

**ASSOCIATION INTERNATIONALE DES TRAVAUX EN  
SOUTERRAIN**

**INTERNATIONAL TUNNELLING ASSOCIATION**

**Compte Rendu de la 29<sup>ème</sup> Assemblée Générale**

**AMSTERDAM**

**13 – 16 AVRIL 2003**

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**Report of the 29<sup>th</sup> General Assembly**

**AMSTERDAM**

**13 – 16 APRIL 2003**

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The 29<sup>th</sup> General Assembly of the ITA Member Nations was held in Amsterdam on 13 and 16 April 2003 under the presidency of A. ASSIS (Brazil), assisted by the Executive Members.

### VOTING REPRESENTATIVES

SOUTH AFRICA	A. KOCKOTT
ALGERIA	-
GERMANY	F. GRUBL
SAUDI ARABIA	AL MOGBEL (on 16 April)
ARGENTINE	-
AUSTRALIA	G. ASH
AUSTRIA	P. GÖBL
BELGIUM	W. de LATHAUWER
BRAZIL	A. ASSIS
BULGARY	T. VOUTOV
CANADA	R. LOVAT (on 16 April)
CHILE	-
CHINA	GUO SHAN YUN
COLOMBIA	A. MARULANDA
SOUTH KOREA	IN-MO LEE
CROATIA	Z. SEVER
DENMARK	A. ODGAARD
EGYPT	M.E. ABDEL SALAM
SPAIN	M. SERRANO
UNITED STATES OF AMERICA	S. NELSON
FINLAND	J. RITOLA
FRANCE	J. PHILIPPE (on 13 April) and J.L. REITH (on 16 April)
GREECE	A.I. SOFIANOS
HUNGARY	G. GRESCHIK
INDIA	M. SINGH (on 16 April)
IRAN	-
ICELAND	-
ISRAEL	-
ITALY	P. GRASSO
JAPAN	H. HAGIWARA
LESOTHO	-
MALAYSIA	-
MOROCCO	Z.A. GHARBI
MEXICO	-
NORWAY	E. GROV
NEW ZEALAND	E. SAINSBURY (on 13 April)
NETHERLANDS	J. SAVEUR
POLAND	W. GRODECKI
PORTUGAL	L. RIBEIRO e SOUSA (on 13 April)
ROMANIA	S. CALINESCU
UNITED KINGDOM	M. KNIGHTS
RUSSIA	S. VLASOV
SINGAPORE	P. SEBASTIAN
SLOVAKIA	S. CHOMA
SLOVENIA	J. LIKAR
SWEDEN	D. MORFELDT (on 13 April) and T. FRANZEN (on 16 April)
SWITZERLAND	P. TEUSCHER (on 13 April) and A. HENKE (on 16 April)
CZECH REPUBLIC	J. BELOHLAV
THAILAND	S. SUWANSAWAT (on 16 April)
TURKEY	E.C. POYRAZOGLU
UKRAINE	-
VENEZUELA	-

### ***Sunday 13 April***

1. Opening speech
2. Approval of the agenda
3. Approval of the minutes of the General Assembly 2002
4. Progress of membership in the Association
  - 4.1. Member Nations
  - 4.2. Affiliates
5. Report of activity of the new Member Nations
6. Communication from Sister International Organisations
7. Report of activity of the Executive Council
  - 7.1. Functioning of the Executive Council
  - 7.2. Transfer in Switzerland
  - 7.3. Development of Contacts
  - 7.4. Development of Affiliates
  - 7.5. Relations with the Sister International Organisations
  - 7.6. Relations with the UN
  - 7.7. Functioning of the Working Groups
  - 7.8. Functioning of the Task Forces
  - 7.9. Publications
8. Report from the Auditor on the conformity of the actions of the Executive Council
9. Latest news from the Member Nations
10. Financial report 2002
  - 10.1. Report from the Auditor
  - 10.2. Approval of the accounts
11. Preparation of the election of a Vice-President and an Executive Member
  - 11.1. Candidates
  - 11.2. Voting procedures
12. Future General Assemblies
  - 12.1. Singapore 2004
  - 12.2. Istanbul 2005
  - 12.3. Further years: invitations received
13. Preparation of the other decisions of the General Assembly on Wednesday 16 April
  - 13.1. Amendment of the Statutes and of the By-Laws
  - 13.2. Rate of publication of TRIBUNE

### ***Wednesday 16 April***

14. Election of a Vice-President
15. Election of the additional Executive Member
16. Report of the Open Session on Tuesday 15 April
17. Working Groups: Reports and projects of activity
18. Decision concerning the amendment of the Statutes and of the By-Laws
19. Decision concerning the rate of publication of TRIBUNE
20. Appointment of the members of the Committee of Nomination
21. Appointment of the Auditor on the conformity of the actions of the Executive Council
22. Budgets:
  - 22.1. Draft budgets for 2003 and 2004
  - 22.2. Provisions concerning the provisions concerning the auditing of accounts
23. Choice of the place of the General Assembly 2006
24. Other business
25. Closing speech

## **A – ASSEMBLY ON SUNDAY 13 APRIL**

### **1 – OPENING SPEECH**

President ASSIS welcomed the delegates of the Member Nations; he thanked the President of the Dutch Association for the preparation of the 29<sup>th</sup> ITA General Assembly. Henk OUD gave the latest information concerning the preparation of the Congress.

The President also welcomed the representatives of the Sister International Organisations, as well as the Indonesian representatives.

### **2 – APPROVAL OF THE AGENDA**

The President reminded the agenda which was approved without amendments.

### **3 – APPROVAL OF THE MINUTES OF THE GENERAL ASSEMBLY 2002**

The minutes of the General Assembly 2002 were approved without amendments.

### **4 – PROGRESS OF MEMBERSHIP IN THE ASSOCIATION**

#### ***4.1. Member Nations***

The Association announced the expulsion of the representative of Ukraine (absence of payment of the subscription fee for over three years), and approved his replacement by the organisation INTERBUDTUNNEL; the number of Member Nations therefore remains unchanged, equal to 52 (**Encl 1**).

#### ***4.2. Affiliates***

##### ***4.2.1. Requests for membership***

a) Corporate Members: 25

151	SIAP Assainissement Paris	France
152	COFIROUTE	France
153	D2 Consult	Austria
154	VINCI	France
155	Shanghai Tunnel Research Institute	China
156	Beton und Monierbau	Austria
157	ILF	Austria
158	Geoconsult	Austria
159	Conconcreto	Colombia
160	Geodata	Austria
161	Underground Group	USA
162	EDL	Colombia
163	Alpine Mayrede Bau	Austria
164	Jäger Bau	Austria
165	Ramboll	Denmark
166	ALWAG Tunnelbau	Austria
167	CETU	France
168	THV ASDAM	Belgium
169	HITACHI	Japan
170	SNCF-Ingenierie	France
171	NFM Technologies	France
172	SOLETANCHE-BACHY	France
173	EIFFAGE TP	France
174	3G Gruppe	Austria
175	CETCO	France

b) Individual Members: 20

303	Jian ZHAO	Singapore
304	Ashraf HEFNY	Singapore
305	Bengt NICKLASSON	Sweden
306	Arlan RUEN	USA
307	Timothy SMIRNOFF	USA
308	Brian ISKE	USA
309	Igor ANDREYEV	USA
310	Lee SWEE KIN	Malaysia
311	Julian CANTO-PERELLO	Spain
312	Jorge CURIEL-ESPARZA	Spain
313	Hugh P. CASPE	USA
314	David PROUDFOOT	Canada
315	Gabriel FERNANDEZ	USA
316	Alfred H. BRAND	USA
317	David CAIDEN	USA
318	Salvatore J. CALVANICO	USA
319	David H. CORKUM	USA
320	Clark R. DONKIN	USA
321	Chris MUELLER	USA
322	Wayne WARBURTON	USA

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

**4.2.2. Resignations**

a) Corporate Members: 3

36	ROBBINS (for redundancy)	USA
135	AKZO NOBEL GEOSYNTHETICS CO.	USA
144	GAUSSIN	France

b) Individual Members: 20

74	EL SHARKAWY (Death)	Egypt
104	BERMINGHAM	United Kingdom
106	CHAPMAN	United Kingdom
134	LANDAHL	Sweden
146	BRIERLEY	USA
148	GILBERT	USA
156	MERRITT	USA
175	BHORE	USA
182	P. NELSON	USA
183	PETROFSKY	USA
194	BRITTON	USA
199	GOMEZ	USA
205	NADEL	USA
224	LOPEZ-RIVERA	USA
233	HAUSER	USA
240	Dick ROBBINS	USA
247	James F. DALY	USA
253	Colin LAWRENCE	USA
270	Douglas JOHNSON	USA
272	Bodil MELLBLOM	Sweden

**4.2.3. Expulsions**

19 expulsions were announced, for non-payment the subscription fees over three years:

a) Corporate Members: 1

125	Ministry Municipal and Rural Affairs	Saudi Arabia
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b) Individual Members: 18

11	TAN ENG LEONG	Singapore
19	CIMENTS VICAT	France
109	RAJU	India
143	MORRIS	Hong Kong
159	REILLY	USA
189	WILLIAMS	USA
201	HEINE	USA
203	KNIGHT	USA
209	RUBIN	USA
218	CHAUDHARY	India
219	GUERTIN	USA
222	HATTRUP	USA
234	LAKE	USA
241	MUTA	Japan
244	LAUGHTON Chris	USA
246	STUART M. BURNELL	USA
255	David PROUDFOOT	Canada
262	Roger C AU	USA

**4.2.4.** On the proposal of the Executive Council, the General Assembly unanimously approved the appointment of the following Honorary Affiliate Members:

- As Corporate Members, for the period during contribution, the three Swiss companies that contributed in a very significant way to the Swiss grant to the ITA Secretariat; these are the following companies: ZSCHOKKE LOCHER AG (CAM N° 176), MARTI HOLDING AG (CAM N° 177) and BATIGROUP AG (CAM N° 178).
- As Individual Member, Sir Alan MUIR WOOD, the Honorary President of the Association (IAM N° 323).

