

**Canadian National Committee
of the Commission Internationale de
l'Eclairage**

(CNC/CIE)

32nd Annual Meeting

Date:

Tuesday, December 1, 1987

Place :

**National Research Council of Canada
Division of Physics
Building M-36
Ottawa, Ontario**

Time:

10:00 am - 4:00 pm

Agenda

1. Call to order and approval of agenda
2. Minutes of 31st Annual Meeting
3. President's Report
4. Secretary's Report
5. Reports from CIE Division Members
6. Nominations and appointments of CIE members
7. Publicity
8. Finances
9. Other business
10. Adjournment

Minutes of the 32nd Meeting of the
Canadian National Committee of the
Commission Internationale de l'Eclairage (CIE)

Held at NRC, Building M-36, December 1, 1987.

CNC/CIE Members Present: B. Tansley, Carleton University; I. Pasini, Public Works Canada; M. Rea, NRC/IRC; W. Budde, NRC (retired);
P. Kaiser, York University; W. Adrian, University of Waterloo; J. Roberge, Infranor, Canada;
M. Bassett, University of Toronto
Visitor: J. Stone, NRC/Bureau of International Relations

Minutes:

1. Call to Order
2. Unanimous approval of agenda
3. Apologies: resignation of Mr. Subotich.
4. Discussion of minutes of 31st meeting--1986 and matters arising from the minutes...

- section 7, page 2 'Currie' should read 'Bassett'
- questions arising regarding the lack of report from Division 6 - discussion of letter to CIE President regarding the travel costs to the quadrennial sessions...
- Expression of support of John Kaufman as Vice President, without portfolio
- discussion of support to get NRC funding for Budde
- Kaiser noted the passing of Mr. Jim Bartleson of the USNC/CIE and requested a letter of sympathy be sent to Mrs. Jim Bartleson (unanimous approval)

5. President's Report: As submitted...

M. Bassett commented that non-CIE members should be supplied with background documentation over and above that of the voting members.

Regarding the policy of the NRC/BIR to prefer regional representation on the Canadian national committees of international scientific and technical committees:

Technical expertise is considered above all, then regional distribution of CNC membership.

Discussion ensued regarding the availability of information for non-members of the CIE. The

president noted that it is the responsibility of the CNC/CIE Division members to provide information to individuals within Canada who are interested in CIE work and knowledge.

M. Rea raised the question of what the responsibilities of the Division members are within CNC/CIE.

It was recognized that the CIE's 'product' is information and that the dissemination of CIE technical reports and documents was important.

Approval of acceptance of the President's Report

Moved: Bassett; Seconded: Kaiser; Carried.

4. Secretary's Report:

Kaiser moved that B.Tansley submit a proposal to the executive committee an inventory list and information regarding bank account, etc. for establishment of a publications sales office out of Tansley's office at Carleton University. Seconded by Bassett; Carried

5. Reports from CIE Division Members and Discussions as tabled.

No reports tabled from Div. 5 and Div. 7; Div. 6 report tabled verbally re: meetings in Venice.

6. Nominations and Appointments to Committees:

Last year's nominations were returned to CISTA for approval

M. Basset moved that Alan Robertson and Peter Kaiser be reappointed for new terms in their incumbent positions.

Ivan Pasini was proposed as Canadian member to Div. 3.

Division members were reviewed. The member to Div. 6 was to be appointed in a few months.

What does this mean?

7. Publicity. Tansley proposed to send out in the next year, a publication list and order form for CIE publications to everyone on the CIE current mailing list and to attempt to provide a wider coverage of locations in Canada where expertise in lighting is found.

8. Other Business

9. Adjournment.

Report of CNC/CIE President

A.R.Robertson

December 1987

1. The 1987 dues for Canadian membership in the CIE were U.S.\$2711.70. These were paid by the National Research Council (NRC) in April.
2. The 21st Session of the CIE was held in Venice, Italy in June 1987. The Canadian delegation consisted of 10 members. A report that I sent to the NRC Bureau of International Relations is attached to this report.
3. The NRC Bureau of International Relations allocated \$5000 to help cover the expenses of the Canadian delegation to Venice. This was used to subsidize the travel and living expenses of Dr.P.K.Kaiser and Dr.B.W.Tansley.
4. The proposal to merge the CIE Journal with Lighting Research and Technology was not accepted by the CIE Executive Committee. It and the CIE News will continue in their present form for two years to allow the Board of Administration time to formulate alternative proposals. I would welcome comments from CNC/CIE members on this question.
5. The question of financing CNC/CIE activities, such as travel to Division meetings, clerical and secretarial costs, dissemination of CIE publications etc, remains a difficult one. This should be discussed again at the 1987 meeting of the CNC/CIE.
6. The NRC Bureau of International Relations has questioned the regional and linguistic balance of the CNC/CIE. This is another item that should be discussed by the Committee.
7. I have assembled a package of information about the CIE and the CNC/CIE. This package could form the basis of publicity efforts.

Report of the 21st Session of the CIE, Venice, June 1987

A.R. Robertson
President
Canadian National Committee of CIE

The 21st Session of the International Commission on Illumination (CIE) was held in Venice, Italy on 17-25 June 1987. A total of 477 delegates attended, representing 35 countries. The Canadian delegation consisted of:

Prof. M.G. Bassett, University of Toronto
Mr. W. Budde, National Research Council
Mr. R.V. Day, Canadian General Electric
Dr. P.K. Kaiser, York University
Prof. D. Moizer, