

**ASSOCIATION INTERNATIONALE DES TRAVAUX
EN SOUTERRAIN**

INTERNATIONAL TUNNELLING ASSOCIATION

Compte Rendu de la 30^{ème} Assemblée Générale

SINGAPOUR

23 – 26 mai 2004

Report of the 30th General Assembly

SINGAPORE

23 – 26 May 2004

The 30th meeting of the General Assembly of the ITA Member Nations was held in Singapore on 23 and 26 May 2004 under the presidency of André ASSIS (Brazil), assisted by the Executive Members.

VOTING REPRESENTATIVES

SOUTH AFRICA	Alan R. KOCKOTT
ALGERIA	--
GERMANY	Fritz GRÜBL
SAUDI ARABIA	--
AUSTRALIA	Peter KESSLER
AUSTRIA	Peter GÖBL
BELGIUM	Willy de LATHAUWER
BRAZIL	Tarcisio CELESTINO
BULGARIA	Tzolo VOUTOV
CANADA	Rick P. LOVAT
CHILE	--
CHINA	GUO Shan Yuan
COLOMBIA	--
SOUTH KOREA	IN-MO Lee
CROATIA	--
DENMARK	Jorgen HOLST
EGYPT	M.E. ABDEL SALAM
SPAIN	Miguel F-B MARTINEZ
UNITED STATES OF AMERICA	Susan NELSON
FINLAND	Ilkka VÄHÄAHO
FRANCE	Jean PHILIPPE
GREECE	Nikolaos KAZILIS
HUNGARY	Tibor HORVATH
INDIA	--
INDONESIA	Gandhi HARAHAP
IRAN	--
ICELAND	--
ISRAEL	--
ITALY	Piergiorgio GRASSO
JAPAN	Korehide MIYAGUCHI
LESOTHO	Khotso MOLETSANE
MALAYSIA	--
MOROCCO	--
MEXICO	--
NORWAY	Einar BROCH (Sunday) / Tore LASSE BY (Wednesday)
NEW ZEALAND	--
NETHERLANDS	Jan SAVEUR
POLAND	Wojciech GRODECKI
PORTUGAL	José Luis MACHADO DO VALE
ROMANIA	Sorin CALINESCU
UNITED KINGDOM	Donald LAMONT
RUSSIA	Sergey VLASOV
SINGAPORE	Oskar SIGL (Sunday) / Rajan KRISHNAN (Wednesday)
SLOVAKIA	Robert TURANSKY
SLOVENIA	Jakob LIKAR
SWEDEN	Tomas FRANZEN
SWITZERLAND	Andreas HENKE
CZECH REPUBLIC	Ivan HRDINA
THAILAND	--
TURKEY	Yücel ERDEM
UKRAINIA	--
VENEZUELA	--
VIETNAM	--

Sunday 23 May

1. Opening speech
2. Approval of the agenda
3. Approval of the minutes of the General Assembly 2003
4. Report of activity of the Executive Council
5. Progress of membership in the Association
6. Report from the Auditor on the conformity of the actions of the Executive Council
7. Report of activity of the Member Nations
8. Communication from Sister International Organizations
9. Presentation of the new website and of the CD Rom of the 30th Anniversary
10. Presentation of the *ita@news* letter
11. Financial report 2003 – Comments and Approval
12. Preparation of the elections of the Executive Members
13. Future General Assemblies
 - 13.1. Istanbul 2005
 - 13.2. Seoul 2006
 - 13.3. Further years: invitations received
14. Preparation of the other decisions of the General Assembly on Wednesday 26 May
 - 14.1. Adjusting of the subscription fees
 - 14.2. Programme of activity of the Association

Wednesday 26 May

15. Election of the Executive Members
16. Report of the Open Session on Tuesday 25 May
17. Working Groups: Reports and projects of activity
18. Appointment of the members of the Committee of Nomination
19. Appointment of the Auditor on the conformity of the actions of the Executive Council
20. Decision concerning the amount of the subscription fees
21. Decision concerning the programme of activity
22. Budgets:
 - 22.1. Draft budgets for 2004 and 2005
 - 22.2. Provisions concerning the provisions concerning the auditing of accounts
23. Choice of the place of the General Assembly 2007
24. Other business
25. Closing speech

A – ASSEMBLY ON SUNDAY 23 MAY

1 – OPENING SPEECH

1.1 Opening speech

President ASSIS welcomed the delegates of the 36 Member Nations represented; he thanked the President of the Singaporean Association for the preparation of the 30th annual meeting of ITA.

1.2 Moral report of the President

It is my honour to open the 30th ITA General Assembly speaking on behalf of the Executive Council (EC) on the activities achieved by our association during this term of office, which is now nearing to the end. For us, EC members, it is important to present to you briefly the evolution of our association, since you voted the Strategy 2000, which defined the directions of the ITA for the future.

In 2001, in Milan (Italy), when you elected us for this term of office, you also commissioned us with the following actions defined by the Strategy 2000:

- The ITA aims at the achievement of being recognised unquestionably as the association leader in subsurface use.

The achievement of this main goal required future actions such as:

- Creation of a permanent secretariat;
- Improvement of communication inside the ITA family (member nations, working groups, Executive Council members and secretariat) and outwards to the external public (general, decision makers, politicians and sister organisations);
- Priority to working groups production, focusing on education and training.

In order to tackle all these tasks, the Executive Council decided to keep the first year of actions (2001-2002) to the creation of the permanent secretariat. The reason for this was that no other actions would be effective without the support of a professional secretariat. With the help and financial support of the Swiss National Group the secretariat started its operation in Lausanne in mid-2002, with the official inauguration on the S. Barbra's day in December of 2002. Today the ITA secretariat encompasses:

- A Secretary-General (half-time paid by the ITA)
- Two half-time secretaries
- A webmaster (20% time)
- An accountant (10% time)
- A technical assistant, in fact a PhD student, put at our disposal by the Austria Member Nation
- An editor of publications for the electronic newsletter (ita@news) and the annual Tribune, working by subcontracts.

Having the professional secretariat set up, the Executive Council concentrated heavily during the last two years (2002-2004) on the improvement of the communication tools of the association. As demonstrated by its demand in the past, the ITA website became the main source of information inside our organisation. So, the idea was to upgrade it and transform it into a much more effective tool. The new website was put in service at the beginning of 2004, and today it concentrates all products and information related to the ITA, which could be of interest of the external public as well the ITA family. Our website is actually the ITA virtual library.

In parallel two main actions have been taken:

- The first one was to complete the files of our virtual library, producing a CD Rom containing all reports, position papers, recommendations, guidelines and so on, published in the past, until now, over the last 30 years, since the creation of the ITA.
- The second action was necessary to improve communication among all, external and internal public, more quickly and efficiently. The electronic newsletter, *ita@news*, came to speed up all news among us and also to call attention to all products deposited in our virtual library, i.e. in the website. After some dummies in 2003, the first issue of the *ita@news* reached you at the beginning of this month (May 2004).

Also related to communication, the booklet *Why Go Underground* was released in 2002, specially prepared focusing on the general public, decision makers and politicians. Unfortunately member nations have not played their proper role yet helping us to disseminate this product among the target people in their countries. In the same line, recently, the ITA has published a position paper on *Private-Public Financing of Underground Structures*.

It is also important to mention that the president, the secretary general and members of the Executive Council engaged themselves in several trips for visiting member nations, closing the gaps of communication and finding out how the ITA and its members could work better together, helping each other.

The third point of action was the Working Groups. Two Working Groups were created (WG 19 and 20) and two closed; in fact WG 4 and 13 merged to create WG 20. This last group is extremely important to our association because it can play important role gathering information that is desirable to the general public, as well quantitative evaluation of indirect benefits of underground structures in urban environment.

A special attention was given to WG 18, improving training and educational actions inside our association and industry. Besides preparing educational material from all reports published by other Working Groups, WG 18 is also engaged in preparing:

- Training actions, short-courses, to be given prior to all ITA-AITES World Tunnel Congress, starting next year in Istanbul, aiming at upgrading the knowledge of professionals;
- The ITA Master Course, defining contents to be followed and disseminated worldwide by the ITA University Network.

