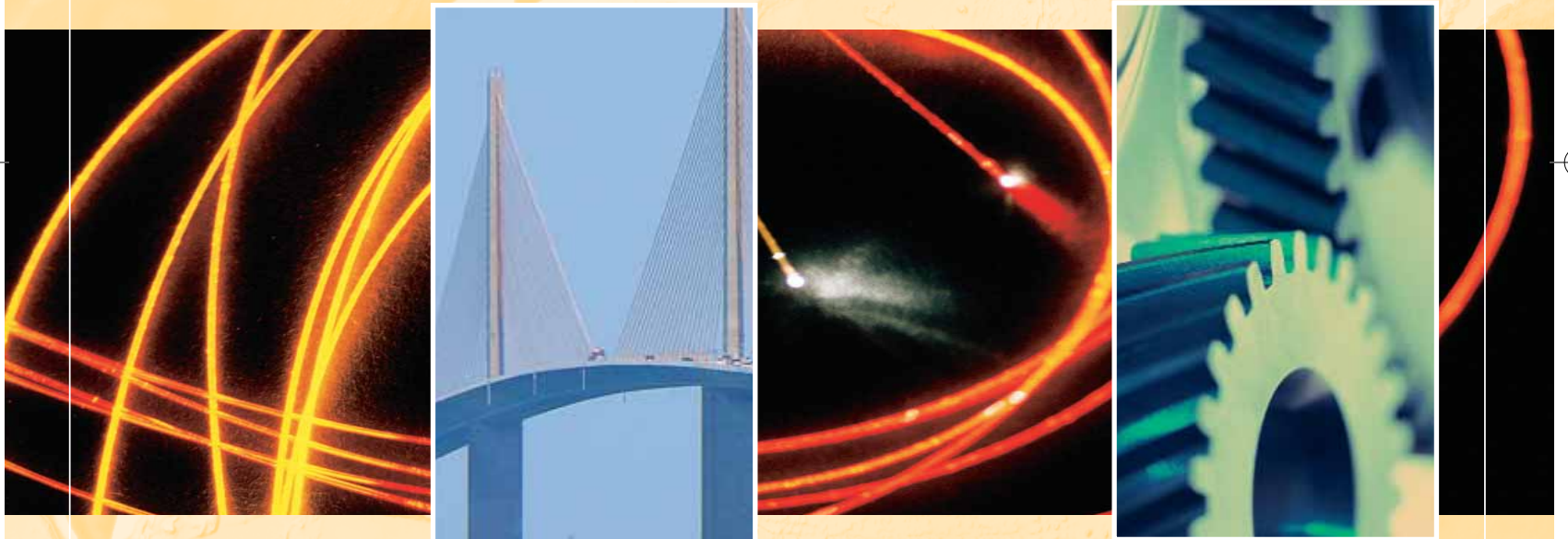


CAETS

International Council of
Academies of Engineering and
Technological Sciences



**The First
30 Years
1978 - 2008**

**International Council fo Academies of Engineering
and Technological Sciences, Inc. (CAETS)**

Incorporated June 30, 2000
District of Columbia, U.S.A.
E.I.N. 52-2251297
An IRS Section 501 (c) (3) organization

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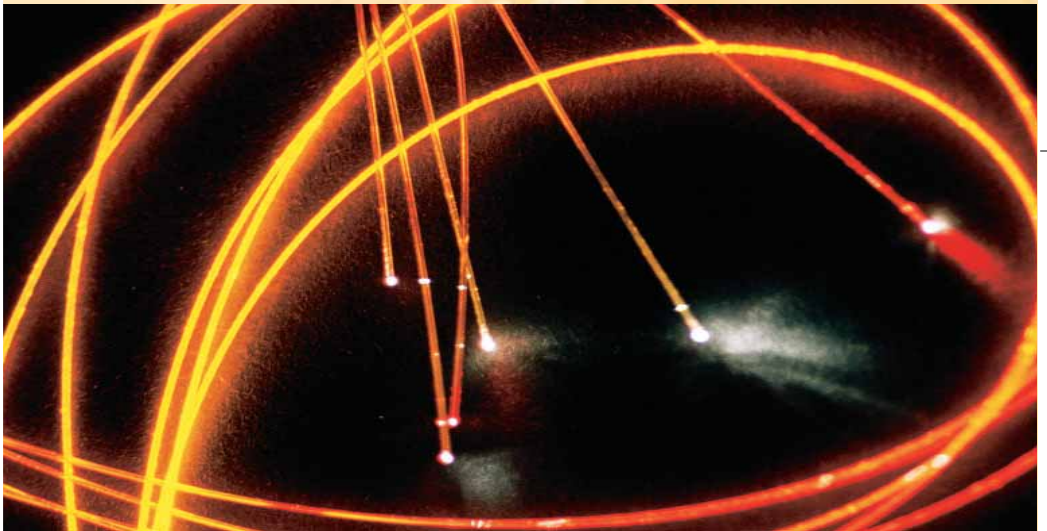
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**International Council of Academies of Engineering
and Technological Sciences, Inc. (CAETS)**

2008

Introduction

The 1st International Convocation of Academies of Engineering and Similar Institutions was held in 1978. Slight changes were made in the title of subsequent convocations during 1980 to 1985. Later in 1985, the name Council of Academies of Engineering and Technological Sciences (CAETS) was agreed. On incorporation in 2000, the name became the International Council of Academies of Engineering and Technological Sciences, Inc. (CAETS).

The five Founding Academies were involved in the 1978 convocation, the subsequent convocations, and helped form the nature of and the launching of CAETS in 1985. Thereafter, new member academies were added through the election process.

The Growth of CAETS identifies the steps taken in developing the organizational structure of CAETS, the member academies involved in hosting convocations and other meetings called to consider dealing with the growth of the membership.

The Officers are listed for the period (1978 to 1985), when the leadership was known as the Convocation Steering Committees, for the growth period (1985-2000), and for the post-incorporation period (2001-2008).

