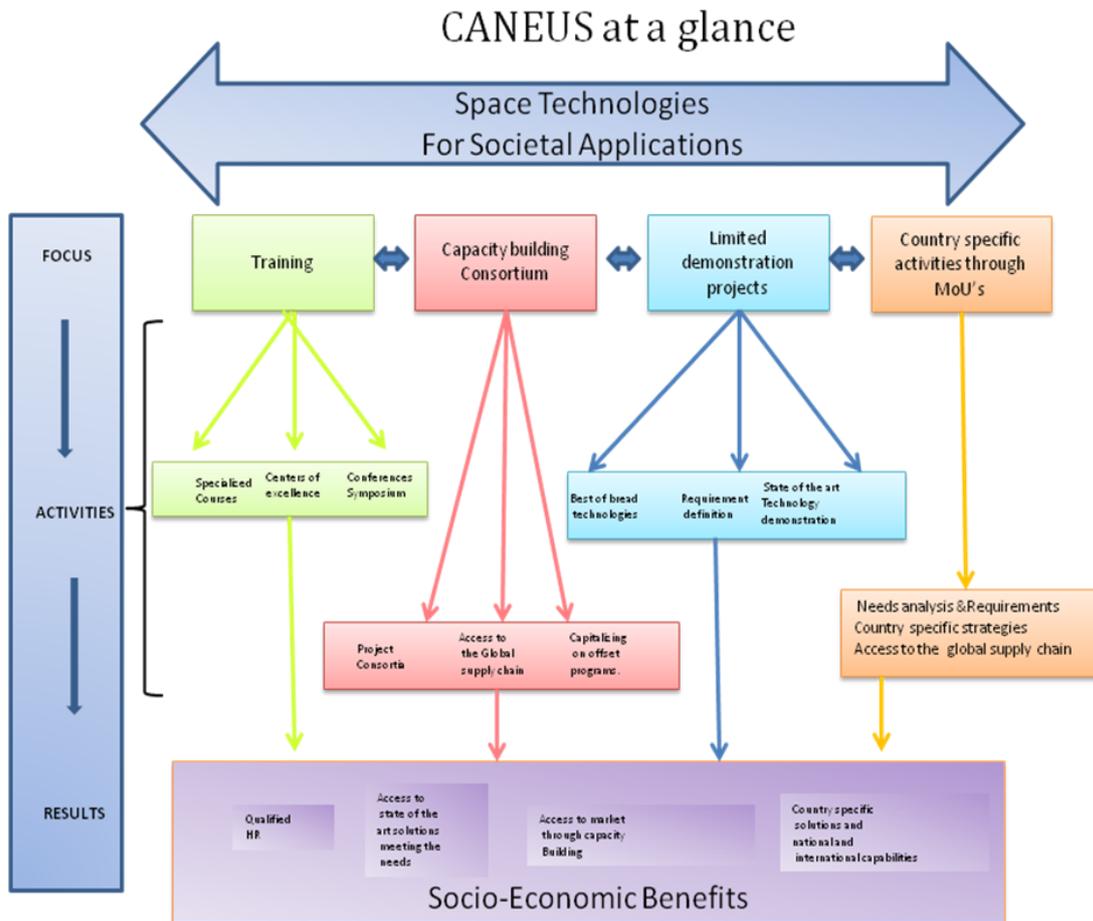
- **Ensuring Effective Community Relations**

- **Obligation to Government**

- **Obligations to those with whom the CANEUS interacts**



Emerging Space Technologies for Societal Applications
 International Collaborative Aerospace Development
From Concepts to Systems



Shared platform for emerging space technology solutions for natural and man-made disaster management and climate change; agriculture, droughts and floods monitoring; ocean observations; tele-medicine; addressing possible new energy sources; STEM skill development; and support capacity-building for sustainable socioeconomic development, in particular through small-satellite activities.



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

ATTACHMENT

3.0 ACT OF INCORPORATION

Continuing the Corporation under the provisions of the Canada Not-for-profit Corporations Act and authorizing the directors to apply for a Certificate of Continuance.

WHEREAS the Corporation was incorporated under Part II of the Canada Corporations Act by Letters Patent dated the day 24th of December, 2007; and

[WHEREAS those Letters Patent were amended by Supplementary Letters Patent dated the 8th day of October, 2014; and]

WHEREAS it is considered to be in the best interests of the Corporation that it be continued under the Canada Not-for-profit Corporations Act (NFP Act) pursuant to section 297 of the NFP Act;

BE IT RESOLVED AS A SPECIAL RESOLUTION THAT:

The directors of the Corporation are authorized and directed to make an application under section 297 of the NFP Act to the Director appointed under the NFP Act for a Certificate of Continuance of the Corporation;

The Articles of Continuance (transition) of the Corporation, which have been submitted to this meeting and are annexed to these minutes as Schedule A, are approved;

The general operating by-law of the Corporation (as amended) is repealed effective on the date that the corporation continues under the NFP Act and the new general operating by-law No.1 which has been submitted to this meeting and is annexed to these minutes as Schedule B is approved and will be effective on the same date.

Any one of the officers and directors of the Corporation is authorized to take all such actions and execute and deliver all such documentation, including the annexed Articles of Continuance (transition), the notice of registered office and of directors in the forms fixed by the Director, which are necessary or desirable for the implementation of this resolution.

The undersigned, being the duly appointed (Secretary) of the Corporation, certifies that the above is a true and correct copy of a special resolution of 8th day of October, 2014, by a majority of not less than two-thirds of the votes cast by the members of the Corporation who voted in respect of the resolution, and the resolution is in full force and effect, unamended as of the date below.

Dated: October 8th, 2014



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

ATTACHMENT

4.0 ARTICLES OF ASSOCIATION



CANEUS By-Laws

The By-Laws relating generally to the conduct
of the affairs of

CANEUS International

(the "Corporation")

BE IT ENACTED as a by-law of the Corporation as follows:

1. Definition

In this by-law and all other by-laws of the Corporation, unless the context otherwise requires:

"**Act**" means the *Canada Not-For-Profit Corporations Act* S.C. 2009, c. 23 including the Regulations made pursuant to the Act, and any statute or regulations that may be substituted, as amended from time to time;

"**articles**" means the original or restated articles of incorporation or articles of amendment, amalgamation, continuance, reorganization, arrangement or revival of the Corporation;

"**board**" means the board of directors of the Corporation and "director" means a member of the board;

"**by-law**" means this by-law and any other by-law of the Corporation as amended and which are, from time to time, in force and effect;

"**meeting of members**" includes an annual meeting of members or a special meeting of members; "special meeting of members" includes a meeting of any class or classes of members and a special meeting of all members entitled to vote at an annual meeting of members;



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

"**ordinary resolution**" means a resolution passed by a majority of not less than 50% plus 1 of the votes cast on that resolution;

"**proposal**" means a proposal submitted by a member of the Corporation that meets the requirements of section 163 (Member Proposals) of the Act;

"**Regulations**" means the regulations made under the Act, as amended, restated or in effect from time to time; and

"**special resolution**" means a resolution passed by a majority of not less than two-thirds (2/3) of the votes cast on that resolution.

2. **Corporate Seal**

The Corporation may have a corporate seal in the form approved from time to time by the board. If a corporate seal is approved by the board, the secretary of the Corporation shall be the custodian of the corporate seal.

3. **Execution of Documents**

38. The Chairman and/or the President shall sign contracts, documents or any instruments in writing requiring the signature of the corporation, and all contracts, documents and instruments in writing so signed shall be binding upon the corporation without any further authorization or formality. The directors shall have power from time to time by resolution to appoint an officer or officers on behalf of the corporation to sign specific contracts, documents and instruments in writing. The directors may give the corporation's power of attorney to any registered dealer in securities for the purposes of the transferring of and dealing with any stocks, bonds, and other securities of the corporation. The seal of the corporation when required may be affixed to contracts, documents and instruments in writing signed as aforesaid or by any officer or officers appointed by resolution of the board of directors.

4. **Financial Year**

The financial year end of the Corporation shall be determined by the board of directors.

5. **Banking Arrangements**

The banking business of the Corporation shall be transacted at such bank, trust company or other firm or corporation carrying on a banking business in Canada or elsewhere as the board of directors may designate, appoint or authorize from time to time by resolution. The banking business or any part of it shall be transacted by an officer or officers of the Corporation and/or other persons as the board of directors may by resolution from time to time designate, direct or authorize.

6. **Borrowing Powers**

The directors of the Corporation may, without authorization of the members,



**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**

From Concepts to Systems

- i. borrow money on the credit of the corporation;
- ii. issue, reissue, sell, pledge or hypothecate debt obligations of the corporation;
- iii. give a guarantee on behalf and
- iv. mortgage, hypothecate, pledge or otherwise create a security interest in all or any property of the corporation, owned or subsequently acquired, to secure any debt obligation of the corporation.

7. Annual Financial Statements

The Corporation shall send to the members a copy of the annual financial statements and other documents referred to in subsection 172(1) (Annual Financial Statements) of the Act or a copy of a publication of the Corporation reproducing the information contained in the documents. Instead of sending the documents, the Corporation may send a summary to each member along with a notice informing the member of the procedure for obtaining a copy of the documents themselves free of charge. The Corporation is not required to send the documents or a summary to a member who, in writing, declines to receive such documents.

8. Membership Conditions

Subject to the articles, there shall be two classes of members in the Corporation, namely, Class A members and Class B members. The board of directors of the Corporation may, by resolution, approve the admission of the members of the Corporation. Members may also be admitted in such other manner as may be prescribed by the board by resolution. The following conditions of membership shall apply:

Full Members

- i. Full voting membership shall be available to persons who have applied and have been accepted for Full voting membership in the Corporation.
- ii. The term of membership of a Full voting member shall be annual, subject to renewal in accordance with the policies of the Corporation.
- iii. As set out in the articles, each Class A voting member is entitled to receive notice of, attend and vote at all meetings of members and each such Full voting member shall be entitled to one (1) vote at such meetings.

Associate Members

- iv. Associate non-voting membership shall be available to persons who have applied and have been accepted for Associate non-voting membership in the Corporation.
- v. The term of membership of a Associate non-voting member shall be annual, subject to renewal in accordance with the policies of the Corporation.
- vi. Subject to the Act and the articles, a Associate non-voting member shall not be entitled to receive notice of, attend or vote at meetings of the members of the Corporation.



**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**

From Concepts to Systems

Pursuant to subsection 197(1) (Fundamental Change) of the Act, a special resolution of the members is required to make any amendments to this section of the by-laws if those amendments affect membership rights and/or conditions described in paragraphs 197(1)(e), (h), (l) or (m).

9. Membership Transferability

A membership may only be transferred to the Corporation. Pursuant to Section 197(1) (Fundamental Change) of the Act, a special resolution of the members is required to make any amendment to add, change or delete this section of the by-laws.

10. Notice of Members Meeting

Notice of the time and place of a meeting of members shall be given to each member entitled to vote at the meeting by the following means:

- a. by mail, courier or personal delivery to each member entitled to vote at the meeting, during a period of 21 to 60 days before the day on which the meeting is to be held; or
- b. by telephonic, electronic or other communication facility to each member entitled to vote at the meeting, during a period of 21 to 35 days before the day on which the meeting is to be held.

Pursuant to subsection 197(1) (Fundamental Change) of the Act, a special resolution of the members is required to make any amendment to the by-laws of the Corporation to change the manner of giving notice to members entitled to vote at a meeting of members.