My dear member nation delegates, as you could see, many of the tasks and actions you commissioned to the Executive Council three years ago has been followed and executed. Many others have to be implemented and improved. Not only services and communications have increased in the ITA, but also its budget. Since better and more efficient services cost money, our budget today is three times the budget at the beginning of the term of office. Another difficult task was to find the financial resources to cover these expenses. Mainly we have concentrated our efforts in finding new corporate members (CAM), which number increased 30% over the last three years, and also new partners, prime-sponsors and supporters for the website. Through their understanding and co-operation, we could afford all expenses to implement the facilities, communication tools and products you have now at your disposal.

I close my report saying that the Executive Council is now ready to receive from the ITA General Assembly new instructions for consolidating unquestionably the ITA as the leader association for underground space, always promoting its development and use for the benefit of human kind.

2 – APPROVAL OF THE AGENDA

The President reminded the agenda which was approved without amendments.

3 – APPROVAL OF THE MINUTES OF THE GENERAL ASSEMBLY 2003

The minutes of the General Assembly 2003 were approved without amendments.

4 – REPORT OF ACTIVITY OF THE EXECUTIVE COUNCIL

The President reminded that the report of activity was sent to the Member Nations on 29 April (Encl. 1) and asked for the comments from the Assembly.

The Secretary General briefly reminded the main items of the report, and gave the latest news concerning the publication of TRIBUNE and the number of visits on the website, news given at the meeting Communication held on Saturday 22 May.

The representatives of the Member Nations, and particularly the representatives from Egypt and Sweden, congratulated and thanked the Executive Council for letting them examine in advance this report on which no particular comments were given.

5 – PROGRESS OF MEMBERSHIP IN THE ASSOCIATION

5.1. Member Nations

The Association pronounced the admission of two new Member Nations: Indonesia and Vietnam. The Indonesian representative thanked the Assembly for approving the candidature of his country.

The Association pronounced the exclusion of Argentina, for non-payment of the subscription fee for over three years.

The number of Member Nations is therefore raised to 53. (Encl. 2)

5.2. Affiliates

5.2.1. Requests for membership

a) Corporate Members: 10

179	CSM Bessac	France
180	Egyptian Company for Tunnels and Transportation Projects	Egypt
181	IC Consulente Ziviltchniker GmbH	Austria
182	Ove Arup and Partners	United Kingdom
183	Promel Projekt d.o.o.	Croatia
184	WBI GmbH	Germany
185	ANTEA	France
186	Bouygues T.P.	France
187	Lulea University of Technology	Sweden
188	Geodata	Italy

b) Individual Members: 5

324	Luis Medina Rodriguez	Spain
325	Hu Yuejun	China
326	Pierre Aristaghes	France
327	Philippe Autuori	France
328	Martin Knights	United Kingdom

c) The voting delegates of the concerned Member Nations and the General Assembly approved these candidatures.

5.2.2. Resignations

a) Corporate Members: 6

3	NCC AB	Sweden
92	SwedPower	Sweden
120	Interinfra	France
129	Hanson Prof. Serv. Inc	USA
147	Krebs und Kiefer GmbH	Germany
149	Klug and Ass.	USA

b) Individual Members: 10

5	T. Shinohara	Japan (death)
45	Melhem G. Melhem	Lebanon
76	Maurice Gooderham	United Kingdom
101	Gordon Ince	United Kingdom
115	Joseph Huse	France
127	Karl Hausmann	Switzerland
171	Per-Arme Lindqvist	Sweden
213	Mikhael G. Bennett	United Kingdom
242	Björn Sellberg	Sweden
296	Robers Van Ingen	Netherlands

5.2.3. Exclusions

Two exclusions were pronounced, for non-payment of the subscription fee for over three years:

a) Corporate Members: 1

139	ACROTÈRE	France
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b) Individual Members: 1

264	Abo-Seif E.SALAMA	Egypt
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5.2.4. On the proposal of the Executive Council, the General Assembly unanimously approved the *appointment of the following Honorary Affiliate Members:*

- Jean-Paul GODARD, former Vice-President (IAM 83)
- Henk J. C. OUD (IAM 329)
- Jindra HESS, former Vice-President (IAM 330)
- Annica NORDMARK (IAM 331)
- Alfred HAACK, former President (IAM 332)

5.2.5. *The number of Affiliate Members therefore reaches 280 (Corporate: 118 – Individual: 162) (Encl. 3)*

6 – REPORT OF THE AUDITOR ON THE CONFORMITY OF THE ACTIONS OF THE EXECUTIVE COUNCIL

Sorin CALINESCU presented the report of audit hereafter and announced to the Assembly that he is still candidate to pursue this task next year.

The current report outlines the main actions taken by the Executive Council of ITA since the last General Assembly of 2003 in relationship with the targets that were set by the "Strategy 2000" and the relevant decisions made at the General Assemblies.

The internal audit report was asked by the Member Nations in order to have an independent point of view of the actions of the Executive Council for the General Assembly.

In a broader perspective, all the actions and tasks performed had to fulfil and implement the strategic line set by the General Assemblies for "ITA, the unquestioned leader in Subsurface Space".

Into this line of action, one of the most effective measures taken was the establishment of the permanent Secretariat of ITA in Lausanne and the accompanying measures taken for its proper functioning. It should be mentioned here the important role played by the voluntary contribution of the Swiss National Association for the functioning of the permanent Secretariat.

The importance of this action is to be underlined because the permanent Secretariat provided a much needed fixed platform for the development of all other activities of ITA.

The second important thing that happened in the auditor's opinion was the enlarged use of the facilities provided by the current technologies of the information age for the benefit of the tunnelling community.

The new web site of ITA is a nice achievement that has now a professional look and a well structured content that gives an improved image of the association activities.

Improved communication is essential for the proper functioning of a large international association such as ITA and here also e-mail distribution through the permanent Secretariat of the working documents of the Executive Council meetings was of great help even for the internal auditor so he could be informed with all actions taken by the EC without having to attend the EC meetings.

As approved in 2003, the electronic newsletter of the association *ita@news* was issued and distributed to all Member Nations and to all individuals interested. The action is intended as a replacement of the more traditional "Tribune" bulletin.

Unfortunately no action was taken in order to improve communication towards the large general public and the auditor suggests the EC to consider here too a modern approach by setting for example a public electronic discussion list on the internet as a place for public debate of various aspects of general interest in subsurface use.

The auditor had information that progress was made in contacts with sister associations, and the EC members made some steps in approaching some of the most important international financing institutions, related to the problems of subsurface construction financing.

Accompanying actions for getting a higher profile of the ITA activity as unquestioned leader in subsurface use were taken and one of them was to publish in electronic format the most important papers issued by ITA, on the occasion of the 30th Anniversary of the Association.

As one can easily see the actions of the EC were in line with the tasks set by the General Assembly 2003 of ITA and the most important thing is that these actions provide an improved medium for further development of ITA activities.

The President thanked Sorin CALINESCU and, in reply to a question by the representative from the United Kingdom, pointed out that the Executive Council will examine the recommendations presented so as to follow them up in the best possible conditions.

The General Assembly unanimously approved the report presented.

7 – REPORT OF ACTIVITY OF THE MEMBER NATIONS

- a) The Secretary General reported that he had received so far 21 reports of activity for 2003; these reports are integrated in the annual issue of TRIBUNE distributed in Singapore; he also reported that all the reports, including those that will be sent to him in the next few weeks, will be integrated in the website.
- b) **Austria:** the Austrian representative reported that the seminar Geomechanics and the Conference EUROCK will take place in Salzburg next October.
- c) **Brazil:** the Brazilian representative informed the Assembly about the start of the works of the 2nd line of subway in Sao Paulo, and about the holding on 1st March 2004 of the 1st Brazilian Congress on Tunnels.
- d) **Korea:** the Korean representative reported that the Korean society elected a new President (see website).
- e) **Italy:** the Italian representative reported that the Master Course on mechanized tunnels organised in Turin is meeting a great success; 20 students followed the 4th edition; the 5th edition will start in November 2004.
- f) **Japan:** the Japanese representative reported on the participation of the President of the JTA in the congress organised in Korea.
- g) **United Kingdom:** the representative from the United Kingdom informed the Assembly about the course on Tunnels organised by BTS from 28 June to 13 July.

8 – COMMUNICATION FROM SISTER INTERNATIONAL ORGANIZATIONS

a) World Road Association (PIARC)

Willy De Lathauwer introduced shortly, in the name of the World Road Association (PIARC), the situation of the Committee of Operation of Road Tunnels.

The Association organised its 22nd World Road Congress in October 2003 in Durban, South-Africa. More than 3000 congress participants looked over a large number of topics related to the road in general, and to the developing countries specifically : "The Road to Development goes through the Development of the Road".