The Proceedings of the CAETS Convocations, CAETS Reports and CAETS Statements provide some sense of the breadth of interest of the membership of CAETS.

The CAETS Rotation Schedule describes the non-elective process that identifies the potential future member academies that may host convocations, annual meetings of the Council and provide their members for CAETS leadership positions.

There is much related to the growth of CAETS that has not been recorded here. The existence of CAETS, as well as its membership requirement for self-government, has encouraged the creation and development of national academies focused on engineering and technological sciences. The exchange of experiences among the member academies has fostered efforts by individual member academies to become more effective in contributing to important national issues with significant engineering content, and regional groupings of academies to contribute to similar regional issues.

To support the activities of CAETS, each member academy is responsible for its participants' expenses. In the early years, hosts of convocations covered the meeting expenses. Later, as convocation attendance grew, registration fees helped to offset some - but not all - meeting expenses. Also in the early years the NAE (US) covered all costs of the secretariat. In the late 1980s, as the membership grew, the member academies agreed to share the direct costs of the secretariat each year after expenses were totaled, with the NAE (US) providing the operating funds for each year. Beginning in 2001, dues collected at the beginning of the year went to cover costs of that year. CAETS repaid NAE (US) over the next four years for the secretariat expenses for the year 2000.

This material was compiled from several sources, including History and Summary of Activity, 1978 – 1999, a CAETS report prepared by Steven N. Anastasian, Vice President and Secretary of CAETS, 1985 - 1999.

Objectives

CAETS is an independent non-political, non-governmental international organization of engineering and technological sciences academies, one member academy per country, with the following objectives, as stated in the CAETS Bylaws, Article 1, a-g:

- (a) Prepared to advise governments and international organizations on technical and policy issues related to its areas of expertise;
- (b) Contribute to the strengthening of engineering and technological activities to promote sustainable economic growth and social welfare throughout the world;
- (c) Foster a balanced understanding of the applications of engineering and technology by the public;
- (d) Provide an international forum for discussion and communication of engineering and technological issues of common concern;
- (e) Foster cooperative international engineering and technological efforts through meaningful contacts for development of programs of bilateral and multilateral interest;
- (f) Encourage improvement of engineering education and practice internationally; and
- (g) Foster establishment of additional engineering academies in countries where none exist.

CAETS Strategy 2008 - 2012

Preamble

CAETS, the International Council of Academies of Engineering and Technological Sciences, Inc., consists of those national academies of engineering and technological sciences which, as judged by their fellow members, have satisfied an agreed set of criteria for membership. CAETS was established in 1978 and was incorporated as a charitable non-profit corporation in the District of Columbia (USA) in 2000. Its Articles of Incorporation, Bylaws and Operating Procedures set forth its objectives and governance arrangements.

Vision

CAETS envisions a world in which national and international decision-making on economic, social, and environmental issues is properly informed by relevant

engineering, scientific and technological considerations and in which the peoples of all countries benefit fully from the capabilities of engineering, science and technology.

Mission

The mission of CAETS is to foster engineering and technological progress for the benefit of societies of all countries.

CAETS provides the organizational mechanism through which engineering and technological science academies of the world can work together on important issues at the intersection of technology and society. Through communication and sharing of best practices, each academy may draw on the total global experience and expertise of other member academies

to address issues at the national level and, collectively, to encourage use of the best engineering and technological advice by key global intergovernmental institutions for the benefit of all peoples of the world.

Priorities

Join forces with member academies to address global problems.

Themes for the biennial Convocations of CAETS reflect, to a significant extent, the host academy's view of its current national engineering and technological issue(s), and hosts of alternate year annual meetings schedule them to be in conjunction with a meeting of general interest to CAETS member academies. Also, CAETS member academies differ from one and other in financial resources and national and international impact and outreach. With a view to increasing the benefit of such CAETS activities, cooperation among member academies is encouraged, possibly including co-organization or co-hosting of meetings and collaboration on publications.

Issues for possible consideration by CAETS include: application of technologies for realizing sustainable economy; engineering education, including e-learning; promotion of public understanding of the valuable role of engineering and technological sciences; new materials and technologies; water management and production; transport; sustainability and management of natural resources; and energy.

Immediate Goals:

- Conduct a successful Eighteenth Convocation in Canada in 2009 and a successful Nineteenth Convocation in Mexico in 2011; and
- Address issues of common concern to the member academies at annual Council meetings and supporting workshops.

Consolidate and strengthen CAETS advisory/ consultative role and working relations with relevant engineering/scientific/technological organizations of the United Nations System, the InterAcademy Council, the International Council of Scientific Unions, the World Federation of Engineering Organizations, and other non-governmental partners.

CAETS has developed initial working relations with the United Nations Educational, Scientific and Cultural Organization (UNESCO), its Intergovernmental Oceanographic Commission (IOC) and the World Meteorological Organization (WMO). Initial contacts have also been made with the Food and Agriculture Organization (FAO), the UN Development Programme (UNDP), the UN Environment Programme (UNEP) and the UN Commission for Sustainable Development (CSD).

CAETS provides input, through Observer capacity representation at governing body sessions, to UNESCO, IOC and WMO. CAETS member academies have advised their national delegations to the governing bodies of these organizations, including sessions of the General Conference of UNESCO and the World Meteorological Congress.

CAETS intends to strengthen and broaden these working relations in coming years. In particular, CAETS will:

- Explore the scope for working relations with other relevant UN bodies;
- Regularly brief the Executive Heads of UN System bodies on CAETS role and activities, such as through provision of the latest versions of the "Introduction to CAETS;"
- Invite key UN System bodies to attend sessions of CAETS Council as observers;
- Complement the efforts of CAETS member academies by alerting them to relevant engineering/scientific/technological developments and issues in the UN System and assisting with their input to national briefs and delegations to relevant UN System activities, including the UN Millennium Development Goals; and
- Strengthen its working relations with ICSU, IAC and WFEO and collaborate closely in joint relations with the UN System.