11. Members Calling a Members' Meeting

The board of directors shall call a special meeting of members in accordance with Section 167 of the Act, on written requisition of members carrying not less than 5% of the voting rights. If the directors do not call a meeting within twenty-one (21) days of receiving the requisition, any member who signed the requisition may call the meeting.

12. Absentee Voting at Members' Meetings

Pursuant to section 171(1) (Absentee Voting) of the Act, a member entitled to vote at a meeting of members may vote by mailed-in ballot or by means of a telephonic, electronic or other communication facility if the Corporation has a system that:

- a. enables the votes to be gathered in a manner that permits their subsequent verification, and
- b. permits the tallied votes to be presented to the Corporation without it being possible for the Corporation to identify how each member voted.

Pursuant to subsection 197(1) (Fundamental Change) of the Act, a special resolution of the members is required to make any amendment to the by-laws of the Corporation to change this method of voting by members not in attendance at a meeting of members.



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

13. Membership Dues

Members shall be notified in writing of the membership dues at any time payable by them and, if any are not paid within one (1) calendar month of the membership renewal date the members in default shall automatically cease to be members of the Corporation.

14. Termination of Membership

A membership in the Corporation is terminated when:

- a. the member dies or resigns;
- b. the member is expelled or their membership is otherwise terminated in accordance with the articles or by-laws;
- c. the member's term of membership expires; or
- d. the Corporation is liquidated and dissolved under the Act.

15. Effect of Termination of Membership

Subject to the articles, upon any termination of membership, the rights of the member, including any rights in the property of the Corporation, automatically cease to exist.

16. Discipline of Members

The board shall have authority to suspend or expel any member from the Corporation for any one or more of the following grounds:

- a. violating any provision of the articles, by-laws, or written policies of the Corporation;
- b. carrying out any conduct which may be detrimental to the Corporation as determined by the board in its sole discretion;
- c. for any other reason that the board in its sole and absolute discretion considers to be reasonable, having regard to the purpose of the Corporation.

In the event that the board determines that a member should be expelled or suspended from membership in the Corporation, the president, or such other officer as may be designated by the board, shall provide twenty (20) days notice of suspension or expulsion to the member and shall provide reasons for the proposed suspension or expulsion. The member may make written submissions to the president, or such other officer as may be designated by the board, in response to the notice received within such twenty (20) day period. In the event that no written submissions are received by the president, the president, or such other officer as may be designated by the board, may proceed to notify the member that the member is suspended or expelled from membership in the Corporation. If written submissions are received in accordance with this section, the board will consider such submissions in arriving at a final decision and shall notify the member concerning such final decision within a further twenty (20) days from the date of receipt of the submissions. The board's decision shall be final and binding on the member, without any further right of appeal.

17. Proposals Nominating Directors at Annual Members' Meetings



Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development
From Concepts to Systems

Subject to the Regulations under the Act, any proposal may include nominations for the election of directors if the proposal is signed by not less than 5% of members entitled to vote at the meeting at which the proposal is to be presented.

18. Cost of Publishing Proposals for Annual Members' Meetings

The member who submitted the proposal shall pay the cost of including the proposal and any statement in the notice of meeting at which the proposal is to be presented unless otherwise provided by ordinary resolution of the members present at the meeting.

19. Place of Members' Meeting

Subject to compliance with section 159 (Place of Members' Meetings) of the Act, meetings of the members may be held at any place within Canada determined by the board or, if all of the members entitled to vote at such meeting so agree, outside Canada.

20. Persons Entitled to be Present at Members' Meetings

The only persons entitled to be present at a meeting of members shall be those entitled to vote at the meeting, the directors and the public accountant of the Corporation and such other persons who are entitled or required under any provision of the Act, articles or by-laws of the Corporation to be present at the meeting. Any other person may be admitted only on the invitation of the chair of the meeting or by resolution of the members.

21. Chair of Members' Meetings

In the event that the chair of the board and the vice-chair of the board are absent, the members who are present and entitled to vote at the meeting shall choose one of their number to chair the meeting.

22. Quorum at Members' Meetings

A quorum at any meeting of the members (unless a greater number of members are required to be present by the Act) shall be a majority of the members entitled to vote at the meeting. If a quorum is present at the opening of a meeting of members, the members present may proceed with the business of the meeting even if a quorum is not present throughout the meeting.

23. Votes to Govern at Members' Meetings

At any meeting of members every question shall, unless otherwise provided by the articles or by-laws or by the Act, be determined by a majority of the votes cast on the questions. In case of an equality of votes either on a show of hands or on a ballot or on the results of electronic voting, the chair of the meeting in addition to an original vote shall have a second or casting vote.

24. Participation by Electronic Means at Members' Meetings



**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**

From Concepts to Systems

If the Corporation chooses to make available a telephonic, electronic or other communication facility that permits all participants to communicate adequately with each other during a meeting of members, any person entitled to attend such meeting may participate in the meeting by means of such telephonic, electronic or other communication facility in the manner provided by the Act. A person participating in a meeting by such means is deemed to be present at the meeting. Notwithstanding any other provision of this by-law, any person participating in a meeting of members pursuant to this section who is entitled to vote at that meeting may vote, in accordance with the Act, by means of any telephonic, electronic or other communication facility that the Corporation has made available for that purpose.

25. Members' Meeting Held Entirely by Electronic Means

Meetings of members may not be held entirely by telephonic, an electronic or other communication facility.

26. Number of Directors

The board shall consist of the number of directors specified in the articles. If the articles provide for a minimum and maximum number of directors, the board shall be comprised of the fixed number of directors as determined from time to time by the members by ordinary resolution or, if the ordinary resolution empowers the directors to determine the number, by resolution of the board. In the case of a soliciting corporation the minimum number of directors may not be fewer than three (3), at least two of whom are not officers or employees of the Corporation or its affiliates.

27. Term of Office of Directors

The directors shall be elected to hold office for a term expiring not later than the close of the second annual meeting of members following the election.

28. Calling of Meetings of Board of Directors

Meetings of the board may be called by the chair of the board, the vice-chair of the board or any two (2) directors at any time. If the Corporation has only one director, that director may call and constitute a meeting.

29. Notice of Meeting of Board of Directors

Notice of the time and place for the holding of a meeting of the board shall be given in the manner provided in the section on giving notice of meeting of directors of this by-law to every director of the Corporation not less than 1 days before the time when the meeting is to be held. Notice of a meeting shall not be necessary if all of the directors are present, and none objects to the holding of the meeting, or if those absent have waived notice of or have otherwise



**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**

From Concepts to Systems

signified their consent to the holding of such meeting. Notice of an adjourned meeting is not required if the time and place of the adjourned meeting is announced at the original meeting. Unless the by-law otherwise provides, no notice of meeting need specify the purpose or the business to be transacted at the meeting except that a notice of meeting of directors shall specify any matter referred to in subsection 138(2) (Limits on Authority) of the Act that is to be dealt with at the meeting.

30. Regular Meetings of the Board of Directors

The board may appoint a day or days in any month or months for regular meetings of the board at a place and hour to be named. A copy of any resolution of the board fixing the place and time of such regular meetings of the board shall be sent to each director forthwith after being passed, but no other notice shall be required for any such regular meeting except if subsection 136(3) (Notice of Meeting) of the Act requires the purpose thereof or the business to be transacted to be specified in the notice.

31. Votes to Govern at Meetings of the Board of Directors

At all meetings of the board, every question shall be decided by a majority of the votes cast on the question. In case of an equality of votes, the chair of the meeting in addition to an original vote shall have a second or casting vote.