**4.2.5.** The number of Affiliate Members therefore reaches 280 (Corporate: 116 – Individual: 164) (Encl. 2)

## **5 – REPORT OF ACTIVITY OF THE NEW MEMBER NATIONS**

No reports.

## **6 – COMMUNICATION FROM SISTER INTERNATIONAL ORGANISATIONS**

### a) Association of Research Centres on Urban Subsurface Use (ACUUS)

Jean-Paul GODARD read the message received from the new Secretary General of ACUUS, John ZACHARIAS. He reminded the aims of ACUUS, and emphasized the essential nature of the cooperation between the two organisations considering they are complementary.

### b) World Road Association (PIARC)

Willy de LATHAUWER, the French-speaking Secretary of the Road Tunnel Committee, brought the greeting from the President Didier LACROIX; he reminded the topics of the six working groups of the Committee: Operation, Pollution, Ventilation and Environment, Human Behaviour, Systems of communication and safety, Hazardous materials, Fire and smoke clearing. He underlined the quality of the cooperation between PIARC and ITA notably materialised by the functioning of the joint group on Resistance of Structures to Fire, and he invited the participants to the next world congress, which will be held in Durban in October 2003.

### c) International Society of Rock Mechanics (ISRM)

CHUNG-IN LEE, the Vice-President of ISRM for Asia, brought the greetings from the President of ISRM; he would like to develop the cooperation between the two organisations, and invited some ITA representatives to participate to the ISRM Congress 2003 in South Africa in September.

### d) International Society of Trenchless Tunnelling (ISTT).

A. HAACK reported that the new President of ISTT is Ray STERLING, well known at ITA; he hopes that the new President will follow up the cooperation between the two organisations, and that it will shortly be possible to publish the report of the joint group (Risk assessment in conjunction with large engineering projects).

## **7. REPORT OF ACTIVITY OF THE EXECUTIVE COUNCIL**

### ***7.1. Functioning of the Executive Council***

a) The Executive Council held plenary meetings in Sydney, after the General Assembly 2002, then in Shanghai in June, in Moscow in October, and in Marrakech in January 2003. A restricted meeting, mainly devoted to TRIBUNE, was held in October in Toulouse (France) on the occasion of the joint congress organised by the French and Spanish associations.

b) Throughout the year, the Executive Council carried on their traditional activities. They were particularly concerned by questions that will be discussed in the follow-up of the agenda, and notably the ones for which some decisions will be proposed:

- the amendment of the Statutes and of the By-Laws (items 13.1. and 18);
- the progress of the publications, notably TRIBUNE and the @News letter (items 13.2. and 19);
- the strategy in terms of Communication, and in particular the updating of the web site, not forgetting the important questions related to the transfer of the Secretariat in Switzerland.

These questions will be discussed again in the development of the General Assembly.

c) The Executive Council was represented in the events organised by numerous Member Nations (17 all together):

- Hungary (A. Haack – June 2002)
- Slovakia (A. Haack – June 2002)
- the USA (A. Assis, H. Parker and A. Haack – June 2002)
- the People's Republic of China (all the Executive Members in June 2002)
- Germany, Austria, and Switzerland: DACH (A. Haack – September 2002)
- Poland, Slovakia, and the Czech Republic (J. Hess – September 2002)
- Turkey (A. Assis – October 2002)
- France and Spain (several members in Toulouse in October 2002)
- Russia (all the Executive Members in October 2002)
- Colombia (A. Assis – October 2002)
- Turkey (A. Assis – October 2002)
- Belgium (C. Bérenguier – November 2002)
- Morocco (all the Executive Members in January 2003)
- Romania (A. Assis in May 2002 and C. Bérenguier in March 2003)

The Secretary General moreover started discussions with the national groups for the development of the relations with the Association; he would notably meet the people in charge from Belgium, France, Italy, Japan, Morocco, Romania and Russia.

The Executive Members also participated:

- in October 2002 in the congress of FIB in Osaka (A. Haack, K. Ono and H. Oud)
- in October 2002 in the conference in Salzburg (H. Wagner)
- in November 2002 in the congress of ACUUS in Turin (J.P. Godard)
- in several events of PIARC, notably in the seminar in China in November 2002 (H. Wagner), and in several meetings on safety (A. Haack)
- in November 2002 in the congress SUS9 in Kyoto (K. Ono and H. Parker)
- in January 2003 in the TRB in Washington (H. Parker and H. Wagner)

## **7.2 Transfer of the Secretariat**

a) The administrative transfer of the Association was carried out on 1<sup>st</sup> August 2002, as planned, after getting the agreement of the Swiss authorities. The Association set up in the premises of EPFL (Ecole Polytechnique Fédérale of Lausanne), within the Faculty ENAC (Environnement Naturel, Architectural et Construit), conducted by Professor Laurent Vulliet.

This transfer went along with several administrative provisions related to the part-time hiring of the Secretary General, to the putting at disposal of a new assistant, to the appointment of a new accountant, to the appointment of François Vuilleumier as Treasurer until the General Assembly 2004 (in the expectation of the decisions related to the provisions proposed in the Statutes – see 7.8 hereafter), provisions made in accordance with the decisions of the General Assembly 2002 and with the voted Budget.

The corresponding financial provisions benefited from the support of the companies and research departments from Switzerland, in accordance with the offers, which had been presented to the General Assembly 2001 by the Swiss national group.

The opening ceremony of the Secretariat was organised on 3 December and the attending members were invited by Switzerland to participate in St Barbra's day, organised at the tunnel of Loetschberg; several national groups were represented, notably Austria, France, Germany, Italy, Japan, the Netherlands, the USA, Switzerland and Turkey most of them at the highest level.

b) Several national groups are thinking of bringing a support to the functioning of the Secretariat, notably in the form of placing at the disposal of ITA, in Lausanne or in their country, of young graduates, experts in questions related to the activity of the Association; the discussions are much advanced with several countries, notably with Austria.

## **7.3. Development of contacts**

a) The Executive Council pursued the relations with a great number of nations not ITA members yet, notably by the presentation of ITA at the various congresses and meetings in which it participated.

b) The contacts were pursued with several countries that should become members in a reasonable future, notably: Albania, Equator, Indonesia and Peru.

## **7.4. Development of Affiliates**

As the Assembly may have noted, the situation has considerably improved as far as the number of Corporate Affiliate Members is concerned, considering their number has increased in one year from 92 to 116; the efforts from companies and research departments of several countries in particular may be noted, notably from Austria, the USA, France, Japan and Sweden, which represent almost three quarters of the members. The particular case of Switzerland should be noted as far as the companies and research departments are not well represented in the category of Corporate Affiliate Members but which contribute financially in a very significant way in the functioning of the new Secretariat.

Some important efforts still remain to be made in these countries but also in countries where companies and research departments have strong competence in terms of tunnelling, such as, for instance, Germany, South Korea, Italy, the Netherlands, the United Kingdom and Russia, not to mention other countries.

The category of Individual Affiliate Members certainly constitutes an answer adapted to the concerns about the integration of young experts and students in the Association.

## **7.5. Relations with the Sister International Associations**

a) The traditional contacts were pursued with the sister international associations of a professional nature, notably ACUUS, PIARC and ISTT.

b) Concerning ACUUS, the relations found important applications along the past year:

- ACUUS was associated to the creation of WG 20 "Urban Problems – Underground Solutions";
- ITA sponsored the Conference in Turin, and is about to sponsor the one in Moscow in 2005.



c) ITA was also informed about the creation of EFUC (European Forum for Underground Construction), created by some representatives of French and German societies of Trenchless Tunnelling, without the intervention of their International Association, ISTT. EFUC is an organisation that enables exchanges of information and experience in the whole field of underground construction in Europe. ITA is not forthcoming a partner of this initiative; ITA will be presented by its German member, the DAUB that co-organises the conference organised by EFUC in Germany, a conference in which Jean-Paul Godard was allowed by the Executive Council to go and present the booklet "Why Go Underground".

d) ITA decided to grant its sponsorship to:

- the national group of the Czech Republic for the Conference "Underground Construction Praha 2003" that will be held from 18 to 20 November.

#### **7.6. Relations with the UN**

The preparation of the moving of the Association from the advisory status category II to the one, which corresponds to category I is going on so that the Association may be systematically consulted by ECOSOC.

Moreover, the Association was represented at the summit in Johannesburg by the means of the South-African national group; the report will shortly be published in TRIBUNE.

#### **7.7. Functioning of the Working Groups**

a) All the groups will meet in Amsterdam under the chairmanship of their Animateurs or their substitutes.

b) The meeting organised on Saturday 12 April with the Animateurs enabled to review the publications, notably the presentation of the results of the Working Groups on the CD Rom with an educational use and of the preparation, on the occasion of the 30<sup>th</sup> Anniversary in 2004, of a CD Rom collecting all the publications since the origin of the Association.

#### **7.8. Functioning of the Task Forces**

a) The task force "Public-Private Financing" prepared the position paper of ITA on the subject; the paper, being reviewed, will be published soon.

b) The task force "Accidents in Construction" transferred its activity to WG 18 "Training"; the Group will continue collecting information for educational purpose.

c) The task force "Development of Affiliate Members" prepared a follow-up letter for the Member Nations; it was agreed to wait before sending this letter considering the good results recorded this year.

d) Gibraltar

Since 1994, the Association has played an active role beside the societies in charge of the study of the Crossing of the Strait of Gibraltar; this role is regularly acknowledged by the UN; the studies are on hold aside; no contact was taken again this year by the relevant Moroccan or Spanish authorities.

e) Safety in fire

The Association is preparing the publication of a document collecting the operational abstracts of the papers presented during the seminar in Lausanne and at the Open Session in Sydney; the full texts will be put in the appendix.

f) Sustainable Development

The new drafting of the Statutes integrates the notion of Sustainable Development in article 2.1 (see 13.1 hereafter).

g) Terrorist threats

The American group declared ready to ensure the conducting of this difficult subject.

#### h) Glossary

A new version of the Glossary is being reviewed within the Executive Council.

#### i) Amendment of the Statutes and of the By-Laws

As requested by the General Assembly 2002, the Executive Council prepared the revision of the Statutes and By-Laws according to the decisions made by the General Assemblies 2001 and 2002.

The corresponding report was sent along with the notice to the present General Assembly; it will be presented in item 13.1 hereafter so as to prepare the decision that the General Assembly made on this subject on Wednesday (item 18).

### **7.9. Publications**

#### a) General

As already mentioned in 2002, the Executive Council is devoting more and more time to this activity to this file, as agreed by the General Assembly 2000 following the study Strategy (decision 3); several aspects are concerned: TUST, TRIBUNE, the Web site, the glossary, the distribution of the "Why Go Underground".

The study of the global situation carried out by the Executive Council resulted in a proposal to the Assembly a motion, called "Rate of publication" of TRIBUNE, sent with the notice to the present General Assembly. It will be presented in item 13.2., knowing that the corresponding decision is the object of item 19 of the meeting held on Wednesday 16.

#### b) TUST

- Report on the publication of volume 17 of the year 2002:

The Senior Editor, Jian Zhao, reported that 4 issues including 40 articles among which 8 from ITA, including the 7 articles of the Open Session of ITA at the Congress in Sydney, were published in 2002.

The year 2003 should see the publication of 5 issues including 45 articles among which are reports of ITA's Working Groups; the articles of the ITA Open Session at the Congress of Amsterdam should also be published.

The year 2004 should see the publication of 6 issues.

The publisher also reported that 15,042 articles were downloaded on the web site of the journal in 2002 (6,255 in 2001):

- The year 2002 was administratively marked by some difficulties concerning the distribution, notably by certain Individual Affiliate Members; a meeting was held to sort out the administrative questions.
- Moreover, as the agreement between ITA and ELSEVIER will terminate at the end of 2004, it would be advisable to terminate the current agreement by the end of the year 2003 and to negotiate the terms of the new agreement; the corresponding discussions took place during the congress in Amsterdam with the various departments at ELSEVIER: publication, trade, accounts, and subscriptions. The Member Nations would be kept informed in case of a possible disagreement, so that the corresponding decisions may be made at the General Assembly 2004.

#### c) TRIBUNE

- Tribune pursued its development thanks to the commitment of the Executive Members, and thanks to Olivier Vion's personal action.
- The important publications for the past year were:
  - The publication of Focus: Belgium, Netherlands, Russia, Sweden and Ukraine
  - The report of the Open Session of 2001 on Public-Private Financing
  - The synthesis of the report of 1999 on Environment
- There was a financial loss because distribution charges were not applied. This item is also referred in item 13.2.
- As planned, the quarterly contract with ACROTÈRE was terminated, but no further exploratory discussions have been held (see item 13.2).

#### d) The web site

Created in October 1998, the web site of the Association now includes over 1,000 pages; in 2002 some pages were notably added on:

- The report of WG 4 on Underground Water;
- The opening speeches of the Congress of Sydney;
- The quadrennial report to the UN.

The development of the site is remarkable. Between 2000 and 2002, the number of website "visits" moved from 9,806 to 15,899 pages read from 4,753 distinct hosts from over 90 different countries.

The new Secretariat is organising to reply to all the requests for information, with the help of the Animateurs, of the Member Nations, of the Executive Members, and the Professors at EPFL, notably François Descoedres; the situation should therefore get better in the future.

The agreement with Acrotère expired at the end of 2002, during the transfer of the site to EPFL. As pointed out previously, the current site was created in 1998 according to the technology, which existed then, and with a restricted number of pages. Five years later, it was advisable to proceed to a new approach, which was started by the Executive Council.

The new ergonomics of the site was proposed by the new Webmaster from EPFL and by a young graduate. This new ergonomics should notably enable Member Nations, Animateurs, Executive Members, Affiliate Members, etc. to play an important role in the construction of the site, through the Secretariat. (Encl. 3) The General Assembly did not make any comment and allowed the Executive Council to finalise the new website by the 2004 Meeting of the General Assembly.

The Executive Council proposed the introduction of advertising in order to finance the ITA site; the current trend is:

- access of the home page to about ten privileged partners of the Association in offering them a direct link with their own sites
- the possibility of Corporate Affiliate Members to present their products.

#### g) Other

- It was reminded that the Member Nations have the possibility to receive via the Secretariat:
  - The book of the 25<sup>th</sup> Anniversary
  - The promotion book on underground works
  - The special issue of Tribune "Why Go Underground"; this collection, also published in French in the journal TOS, may be distributed to decision-makers through the Member Nations
- It was also reminded that the publications of the Association are normally distributed free of charge to the Member Nations and to the Affiliate Members; these publications, including Tribune, are invoiced by the publisher at cost price to the interested people and organisations not members of the Association. This invoicing is reduced by 50 % for the members of the Association who wish to get extra copies.
- Journals of the Member Nations

It should be noted that numerous national groups sent to the Secretariat the information related to the journals they publish. The Secretariat will prepare a position paper and will organise the follow-ups to be given notably toward the web site of the Association.

## **8 – REPORT OF THE AUDITOR ON THE CONFORMITY OF THE ACTIONS OF THE EXECUTIVE COUNCIL**

Colin Kirkland presented his audit report and advised the Assembly that after 21 years of attending ITA assemblies he wishes to retire from the post of Auditor. This may be his last.

He suggested that the Executive Council should review both the title “Auditor”, which is often misunderstood, and the role. The original purpose had been to provide an independent point of contact for Member Nations not represented in the Executive Council.

He also recommended that the Executive Council should consider four issues:

- Are the Executive Council and the General Assembly effective in discharging their roles- Much of the agenda for Executive Council meetings could be dealt with by the secretariat
- Should there be a policy (as opposed to the protocol) on bringing ITA activity closer to the technical conference. At present the General Assembly seems to have little relevance to the technical aspects of our meetings.
- ITA should be driving the discussions on Tunnel Safety in the European Union, otherwise regulations could be introduced which jeopardise our industry.
- Should we review policy on the admission of new Member Nations in order to maintain high standards?

The President thanked Colin Kirkland for his comments during his years as Auditor; he proposed that the Association should have a greater involvement in the technical part of the annual meetings.

## **9 – LATEST NEWS FROM MEMBER NATIONS**

a) 23 Member Nations sent their annual report 2002 early enough so that it could be integrated in issue n° 25 of Tribune. It should be noted that the reports are available on the web site of the Association.

b) Latest news in brief not given in the annual reports

- South Africa

The South-African representative reported on the important difficulties of functioning of SANCOT due to the departure of several important and to the absence of underground works.

- South Korea

The South Korean representative reported that the works of the 9<sup>th</sup> line of subway of Seoul just started; the construction by shield of a tunnel under the Hahn River will shortly start.

- Greece

The Greek representative reported that the Greek committee will organise in May a seminar on the aspects of design and construction of permanent lining.

- Norway

The Norwegian representative reported that his country will organise in Trondheim in October a conference on the analysis of discontinuous deformations.

- Portugal

The Portuguese representative notified the Assembly of the 1st joint Spanish-Portuguese geotechnical symposium to be held in Madrid next September on the topic of the importance of ground characterization and monitoring in tunnelling.

- Russia

The Russian delegate gave the latest news concerning the construction of Transport Tunnels in Russia for Road (Lefortovo in Moscow), for Metros in Moscow and St Petersburg and for Railways.

- United Kingdom

The delegate from the United Kingdom presented the training session on design and construction of tunnels that will be held at the University of London from 30 June to 4 July.

- Sweden

The Swedish delegate reported that several projects will be completed in the current year, notably stage 3 of the Hallandsis project and in the city of Malmö.

## **10 – FINANCIAL REPORT 2002**

### ***10.1. Report from the Auditor***

a) The reports were sent to the Member Nations on 25 March 2002 which included the setting up of accounts, and of the follow-up to be carried out of the account at the French bank. Moreover, it was considered that it was preferable to have the conformity done in Switzerland so that the new accountant could start his work in the best conditions ever. (Encl. 4)

b) The Secretary General presented the documents sent to the Member Nations, including the balance sheet, the account of results, the appendix, and reminded the Association of the need for an attestation of the Auditor. It was proposed to have the result of the financial year added to the reserve "Technical help and coordination".

c) The report from the Swiss Auditor was established, as requested by the General Assembly 2001; as was a "certificate of examination", an official paper required by the French laws.

d) The result 2002 of Tribune prepared by Acrotère was sent to the Member Nations.

The financial year 2002 is showing a deficit, due to insufficient advertising and sales.

### ***10.2. Approval of the accounts***

The General Assembly unanimously gave their quitus to the Executive Council and to the Secretary General for the financial situation and the management for 2002.

## **11 – PREPARATION OF THE ELECTIONS OF A VICE-PRESIDENT AND AN EXECUTIVE MEMBER**

### ***11.1. Candidates***

a) The office of Vice-President left vacant by the departure of Kai Sorbraten (Norway), a year before the end of his term.

The Executive Council received in due time the candidature of H.J.C. Oud presented by the Netherlands.

b) The office of Executive Member left vacant by the departure of J. Mc Kelvey (South Africa), a year before the end of his term.