In the shorter term (over the next two years) CAETS will:

- Evaluate its experience of working with UNESCO, IOC and WMO as a guide to future involvement with them and with other elements of the UN System;
- Arrange CAETS representation at governing body sessions of other UN organizations as appropriate;

- Review its working relations with ICSU, IAC and WFEO; and
- Develop proposals for specific joint projects with at least one UN System organization and one non-governmental partner.

Build global capacity for technological advice and consultation by fostering, strengthening and increasing the number of academies of engineering and technological sciences worldwide.

Representatives of CAETS member academies should be more proactive in contacting emerging engineering bodies and academies in other countries. CAETS should encourage the creation of new academies of engineering in countries where none exists. In those countries where it is unlikely that separate engineering academies will be established in the near to intermediate term, special arrangements should be adopted with a view to enabling engineering subgroups of Academies of Science to be active in CAETS.

For many academies, which derive their major income from personal membership, the dues to CAETS may be an important obstacle to active membership. CAETS should therefore maintain a dues structure which facilitates their membership.

Over the next two years CAETS will:

- Continue implementation of specific strategies to increase its membership by 50% by 2012, without altering its criteria for membership; and

- Develop a list of possible candidate academies from Asia, Africa, the Middle East, South America and countries which were part of the former USSR based on proactive member academy contact with engineering bodies in these regions.

Help member academies deal more effectively with their own national issues and academy operational issues through organized presentations and discussions at annual Council meetings.

Experience has shown that there are a number of issues of common concern among member academies; for example engineering education has received attention on an almost regular basis at annual Council meetings. When merited, such an issue should be the subject of an organized portion of a Council meeting for discussion, possibly followed by a workshop, to assist participating member academies to better deal with the issue in their own countries.

Immediate Goal:

- Members of the Board of Directors will lead Council discussions on topics of common concern to benefit those member academies interested in the subject.

Member Academies

Founding Member Academies (1978)

Australian Academy of Technological Sciences and Engineering (ATSE)
[Formerly Academy of Technological Sciences (ATS)]

Royal Academy of Engineering of the United Kingdom (RAEng)
[Formerly the Fellowship of Engineering (FoE)]

Academy of Engineering (Mexico) (AI)
[Formed in 2002 by a merger of the National Academy of Engineering
(ANI, Founding Member) and the Mexican Academy of Engineering (AMI)]

National Academy of Engineering (United States) (NAE)

Royal Swedish Academy of Engineering Sciences (IVA)

Elected Member Academies

Year Elected

Danish Academy of Technical Sciences (ATV) 1987

Swiss Academy of Engineering Sciences (SATW) 1988

National Academy of Technologies of France (NATF) 1989
[Formerly Council for Applied Sciences of the French Academy of Sciences (CADAS)]

The Finnish Academies of Technology (FACTE) 1989
[Represents the Finnish Academy of Technology and the Swedish
Academy of Engineering Sciences in Finland]

The Engineering Academy of Japan (EAJ) 1990

Royal Belgian Academy Council of Applied Sciences (BACAS) 1990

The Norwegian Academy of Technological Sciences (NTVA) 1990

Canadian Academy of Engineering (CAE) 1991

Netherlands Academy of Technology and Innovation (AcTI.nl) 1993
[Formerly Netherlands Society of Technological Sciences and Engineering (NFTW)]

Hungarian Academy of Engineering (HAE) 1995

Chinese Academy of Engineering (CAE) 1997

Ukrainian Academy of Engineering Sciences (UAES) (Inactive) 1998

Academy of Engineering in Poland (AIP) (Inactive) 1998

National Academy of Engineering (Argentina) (ANI) 1999

Engineering Academy of the Czech Republic (EA CR) 1999

Indian National Academy of Engineering (INAE) 1999

Royal Academy of Engineering of Spain (AIE) 1999

The National Academy of Engineering of Korea (NAEK) 2000

Croatian Academy of Engineering (HATZ) 2000

Slovenian Academy of Engineering Sciences (IAS) (Inactive) 2000

National Academy of Engineering of Uruguay (ANIU) 2000

German Academy of Science and Engineering (acatech) 2005

The Growth of CAETS

1978 - 2008

Washington, D.C., United States, 1978

During the early 1970s, members of the U.S. National Academy of Engineering (NAE) and the Royal Swedish Academy of Engineering Sciences (IVA) discussed the notion that occasional meetings of engineering academy leaders would benefit all organizations involved. On October 31, 1978, that notion became reality when the NAE (US) organized and chaired the 1st International Convocation of Academies of Engineering and Similar Institutions in Washington, D.C. Representatives from the Australian Academy of Technological Sciences (ATS); the Danish Academy of Technical Sciences (ATV); the Academy of Engineering (ANI, Mexico); the Fellowship of Engineering of the United Kingdom (FoE); the U.S. National Academy of Engineering (NAE); the Royal Swedish Academy of Engineering Sciences (IVA); and the Finnish Academies of Technology (FACTE). Engineers from Israel and India were also present. In addition to presentations on the respective academies' histories, functions, and objectives, the participants discussed the relationships of an engineering academy to its own national society, its sister academy of sciences, and to other national academies of engineering. IVA was asked to chair a planning committee to organize a second convocation.

Melbourne, Australia, 1980

ATS (Australia) hosted the 2nd Convocation of Engineering and Like Academies in Melbourne on April 8-9, 1980. Representatives from the academies of Sweden, the United States, the United Kingdom, Mexico, and Australia addressed the theme, while participants from Yugoslavia, India, and Japan also made statements. The participants agreed to establish an informal secretariat for information exchange among

the interested academies, and NAE (US) agreed to be its host.