32. Committees of the Board of Directors

The board may from time to time appoint any committee or other advisory body, as it deems necessary or appropriate for such purposes and, subject to the Act, with such powers as the board shall see fit. Any such committee may formulate its own rules of procedure, subject to such regulations or directions as the board may from time to time make. Any committee member may be removed by resolution of the board of directors.

33. Appointment of Officers

The board may designate the offices of the Corporation, appoint officers on an annual or more frequent basis, specify their duties and, subject to the Act, delegate to such officers the power to manage the affairs of the Corporation. A director may be appointed to any office of the Corporation. An officer may, but need not be, a director unless these by-laws otherwise provide. Two or more offices may be held by the same person.

34. Description of Offices

Unless otherwise specified by the board (which may, subject to the Act modify, restrict or supplement such duties and powers), the offices of the Corporation, if designated and if officers are appointed, shall have the following duties and powers associated with their positions:

- i. Chair of the Board – The chair of the board, if one is to be appointed, shall be a director. The chair of the board, if any, shall, when present, preside at all meetings of



**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**

From Concepts to Systems

the board of directors and of the members. The chair shall have such other duties and powers as the board may specify.

- ii. Vice-Chair of the Board – The vice-chair of the board, if one is to be appointed, shall be a director. If the chair of the board is absent or is unable or refuses to act, the vice-chair of the board, if any, shall, when present, preside at all meetings of the board of directors and of the members. The vice-chair shall have such other duties and powers as the board may specify.
- iii. President – If appointed, the president shall be the chief executive officer of the Corporation and shall be responsible for implementing the strategic plans and policies of the Corporation. The president shall, subject to the authority of the board, have general supervision of the affairs of the Corporation.
- iv. Secretary – If appointed, the secretary shall attend and be the secretary of all meetings of the board, members and committees of the board. The secretary shall enter or cause to be entered in the Corporation's minute book, minutes of all proceedings at such meetings; the secretary shall give, or cause to be given, as and when instructed, notices to members, directors, the public accountant and members of committees; the secretary shall be the custodian of all books, papers, records, documents and other instruments belonging to the Corporation.
- v. Treasurer – If appointed, the treasurer shall have such powers and duties as the board may specify.

The powers and duties of all other officers of the Corporation shall be such as the terms of their engagement call for or the board or president requires of them. The board may from time to time and subject to the Act, vary, add to or limit the powers and duties of any officer.

35. Vacancy in Office

In the absence of a written agreement to the contrary, the board may remove, whether for cause or without cause, any officer of the Corporation. Unless so removed, an officer shall hold office until the earlier of:

- the officer's successor being appointed,
 - a. the officer's resignation,
 - b. such officer ceasing to be a director (if a necessary qualification of appointment) or
 - c. such officer's death.

If the office of any officer of the Corporation shall be or become vacant, the directors may, by resolution, appoint a person to fill such vacancy.

36. Method of Giving Any Notice

Any notice (which term includes any communication or document), other than notice of a meeting of members or a meeting of the board of directors, to be given (which term includes sent, delivered or served) pursuant to the Act, the articles, the by-laws or otherwise to a



**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**

From Concepts to Systems

member, director, officer or member of a committee of the board or to the public accountant shall be sufficiently given:

- if delivered personally to the person to whom it is to be given or if delivered to such person's address as shown in the records of the Corporation or in the case of notice to a director to the latest address as shown in the last notice that was sent by the Corporation in accordance with section 128 (Notice of directors) or 134 (Notice of change of directors);
- if mailed to such person at such person's recorded address by prepaid ordinary or air mail;
- if sent to such person by telephonic, electronic or other communication facility at such person's recorded address for that purpose; or
- if provided in the form of an electronic document in accordance with Part 17 of the Act.