The Executive Council received in due time the candidatures of:

- A.A. AL-MOGBEL presented by Saudi Arabia
- E. GROV presented by Norway
- M.C. KNIGHTS presented by the United Kingdom
- M.Y. BELENKIY presented by Russia

### ***11.2. Procedures***

The elections require, as usual, the majority of the votes of Voting Delegates present or represented.

The Vice-President will be elected for one year, for the remaining period of office, in compliance with article 1.2.a) of the By-Laws.

The term of office of the Executive Member is under the competence of the Assembly, in compliance with article 1.6 of the Statutes; this period normally lasts three years.

## **12 – FUTURE GENERAL ASSEMBLIES**

### ***12.1. SINGAPORE 2004***

The representative of Singapore, Jian ZHAO, presented the call for papers for the Congress that will be held from 22 to 27 May 2004.

He reported that the Open Session will be devoted to the following topic: “Underground Space for Urban Development”; the speakers will be chosen jointly by the Organising Committee of the Congress and by the Executive Council of the Association.

### ***12.2. ISTANBUL 2005***

The representative of Turkey, Yucel ERDEM, reported that the annual meeting will be held from 7 to 12 May 2005 in Istanbul at the Convention Centre CEVAHIR, knowing that the organisation of the Congress and of the travels was entrusted to the group “SETUR Co. Inc.”.

A technical exhibition and a training session will be organised on the occasion of the Congress.

He reported that the members of the Organising Committee and of the Scientific Committee were appointed, and that the 1<sup>st</sup> form and the call for papers are ready. The committees will meet on the occasion of the visit of the President and the Secretary General next June.

### ***12.3. Further years: invitations received***

a) 2006: Two candidatures were received in due time from South Korea and from Japan. The presentations of the two invitations and the corresponding decision occurred during the meeting held on Wednesday 16 April.

b) 2007: The pre-candidature of the United Kingdom was presented. The Czech Republic also expressed its interest.

c) 2008: The candidature of the United States of America was considered.

## **13 – PREPARATION OF THE OTHER DECISIONS OF THE GENERAL ASSEMBLY ON WEDNESDAY 16 APRIL**

### ***13.1. Amendment of the Statutes and of the By-Laws***

As stated in 7.8 here above, the Executive Council prepared the review of the Statutes and of the By-Laws according to the decisions made at the General Assemblies in 2001 and 2002.

The corresponding project was sent along with the notice to the present General Assembly; it includes two parts:

- the text adopted at the Assemblies in 2001 and 2002;
- the amendments proposed by the Executive Council: the important items concern the introduction of the notion of Sustainable Development in the Statutes, the members in the Executive Council, and the creation of the office of Treasurer (provisions which result from the decisions of the Assembly in 2002).

Moreover, the Executive Council would like to propose two other amendments for the By-Laws:

item 1.2.c): “In order to reduce the number of voting rounds, the number of candidates will be reduced after each vote by excluding the one with the lowest number of votes”

item 1.7 add “or the follow-up of the previous General Assembly”

- some requests of clarification were presented by the representatives of Egypt, the Netherlands, the United Kingdom, and the USA; it was agreed to organise a meeting with the Secretary General and the delegate from the USA to meet these requests before the decision that had been made at the meeting held on Wednesday 16 April.

### ***13.2. Rate of publication of TRIBUNE***

- As stated in 7.9.a) here above, the Executive Council prepared the proposal of change for the charge of TRIBUNE which was sent along with the notice to the present General Assembly. this proposal concerns the creation of the journal ITA@news and takes into account the growing difficulties to balance the accounts of Tribune.
- This proposal did not give rise to any comments.

## **B – ASSEMBLY HELD ON WEDNESDAY 16 APRIL**

### **14 AND 15 – ELECTION OF A VICE-PRESIDENT AND OF AN ADDITIONAL EXECUTIVE MEMBER**

#### a) Appointment of the Scrutineers

- Alan KOCKOTT                      Delegate from South Africa
- Manuel SERRANO                Delegate from Spain

#### b) Voting Delegates

- Attending: 39
- Votes by proxy: 2: Malaysia and Portugal
- Absolute Majority (1<sup>st</sup> ballot): 22

#### c) Result of the election of the Vice-President

- H.OUD (Netherlands) :      For:                      34      elected  
  Against:                3  
  Abstention:            4

#### d) Result of the election of the additional Executive Member

- The candidate from Saudi Arabia withdrew his candidature just before the 1<sup>st</sup> ballot
- Result of the 1<sup>st</sup> ballot:      M. KNIGHTS:            17  
  Y. BELENKIY:           11  
  E. GROV:                11  
  Abstention:            2
- Result of the 2<sup>nd</sup> ballot:      M. KNIGHTS:            17  
  Y. BELENKIY:           12  
  E. GROV:                10
- Result of the 3<sup>rd</sup> ballot:      M. KNIGHTS:            21      elected  
  Y. BELENKIY:           18

## **16 – REPORT ON THE OPEN SESSION HELD ON TUESDAY 15 APRIL**

Jan SAVEUR, the Animateur of WG 11 Immersed Tunnels, presented the report on the Open Session.

"Immersed Tunnels, The Next Generation"

The ITA Open Session on Tuesday morning gave delegates a comprehensive walk through the history, development and possible future evolution of the immersed tunnel technique.

The session opened with a video presentation, followed with eight presentations and concluded with a discussion mainly on the subject of Submerged Floating Tunnels.

Of the eight presentations, five are based on papers published in the Proceedings Volume 1 and the text of the other three may soon be published on the ITA website.

Chris Marshall of the UK opened his keynote presentation on the Essence of Immersed Tunnels with an overview of the geographic spread of the present 150 transportation tunnels in the world. Half of that number is more or less evenly shared by USA, The Netherlands and Japan. But the number of Immersed Tunnels is growing also in the other parts of the world, especially in Hong Kong and China. He suggested that many parts of the world are still open for the benefits of Immersed Tunnels.

He examined the deciding factors between the US-developed steel hulled type of immersed tunnel and the concrete alternative developed in The Netherlands including cross section adaptability, casting yard facilities, availability of materials and cost. He said that solutions to the main concerns about constructing immersed



tunnels - namely potential damage to the environment by dredging and possible water leaks once constructed – can and have been found. In supporting the immersed tunnel option he listed low capital investment, the possibility to provide a tunnel in rather poor soils, and the shortest length and shortest ramp sections in comparison with a bridge or bored tunnel alternatives, and the reduced schedule and construction risk, because the tunnel elements are built away from the site under fully controllable conditions.

Wim Janssen continued with a history of concrete immersed tunnel technology in The Netherlands. The first of the country's 27 immersed tunnels was opened in The Netherlands in 1944 and he explained that while immersed tunnel solutions for water crossings in The Netherlands now have competition from TBM bored tunnels, immersed tunnels will remain attractive for their own set of technical merits adding that where the success of a TBM project is more dependent on suppliers, the contractor has greater control over the construction program of an immersed tunnel.

For the future he said that immersed tunnels are being applied to deeper water situations, longer lengths and merging with the potential for the floating tunnel concept.

After the coffee break the second keynote speaker, Walter Grantz of the USA, escorted delegates through a history of immersed tunnel development using the details of landmark projects to illustrate technological advance along the way. The first immersed tunnel was suggested as far back as 200 years ago with the first constructed in the USA in the 1893 and The Netherlands staying at the cutting edge of the technology today. He explained how the Gina and Omega water sealing system for the joints between elements was a major technical advance together with different ballasting, foundation methods, and the ever larger tunnel configurations and cross sections marking further advance. The immersed metrorail tunnel built across San Francisco Bay for the BART system in northern California remains the longest and deepest immersed tunnel to date at 5.8km long and 40m deep while the Drecht tunnel in The Netherlands is still the widest tunnel with a width of 49 meters.

Chris Hakkaart (The Netherlands) described the research and development that was necessary to design and build an immersed tunnel capable of meeting the stringent operating tolerances of a high speed (350km/h) railway tunnel facility. Settlements after placing the rails are limited to 20 mm, whereas the requirement to restore the foreshores completely leading to overburdens of 15 meters of ground would just aggravate the settlements. Based on the requirement to allow for direct rail fixation the differential deformation due to train loading is limited to 0.75mm!! He described the development of very heavy reinforced concrete shear keys across the segment joints of the tunnelements and the construction of air pressure relieving structures on top of the immersed tunnel. In conclusion he said that the “next generation of immersed tunnels is born!!”

Professor Kiyomiya of Japan related the research work carried out under his guidance for the development of flexible joints able to accommodate movements induced by earthquake activity, in addition to differential settlement over time, and thermal strains. He showed how flexible connections between the tunnel elements dramatically reduce the longitudinal forces caused by earthquake action. The new developments after the traditional Japanese prestressed Gina joint connection are the Wave type steel joint, which can accommodate about 50 mm longitudinal displacement, and the Crown seal type joint for even larger displacements.

Jan Vitek of the Czech Republic gave a project progress report of the immersed tunnel “launched” across the Vlatava River in Prague. He described how the alignment under the river was too shallow between stations for the application of a bored tunnel option and how a plan to construct the crossing in three parts and within large cofferdams. During the discussion he answered a question from Denis Lachel of the USA that the immersed tunnel option was the cheapest option for the river crossing. He said that the immersed tube construction time was 23 times shorter than for the cofferdam alternative and that the cost saving was principally in the elimination of costly cofferdam temporary works.

Havard Ostid (Norway) explained the benefits of Submerged Floating Tunnels. As the Tunnel can stay under moderate depth below the surface, the ramps will be short, making the SFT saving fuel relative to bottom based tunnels or high-level bridges. Although SFT's have not yet been built it is not a futuristic concept, because it uses only existing and proven technology. He suggested that current concepts for ballasting or anchoring light weight tunnels into position could eventually be replaced with systems that require no external support at all, but could be kept steady by active thrusters. Although a submerged floating tunnel is yet to be adopted and built, Havard went on to wow the audience when he suggested in his talk about submerged floating tunnels that the future could see realized a Trans Atlantic submerged floating tunnel. Perhaps nothing is impossible!

James Felch (USA) in closing out the session suggested that a new transportation crossing of Lake Washington in Seattle USA could be the first possible application of a submerged floating tunnel. There are already three floating traffic bridges across the lake, of which the capacity is almost exhausted. They also may need replacement. Adding more bridges is not accepted any more. The topographical situation and the present need for transportation links across the lake almost lead to an SFT solution. James Felch showed his concept for a pile supported SFT to accommodate a monorail system. If adopted the facility across the lake would be about 3,000m (3km) long and in water of about 60m deep with firm ground at about 80 m deep.

During the discussion at the end of this Open Session concern was raised about vulnerability to sinking ships. For SFT crossings in lakes like Lake Washington the biggest possible craft in those lakes would not really affect the SFT, even when sinking right on top of it. Colin Kirkland informed about the psychological hesitations with regard to SFT. The answer was that psychological hesitation for a new concept is nothing new as long as it has not come to realisation. Once the first SFT is built, the confidence will be there to build more of them. Nevertheless we as engineers should be aware of this problem and work on it. Harvey Parker, also of the USA and Seattle, stated that, to depress a floating bridge to become a floating tunnel is not such a leap in concept for the travelling public.

It can be concluded that this Open Session has drawn a large audience (about 400) remaining till the very end. The presentation was a joint effort of the members of Working Group 11 on Immersed and Floating Tunnels. All the speakers were proud to contribute to this Open Session and the Congress as well as ITA can look back to it as a successful event.

## **17 – WORKING GROUPS: REPORT AND PROJECT OF ACTIVITY**

**17.1. – WG 2 – Research:** Animateur: Yann Leblais (France), Vice-Animateur: Yoshihiro Takano (Japan), Tutor: Harald Wagner (Austria) – Report presented by Yann Leblais.

Twelve people from ten countries attended the meetings of the Working Group (Austria; South Korea; Spain; United States of America; France; Italy; Japan; Netherlands; Romania; United Kingdom).

In Oslo, in 1999, the idea of a reflection on Risk assessment related to the construction of underground works was launched. This work, coordinated by Soren Eskesen (Denmark), is seeing its outcome.

The final version of the text was sent to the Executive Council for its meeting in October 2002 in Moscow. The last version of the report on “Tunnelling Risk Assessment” will be completed, at the request of the Tutor, by a short paragraph on the link between these analyses of risks and costs, and of delays. This addition will be made after and the Group would like the Executive Council to launch now very rapidly the publication of the document in TUST.

Perseverance always pays! The resumption of works, almost historic for the Group, on the document devoted to “Settlements related to the Boring of Underground Works”, has been actual since Sydney, under the impulse of Eric Leca (France) and of Barry New (UK). The document examined in session only requires linguistic adaptations. The text will be sent for approval to the Executive Council before the summer 2003

The Group devoted almost all their works to focusing again on the last topic launched in Sydney on site investigations for tunnelling projects, the coordination of which is ensured by Yoshihiro Takano (Japan). The reflection took into account two important lines:

- first line: the Group would like to decline the global aim proposed in Milan by its Animateur, namely that the members of the Group, who have poor means, it should be reminded, are rather there to:
  - identify, on a given subject, the right practices and the state-of-the-art reports of quality published in the world,
  - put, if possible, these texts in relative perspectives,
  - therefore show the way to the tunnelling community, and particularly the most deprived countries, with a methodology of approach;
- second line: all work must have clear aims and a delimited field; this evidence is sometimes neglected in the enthusiasm of meetings!

On these bases, the Group:

- gave a new name to their work: Strategy for Site Investigations for Tunnelling Projects;
- limited their object to the period between the launching of the project at the customer and the beginning of the construction;
- extended their scope to the information needed by the customer, by engineering and by the company;
- worked out the detailed plan of the text so that the coming year is devoted to the collection of knowledge and practices on precise items.

Finally, the Animateur reminded to the Group that he had started his task in 1993 in Amsterdam, at the very same place, and that he was thinking of being taken over. The reflection on this subject is now open among the members of the Group and will be discussed again in Singapore.

**17.2. – WG 3 – Contractual Practices:** Animateur: W. MAARTENS (South Africa), Vice-Animateur: A. DIX (Australia), Tutor: Y. ERDEM (Turkey), Report presented by W. Maartens

Working group 3 held two meetings during the ITA Congress in Amsterdam. Fifteen representatives from twelve Member Nations attended the meetings on 13 and 14 April 2003: Australia, Egypt, France, Germany, Hungary, Korea, Netherlands, Norway, South Africa, Switzerland, Turkey and USA. Apologies were received from Italy and Czech Republic.

The approved document “Evaluation of Tenders for Consulting Engineers and Contractors” will be presented by the Tutor to the Executive Council for review and possible publication.

The presentations were made to the WG, by members of the group. The first presentation was by the Project Manager of the Pannerdensch Canal Tunnel Project, which forms part of the 160 km Betuneline from Rotterdam towards the German border. The Pannerdensch Canal crossing was originally planned as a bridge. Local and regional governments as well as environmental groups forced the state to change the crossing to a tunnel.

Highlights from the presentation include:

- all the conditions that have to be met (about 160 permits were needed) and the time of about one year needed to meet these conditions;
- by meeting these conditions the client eliminates up to 10 % of all possible claims by the contractor;
- the importance of good relationship and mutual trust between the parties.

The second presentation was a report back on the work of the International Chamber of Commerce (ICC) task force on dispute boards.

During 2002, the ICC commission on arbitration established a task force on Dispute Boards. The task force of this group was to develop appropriate documents to support the inclusion of the Dispute Boards (DB) process as a complement to the ICC arbitration clause.

The task force has developed four documents:

- a draft preamble: this document describes the DB process and its benefits;
- draft model contract clauses (one to be selected) :
  - dispute review board (DRB) provides non-binding recommendations
  - dispute adjudication board (DAB), provides decision to be given effect but subject to later revision by arbitral award
  - combined dispute board (CDB), DRB may be converted to a DAB if a party requests and the CDB concurs.
- model DRB rules: deals with DB members selection, DB operations, DB hearing procedures
- a model contract for DB members: deals with obligations of DB members, their compensation, terms of appointment, payment procedures, termination, indemnity, etc.

These documents will be considered by the ICC arbitrations commission and ICC national committees early 2003.

As a result of an ensuing discussion on dispute boards, the working group noted the need for identifying qualified neutrals for consideration for appointment to DB's for tunnel projects. Accordingly, the WG will develop a procedure how to list such neutrals, for consideration and approval by the Executive Council.

Finally, the WG spent time to plan ahead, to refocus our activities and to determine priorities that are driven by the needs of industry. In the early 1990's the precursor to the "Contractual Practices WG" namely "Sharing of risk in Underground Construction WG" produced a 25 points charter on risk apportionment principles. With the passage of time the currency of these principles and the existence of new important principles has not been revisited. The WG has decided to revisit these principles to determine their applicability to the modern commercial environment with the aim to update/reviewing these principles. Using the 25 principles (propositions) as basis, the work done in the past years and all future activities by the WG are clearly defined within the framework provided by the 25 principles.

**17.3. – WG 5 – Health and Safety:** Animateur: Donald Lamont (UK), Vice-Animateur: Walter Chromy (Germany), Tutor: Annica Nordmark (Norway) – Report presented by Donald Lamont

Working Group 5, Health and Safety, met once during the ITA General Assembly in Amsterdam in 2003. Donald Lamont from UK was Animateur with Walter Chromy from Germany as vice-Animateur. Annica Nordmark from Sweden was the new ITA Tutor however she was unable to attend due to illness.

Representatives from seven countries attended. This was the first meeting of the WG to be held simultaneously in both official languages of the ITA. The Working Group reviewed the progress that had been achieved since the Sydney meeting on the three projects currently being undertaken.

#### **ITA publication - Safety in Tunnelling**

This publication, which is targeted at worker safety, was reviewed for the final time by the Working Group. A small number of minor changes were made to some of the captions. The document is now ready for formal review and acceptance by the EC.

Funding of the publication has been finalised in accordance with the arrangements agreed last year.

#### **Database of Health and Safety Legislation**

It was agreed in Milan in 2001, that the WG would undertake this project to assist designers and contractors working outside their home countries. A second questionnaire seeking the relevant information was circulated earlier this year by the Secretariat to all member nation representatives. Further replies have been received, sufficient to allow compilation of the database to commence.

#### **ITA Tunnelling Safety Guidelines.**

A further revision of this document has been carried out. Members of the working group have until June 2003 to finalise their comments on it. A final draft will be prepared for discussion and acceptance by the WG in Singapore.

The General Assembly is reminded that as health and safety is fundamental to good tunnelling, the Working Group recommend the document be freely available when completed from the new ITA Web site.

#### **Fire safety underground**

In response to a proposed amendment to the CEN standards for tunnelling machinery safety requiring fixed fire extinguishing systems to be fitted by the manufacturer, the WG agreed the following statement "In view of the high risk to workers in the event of a fire underground during construction, ITA WG 5 (Health & Safety) calls for all TBMs **and other plant and equipment** such as locomotives, excavators, loaders and dump trucks used underground in tunnelling to be fitted with fixed fire extinguishing systems".