Oaxaca, Mexico, 1981

ANI (Mexico) hosted the 3rd Convocation of Engineering Academies and Like Organizations in Oaxaca on September 21-22, 1981. Participants gave presentations on national developments in engineering education. At the meeting's end, the participants decided that some structure for this loose "international federation" would be useful. A Steering Committee was formed with ATS (Australia) as president, ANI (Mexico) as vice president, and IVA (Sweden) and NAE (US) as members.

Stockholm, Sweden, 1983

IVA (Sweden) hosted the 4th Convocation of Engineering Academies in Stockholm on May 29-June 1, 1983. Using a revised format, each of the five academies organized a session with three or four speakers. It was not necessary that all speakers be from CAETS member countries. At its meeting following this convocation, the Steering Committee agreed that in view of growing interest and participation by other engineering academies it would be useful to form an umbrella organization. The organization, called the Convocation of Academies of Engineering and Technological Sciences, would have a president and vice president; these positions would rotate among members every two years, and the president's academy would host the convocation. ANI (Mexico) was named president and NAE (US) the vice president. NAE (US) agreed to provide the Convocation Secretariat, and guidelines for the Convocation's organization and attendance were adopted. Further, the Fellowship of Engineering of the United Kingdom (FoE) was invited to join the Steering Committee.

Washington, D.C., United States, 1983

The Steering Committee met again on November 3, 1983 in Washington, D.C. In addition to discussing the location and theme of the next convocation, committee members considered the objectives, nature, and character of the organization, as well as the criteria and method for admitting new members. The Steering Committee asked ANI (Mexico) and NAE (US) to prepare a draft document of objectives and rules for discussion at the next Steering Committee meeting.

London, England, 1985

The FoE (UK) hosted the 5th Convocation in London on June 10-14, 1985. At the meeting that followed, Steering Committee members considered the draft rules prepared by ANI (Mexico) and NAE (US). The group made a number of changes and asked that a revised version be prepared. At the end of the meeting, NAE (US) became the president and ATS (Australia) the vice president.

Washington, D.C., United States, 1985

The Steering Committee met in Washington, D.C., on October 4, 1985, to plan the 6th Convocation and to consider the revisions to the draft rules. After making additional changes, the Committee adopted the General Rules of the Council of Academies of Engineering and Technological Sciences (CAETS). The General Rules provided for a Governing Board of the Council to include a representative of each member academy. The Board began with the five founding members: the Australian Academy of Technological Sciences and Engineering (ATS); The Fellowship of Engineering of the United Kingdom (FoE); the National Academy of Engineering of Mexico (ANI); the U.S. National Academy of Engineering (NAE); and the Royal Swedish Academy of Engineering Sciences (IVA).

Washington, D.C., United States, 1987

The NAE (US) hosted the 6th Convocation in Washington, D.C., on May 30-April 1, 1987. The format was more integrated, with speakers invited from other member academies. At the Governing Board meeting following the Convocation, the Council elected the Danish Academy of Technical Sciences (ATV) to membership. Denmark was placed at the bottom of the rotation list, the mechanism used to identify the member academies which would serve as president and host a convocation in the future.

Sydney, Australia, 1988

ATS (Australia) hosted the 7th Convocation in Sydney on October 12-14, 1988. At its meeting on October 16, 1988, the Governing Board approved the first CAETS Financial Policy, with the principle of equal cost-sharing by members for operations. The Board also considered membership applications from the Swiss Academy of Engineering Sciences (SATW), the Council for Applied Sciences of the French Academy of Sciences (CADAS), the Norwegian Academy of Technological Sciences (NTVA), and the Finnish Academies of Technology (FACTE). It admitted SATW, bringing total membership to seven. It postponed considering CADAS' and NTVA's applications until it received more information about their activities. Further, FACTE's application was deferred to a later meeting because of inadequate time for its review.

Stockholm, Sweden, 1989

At its October 29, 1989 meeting in Stockholm, the Governing Board convened a Working Group to review the structure and operation of CAETS in light of the prospective increase in membership, and to review the General Rules and suggest appropriate revisions. The Board elected CADAS (France) and FACTE (Finland) to membership, bringing total membership to nine.

Copenhagen, Denmark, 1990

The Working Group met in Copenhagen on June 7-8, 1990, and recommended amendments to the General Rules. Included in its recommendations were that the Governing Board continue to include all CAETS member academies; the positions of president and first vice president each have two-year terms; the position of vice president/secretary be filled by Board appointment; and voting by written proxy be permitted on all specific Board action items. The Steering Committee would now consist of the president, first vice president, vice president/secretary, and the past president.

Acapulco, Mexico, 1990

ANI (Mexico) hosted the 8th Convocation in Acapulco on November 6-9, 1990. The format included three plenary topics, followed by three working groups, each dealing with one of the plenary topics and preparing views for consideration at the closing plenary. At its meeting on November 9, the Governing Board decided that the consensus conclusions and findings of the closing plenary session deserved international dissemination as a special CAETS report. The report, "Harnessing Technology for Development: A Summary of the Eighth Convocation," served as a summary of the Convocation and was well received.

In other action on November 9, the Board approved the recommendations of the Working Group (Copenhagen, June 7-8, 1990), thus amending the General Rules. The Board also elected to membership the Engineering Academy of Japan (EAJ), the Royal Belgian Academy Council of Applied Sciences (BACAS), and the Norwegian Academy of Technical Sciences (NTVA), bringing the total membership to 12.

Paris, France, 1991

The Governing Board met in Paris, France on September 12, 1991. The Board approved creating a CAETS Reserve Fund, with all current members contributing \$2,000 (US) and each new member academy contributing the same amount upon election to mem-

bership. The fund would be used sparingly for special projects, such as printing CAETS reports. Also at this meeting, the Governing Board elected the Canadian Academy of Engineering (CAE) to membership.

Copenhagen, Denmark, 1992

ATV (Denmark) hosted the 9th Convocation in Copenhagen on May 19-22, 1992. At its meeting on May 23, 1992, the Board reviewed CAETS' growth, increasing costs, encouragement and selection of new members, and mode of operations. The president convened a Working Group to report its findings at the next Board meeting.

Trondheim, Norway, 1992

The Working Group met on November 10-11, 1992 in Trondheim and recommended that CAETS continue to operate with minimum bureaucracy and at low costs and that meetings of the Governing Board should be held annually and include all member academies. Attendees agreed that the rotation list was working well as the basis for officer selection and convocation host.

Irvine, California, United States, 1993

The Governing Board met on January 8, 1993 in Irvine, California. The Trondheim report was presented and approved as principles for CAETS operations. In response to member academies' expressed interests, this meeting was scheduled for a full day, rather than the usual half-day. In addition to the business portion of the agenda, half of the meeting was devoted to discussion of member academy activities and issues each considered to be high priority.

Zurich, Switzerland, 1993

SATW (Switzerland) hosted the 10th Convocation in Zurich on September 14-18, 1993. The Board approved the Guidelines for CAETS Operations and changes to the General Rules and Financial Policy at its September 17 meeting. Included in the Guidelines

were statements of guiding principles and recommendations for CAETS operations, convocations, finances, products, association with member activities, and institutional associations. The Guidelines were meant to amplify portions of the General Rules and to document statements of policy derived from the General Rules and from Board decisions. The Board also elected the Netherlands Society of Technological Sciences and Engineering (NFTW) as the 14th Council member.

Helsinki, Finland, 1994

At its meeting on October 31, 1994 in Helsinki, the Board decided that a draft policy paper on “Engineering and Environment” should be prepared to represent the CAETS position on this important international issue. The paper, to be drafted initially by NAE (US), would be based on the contributions of member academies, circulated before the next convocation, discussed at that meeting, and revised in light of that discussion.

Kiruna, Sweden, 1995

IVA (Sweden) hosted the 11th Convocation in Kiruna on June 18-21, 1995. The Governing Board meeting that followed on June 22 was held in two sessions. During the first session, the Board elected the Hungarian Academy of Engineering (HAE) as the 15th Council member. During the second session, the Board reviewed the third draft of the “Engineering and Environment” document, considered additional suggestions and adopted a final document, which was signed by the member academy representatives present.

Tokyo, Japan, 1996

The Governing Board met in Tokyo on September 13, 1996, following the Engineering Academy of Japan’s 4th International Symposium. The Board approved revisions to the General Rules, the Financial Policy, and the Guidelines for CAETS Operations. Thereafter, each member reviewed its programs and plans and identified its high-priority issues. In light of interests

expressed by many of the member academies, the Board decided that two hours of the next Board meeting would be devoted to a discussion of engineering education. The RAEng (UK) representative agreed to prepare a short issue paper to help focus the discussion.

Edinburgh, Scotland, 1997

The RAEng (UK) hosted the 12th Convocation in Edinburgh on May 21-23, 1997. Governing Board members continued discussion of engineering education at the the Governing Board meeting on May 23. In response to the query on how CAETS could best contribute to the broad array of concerns expressed by the members, NFTW (Netherlands) offered to take the lead in setting up a CAETS Working Party. The Board also approved the formation of a CAETS Strategy Review Group (SRG) to consider the future direction of CAETS, its objectives, organization and management, membership, activities, and international associations. The SRG, consisting of the Steering Committee and representatives of interested member academies, would present its findings at the 1998 Board meeting. The Chinese Academy of Engineering (CAE) was elected to membership at this meeting.

London, England, 1997

The SRG met in London on September 23-24, 1997. The report of its discussion included mission and objectives; relationship to international bodies and external partners; process of convocations; criteria for membership; regional groupings within CAETS; organizational changes; and financial arrangements.

Ottawa, Canada, 1998

The Governing Board met in Ottawa on June 5, 1998 and adopted the SRG’s recommended changes to the General Rules and Guidelines for Operations. The changes included adopting a mission statement for CAETS: “To foster effective contributions to engineering and technological progress for the benefit of societies of all nations.” The Board also received the summary report of the Working Party on engineering

education from NFTW and asked that NFTW formulate its report into a document to be reviewed at the next meeting before being distributed to all members.

On review of the Financial Policy, the Board adopted a change to the annual assessments to the CAETS Operating Fund (COF), effective in Fiscal Year 1999. The change provided for a level assessment (\$3,000 US), not to be exceeded for several years. An annual budget continues to be presented for Board review and approval, and any balance remaining in the Operating Fund at the end of a fiscal year is added to the CAETS Reserve Fund.

Also at this meeting, the Ukrainian Academy of Engineering Sciences (UAES) and the Academy of Engineering in Poland (AIP) were elected as the 17th and 18th members of CAETS. The Indian National Academy of Engineering's application was deferred without prejudice until after the CAETS Steering Committee could visit the academy, to follow a new policy that CAETS send a delegation to visit applicant academies before their election.

Sophia Antipolis, France, 1999

CADAS (France) hosted the 13th Convocation in Sophia Antipolis on May 24-27, 1999. On May 28, the Governing Board discussed and accepted NFTW's draft report on engineering education. The final report was published and copies were sent to all members and several non-member academies.

The CAETS membership increased to 22 academies at this meeting, with the election of the National Academy of Engineering of Argentina (ANI), the Engineering Academy of the Czech Republic (EA CR), the Indian National Academy of Engineering (INAE), and the Academy of Engineering of Spain (AIE). The National Academy of Engineering of Korea's application was deferred until after a CAETS delegation could visit Korea.

The Board created another Strategy Task Group (STG) to consider various options for the future functioning of CAETS. The STG was charged with making proposals and recommendations available for Board review at its meeting in October 2000. The vice president/secretary was asked to prepare a Statement of Purpose for the STG meeting.