A notice so delivered shall be deemed to have been given when it is delivered personally or to the recorded address as aforesaid; a notice so mailed shall be deemed to have been given when deposited in a post office or public letter box; and a notice so sent by any means of transmitted or recorded communication shall be deemed to have been given when dispatched or delivered to the appropriate communication company or agency or its representative for dispatch. The secretary may change or cause to be changed the recorded address of any member, director, officer, public accountant or member of a committee of the board in accordance with any information believed by the secretary to be reliable. The declaration by the secretary that notice has been given pursuant to this by-law shall be sufficient and conclusive evidence of the giving of such notice. The signature of any director or officer of the Corporation to any notice or other document to be given by the Corporation may be written, stamped, type-written or printed or partly written, stamped, type-written or printed.

37. Invalidity of any Provisions of this By-law

The invalidity or unenforceability of any provision of this by-law shall not affect the validity or enforceability of the remaining provisions of this by-law.

38. Omissions and Errors

The accidental omission to give any notice to any member, director, officer, member of a committee of the board or public accountant, or the non-receipt of any notice by any such person where the Corporation has provided notice in accordance with the by-laws or any error in any notice not affecting its substance shall not invalidate any action taken at any meeting to which the notice pertained or otherwise founded on such notice.

39. Mediation and Arbitration

Disputes or controversies among members, directors, officers, committee members, or volunteers of the Corporation are as much as possible to be resolved in accordance with mediation and/or arbitration as provided in the section on dispute resolution mechanism of this by-law.

40. Dispute Resolution Mechanism



**Emerging Space Technologies for Societal Applications
International Collaborative Aerospace Development**

From Concepts to Systems

In the event that a dispute or controversy among members, directors, officers, committee members or volunteers of the Corporation arising out of or related to the articles or by-laws, or out of any aspect of the operations of the Corporation is not resolved in private meetings between the parties then without prejudice to or in any other way derogating from the rights of the members, directors, officers, committee members, employees or volunteers of the Corporation as set out in the articles, by-laws or the Act, and as an alternative to such person instituting a law suit or legal action, such dispute or controversy shall be settled by a process of dispute resolution as follows:

- The dispute or controversy shall first be submitted to a panel of mediators whereby the one party appoints one mediator, the other party (or if applicable the board of the Corporation) appoints one mediator, and the two mediators so appointed jointly appoint a third mediator. The three mediators will then meet with the parties in question in an attempt to mediate a resolution between the parties.
- The number of mediators may be reduced from three to one or two upon agreement of the parties.
- If the parties are not successful in resolving the dispute through mediation, then the parties agree that the dispute shall be settled by arbitration before a single arbitrator, who shall not be any one of the mediators referred to above, in accordance with the provincial or territorial legislation governing domestic arbitrations in force in the province or territory where the registered office of the Corporation is situated or as otherwise agreed upon by the parties to the dispute. The parties agree that all proceedings relating to arbitration shall be kept confidential and there shall be no disclosure of any kind. The decision of the arbitrator shall be final and binding and shall not be subject to appeal on a question of fact, law or mixed fact and law.

All costs of the mediators appointed in accordance with this section shall be borne equally by the parties to the dispute or the controversy. All costs of the arbitrators appointed in accordance with this section shall be borne by such parties as may be determined by the arbitrators.

41. By-laws and Effective Date

Subject to the articles, the board of directors may, by resolution, make, amend or repeal any by-laws that regulate the activities or affairs of the Corporation. Any such by-law, amendment or repeal shall be effective from the date of the resolution of directors until the next meeting of members where it may be confirmed, rejected or amended by the members by ordinary resolution. If the by-law, amendment or repeal is confirmed or confirmed as amended by the members it remains effective in the form in which it was confirmed. The by-law, amendment or repeal ceases to have effect if it is not submitted to the members at the next meeting of members or if it is rejected by the members at the meeting.

This section does not apply to a by-law that requires a special resolution of the members according to subsection 197(1) (fundamental change) of the Act because such by-law amendments or repeals are only effective when confirmed by member.