**17.4. – WG 6 – Maintenance and Repair:** Animateur: Henry A. Russell (USA), New Vice-Animateur: Martin Munke (Germany), Tutor: Alfred Haack (Norway) – Report presented by Henry A. Russell

The Working Group met on Sunday 13 April, and Monday 14 April 2003. The meetings were attended by 17 representatives from 13 member nations, they were: Belgium, Denmark, France, Germany, Hungary, Japan, Netherlands, Portugal, South Korea, Switzerland, United Kingdom and the United States of America. In addition to the member nations a representative of The World Road Association, (PIARC) attended the meeting. Mr. Arthur Bendelious, Animateur of PIARC Working Group 6 (PIARC C5) “Fire and Smoke Control Working Group” represented the World Road Federation.

A new Vice Animateur was elected, Mr. Martin Munke of Germany. The Group gratefully acknowledges the contribution of Mr. Richard Machon of Germany, for his contributions to the Group over the years and in particular over the last six years where he served as Vice Animateur.

The Working Group continued the work on the development of *Guidelines for Structural Fire Resistance for Road Tunnels*. The document is approximately 95 % complete with minor revisions to be written during this meeting and edits performed. Mr Bendelious, provided the Group with the latest information from PIARC in regard to the development of new time temperature curves, and assisted the Group in the review of the document. A new schedule for the completion of the remaining edits of the document was prepared and assignments made for the completion of the edits. The Group has scheduled a final draft of the report to be available later this year for review by the Executive Council.

A brief review of our Report on the *Repair of Damage To Tunnel Linings* was performed. A CD has been prepared of this report and is included as part of this report. A copy was provided to President Assis and Dr. Haak.

One Presentation was made to the Group, by Mr. Andreas Henke, of Switzerland who provided an update on the case study of the Gotthard tunnel fire and subsequent repairs.

The Working Group in association with our Tutor Dr. Haak of Germany is to develop an outline and schedule for the topic of our next document, which will be *The Inspection and Maintenance of Tunnels and Underground Structures*.

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 myself.

**17.5. – WG 11 – Immersed and Floating Tunnels:** Animateur: J. Saveur (Netherlands), Vice-Animateur: C. Marshall (United Kingdom), Tutor: H. Oud (Netherlands), report presented by J. Saveur

The Working Group met on Sunday afternoon and Monday afternoon, April 13 and 14.

Each meeting had 20 participants from 8 countries, namely China, Czech Republic, Germany, Japan, The Netherlands, Norway, UK and USA.

The first meeting was used to exchange information on new developments in the countries of the participants and elsewhere within their knowledge. Three special presentations were given. Namely by Walter Grantz on the Bustunnel across Fort Point Channel in Boston, being a combination of 3 different tunnel concepts of which the immersed tunnel part required very delicate squeezing in. Havard Ostlid reported on his ideas of future evolution of Submerged Floating Tunnels. The present concept not being a new development, because it is purely based on existing proven technology. Christian Ingerslev reported on aspects of the Bosphorus Tunnel project, as far as permissible at this stage.

In the past year members of the working group were invited to participate in the First US workshop on submerged Floating Tunnels in Seattle. It may be said that the input from the working group had been very effective for the further development of the concept for Lake Washington. Another interesting event was the contribution of members of the Working Group to Discovery Channel on their intended TV coverage on Immersed Tunnels and Submerged Floating Tunnels. The one-hour programme will be aired right today in the USA. Another activity of the working group was the joint effort to prepare for the ITA Open Session, “Immersed Tunnels, The Next Generation”, which was successfully performed yesterday.

The priority of the Working Group is still to bring the merits of immersed tunnels to the attention of the world. This is best served by transferring its knowledge and experience to engineers and planners around the world. This should be done via the Internet rather than via printed updates of the State of the Art Reports. Outlines for the contents have been prepared and the Catalogue of Tunnels is available in digital form. The actual set-up of the website, which has suffered delay, was discussed in the meeting in the presence of ITA's new webmaster, Gregor Kiesling. A demo was shown. It will be like a book with chapters with an internal navigation system. All the contents will have consensus of the Working Group. The website will be integrated into ITA's website as soon as a reasonable part of the contents is included. Acquisition of the necessary funds for the website design and for upgrading of the graphics needs to be undertaken forthwith. The Working Group agreed to continue with the project. Meanwhile some of the presentations of the ITA Open Session, which have a high pictorial content will soon be uploaded on ITA's website.

There are still many aspects of Immersed and Floating Tunnels that the Working Group likes to discuss and that deserve preparation of reports. Each of the participants tabled his or her priority subject, in addition to the list proposed by the animateur. It was decided to prepare a report on the problem of differential settlements. Although the builders of immersed tunnels have always managed to solve this problem one way or the other, they were often caught by surprise. A working group report may serve the industry. Case histories will be given. Questions how to deal with it in the design and how to deal with it in unexpected situations will be answered.

**17.6. – WG 12 – Shotcrete:** Animateur: Knut F. Garshol (Norway), new Vice-Animateur: Naoki Tomisawa (Japan), Tutor: Jindrich Hess (Czech Republic), report presented by Knut F. Garshol

The WG 12 meeting on Sunday 13 April from 14h00 to 17h30, had 16 participants representing 10 countries: Czech Republic, France, Greece, Italy, Japan, Norway, South Korea, Russia, Sweden and Switzerland.

Recognition was given to Prof. Koichi Ono for his long time commitment to WG12 as Vice Animateur and practical work contributor. Due to new duties within ITA for Prof. Ono, the Group elected as new Vice Animateur, Naoki Tomisawa, Japan.

Task 1 (State of the Art of Sprayed Concrete) has received contributions from 21 countries and at least 1 more will be added. All contributions received and the draft Summary Report was discussed at the Sunday meeting and handed out on CD to 7 countries. France, Italy, Japan, Korea, Norway, Sweden and Switzerland (plus 3 individual members) were appointed to review the draft and respond by the end of June. The Final Report will be submitted to the Tutor within the end of September and should be published on the new ITA web site as soon as approved by the EC.

The task coordinator for task 2 (Fire protective sprayable cementitious materials) has not communicated any information to the Animateur since Sydney. France kindly offered at the Sunday meeting a new coordinator of Task 2 (Cathrine Larive) and a speedy submittal of the final report, based on the available existing work and necessary supplement.

Naoki Tomisawa (Japan) presented the Task 3 status (Shotcrete rock support mechanism). Even though the input from WG members has been limited, a first draft has been worked out and this was presented in the meeting. Supplementary input was offered from France and the report will be ready within the end of June. This Report will be integrated in the Summary Report of Task 1.

The reference list on projects with permanent lining shotcrete continues to attract much interest. The Japanese delegates kindly agreed to continue the compilation of this list and a general request was made to provide further references. The current list adds up to 610 km of tunnels permanently lined by shotcrete.

Decided new WG12 Tasks were: (1) Compilation of information about existing systems for training and official certification of shotcrete nozzle-men (manual and robotic placement); coordinator Cathrine Larive, France. (2) Report on reinforced shotcrete ribs (arches); coordinator Sofianos Alexandros, Greece. (3) Overview report on synthetic structural fibres for shotcrete; coordinator Christine Hauck, Norway.

The WG12 activity is in a transition between running tasks and decided new ones. All running tasks will be concluded with Final Report well in advance of the Singapore meeting. The intention is to also publish the Reports on the new ITA web-site as soon as this is ready for such input. The three new tasks will start immediately and independent of the existing ones. An effort will be made to inform about the new tasks to members not present during the Amsterdam meeting, for the benefit of a wider participation and work contributions.

**17.7. – WG 14 – Mechanization:** Animateur: M. Kanai (Japan), Vice-Animateur: F. Amberg (Switzerland), Tutor: K Ono (Japan), report presented by M. Kanai

#### 1. WG activity to year 2003

At Sydney, the old but fundamental subject of “Classifications and Definition of TBMs” was finalized reflecting the current trend of rapid and continuous technology development. However, to make our database on the mechanized tunnelling informative for prospective users interested in tunnel and tunnelling, we decided to select and add our recommended keywords which should be placed in the matrix of the items of interest selected in WTC2000 at Durban, before making it open to public. To complete our recommended keywords, a sub-WG consisting of nine (9) WG members was formed led by Mr. Tony Peach from Australia. The group discussed the matter on our e-mail communication network.

#### 2. WG activity at Amsterdam 2003

The WG14 met on April 13<sup>th</sup>. We had twenty (20) participants from ten (10) member nations, namely Canada, France, Germany, Italy, Japan, Korea, Netherlands, Norway, Switzerland, U.K.

A joyful time of reunion with old colleagues enhanced by new attendants was followed by WG member recognition and identification before going into the main subject.

#### 2.1 Discussion on the Main Subject

As the unified “Classifications and Definition of TBMs with recommended keywords” is finalized, it was decided to make our achievement open to outside of our group by placing it on the ITA web-site as soon as possible with version number and date of revision.

At the same time it was decided to add schematic drawings before long for our colleagues’ better understandings of specific machine type to the finalized “Classifications and definition of TBMs with recommended keywords”.

Also decided was to make a reference or to put a link on our web-site to the TBM Glossary edited by our French WG member, Mr. Pierre Longchamp under joint project of AFTES and CETu in which English-French-Germany translation was available. Because the idea of editing a TBM glossary seemed very attractive to each WG member, other language speaking attendants expressed their intention of providing Italian, Japanese, Korean and Spanish version in PDF file, which would be sent to the Animateur and put on the web-site as well.

Our next discussion was to finalize a protocol for data search and acquisition proposed by the animateur as following:

- 1<sup>st</sup>. step; Hit “ita”, ”ita-aites”, ”tunnel”, ”tunnels”, or “tunneling” at general web-site to reach the ITA web-site with search engine. The search engine should be prepared by ITA.
- 2<sup>nd</sup>. step; Type relevant keywords from the “Classifications and Definition of TBMs with recommended keywords”.
- 3<sup>rd</sup>. step; Find list of papers with title, authors’ name and abstract from ITA database, which will be prepared and maintained by ITA.
- 4<sup>th</sup>. Step; Choose preferred papers and order them in a form of hard printing or CD-ROM from the web-site.