Stockholm, Sweden, 1999

On October 21, 1999, the Steering Committee met in Stockholm and accepted the draft prepared by the vice president/secretary. The STG meeting was scheduled for Paris during March 27-29, 2000. The draft was distributed to member academies for comment. The revised Statement of Purpose, with member comments enclosed, was sent to all members.

Paris, France, 2000

During the Paris meeting, the Strategy Task Group agreed to incorporate CAETS in the District of Columbia, US, subject to approval by the Governing Board. It also agreed to consider incorporating in the United Kingdom or Switzerland, if doing so would be advantageous to CAETS. Draft Articles of Incorporation and Bylaws were discussed. It was agreed that these would be based on current CAETS General Rules and Guidelines, with several significant exceptions. The senior body would be the Council, which would consist of one representative from each member academy. The Board of Directors would include the five officers and a certain number of additional member academy representatives. The terms of the president, president-elect, vice president, and past president would be for one year; the secretary-treasurer would continue to be provided by a member academy and subject to Council approval. The transition to one-year terms from the two-year terms for officers should maintain the existing commitments to member academies for hosting convocations through 2007 by amending the rotation list, as mutually agreed to by member academies, and also include hosts for Council

meetings and presidents for the non-convocation years. The name of the organization would include the word “international,” and the acronym “CAETS” would continue to be used. Revised documents would be circulated by e-mail for member comments and agreement.

On June 30, 2000, CAETS was incorporated in the District of Columbia as the International Council of Academies of Engineering and Technological Sciences, Inc. (CAETS).

Beijing, China, 2000

The CAETS Governing Board met on Friday, October 13, 2000, following an international three-day Convocation on Engineering and Technological Sciences in Beijing hosted by the Chinese Academy of Engineering. The Board approved the incorporation of CAETS and approved the Bylaws, with the exceptions that the vice president position was eliminated to make the “presidential ladder” three years; and the Board of Directors would include four officers and four members. The new Bylaws would take effect on January 1, 2001. In addition, the Governing Board agreed to consider undertaking a CAETS study on energy and climate change. Two committees would be formed; one would prepare a scope of work for the study, and the second would prepare general study procedures for CAETS. Finally, the National Academy of Engineering of Korea (NAEK), the Croatian Academy of Engineering (HATZ), the Slovenian Academy of Engineering Sciences (IAS), and the National Academy of Engineering of Uruguay (ANIU) were elected to membership at this meeting, bringing total membership to 26.

Espoo, Finland, 2001

The 14th Convocation was held in Espoo Finland on June 11-15, 2001. At its meeting on June 11, the CAETS Council agreed to the procedure for selecting members of the Board of Directors: using the rotation list, every fifth member academy below that holding

the office of president-elect, up to a total of four, would provide a director. The Council also approved the CAETS Operating Procedures and creation of an Audit Committee, and agreed in principle to a draft Study Procedures.

Prague, Czech Republic, 2002

The Annual Council meeting in 2002 was held in Prague and hosted by the Engineering Academy of the Czech Republic. The Committee’s scope of work for the proposed CAETS study on energy and climate change did not gain the support of a majority of member academies. It was agreed that CAETS’ interests in the subject would be devoted to working with NTVA (Norway) on its “Future Energy and Sustainable Use” seminar, to be held in conjunction with the CAETS Council meeting in May 2004.

Hollywood, California, United States, 2003

On the CAETS 25th anniversary, NAE (US) hosted a successful 15th CAETS Convocation in Hollywood, California on May 18-22, 2003. The topic was “Entertaining Bytes” and dealt with the interaction of computers, simulated environmental experience and training and entertainment. At the Council meeting that followed, members approved a Board recommendation on Inactive Status, which is included in the CAETS Operating Procedures. Member academies were asked to prepare papers on specific topics, to be included in a CAETS project on Outstanding Engineering Challenges. This project targeted high school students and the general public and focus on how engineering can improve the quality of life of all peoples.

Stavanger, Norway, 2004

The CAETS Council met on May 28, 2004 in Stavanger, Norway, after a two-day seminar on “Global Energy Foresight.” The seminar papers presented, along with other invited papers, were published. At the meeting, the President encouraged that CAETS under-

take more dynamic activities in the future. To be a more global organization, additional members are needed. Toward that end, the President encouraged member academies to promote the creation of national academies of engineering in neighboring countries and to take other steps to promote CAETS membership. To be more dynamic, additional funds are needed.

Cairns, Queensland, Australia, 2005

ATSE hosted a well-received and informative 16th CAETS Convocation in Cairns, Queensland, Australia, July 10-14, 2005. The Convocation theme was “Oceans and the World’s Future.” The Council discussed a draft reflecting the papers and discussion of the Convocation and agreed to a CAETS Statement titled the same as the Convocation theme. The Council voted unanimously to elect the German Academy of Technical Sciences (acatech) to membership in CAETS. The Council discussed a draft Strategy 2006 – 2010. The Council also agreed to establish the Committee on International Organizations (CIO) and the Committee on CAETS Membership (CCM). In light of the majority support, the Council agreed to a tiered structure. Finally, the Council agreed NAE (US) should continue to host the CAETS Secretariat.

Brussels, Belgium, 2006

The 2006 CAETS Council meeting was held in Brussels, Belgium on Friday, June 2, following a BACAS symposium on “Clean Energy, including the Hydrogen Economy.” The Council discussed a draft reflecting the papers and discussion of the symposium and agreed to a CAETS Statement on “The Role of Hydrogen in Our Energy Future.” The President noted that distribution of the CAETS Statement “Oceans and the World’s Future,” comments of visiting academy representatives, the reports of the CAETS Committee on International Organizations (CIO) and the Committee on CAETS Membership (CCM), and the cooperative relations with several international organi-

zations served to further the priorities and goals of the CAETS Strategy 2006-2010, which had been published and distributed. The Council agreed that cooperation with WMO should continue and that cooperation with WFEO should also be undertaken. The Council also agreed to CAETS’ endorsement of the INAE proposed International Conference on “Engineering Education,” to be held in Chennai, India, in January-February 2007.

Tokyo, Japan, 2007

The successful 17th Convocation, hosted by EAJ in Tokyo, Japan, October 23-26, 2007, focused on “Environment and Sustainable Growth.” A procedure was agreed for developing a CAETS Statement and followed, producing the CAETS Statement reflecting the theme, papers and discussions of the Convocation. The Council agreed to a Bylaw amendment to extend the term of Members of the CAETS Board of Directors to two years, to permit greater involvement of Board members in the management of substantive discussion topics during Council meetings. The Council agreed to a proposal by IVA for a workshop on “Noise Control Technologies;” to a proposal by SATW on “Strategies for Highly Efficient Conversion and Reuse of Matter and/or Energy;” and to a proposal by ATSE for a project on “Accelerating the Response to Climate Change.”

2008 Highlights

AcTI.nl will host an international symposium on “Delta Technology: Enabling Life in River Deltas” in Delft, Netherlands, June 26, 2008. The CAETS Council meeting will be held in The Hague on June 27, 2008.

Officers & Members of the Board of Directors

CAETS Officers 1978 to 2000 Convocation Steering Committee 1978 – 1985

Chairman	1978	N. Bruce Hannay	NAE, United States	<i>* Served as vice president the previous year.</i>
	1978-1981	Gunnar Hambraeus	IVA, Sweden	
President*	1981-1983	Robert Ward	ATS, Australia	
	1983-1985	Alejandro Lopez Toledo	ANIAC, Mexico	
Secretary	1980-1985	Hugh Miller	United States	

Council of Academies of Engineering and Technological Sciences 1985 – 2000

President*	1985-1987	H. Guyford Stever	NAE, United States	<i>* Served as vice president (1985-1990) or first vice president (1991-1999) the preceding two years and past president the subsequent two years; exceptions noted for 1996 and 1999.</i>
	1987-1988	David Zeidler	ATS, Australia	
	1988-1990	Marco Murray Lasso	ANIAC, Mexico	
	1991-1992	Erik B. Rasmussen	ATV, Denmark	
	1993-1994	Luc Tissot	SATW, Switzerland	
	1995-1996	Hans G. Forsberg	IVA, Sweden	
	(to 9/13/96)	First V.P. William Barlow	RAEng, UK	
	1997-1998	David E.N. Davies	RAEng, UK	
	1999- 2000	Michel Lavalou	CADAS, France	
	(to 12/31/99)	First V.P. Juhani Ahava	FACTE, Finland	
Vice President/	1985 to 1999	Steven N. Anastasion	United States	
Secretary	2000	William C. Salmon	United States	

CAETS Officers and Members of the Board of Directors (from January 1, 2001)

International Council of Academies of Engineering and Technological Sciences, Inc. (CAETS)

President*	2001	Jaakko Ihamuotila	FACTE, Finland	<i>* Serves as president-elect the preceding year and past president the following year.</i>
	2002	Petr Zuna	EACR, Czech Republic	
	2003	Wm. A. Wulf	NAE, United States	
	2004	Arne Bjørlykke	NTVA, Norway	
	2005	John Zillman	ATSE, Australia	
	2006	Achiel Van Cauwenberghe	BACAS, Belgium	
	2007	Jun-ichi Nishizawa	EAJ, Japan	
	2008	Gerard van Oortmerssen	AcTI.nl, Netherlands	
Secretary	2001 -	William C. Salmon	United States	

Members of the Board of Directors

2001	Tomokazu Tokuda	EAJ, Japan	Hans Leuenberger	SATW, Switzerland
	David Davies	RAEng, United Kingdom	Juraj Bozicevic	HATZ, Croatia
2002	Raul Flores Berrones	AI, Mexico	Jeno Baratossy	HAE, Hungary
	Anumolu Ramakrishna	INAE, India	Ki-Jun Lee	NAEK, Korea
2003	Claude Lajeunesse	CAE, Canada	Lena Torell	IVA, Sweden
	Andres Ripoll	RAI, Spain	Alvaro Cutinella	ANIU, Uruguay
2004	Torben Klein	ATV, Denmark	XU Kuangdi	CAE, China
	Arturo J. Bignoli	ANI, Argentina	Germain Sanz	NATF, France
2005	Ben Veltman	NFTW, Netherlands	Alec Broers	RAEng, UK
	Ki Jun Lee	NAEK, Korea	Zlatko Kniewald	HATZ, Croatia
2006	Gerardo Ferrando-Bravo	AI, Mexico	Rene Dandliker	SATW, Switzerland
	R.Natarajan	INAE, India	Asko Saarela	FACTE, Finland
2007 ¹	Pan Yunhe	CAE, China	Pere Brunet	AIE, Spain
	Bruno Jarry	NATF, France	Petr Zuna	EA CR, Czech Republic
2008 ²	János Ginsztler	HAE, Hungary	Lena Treschow Torell	IVA, Sweden
	Oscar A. Vardé	ANI, Argentina	Eduardo R. Alvarez Mazza	ANIU, Uruguay

¹ Member is encouraged to participate as Board member; without vote, in 2008.

² Term of office is two years, this year and the next.

CAETS Statements

Based on the presentations and discussions at the respective meetings, these Statements reflect the collective judgment of the CAETS member academy representatives and other experts present, with the texts agreed at the Council meeting.

- 2005 Oceans and the World's Future
- 2006 The Role of Hydrogen in Our Energy Future
- 2007 Environment and Sustainable Growth

CAETS Reports

The producing organization and, where different, the publisher is listed.