Four plenary sessions on the 40 of the Congress were devoted to the road tunnels; the session "fire-Safety in Road Tunnels" had been prepared jointly by PIARC the European Commission, the Economic Commission for Europe of the United-Nations, and ITA; the three other sessions concentrated on the more traditional subjects of the Committee, as coming from its six Working Groups.

These Working Groups did not stop their works, and prepare reports still for this year, that have value as recommendations.

The Committee will deal in the next cycle with the following points : management of safety, ventilation and fire fighting, equipments of safety for new tunnels and for tunnels already in operation, human factors of safety, transport of dangerous goods, operation and maintenance.

The Directive of the European Commission has finally been approved, and entered into force. Some measures overpass by far the levels of equipment and operation of tunnels, and have so, from the design, implications on the construction, which are of direct interest for ITA.

Finally, the excellent collaboration has to be stressed between the two Working Groups dealing with fire resistance of the infrastructure of tunnels, the first within the Committee, the second within ITA.

b) International Society for Rock Mechanics (ISRM).

Jian ZHAO, Vice-President for Asia of ISRM, brought the greeting from the President of ISRM, and wished an excellent anniversary to ITA.

9 – PRESENTATION OF THE NEW WEBSITE AND FOR THE CD ROM OF THE 30th ANNIVERSARY

9.1. New website

The Secretary General presented the new site; the presentation was made at the meeting Communication on Saturday 22 May.

The representative from South Africa enquired about the possibilities of the site on the commercial plan; the President pointed out that the current policy of the Executive Council is not in favour of a commercial use of the site but that the opportunity of the creation of specialized pages, when looking for a job for instance, should be examined.

The attention of the Member Nations was drawn on the possibilities offered by the new site, and notably the possibility for the members to prepare directly the pages related to the Member Nations; the webmaster, Stefano Nepa, is at the disposal of the members to explain to them the appropriate way to proceed.

9.2 CDRom 30th Anniversary

The Secretary General presented the CD Rom prepared on the occasion of the meeting in Singapore, thanks to the putting at disposal by Austria, of a young engineer, Wolfgang KREINER; the presentation was made at the meeting Communication on Saturday 22 May.

The attention of the Member Nations was drawn on the availability of Wolfgang KREINER at the meeting of Singapore to reply to the questions of the members on the functioning of the CD Rom.

The CD Rom will possibly be reviewed and completed, according to the comments from the members, by the end of 2004. The provisional version will be officially sent to the Members after the meeting in Singapore.

10 – PRESENTATION OF THE *ita@news* LETTER

The Secretary General presented the new letter of information on the activities of the Association, prepared with the support of Olivier VION. He reported that this letter, published every other month, includes headings related to the functioning of the Association, of its Members, and of its Working Groups, to the activities of the Sister Associations, as well as to the Congresses and future events of the Association and of its sponsors.

Issues n° 0 and 1 were sent to all the Members as well as to the people whose @mail address was given to the Secretariat, that is to say about 1,000 people.

Issue n° 2 will be distributed in Singapore; the Executive Council would like the maximum of people potentially concerned (about 20,000) to receive the letter, either directly, or through the Member Nations; the people concerned will have the possibility to subscribe directly from the website; those who do not wish to receive the letter will also have the possibility to do so by the webmaster.

The next issues will be sent every other month.

The attention of the Members was drawn on the importance to send some news about their activity for the good functioning of the letter, and to improve the communication within the Association.

11 – FINANCIAL REPORT 2003

11.1. Closing of the Accounts 2003 – Report of the Auditor

- a) The financial elements were sent to the Member Nations on 26 March 2004. (Encl. 4)
- b) The Secretary General commented the documents sent to the Member Nations, including the balance sheet, the account of results, the appendix, and the report of the Auditor. It was proposed to have the result of the financial year added to the reserve "Technical help and coordination".

11.2. Approval of the accounts

The General Assembly unanimously gave their quitus to the Executive Council, and namely to the Treasurer and the Secretary General for the financial situation and the management for 2003.

12 – PREPARATION OF THE ELECTIONS OF THE EXECUTIVE MEMBERS

12.1. Offices to be provided and candidatures received

- a) The office of President left vacant by the end of term of Andre ASSIS.
The Executive Council received in due time the candidatures of:
 - Henk OUD presented by the Netherlands
 - Harvey PARKER presented by the USA

- b) Four offices of Vice-President, in accordance with the Statutes adopted in 2003.
The Executive Council received in due time the candidatures from:
- Y. ERDEM presented by Turkey
 - M.C. KNIGHTS presented by the United Kingdom
 - K. ONO presented by Japan
 - H. WAGNER presented by Austria
- c) Four to six offices (according to the result of the election of the Vice-Presidents) of additional Members, in accordance with the Statutes adopted in 2003.
The Executive Council received in due time the candidatures of:
- M. BELENKIY presented by Russia
 - E. GROV presented by Norway
 - F. GRUEBL presented by Germany
 - Y. LEBLAIS presented by France
- d) The office of Treasurer that must be appointed by the General Assembly on the proposal of the Executive Council.
The Executive Council received in due time the candidature from F. VUILLEUMIER presented by Switzerland.

12.2. Procedures

The elections require, as usual, the majority of the votes of Voting Delegates present or represented, even if the number of candidates does not exceed the number of offices to be provided; in the opposite case, the office shall remain vacant until next year.

13 – FUTURE GENERAL ASSEMBLIES

13.1. ISTANBUL 2005

The representative of Turkey, Yucel ERDEM, presented the progress report of the preparation of the Congress.

The preparation of the General Assembly 2005 is going on in excellent conditions. He gives the last elements that members can consult on the web site of the Congress : www.ita2005.org.

13.2. SEOUL 2006

The representative of Korea, In-Mo LEE, presented the progress report of the preparation of the Congress. The evolution of which can be consulted on the web site of the Congress : www.ita2006.com

13.3. Invitations received for 2007

Three candidatures were received in due time from Austria and Hungary, from the United Kingdom, and from the Czech Republic. The presentations of the three invitations and the corresponding decision occurred during the meeting held on Wednesday 26 May.

14 – PREPARATION OF THE OTHER DECISIONS OF THE GENERAL ASSEMBLY ON WEDNESDAY 26 MAY

14.1. Adjusting of the amount of the subscription fees

The draft amendment concerning the amount of the subscription fees of the Members was sent along with the notice to the General Assembly; the idea is to adjust as follows these amounts, unchanged since the moving to the euro:

- Member Nations; Group I: from 990 to 1,000 € Group II: from 685 to 700 € Group III: from 457 to 470 €
- Affiliate Members; Corporate: from 457 to 470 € Individual: from 122 to 125 €

This proposal gave rise to no comments from the Members. The corresponding decision will be made at the General Assembly on Wednesday 26 May.

14.2. Programme of activity of the Association

The report of the Executive Council presenting the progress report of "Strategy 2000" as well as its proposals for the future was sent to the Member Nations on 29 April (Encl.5).

The representative from the United Kingdom came back on the question of the commercial use of the website; the President reminded that it is out of the question for the time being and pointed out that a possible evolution of this position would have to be submitted to the approval of the General Assembly.

The decision concerning the proposals made in Chapter C of the report will be made at the General Assembly on Wednesday 26 May.

B – ASSEMBLY ON WEDNESDAY 26 MAY

15 – ELECTION OF THE EXECUTIVE MEMBERS

a) Appointment of the Scrutineers

- Alan KOCKOTT Delegate from South Africa
- Nikolaos KAZILIS Delegate from Greece

b) Voting Delegates

- Present: 36
- Votes by proxy: 5 (Colombia, Iran, Iceland, Mexico, Venezuela)
- Absolute Majority (1st ballot): 22

c) Result of the election of the additional Executive Members

The 4 candidates obtained the following results and were declared elected:

E. GROV:	35
Y. LEBLAIS:	33
F. GRUEBL:	33
M. BELENKIY:	32

The two remaining offices will be proposed at the election 2005.

d) Result of the election of the 4 Vice-Presidents

The 4 candidates obtained the following results and were declared elected:

K. ONO:	37	1 st Vice-President
M. KNIGHTS:	37	
H. WAGNER:	36	
Y. ERDEM:	35	

e) Result of the election of the President

H. PARKER:	29	elected
H. OUD:	12	

f) Appointment of the Treasurer: F. VUILLEUMIER, presented by the Executive Council, was appointed unanimously.

g) Experts by the Executive Council

On the proposal of the Executive Council, the Assembly unanimously approved the appointment of two experts for the year 2004:

- J. P. GODARD, expert to ensure the duty of Tutor of WG 20: Urban Problems – Underground Solutions
- A. HAACK, expert to follow the actions in terms of Safety in Fire, and notably the preparation of the joint publication with PIARC.

16 – REPORT ON THE OPEN SESSION HELD ON TUESDAY 25 MAY

Harvey PARKER presented the report of the Open Session.

The ITA Open Session for 2004 was held in plenary session on Tuesday morning, May 25, 2004. The session was chaired by the President of TUCSS, Rajan Krishnan, and ITA President, Andre Assis. Five presentations were made on the subject of Underground Space for Sustainable Urban Development. Presenters were from the USA, UK, Korea, France and Singapore.

Harvey Parker, USA, began the session with a paper describing sustainable development and the substantial work ITA has done in the field including ITA's recent proposals to the United Nations to help reduce poverty by earth-sheltered structures and food storage underground. He then concluded that the rapid increase in the number and size of megacities will present challenge and many opportunities to the underground industry.

Rodney Craig, UK, presented the results of the work of ITA Working Group 15, Tunnelling and the Environment, has been doing on the environment and sustainable development. He described the nature of the work being done by the working group and presented several case histories worldwide where tunnelling was used to improve or preserve the environment.

Jean-Paul Godard, France, made a very colorful presentation on Why Go Underground. This illustrated the results of ITA's work on subsurface planning and other working groups. He also presented ideas on how planners and our industry can get more benefits from underground space.

Ms. Sushma Goh, Singapore, made a very interesting and challenging presentation on humanizing underground space which was fully illustrated by diagrams and photographs of good examples of underground space architecture. She challenged our industry to always consider the human aspects of our industry.

A lively discussion about the pros and cons of sustainable development followed with many questions from the floor.

17 – WORKING GROUPS: REPORT AND PROJECT OF ACTIVITY

17.1. – WG 2 – Research: New Animateur: Eric LECA (France), Vice-Animateur: Yoshihiro TAKANO (Japan), Tutor: Harald WAGNER (Austria) – Report presented by the Animateur:

The Group met on Sunday 23 May to review the activity of the past year and decide the programme for the coming year. This meeting was attended by 14 participants representing 11 member countries.

This year, Yann LEBLAIS presented his resignation as Animateur to the Executive Committee, after leading the Group successfully for eleven years. The Group decided to renew his position by secret vote, according to the Articles of the Association. It also asked unanimously to the Vice-Animateur to remain in place.

The leading team is now composed of:

- Eric LECA from France, as Animateur
- Yoshihiro TAKANO from Japan, as Vice-Animateur

It is willing to offer, together with the other group members, a highly motivated team of professionals to the Association.

The activity of the past year has been focused in three areas:

- Risk Management of Tunnelling Projects;
- Settlements induced by Tunnelling;
- Site investigations.

The document on "Risk Management of Tunnelling Projects" has been approved and published. The recommendation on "Settlements induced by tunnelling" is now complete and being submitted to the Executive Committee for review. Work has progressed on "Site investigations", with a draft recommendation being discussed at the meeting on Sunday.

In terms of future work, the group has taken the view that it should primarily concentrate on the compilation and dissemination of knowledge available from existing works. This approach is perceived as an appropriate way to serve the international community, while setting tasks for the group that would be seen as achievable in a reasonable timeframe. A number of practical measures have also been suggested to facilitate group work, including introducing a leader and co-leader for each task and making use of modern communication technologies to exchange between annual meetings. Contributions from member countries that are not represented within the Group will also be welcome.

The following topics will be progressed during the coming year:

- Site Investigations,
- Monitoring and Control of Underground Works.

A third action on Security has been discussed but it was decided that further discussion with the other working groups would be required before an action should be launched on this matter.

17.2. – WG 3 – Contractual Practices: New Animateur: Arnold DIX (Australia), New Vice-Animateur: Martin SMITH (Switzerland), Tutor: Y.ERDEM (Turkey) - Report presented by M. SMITH:

A new Animateur, Arnold DIX, and Vice-Animateur, Martin SMITH, were elected at this meeting.

Working Group 3 will produce a set of globally applicable contractual objectives designed to encapsulate the combined experience of ITA member nations on the risks of underground construction independently of the legal jurisdiction in which a project is delivered.

These principles should reflect a performance based set of contractual objectives and wherever possible avoid prescriptive language.

The basis for this strategic approach is the groups recognition that the range of contractual documents available around the world is vast and that ITA's role within such an environment is to provide guidance for all projects on the principles to be applied to best manage the construction risks peculiar to underground projects – not prescribe a contract or project delivery method.

The initial review of all ITA's existing contractual practices propositions was completed.

It was apparent that a number of these key propositions relate to either project delivery methods which are increasingly outdated or are formulated in a manner which is unnecessarily prescriptive and do not describe the essence of the contractual objective to be achieved.

A work plan was agreed that will focus on the ITA principles considered most outdated – and any critical "gaps" in the existing principles for contemporary contractual relationships. These will be the subject of urgent review and detailed attention.

A range of options for project management and dispute resolution were considered and it was agreed that where appropriate in the working groups opinion they may be specifically sited within the amended contractual propositions as examples of techniques which might assist in achieving the outcome anticipated by the contractual propositions. For example a review of the ICC new Dispute Board Rules and Procedures will be undertaken and, if the working group considers it appropriate, be incorporated within revised proposition number 6 with respect to the importance of timely and effective dispute resolution.

The entrance of the reinsurers into project risk management by requiring certain procedures and practices to be followed as a condition for the provision of construction insurance will be the focus of detailed urgent consideration. The methodology to be employed in the consideration of the reinsurers approach will be to compare the requirements of the Joint Code of Practice for Risk Management of Tunnel Works in the UK with the revised ITA principles of contracting being prepared in this cycle. It was noted that many of the principles within the Code of Practice appeared to be consistent with ITA's contractual practices propositions in relation to key risk factors such as changed condition clauses and full disclosure of subsurface information.

It was agreed that power point presentations will be prepared for working group 18 for each specific contractual objective formulated and that a general power point presentation will be produced as an overview to the general principles for contractual arrangements in underground construction projects.

17.3. – WG 5 – Health and Safety: Animateur: Donald LAMONT (United Kingdom), Vice-Animateur: Walter CHROMY (Germany), Tutor: Mikhail BELENKIY (Russia) – Report presented by the Animateur:

Working Group 5, Health and Safety, met once during the ITA General Assembly in Singapore in 2004. Donald LAMONT (UK) was Animateur with Walter CHROMY (Germany) as Vice-Animateur. Annica NORDMARK (Sweden) was the ITA Tutor.

In total nine countries were represented – Australia, Canada, China, Germany, Korea, Singapore, Sweden, Switzerland and UK. The Working Group reviewed the progress which had been achieved since the Amsterdam meeting on the three projects currently being undertaken.

ITA publication - Safety in Tunnelling

The WG is pleased to report that this project has successfully been completed with the handover to the EC of the master CD-Rom containing the final text and illustrations. As agreed, the Secretariat now has responsibility for distribution to Member Nations. As this document is safety related, the WG suggest that an English-language version of the text is placed on the Website from where it can be downloaded by anyone.

Database of Health and Safety Legislation

The WG are continuing with this project to assist designers and contractors working outside their home countries. Information on 19 countries has been entered in the database and further enquiries will be made in an attempt to increase this number before the database is given to the Secretariat for inclusion on the ITA website.

ITA Tunnelling Safety Guidelines

This document is now called “Guidelines for Good Occupational Health and Safety Practice in Tunnelling”. Two further revisions of the document have been carried out in the past year. A number of further changes require to be made following our discussions in Singapore before the text is handed over to the EC, hopefully before the General Assembly in Istanbul.

The Working Group recommends that after the text has been approved by the EC, it is placed on the ITA website. The WG believe it would be appropriate in the first year during which the document is publicly available, that those downloading the document are invited to comment to the ITA on the text. Comments so received will be reviewed by the WG in Seoul and any necessary alterations made to the text. This will ensure the document is fully addressing user requirements.

Future work items

The Working Group agreed to commence a guidance document on fire safety on TBMs and other plant and equipment in tunnels. This item would link into work currently being supported by a number of organisations including CEN, TBG, SUVA, AFTES, HSE, and representatives of the insurance industry.

17.4. – WG 6 – Maintenance and Repair: Animateur: Henry A. RUSSELL (USA), Vice-Animateur: Martin MUNCKE (Germany), Tutor: Alfred HAACK (Germany) – Report presented by the Animateur:

The Working Group met on Sunday 23 May, and Wednesday 26 May 2004. The meetings were attended by 19 representatives from 14 member nations, they were: Belgium, Egypt, France, Italy, Germany, Japan, the Netherlands, the Republic of China, Romania, South Korea, Singapore, Switzerland, the United Kingdom and the United States of America.

The Working Group finalized the work on the development of *Guidelines for Structural Fire Resistance for Road Tunnels*. This document has been updated earlier this year to reflect the latest test data from the Runhamer Norway and has been reviewed by the ITA Executive Council and their comments were also incorporated. These revisions consisted of the latest information from The World Road Federation (PIARC) in regard to the development of new time temperature curves. It is with great pleasure that the Working Group has completed this Guideline and is presenting it today to the Secretariat for inclusion in the new ITA 30 year CD. The Working Group also wishes to extend its appreciation to PIARC, especially to Mr. Didier LACROIX, and Mr Art BENDELIUS for their extensive efforts to make this Joint effort between the organizations a success.

Presentation was made to the Group by Mr. Rene Van Der BOSCH from the Netherlands who provided an excellent presentation on the Runhamer Norway fire tests and a summary of the new data obtained from the tests.

The Working Group in association with Dr. HAACK from Germany decided to continue the work on fire resistance by having expanding the work to develop *Guidelines for Structural Fire Resistance of Metro Tunnels*, the Working Group believes that this is an important document to develop since there is very little information available. In addition to the *Guidelines for Structural Fire Resistance of Metro Tunnels* the Working Group is establishing a task force to initiate the development of a Manual for *Tunnel Rehabilitation* which will have the Vice-Animateur, Mr. Martin MUNCKE from Germany to lead the task force.

Dr. HAACK from Germany advised the Working Group that since his term on the Executive Council is ending he will be replaced as Tutor after the elections this year. Dr. HAACK did agree to continue to serve as a member of Working Group. The Working Group is grateful for the assistance that Dr. HAACK has provided over the years, and is looking forward to his continued assistance.

The Group wishes to invite any members of the Association who would like to participate in the development of this report to contact the Working Group members or the Animateur.

17.5. – WG 11 – Immersed and Floating Tunnels: Animateur: Jan SAVEUR (The Netherlands), New Vice-Animateur: Jonathan BABER (United Kingdom), Tutor: Yann LEBLAIS (France) – Report presented by the Animateur:

The working group met on 23rd May 2004 at Nanyang Technological University. The 14 participants represented 10 countries, namely China, Hungary, Indonesia, Japan, Korea, the Netherlands, Norway, Singapore, the United Kingdom and the United States of America.

It was a pleasure to have Indonesia, Hungary and Singapore represented for the first time. Chris MARSHALL has requested to step down as Vice-Animateur. The working group owes him a lot for his contributions. The working group elected Johnathan BABER (United Kingdom) as the new Vice-Animateur.

After the initial personal introductions, an around the world information exchange presentations were given by the Norwegians about the Oslo-tunnel and about their concept of IDN (Instrumentation, Documentation and Verification). This is a system to assure the viability of a facility from its conceptual stage and throughout its operational life. If it is properly defined who really wants to verify, better specification can be prepared in the future.

The working group decided to start a new activity, namely to list the specific aspects of immersed tunnels to be recommended for IDV.

The working group will continue with the preparation of its report on "Settlements of Immersed Tunnels". The outline presented in the meeting uses material of the publications of Walta Grantz of 2000 and 2001, but will emphasize structural response, settlement control in design and construction and remedies.

The participants requested to provide additional case histories and settlement records. The Catalogue of Immersed Tunnels is now on a CD ready for ITA's webmaster to implement onto the ITA's website. After this is materialised, more information on the technology will follow.

The number of immersed tunnel projects is steadily growing worldwide with new countries entering the field. It is hoped that representatives of these new countries will continue to participate in the working group because the benefit of information exchange is mutual.

17.6. – WG 12 – Shotcrete: Animateur: Knut F. GARSHOLL (Norway), New Vice-Animateur: Atsumu ISHIDA (Japan), Tutor: Eivind GROV (Norway) – Report presented by the Animateur:

The WG12 meeting, which was held on Sunday 23 May, had 13 participants representing 12 different countries: Brazil, China, the Czech Republic, France, Germany, India, Japan, Norway, Singapore, South Korea, Sweden and Switzerland.

Dr. Atsumu ISHIDA, Japan was elected as new Vice-Animateur of Working Group 12 after Mr. Naoki TOMISAWA. Mr. TOMISAWA has been one of the main contributors to WG12 for several years and special recognition and thanks were extended. WG12 also welcomed Dr. ISHIDA to the group.

The Report on State of the Art of Sprayed Concrete has received contributions from 21 countries and the Report draft has been reviewed by members of the WG12 as well as 4 members of the Executive Council. The Report itself contains 63 pages. Attached are 24 pages on design for rock support, compiled by Naoki TOMISAWA and the Japanese members as part of a previous separate WG12 Task. A 10-page document on rock support design from WG20 has also been attached on suggestion from France. The Report will in addition receive a short summary and a section with the Animateur's introduction and personal viewpoints and will subsequently be ready for publishing. WG12 is inviting comments and viewpoints for discussion on the WG12 Discussion Forum as soon as the whole Report has been made generally available. Forum password requests will be replied by the Animateur.

The report listing fire protecting sprayable mortar products was supposed to be ready for this meeting, but a new French WG12 member has kindly taken over the task and some time was lost in this transition. An information collection template is ready, 10 different products have been identified and data collection has started. The number of different products will probably be increased and a final report is expected ready for the Istanbul meeting.

The French member is also coordinating compilation of information on certification systems for nozzle men and shotcrete operators (as decided in Amsterdam). Such certification is available in France, Norway, Canada, Brazil, Germany, Switzerland, USA and through EFNARC. Further investigations will be made and an overview of how the different certifications are arranged will be reported for the Istanbul meeting.

The Greek member reported that no work had been done on the task about reinforced shotcrete arches and the task has been put on hold.

The Norwegian WG12 member is coordinating compilation of information about structural fibers for reinforcement of shotcrete. An Excel form has been created and data-compilation has started. The task is not yet ready for reporting and the target is to do so in Istanbul.

It was decided that the Animateur will establish contact to WG19, Conventional Tunnelling, to identify if there are areas of common interest or any open questions within WG19 that WG12 may be able to provide answers or input on. WG12 had a very good meeting, even though the number of participants was about 50% less than normal. It was agreed that the ITA web-site Discussion Forum must be used more actively by the members and direct email will be used as needed in addition. Reminders and urgent messages from the Animateur will always go out also by direct email.

17.7. – WG 14 – Mechanization: New Animateur: Katsuji FUKUMOTO (Japan), Vice-Animateur: Felix AMBERG (Switzerland), Tutor: Koichi ONO (Japan) - Report presented by M. KANAI.

1. WG activities to year 2004

WG 14 has been very actively working by e-mail this year. As it was discussed at Amsterdam in 2003, schematic drawings have been added to "Classifications and definition of TBMs with recommended keywords". Also, "TBM Glossary" has been completed in English, French, German and Japanese.

Rough drafts and suggestions for "ITA Recommendation in Mechanized Tunnelling" was proposed from assigned members and prepared for the meeting in Singapore.

2. WG activities at Singapore 2004

WG 14 met on 23 May. There were twenty (20) participants from thirteen (13) member nations, namely Australia, China, Canada, France, Germany, Indonesia, Japan, Korea, the Netherlands, Norway, Sweden, Singapore, and Switzerland.

Opening announcement was made by the Animateur, and necessary information for future communication was gathered from participants.

Since resignation was announced by the current Animateur, it was agreed to elect the next Animateur by voting. Then, two candidates made their presentation and the voting was conducted by one vote for each member nation. By the voting result, Mr. FUKUMOTO was elected as the next Animateur.