The last step is a priced procedure. The pricing scheme will be discussed and determined by Executive Council.

After our achievement is open to public, prospective authors of scientific paper to ITA such as WTC proceedings, TUST or TRIBUNE are strongly advised to follow our requirement in writing their abstract and selecting its keywords.

Our final discussion was a future theme of the WG14. Because the WG name of “Mechanization of Excavation” implies the word of “Automation” or “Robot”, it was decided that we should make some recommendation on acquisition and interpretation of tunnelling data and on a reaction process as a very first step to fully automated tunnelling. Hard rock TBM, EPB shield and Slurry shield were chosen to make a model study on the recommendation. Mr. Amberg, the vice-animateur from Switzerland, volunteered for a model of hard rock TBM, Dr. Maidl from Germany and Mr. Guglielmetti from Italy volunteered for EPB shield, and the animateur from Japan volunteered for Slurry shield. The first rough draft would be discussed on our email communication system or on the new web-site among the WG member. We expect the final draft would be discussed at WTC2004 in Singapore.

At the same time each WG member was advised to send any information on sticking material on TBM such as geotechnical data, problem cases at site, or cases of countermeasures taken at site to Mr. Schwenzfeier, Cetu France, who would make draft recommendation on geological investigation, TBM design, tunnelling plan, preventive measures and measures to be considered at site. This issue would be discussed again at WTC2004 in Singapore as well.

**17.8. – WG 15 – Environment:** Animateur: R. Craig (United Kingdom), Vice-Animateur: J. Rhode (Norway), Tutor: H. Parker (USA), report presented by R. Craig

The Working Group met on two occasions and was attended by representatives from nine Member Nations – Czech Republic, Japan, Korea, Norway, Sweden, South Africa, The Netherlands, The United Kingdom and The United States of America.

A guest speaker at the Working Group was Jan Hartlen, from Sweden, who is Chairman of Work Package 5 of the European Union GeoTechNet. Mr Hartlen had been invited to attend the meeting to discuss his Work Package whose objective is to minimise the risk of a severe environmental impact as a result of geotechnical works.

The General Assembly will remember that over the last three years I have mentioned the EU Water Framework Directive whose aim is to restrict or ban the placing of materials into the ground. This Directive is a major threat to the underground industry, not only in the EU but also worldwide, and if implemented, as originally written, would have banned such as techniques as sheet piling, diaphragm walls and tunnelling.

GeoTechNet was formed to review construction methods and materials and to report back to the EU by 2005. The final report will be a best practice document evaluating the environmental impact associated with geotechnical construction methods and materials with specific reference to the conditions in each member country of the EU and to the Directive.

The next meeting of GeoTechNet will be in Paris next month and I have been invited to attend the meeting so that the Working Group can be kept informed of the work. This will be particularly relevant to our Working Group's potential next project of 'TBM Tunnelling and the Environment'

The Working Group had six presentations from the USA, South Africa, Norway, Japan, The Netherlands and the Czech Republic on projects where the environment has played a major role. In addition the Tutor, Harvey Parker, informed the meeting about the World Federation of Engineering Organisations and their Committee called ComTechs.

The Summary Report of the Working Group's earlier work was published in the October 2002 issue of Tribune.

The first draft of a report on Environmental and Sustainable Development reasons for going underground was discussed and will be forwarded to the Executive Council later in the year. It is hoped that this could be published in one of the last issues of Tribune.

The Working Group is now concentrating on collecting information on projects

- Whose construction or operation have affected the environment
- Where major environmental constraints were imposed during the construction, and
- Where the design and construction has had to take into account major environmental constraints.

The short questionnaire is being re-issued to Member Nations not represented on the Working Group. The draft reports on these topics will be prepared during the year for discussion in Singapore.

During the year the Working Group has corresponded by e-mail and, with a few new names from this meeting, the group e-mail has about 35 names from 22 Member Nations. The use of the forum has slowed down this last year, but the Working Group was encouraged by the news of the relaunch of the website and agreed to continue the use of the forum.



The Working Group discussed how to engage more Member Nations in their work. Mr President, my challenge to the Executive Council during the last two years to encourage more participation in the Working Groups is making rather slow progress. With less than half of the Member Nations represented on a Working Group attending the annual meeting each year it is important that more of the work is carried out during the year through correspondence, e-mails, the forum etc.

Being a Member Nation's representative on a working group is not onerous, so may I encourage all the national representatives here today to go back home and review their list of participants on each of the working groups.

Lastly, Mr President, please could the Executive Council try to avoid the annual meeting being held during the two weeks of Easter.

**17.9. – WG 16 – Quality:** Animateur: C. Oggeri (Italy), Vice-Animateur: G. Ova (Norway), Tutor: J. Hess (Czech Republic), report presented by C. Oggeri

Working group 16 on Quality in Tunnelling has presented here in Amsterdam its final draft report to the ITA Council, specifically to the reviewers appointed by the tutor Mr J. Hess. While waiting for the decisions of the reviewers some technical improvements and editing corrections have been done in order to obtain a satisfying result for printing.

The working group is proposing to submit for publication the report to TUST editorial board, eventually for a special issue, taking into account that the report is made of 50 pages approximately.

The prosecution of the activity of the working group is now aimed to the presentation for the web site and for the preparation of educational material for the Training WG.

The future activities of the WG, once the report will be definitely ready, depends on the new energies that actual and especially new members will put inside: here in Amsterdam the WG has found new ideas for developments, in the field of "monitoring"; there are obviously several and different ways to monitor a job:

- the suitability of geotechnical design,
- the control of environmental parameters,
- the respect of the budget of the project,
- the performance of the excavation methods,
- the measurement of rock mass behaviour.

The basic idea for the development of the activity of the WG is the observation of the results as one of the practical ways of measuring if the job has done well.

In the slides there is a summary of the main conclusions of the report.

**17.10. – WG 17 – Long tunnels at great depth:** Animateur: F. Descoedres (Switzerland), Vice-Animateur: P. Grasso (Italy), Tutor: F. Vuilleumier (Switzerland), report presented by F. Descoedres

Sixteen people from twelve countries (Colombia, Korea, Croatia, France, Italy, Japan, Norway, Russia, Sweden, Switzerland, Taiwan and the USA) attended the meeting. In accordance with the decisions made in Sydney in 2002, a special meeting of the WG was organised in Switzerland in January, combined with a technical visit of the construction site of the new rail tunnel of Lotschberg.

Some contributions of the participants from France, Italy, Switzerland and the USA were received and used for the drafting of the first draft report of the WG. This draft report was presented twice and finally approved, knowing that some proposals of corrections and improvements are still expected from the participants until the end of May. The final report will then be submitted to the Executive Council for publication in TUST still this year.

The report is focused on long rail and road tunnels of transport. In accordance with the initial aims of the WG, a general methodology was defined to respect the assessment and the management of the risks which are very high in this type of work, all along the period of the project (from the feasibility study to the construction and the operation). The recommendations were drafted according to the following table of contents:

- Introduction and aims
- Specifications of the project
- Geological conditions and exploration
- Safety and environment
- Requirements of the project
- Construction
- Specific conditions for the operation of rail tunnels
- Specific conditions for the operation of road tunnels
- Risk assessment
- References

The Animateur considers that the aims assigned to the WG were met and would like to withdraw after four years of activity.

The group however discussed other aims which could be the object of a working follow-up:

- illustration of the methodology proposed by some case studies describing in details the construction and the operation of long tunnels of transport at great depth, carefully selected
- thorough study of the safety aspects in operation
- possible extension to hydroelectric galleries.

These topics of reflection are submitted to the Executive Council for the next General Assembly.

**17.11. – WG 18 – Training:** Animateur: D. Peila (Italy), Vice-Animateur: N. Chittenden (Switzerland), Tutor: J. Zhao (Singapore), report presented by D. Peila

The meeting of the WG 18 “Training” was attended by 7 people from 7 countries: Italy, Singapore, Switzerland, France, Belgium, Japan and The Netherlands.

The group started his work with the presentation of reports coming from France, Belgium, Japan and Italy on teaching material and activities which have been developed in the last year.

France and Belgium presented an interesting hyper-text that has to be used for teaching activity in the Universities.

It was decided also that the teaching levels to which address our work may be subdivided in Basic Level, Training Professionals and High Education (for examples Master courses)

Our activity must be able to provide didactic material, which can be used by professors for all this level of education.

The Working Group analysed the reports that were obtained from the Member Nations in the previous year (after the meeting in Sydney).

The obtained Power Point presentations were very interesting but could not be used directly for teaching purposes since they are too detailed and with reduced number and lines of explanation for each slide.

On this basis the group member after a wide and open discussion has decided to modify the scheme for tunnel data collection.

We will try to get simpler examples of already excavated tunnels described with few photo or drawings each of them provided of a short description.

These structures will be explained through a scheme already prepared by the Animateur. It will be made available to all the Member Nations.

Finally the obtained data will be made available on the ITA web site for didactic purposes and we hope that the first products will be available for the Next Congress in Singapore.

The Group has also decided to prepare a list of Universities involved in Tunnelling teaching and research activities.

This will be made with the definition of a simple scheme, which will be prepared by The Netherlands delegate. This list with the various web links will be put on ITA web site and will be gradually improved in time.

Finally the working group reviewed the document prepared by WG 2 for “Guide for Design of Shield Tunnel Lining”. It is a really good document clear and simple but it needs a small revision to make it homogeneous with the standards proposed by the WG Training.

This work will be done by the Animateur and sent to all the WG members for suggestions and help. After that it will be sent for the final revision to the WG members who prepared it.