- 1987 The International Meeting on Engineering Education for the 21st Century; Proceedings; The Fellowship of Engineering, United Kingdom
- 1991 Report of the Third Workshop on Engineering Education; The Fellowship of Engineering, United Kingdom
- 1991 Harnessing Engineering and Technology for Economic Growth: Opening the Dialogue Between the Engineering Communities of the East and West; Summary Report of the Budapest Conference; National Academy of Engineering, United States

Harnessing Technology for Development; Summary Report of the Eighth Convocation; National Academy of Engineering, United States
- 1992 Technical Resource Information for Central and Eastern Europe; National Academy of Engineering, United States
- 1993 The Role of Technology in Environmentally Sustainable Development; Declaration of the Council of Academies of Engineering and Technological Sciences; Royal Swedish Academy of Engineering Sciences (Edition for the 1996 UN Conference on Human Settlements [HABITAT II] published by the National Academy of Engineering, United States)
- 1994 Engineering Education Report of the Working Party; Netherlands Academy of Technology and Innovation (formerly Netherlands Society of Technological Sciences and Engineering); published by CAETS
- 2004 Global Energy Foresight; The Norwegian Academy of Technological Sciences; published by CAETS
- 2006 Clean Energy for this Century, Royal Belgian Academy Council of Applied Sciences (BACAS)
- 2007 International Engineering Education; Indian National Academy of Engineering

Proceedings of CAETS Convocations

- 1980** The Management of Technological Change; Proceedings of the Second Convocation; Australian Academy of Technological Sciences and Engineering
- 1981** Engineering Education; Proceedings of the Third Convocation; National Academy of Engineering, Mexico
- 1983** Important Technological Trends; Proceedings of the Fourth Convocation; Royal Swedish Academy of Engineering Sciences
- 1985** The Global Interaction of Technology; Proceedings of the Fifth Convocation; The Fellowship of Engineering, United Kingdom
- 1987** Globalization of Technology: International Perspectives; Proceedings of the Sixth Convocation, National Academy of Engineering, United States
- 1988** Technology for Living on the Frontiers; Proceedings of the Seventh Convocation Australian Academy of Technological Sciences and Engineering
- 1990** Harnessing Technology for Development; Proceedings of the Eighth Convocation; National Academy of Engineering, Mexico
- 1992** The Technological Future; Proceedings and Executive Summary of the Ninth Convocation; Danish Academy of Technical Sciences
- 1993** Sustainable Development: The Challenge of Developing Transportation for Society; Proceedings of the Tenth Convocation (with SATW supplement on Sustainable Mobility); Swiss Academy of Engineering Sciences
- 1995** Creating Wealth In Harmony With the Environment; Proceedings of the Eleventh Convocation; Royal Swedish Academy of Engineering Sciences
- 1997** Engineering Innovation & Society; Proceedings of the Twelfth Convocation; The Royal Academy of Engineering, United Kingdom
- 1999** Technology and Health; Proceedings of the Thirteenth Convocation; Council for Applied Sciences of the French Academy of Sciences
- 2001** World Forests and Technology; Proceedings of the Fourteenth Convocation; The Finnish Academies of Technology
- 2003** Entertaining Bytes; Proceedings of the Fifteenth Convocation; National Academy of Engineering, United States (CD only)
- 2005** Oceans and the World's Future; Proceedings of the Sixteenth Convocation; Australian Academy of Technological Sciences and Engineering, Australia
- 2007** Environment and Sustainable Growth; Proceedings of the Seventeenth Convocation; The Engineering Academy of Japan

The CAETS Rotation Schedule

(as of January 1, 2008, with actual 2001-2008 and scheduled 2009-2011 positions)

This schedule is updated each January 1. The member academy at the top of the list provides the president and hosts the Annual Meeting of the Council, as well as a Convocation on odd-numbered years. The second member academy on the list provides the president-elect.

When elected, new member academies are placed at the bottom of the list in the order completed applications are received. At the end of the year, the member academy providing the president goes to the bottom of the list and provides the past president for the next year.

The Council elects the members of the Board of Directors for the next year at its annual meeting. Member academies with representatives on the Board must be members in good standing. Members served one-year terms until 2008, and two-year terms thereafter. Terms begin January 1 and end December 31. By mutual agreement and with approval from the Board of Directors, member academies may exchange places on the schedule.

Member Academy	Office and Year*	Host of Meeting
AcTI.nl, Netherlands	BM 05, PE 07, P 08, PP 09	2008 Annual Meeting
CAE, Canada	BM 03, PE 08, P 09, PP 10	2009 Convocation, 18th
ATV, Denmark	BM 04, PE 09, P 10, PP11	2010 Annual Meeting
AI, Mexico	BM 02, BM 06, PE 10, PP11	2011 Convocation, 19th
SATW, Switzerland	BM 01, BM 06, PE11	
HAE, Hungary	BM 02, BM 08	
IVA, Sweden	BM 03, BM 08	
CAE, China	BM 04, BM 07, BM 11	
RAEng, United Kingdom	BM 01, BM 05, BM 10	
INAE, India	BM 02, BM 06, BM 10	
AIE, Spain	BM 03, BM 07	
ANI, Argentina	BM 04, BM 08	
NAEK, Korea	BM 02, BM 05, BM 09	
HATZ, Croatia	BM 01, BM 05, BM 09	
ANIU, Uruguay	BM 03, BM 08	
NATF, France	PP 01, BM 04, BM 07, BM11	
FACTE, Finland	P 01, PP 02, BM 06, BM 10	2001Convocation, 14th
EA CR, Czech Republic	P 02, PP 03, BM 07	2002 Annual Meeting
NAE, USA	P 03, PP 04, BM 09	2003 Convocation, 15th
NTVA, Norway	PE 03, P 04, PP 05, BM 10	2004 Annual Meeting
acatech, Germany	BM 09	
ATSE, Australia	PE 04, P 05, PP 06, BM11	2005 Convocation, 16th
BACAS, Belgium	PE 05, P 06, PP 07	2006 Annual Meeting
EAJ, Japan	BM 01, PE 06, P 07, PP 08	2007 Convocation, 17th

*P – President; PE – President-elect; PP – Past President; BM – Board Member