The following items were discussed and agreed in the meeting:

- "TBM Glossary" would be extended to Italian, Spanish, Korean and Chinese. Also, as definitions and/or explanations had already added in French, those would be added to "TBM Glossary" in other languages.
- "ITA Recommendation in Mechanized Tunnelling" would be just focused on excavating machine and fundamental equipments for functioning and expected to be completed in two years or so. Some comments on segments and other relevant items would also be included in recommendations. Since robotics was still far from field practice, those would not be included in the recommendation. Instead, the process control would be included.
- Three subgroups (EPB, Slurry, Hard rock TBM) were formed for "ITA Recommendation in Mechanized Tunnelling" and subgroup leaders and the work allocation among participants were determined. E-mail would be used for the communication tool among WG 14.
- All materials developed in WG-14 would be posted on the ITA Website for the benefits of all members.

17.8. – WG 15 – Environment: Animateur: Rodney CRAIG (United Kingdom), Vice-Animateur: Jan RHODE (Norway), Tutor: Harvey PARKER (USA) - Report presented by the Animateur:

The Working Group met on one occasion and was attended by 12 representatives from eight Member Nations – Denmark, France, Hungary, Japan, Korea, South Africa, the United Kingdom and the United States of America.

The main part of the afternoon was set aside for presentations from those present on projects in their respective countries. There were six interesting presentations from Denmark, France, Hungary, Norway, South Africa and the USA, covering topics from underground storage of waste to urban roads and railway system, from contamination to groundwater lowering problems and on a report of recommendations for good environmental practice in urban areas.

The report on Environmental and Sustainable Development reasons for going underground has been developed since the initial draft report in Amsterdam. The new draft briefly discusses all the 100 projects for which data has been received, rather than a selection of projects. The report will also have many more photographs or plans to illustrate the types of projects that have been, or are about to be, constructed. The draft report was accepted in principle. Members of the Working Group have until the end of June to give their written comments and to forward photographs or plans of their projects, after which the report will be finalised and passed to the Executive Council in the Summer.

The Working Group's work on the collection of data on projects which have affected the environment, those that have had major environmental constraints during the construction, and those that had to be designed to take into account environmental problems will continue this coming year. The questionnaire will be sent out again to members of the Working Group. In addition Member Nations not on the Working Group will be circulated by the Secretariat. The data will be collated for a report to be completed by the end of the year.

The Working Group has a total of over 40 members from 26 Member Nations. The group is always interested in having more members. They will re-establish the forum on the website shortly and will be asking members of the Working Group to go into the forum every two to four weeks. The quarterly Newsletter will, in future, be posted on the forum with a shorter version passed to the web master for the general section of the website.

The Working Group has members from a wide spectrum of the industry, a number of which are specialists in their fields. The Vice-Animateur has been considering a number of small groups to look at different topics, such as ground water control, aesthetic and landscape considerations, blasting, reuse of excavated materials, TBMs and the environment, grouting and the use of chemicals, environmental risks and similar aspects. These will be circulated to Working Group members for their comments and a decision taken in the summer which to move forward.

17.9. – WG 16 – Quality: Animateur: Claudio OGGERI (Italy), Vice-Animateur: --, Tutor: Andre ASSIS (Brazil) - Report presented by the Animateur:

WTC in Singapore represented a turning point for the activity of the working group, for different reasons. The first is that on the number 19-3 of the TUST review the General Report on Quality in Tunnelling has been finally issued, and this has been a good result for the work of the last years.

Many thanks were expressed to all the contributors, reviewers and to the Tutor, Dr HESS.

The group hoped that going through the Report delegates would submit some further comments: they will be taken into account for the updating of the work, and this action will be obviously done directly on the ITA website.

The second reason is that the Vice-Animateur is changing: no decision has been taken here because only 4 delegates attended the session and the Animateur will contact the other members for the new designation.

The third reason is linked to the activity for the near future.

This activity will be based on the preparation of the ITA website presentation which will be submitted also to the WG18 Training for didactical purposes. This duty is already under progress.

The purpose of the group is now to go into detail of a specific topic, in order to make clear that the word "Quality" does not represent a sort of bureaucratic collection of rules without facing with the reality. They would like to emphasize, inside the community of Tunnelling, that the activity of the WG is aimed to find technical procedures in order to compare predictions and performances, that is to define and respect time and costs for the tunnel construction.

The Animateur was now faced with the difficulty to attract members and energies for these activities, because different experiences and backgrounds are needed to create a summary of good rules. For this reason, the WG has decided to propose a focus on a more detailed topic for next year, with the aim of preparing a short guideline on "Selection of technical procedures for in site characterisation, design analysis and monitoring, applied to extra urban tunnels: Comparison of performances and predictions for difficult site conditions".

The group will therefore be active next year but no further activities will start without the strong support of the Executive council: they have focused the need for going into practical details of few aspects of measuring the performance of the tunnelling methods: how it is possible to compare and choose a design and a construction method on the basis of the site conditions. Both the limits for application and the capacity of advancing are practical parameters for performance, but in the overall evaluation of the "Quality" one should be faced also with the flexibility and adaptability to heterogeneous and adverse conditions. Once more the Animateur called for the submission to the WG of both cases of positive results by applying procedures for daily production of tunnel advance (normally in homogeneous conditions) and also the negative results of cases in which delays or over costs or collapses occurred due to the lack of preliminary investigation or to the lack of adaptability and reaction of the construction method.

The group did not speak in terms of philosophy, but of practical aspects. Due to the variety of conditions the WG both needs for participation of new active members and also for the definition of a new work item for the future: the last has been now done, the group hoped to find interest among the community to collect different experiences.

WG activity is transversal if compared to some others: now some interaction with Conventional tunnelling is also started, because common points of interest can be focused. The group sincerely hoped that this will contribute to a more attractive role of the WG, despite its vanishing title.

17.10. – WG 17 – Long tunnels at great depth: New Animateur: Piergiorgio GRASSO (Italy), Vice-Animateur: Minoru SHIMOKAWACHI (Japan), Tutor: François VUILLEUMIER (Switzerland) - Report presented by the Animateur:

The meeting was attended by 22 members from 14 different countries: Austria, Bulgaria, China, France, Indonesia, Italy, Japan, Korea, Norway, Russia, Singapore, Slovenia, Switzerland, and the UK. More than half of the attendees are new members to the group.

The group had appointed former Vice-Animateur P. GRASSO as Animateur following the resignation of Prof. F. DESCOEUDRES and elected at the same time Dr. Minoru SHIMOKAWACHI as Vice-Animateur.

The group was informed about the decision of the Executive Council that the final version of the WG report on "Long Traffic Tunnels at Great Depth" has been approved and will be published soon.

Interesting Case Histories from five countries (Switzerland, Italy and France, Sweden, Japan and the UK) were presented, and it was planned to increase the effort to collect and share the feedback and lessons learned from the current mega-projects under construction.

For this reason an intermediate WG meeting is planned in the next mid November in Europe in conjunction with technical site visits.

It was also decided to extend the domain of interest of the group to cover the long hydraulic and pipeline tunnels only for the design and construction optimisation aspects.

Intensive use of the new ITA website was recommended to all member nations.

17.11. – WG 18 – Training: Animateur: Daniele PEILA (Italy), Vice-Animateur: Nick CHITTENDEN (Switzerland), Tutor: Fritz GRUEBL (Germany) - Report presented by the Animateur:

Here in Singapore 10 representatives coming from the following countries: Belgium, China, Korea, France, Italy, Japan, Singapore and the Netherlands, attended the meeting.

The group analysed the work done this year after Amsterdam.

1) The standard presentation for teaching purposes was set up and it was approved by ITA Executive Council. It is now available to all WG's Animateurs.

With this Power Point standard presentation, the group hopes that a growing number of presentations for teaching purposes coming from the activities of the ITA WGs will be prepared in the next future.

The Animateur formally asked to all the other Animateurs to work on this project: that is to say after that a Working Group has prepared a report, a Power Point presentation should be prepared on this subject for teaching purposes following the above mentioned standard.

If these presentations are sent to WG 18, they will be collected and put on ITA web site for free download.

This activity will facilitate the circulation of ITA products in the Universities and Training Bodies.

2) The first of these presentations, coming from the former WG 4, was prepared this year and it is now available on the web site. All the Member Nations members are asked to download it and give comments on it.

3) The Master Course on Mechanized Tunnelling that is presently under development at Politecnico di Torino and which was sponsored by ITA was presented in the meeting.

President Andre ASSIS attended the opening ceremony of this Master, and a report was given on Tribune.

The members of the group were also informed about the new 2005-06 Master Course on Mechanized Tunnelling which will take place in Torino and will be organized jointly with ITA and Politecnico of Torino.