As a summary the working group activity in the next year will be focused on the following activities:

- to improve the University Network (on the web site). We suggest to give the following information: Names and address of the reference person, list of existing courses, list of research activities in tunnelling sector, list of graduate theses and PhD thesis, and more)
- to prepare teaching material which can be offered by ITA through the web site
- to prepare a standard of teaching presentation to help working groups to prepare the didactic synthesis of their works;
- to prepare a standard of teaching presentation which can be used for the future “teaching courses” (to be organised) given by ITA members during the various tunnelling congresses.

In ending my report to General assembly today I would like to say that we ask the help of all the member nations in our work both answering to our request of information and with the attendance to the activities of the group.

**17.12. – WG 19 – Conventional Tunnelling:** Animateur: K. Kuhnenn (Germany); Vice-Animateur: H. Lauffer (Austria), Tutor: A. Assis (Brazil), report presented by K. Kuhnenn

In Amsterdam the second meeting was held. Because of no response the Istanbul meeting during the Turkish tunnel congress last October had to be cancelled. Therefore the progress of the work was not too much. At the Salzburg Colloquium last year the Animateur, the vice Animateur and some friends decided to prepare the first draft of the Austrian national report, and also some first considerations about history and definitions by the animateur.

Answering the Animateurs e-mail of early March to all known members there was a first positive response. So together with his final invitation for the Amsterdam meeting, the Animateur was pleased to know about participation of numerous members and the following presentations:

- National report of Czech Republic –second draft-
- National report of Austria –first draft-
- National report of Japan – first draft-and comments to the further work of WG 19
- Comments and short lectures of these nations
- Report about Contractual practice in tunnel jobs by the USA-member
- History and definition of Conventional Tunnelling-first draft-

The meeting was held in two blocks participated by 20 members from 12 nations.

Following the proposed agenda the first topic was the presentation of the Austrian report. Our colleagues from Austria really have done a big job. The very detailed and complete paper can be taken as a guideline for the other outstanding reports. All main aspects like geological investigations, geotechnical evaluation and rockmass behaviour are described as well as the necessary design steps to the final design, the monitoring and the contractual aspects.

Also Czech Republic and Japan presented remarkable aspects in their reports, which will be a good orientation for the ongoing works.

As a result of the first days meeting it was agreed that the Austrian member together with the animateurs shall prepare a table with all important topics.

In the second days meeting this table has been discussed and will be modified to be sent by e-mail to all members.

The United States member then presented his excellent paper on contracts for tunnel jobs. In his report all suitable and different contractual practices for this field were presented explained and commented. After some questions and discussions it is agreed that this paper will be an important help for the finalisation of our paper. All members will get a copy via Internet.

The French colleagues agreed to work out a draft for: History and Definition of Conventional Tunnelling on what the animateur had prepared a concept.

Our meeting was closed after agreement about the timetable for the next steps: within four months from now on the members will deliver their reports to the animateur. The reports will be discussed between the animateurs and any participating member of WG 19 during the Salzburg Geomechanics-Colloquium this year and will help to structure the ongoing work until the next meeting in Singapore in 2004.

**17.13. – WG 20 – Urban Problems – Underground Solutions:** Animateur: John Reilly (USA); Vice-Animateur: Eivind Grov (Norway) and Jungi Nishi (ACUUS); Tutor: Jean-Paul Godard (France), report presented by John Reilly

Working Group Number 20, with the topic “Urban Problems – Underground Solutions” was created in Sydney last year. At that time, ITA invited the Association ACUUS to participate as a “Sister Organisation” in this important activity, with representation in the Working Group at the Vice Animateur level.

Additionally France and USA have formed National Groups on this topic and their representatives participated in the Working Group meetings in Amsterdam. We encourage other countries to also form National Groups on this Topic.

During the past year, a data questionnaire was sent to all ITA Member Nations, asking them to identify the urban problems that have been solved, or could have been solved, by the use of underground space or facilities. ITA President Andre Assis assisted in this by sending a letter to the Member Nation Representatives, noting the importance of this topic to ITA.

As a result of this questionnaire, 6 reports – of varying length - were received from France, USA, Russia, Sweden Japan and Germany. Short letters were received from Norway, Netherlands, Czech Republic and Bulgaria. This means that 6 countries have responded to the questionnaire and 4 others have contributed. We would like that more countries respond to this topic in the coming year. In particular, the needs of developing countries are of great interest to the Working Group.

During this conference, the Working Group held 2 meetings. There was good attendance with 28 individuals, representing 18 countries. Discussion on the topic, and the best way for the Working Group to proceed, was lively. The Working Group decided to create a comprehensive list of the urban problems of relevance - that are of interest to planners, engineers and political decision makers - as they consider new infrastructure projects in Urban Areas.

At the same time, case studies will be made of projects that have used underground space to solve one or more of these urban problems. It is hoped that these projects will be sufficiently diverse to represent good examples of solutions to the set of urban problems.

Then, before meeting in Singapore in 2004, the relationship between the urban problems and how they have been resolved by these projects will be examined. In this way, it will be possible to show which urban problems have been resolved by specific projects. It is hoped that the list of projects will grow so that a comprehensive statement can be made on this question and that the project examples become a good source of documentation for new, possibly innovative, solutions to Urban Problems.

## **18 – DECISION CONCERNING THE AMENDMENT OF THE STATUTES AND BY-LAWS**

a) The President reminded and commented upon the main amendments proposed to the approval of the General Assembly; he pointed out that these amendments were examined, as planned, with the delegate from the USA.

b) Numerous requests of explanations or proposals of amendments were expressed in session by the delegates from South Africa, Belgium, Egypt, Italy, Romania, the United Kingdom, Sweden and the USA.

c) The following amendments, compared to the proposals sent, were approved by the General Assembly:

- For the Statutes:
  - Art. 2.1 b); add "safety" after "rehabilitation"
  - Art. 12.2; last 3 lines English version; "...in this Section. In the absence of such institutions, this asset should be given to a charitable organisation"
- For the By -Laws:
  - Art. 1.2 c) English version: 5<sup>th</sup> line "absolute" and 8<sup>th</sup> line "... a third and last.."
  - Art. 1.3 a) the Assembly vote (19 for, 17 against, 1 abstention) for the election for 3 years of the substitute of a resigning Vice-President

d) The Assembly unanimously approved the review of the Statutes and By-Laws thus amended. The final version was enclosed to the present minutes (Encl. 5)

## **19 – DECISION RELATED TO THE RATE OF PUBLICATION OF TRIBUNE**

a) The President reminded the text of the motion presented by the Executive Council (Encl. 6).

b) The proposed text was unanimously voted.

## **20 – APPOINTMENT OF THE MEMBERS OF THE COMMITTEE OF NOMINATION**

a) 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. HAACK
- the past President               S. PELIZZA
- the Honorary President        AM. MUIR WOOD

under the chairmanship of the retiring President.

b) The President reminded that the Member Nations should help the work of the committee, which is to identify the potential candidates, while taking into account their geographical distribution.

## **21 – APPOINTMENT OF THE AUDITOR ON THE CONFORMITY OF THE ACTIONS OF THE EXECUTIVE COUNCIL**

a) Two candidates were proposed for the year 2003.

The delegate from the United Kingdom proposed the appointment of the delegate from Romania, S. CALINESCU.

The delegate from the USA proposed the appointment of E. BROCH.

b) The general Assembly chose S. CALINESCU by 19 votes against 14 to E. BROCH and 4 abstentions.

## **22 – BUDGET**

### ***22.1. Draft budgets for 2003 and 2004***

a) The draft budgets for 2003 and 2004, sent along to the members with the notice to the General Assembly, were presented and commented by the Treasurer. (Encl. 7)

He notably pointed out that the main modifications for 2003 are related:

- for the incomes, to the adjustment of the current number of members, to the introduction of the “partners” of the Association, and to the receipts expected from the meeting 2003;
- for the expenses, to the hiring of a clerk, and to the creation of the new web site.

The slight deficit expected will have to be compensated by an increase of the incomes, notably by the membership of new Corporate Affiliate Members.

On similar bases, but a lot more voluntarist as far as the “partners” of the Association are concerned, the result for 2004 should be definitely more positive.

The Treasurer also showed that the budget “Expenditures” is divided up as follows: 40% for the Personnel, 20% of Logistics, 15% of Investment-Production and 25% of surplus compared to the Total Income which are divided up as follows: 40% of Subscription fees, 20% of Grants and 40% of Donations on the web site and on meetings.

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

### ***22.2. Provisions concerning the auditing of the accounts***

In accordance with the decisions of the General Assembly 2001, the certification of the accounts will be made, in accordance with the Swiss law, by a “fiduciary”.

## **23 – CHOICE OF THE PLACE FOR THE GENERAL ASSEMBLY 2006**

a) The delegate from South Korea presented the candidature of his country for the organisation of the annual meeting at the end of April-beginning of May, knowing that the topic of the WTC is “Safety in the Underground Space”.

b) The delegate from Japan presented the candidature of his country for the organisation of the annual meeting, knowing that the topic of the WTC is “Why go Underground”.

c) The General Assembly voted in favour of South Korea by 26 votes against 13 for Japan.

d) The Austrian delegate would like to have the amount of registration fees to the Congress reduced and the Dutch delegate would like to be kept the Congress participants informed about the meetings of the ITA WG.

## **24 – OTHER BUSINESS**

a) The President reported that the next Executive meetings will be held:

- in Vienna in July 2003
- in Seoul in October 2003
- in Brazil in February/March 2004

Other ad hoc meetings will be organised according to the offers from the Member Nations, notably in Indonesia in September 2003.

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

## **25 – CLOSING SPEECHES**

- a) The President thanked the Dutch national group and more particularly H.OUD for the success of the meeting in 2003.
- b) H. OUD gave the latest figures of participation in the Congress to which 900 delegates from 55 countries attended.

**The President**

**A. ASSIS**

**The Secretary General**

**C. BERENGUIER**