4) Some of the members of the group were involved in organization of the teaching course that will take place in Istanbul before next year Congress.

The Member Nations will receive soon the final programme.

With this activity, some specific written teaching material will also be developed.

Presentation by group members

1) The member from The Netherlands gave a presentation on the teaching activities in the sector of Underground Space in its country.

This presentation allowed the members of the group to discuss on how the University Bologna Declaration was implemented in the European Nations and to compare the New European University standards with the one of Japan, China and Korea.

2) France and Belgium delegates presented a computer code to be used for teaching purposes.

This code is available at the Louvain University Web site, and the WG members think that it could be useful to give this link on ITA web site. This will be done in the future page of the WG.

New developments

1) It will be updated and improved the existing data base on Teaching Courses and University Professors.

This activity will be the base for the creation of a University's Network which is involved in Teaching about Tunnelling and underground space.

In the next future a format will be sent to Members Nations for the collection of data.

2) The group decided to ask again to the Member Nations to send us examples of important tunnel project to be implemented in the Standard Power Point presentation and which should be used for teaching purposes.

These presentations will be available on ITA web site.

The Animateur asked the Member Nations to help the group in this activity.

While thanking them for their attention, he also asked them to indicate their delegate in the Working Group so the group will be able to do a better job in the future.

Rodney CRAIG would like the topic "Safety" to be added during the Training sessions and the opportunity offered in 2004 to the Animateurs to present the results of their works in a "Poster Session", an opportunity he was the only one to grasp in 2004, to be generalized from 2005 onward, and used by all the Animateurs; these requests were transmitted by the President, with a favourable opinion, to the organizers of the future General Assemblies as well as to the Animateurs of the Working Groups.

17.12. – WG 19 – Conventional Tunnelling: New Animateur: H. EHRBAR (Switzerland); New Vice-Animateur: Robert GALLER (Austria), Tutor: Andre ASSIS (Brazil) - Report presented by the Animateur:

At the Singapore Meeting the leadership in the working group 19 was handed over from Mr Karl KUHNENN (Animateur, Germany) to Mr Heinz EHRBAR (Switzerland) and from Mr Harald LAUFFER (Vice-Animateur, Austria) to Mr Robert GALLER (Austria).

ITA President Mister Andre ASSIS supported the work of WG 19 as the Tutor.

The first meeting took place on Sunday 23rd May, in the afternoon at the Nanyang Technical University. It was followed by 17 members representing 12 nations.

The following presentations were held:

- Presentation of the national report from Switzerland (first draft), by Heinz EHRBAR
- National Report from Brazil, by Andre ASSIS
- Presentation of the recent work from Japan, by Mr. Yosuke TAGUCHI
- Presentation of the national report from Austria (3rd draft), by Mr. Robert GALLER

During and after the presentation of four reports a vivid discussion was held. Due to the many open topics the delegates agreed to meet the next day at 10:30 at the Suntec Centre.

The second meeting took place the following day, in the morning at the Suntec Centre, Room #208; 7 delegates representing Austria, France, Greece, Italy and Switzerland discussed the guidelines for the international Report.

They agreed that the international report should:

- give a short definition of the term "conventional tunnelling"
- be a brief general recommendation
- show a brief overview over different methods of conventional tunnelling and their limits of application
- be open minded for future development
- give some indications about contractual aspects, risk analysis, site management etc.

Details and national approaches and experiences can be shown in referenced national reports. The report will be addressed to engineers with a minimum knowledge in tunnelling.

Later on the delegates discussed the definition of the term "conventional tunnelling". Following the French proposition "conventional tunnelling" is the construction of any underground work without any shield or a hard rock TBM. It's the construction of any tunnel where work can be done at the tunnel face, or where the support can be placed wherever it is needed.

After finding a first approach to the definition of conventional tunnelling the delegates agreed on the following list of contents for the first draft of the ITA Report WG 19 "Conventional Tunnelling" with the corresponding responsibilities.

Topics	People in charge
1. Purpose, scope of work	Heinz Ehrbar (Switzerland)
2. Principles of conventional tunnelling	Jean Launay (France)
3. Strategy of project development	Nikolaos Kazalis (Greece)
4. Design principles and stages, including	Robert Galler (Austria)
- ground investigation	Robert Galler (Austria)
- geological and geotechnical evaluation	Heinz Ehrbar (Switzerland)
5. Monitoring	Robert Galler (Austria)
6. Contract Model	Nikolaos Kazalis (Greece)
7. Organization of Project execution	Nikolaos Kazalis (Greece)

The Italian delegates will give their comments on chapter 4 to Mr. Robert GALLER.

The former chapter 10 (management) will not be treated at the moment because this item is handled by another ITA working group.

The authors should prepare their contributions with an international point of view (according to the discussions held at Amsterdam and Singapore). Generally there should be no distinction between "soil" and "rock". The term "ground" will be used.

The delegates agreed that further nations should be invited to participate in the elaboration of the ITA WG 19 Report, (for example China, Germany, Japan, Spain and United States).

Working schedule

The members of the Working Group 19 have the aim to finalize their international report within one year until the 31st World Tunnel Congress at Istanbul.

Therefore the following general working schedule was agreed:

- The first draft of chapter 1 to 7 for the ITA WG 19 report should arrive latest on August 31, 2004 by e-mail to the following address: heinz.ehrbar@alptransit.ch
- First draft presented to the member nations of ITA WG 19 by e-mail: end of September 2004
- Discussion of the 1st Draft around the EUROCK-Congress, October 7 and 8, 2004 at Salzburg. The exact meeting date will be given in advance. The Austrian Colleagues will organize the meeting room.

According to the results of the meeting at Salzburg the further working schedule will be defined.

The Animateur will inform the delegates over the possibilities of the Forum at the ITA-Homepage. Further discussions should use this possibility.

17.13. – WG 20 – Urban Problems – Underground Solutions: New Animateur: Susan NELSON (USA); New Vice-Animateur: Markus THEWES (Germany) and Junji NISHI (ACUUS); Tutor: Jean-Paul GODARD (France) - Report presented by the Animateur:

Working Group 20, with the topic "Urban Problems – Underground Solutions" met twice during the Singapore General Assembly. There were 19 attendees from the following countries: Austria, China, Egypt, the Czech Republic, Finland, France, Germany, Japan, Korea, the Netherlands, Norway, Singapore, Sweden, the USA, and the United Kingdom.

Due to the resignation of the original Animateur, John REILLY, and the anticipated election to the Executive Council of Vice Animateur Eivind GROV, it was necessary for the group to elect a new Animateur and Vice Animateur. Susan NELSON, USA, was elected Animateur and Markus THEWES, Germany, was elected Vice-Animateur. Jinji NISHI continues as the Vice-Animateur representing ACUUS.

The ultimate goal of the Working Group is to publish a report on how the subsurface has been used effectively around the world to solve urban problems. The initial efforts were to obtain information on significant underground projects from ITA Member Nations. A questionnaire was distributed in 2002 requesting such information. Contributions have been received from the Czech Republic, Finland, France, Germany, Japan, Norway, Russia, Sweden, the Netherlands, and the USA. The group continues to seek contributions from the countries that have not responded. Contributions may take the form of a brief abstract in which the project and the problem(s) it solved are briefly described. Contributions should be sent to the Animateur.

The Group discussed and agreed to the structure of a database which will be established to record the contributions received. This is an internal structure for the use of the committee and will be updated as contributions are received.

The Group agreed to communicate and work through the forum on the ITA website. All contributions will be posted there for committee review.

It is anticipated that the meetings in Istanbul in 2005 will be devoted to beginning to select contributions to be developed into case studies for inclusion in the publication.

17.14. – Security Workshop

Harvey PARKER read out the report of the Seminar:

On Friday 21 May 2004, the ITA Security Task Force held a workshop on underground security. The workshop consisted of a series of lectures and breakout sessions on the scope of ITA's work on tunnel security. The workshop considered the development guidelines and risk management tools to assist member nations to systematically, efficiently, and effectively deal with emerging risk associated with antisocial acts against underground infrastructure and its users. It was agreed that ITA should continue its work on this important topic.

The principles and tools have universal application and provide a framework for resource allocation and prioritization of security related initiatives which respecting the autonomy of member nations and then confidentiality requirements.

18 – APPOINTMENT OF THE MEMBERS OF THE COMMITTEE OF NOMINATION

In accordance with the procedures approved since the General Assembly 1993, the committee in charge of preparing the future elections is composed with:

- the retiring President A. ASSIS
- the Past President A. HAACK
- the Honorary President A. M. MUIR WOOD

under the chairmanship of the retiring President.

19 – APPOINTMENT OF THE AUDITOR ON THE CONFORMITY OF THE ACTIONS OF THE EXECUTIVE COUNCIL

The General Assembly unanimously confirmed the choice of S. CALINESCU for the year 2004.

20 – DECISION CONCERNING THE AMOUNT OF THE SUBSCRIPTION FEES

The Assembly unanimously approved the new amount of the subscription fees from the year 2005 onward, as follows:

- Member Nations: Group I: 1,000 € Group II: 700 € Group III: 470 €
- Affiliate Members: Corporate: 470 € Individual: 125 €

21 – DECISION CONCERNING THE PROGRAMME OF ACTIVITY OF THE ASSOCIATION

The General Assembly unanimously approved the Working programme presented by the Executive Council. (Encl. 5)

22 – BUDGET

22.1. Draft budgets for 2004 and 2005

- a) The draft budgets for 2004 and 2005, sent along to the members with the notice to the General Assembly, were presented and commented by the Treasurer. (Encl. 4)

He notably pointed out:

- The concern of the Executive Council to have clear expenses; the latter notably reveal the benevolent contributions from the Member Nations for the functioning of the Association.
- The distribution of the Budget "Receipts" 2004: 37% came from the subscription fees, over 25% from Donations from the Member Nations, and more than 35% from the "Prime Sponsors" and the "Supporters".
- The distribution of the Budget "Expenditures" 2004: less than 45% concerned the Secretariat, nearly 20% logistics, over 30% Production and Investments, and about 5% to be affected to the reserves for the future actions.

- b) The General Assembly unanimously approved the draft budgets thus presented.

22.2. Provisions concerning the auditing of the accounts

The Executive Council proposed to elect DSK Audit SA, in Montreux (Switzerland), as the Auditor, in compliance with article 6.8 of the Statutes. It proposed that this election could concern the next three financial years.

The General Assembly unanimously approved the proposal from the Executive Council.

23 – CHOICE OF THE PLACE FOR THE GENERAL ASSEMBLY 2007

- a) The delegates from Austria and Hungary jointly, from the Czech Republic, then from the United Kingdom presented the candidature of their country for the organization of the annual meeting 2007.
- b) The General Assembly voted after agreeing that, if there was not the absolute majority in the 1st ballot, the 2nd ballot would only concern the two candidates who have obtained the maximum of votes in the 1st ballot; the results were as follows:
 - 1st ballot: Czech Republic: 17, United Kingdom: 13, Austria and Hungary: 6
 - 2nd ballot: Czech Republic: 20, United Kingdom: 16

The Czech Republic will organize the Annual Congress 2007, in Prague from 5 to 10 May, on the topic "Underground Space – The 4th dimension of Metropolises".

24 – OTHER BUSINESS

- a) The President reported that the next Executive meetings will be held:
 - in Jinan (China) in August 2004
 - in New Delhi (India) in December 2004
 - in Venezuela in February 2005

Other ad hoc meetings will be organized according to the offers from the Member Nations, notably in Canada in September 2004.

- b) The press release will be available at the beginning of the afternoon at the Secretariat.

25 – CLOSING SPEECHES

- a) The President thanked the national group from Singapore, and more particularly Jian ZHAO for the success of the meeting in 2004.
- b) The President thanked the retiring Executive Members, notably Alfred HAACK, and offered the medal of the Association to Jindra HESS, Jean-Paul GODARD, Annica NORDMARK and to Henk OUD who are leaving the Executive Council.
- c) The elected President Harvey PARKER thanked the General Assembly and offered the plaque of the Association to Andre ASSIS.

d) The retiring President presented his last speech as President:

Dear Delegates of the ITA Member Nations,
Dear Colleagues of the Executive Council,
Dear Working Groups Animators, Vice-Animators and Participants,
Dear Friends of the ITA family,

In my closing speech, I do not want to present you again all achievements reached over the last three years. We have already discussed these during the first part of the General Assembly last Sunday.

However, achievements require work, time, energy and dedication. They are never results from a one-man, but from a group of people and proper conditions in time. I will spend my last words to you, recognising them on behalf of the Executive Council, but also on my personal perspective.

First of all, on behalf of the Executive Council, I would like to start expressing my deepest gratitude to you, representatives of the ITA Member Nations. Not only for trusting this term of office to us, but much more important, for your full support over the last three years to all actions we proposed to you. Sometimes we asked to you almost an open cheque, but your trust and confidence strengthened our responsibility and commitment to pay you back with a better association. I cannot remember a single occasion that we could not feel your full trust and support, and your friendship.

We, Executive Council, would like also to thank the Working Groups, animators and participants. You had put a lot of your time, dedication and hard work to produce the publications of our association. Your papers are the best legacy of our association, informing and transferring knowledge among people. You are the driving force of our association, and most of our actions were done to make sure that your products could reach everyone in the world-wide tunnelling community. My special thanks to you and my incentive for keeping your work.

My dear friends of the Executive Council, it should not be necessary, but I would like to say publicly, in front of the General Assembly, how grateful I am to all of you. You are a great team. Each one in his or her way, variety of culture and personalities, but all converging to do the best for the ITA. Countless of travels, meetings and time dedicated to the ITA, are now recognised for achieving a better association. May I say that only one thing is greater than your responsibilities to the ITA, it is the friendship among you and your care and love towards me. My unquestionable appreciation to you all!

I cannot skip saying few words to you Claude, our Secretary General. Your devotion and responsibility to the ITA are well-known among we all here in this room. Your care and professionalism to keep the association in the tracks defined by the General Assembly are enviable. But as President, I would like to highlight your loyalty and your efficiency keeping me informed about all. I personally thank you for your friendship.

I also have to acknowledge my Past Presidents for the support they gave me all the time. For those belonging to the nomination committee, Pelizza, Eisenstein and Muir Wood, for choosing me and giving me this opportunity to serve you. My past-president, Alfred Haack, besides being a great friend, for preparing the grounds, defining the tracks for our term of office. Our honorary president, Sir Alan Muir Wood, has been always a very prestigious adviser, a reference point to our actions.

In addition, I would like to say few words to Dan Eisenstein. Back to the beginning, 20 years ago, when I went to Canada for my PhD Studies, I then enrolled in a tunnelling course, a totally unknown subject to me at that time. There, Prof. Eisenstein was the one to teach my first lessons on tunnelling, making it so beautiful, that I changed my mind, and the world got one more tunnel engineer. Thank you, Dan, for introducing me to the underground world, in a good sense. I cannot also forget your full support to my candidature, including travelling to Brazil, so that we could have a long talk about ITA, and its important and essential activities.

Once in business, I needed time and financial support. I am very glad that today, my friend Tarcisio Celestino, is here representing the Brazilian Tunnelling Committee (CBT), and I can express my gratitude in front of him to CBT and to its president, Akira Koshima. Since my candidature till today, CBT has not measured any effort to provide all financial support needed by me to serve the ITA. Without them I could not even imagine how it could be. I would like to recognise in front of this assembly that the CBT was essential for providing me all conditions to focus only on the work to the ITA.

But if financial support is needed, also it is time. My special gratitude to the University of Brasilia for giving full support and flexibility in time to accommodate the numerous travels over the last three years.

Besides money and time to do the work, a human being needs love, care, friendship, complicity. My source of all those is my family: my beloved and beautiful wife, Sandra, far away from here today, my kiss; and my two boys, Bernardo and Daniel. I hope you do not get too used to enjoy life without my presence. I hope that now we will be much more together and find the time for those wonderful motorcycle rides.

My friends, coming to the end, my sincere apologies if any of my words or acts over the last three years have caused any misunderstandings or offended any of you. Lots of achievements have been done for a better ITA. Some are good, others have to be improved. New ones have to be implemented. Lots of work, time and dedication were given to the ITA. What is rewarding is that we could already see some benefits. How do I feel now, nearing my end as your President?

- My mind is clear about what was done and what is missing.
- My soul is in peace.
- And my heart is full of joy and happiness.

Thank you, Merci beaucoup, Muito Obrigado!

Andre Assis

(President of the ITA: 2001-2004)

The President

A. ASSIS

The Secretary General

C. BERENGUIER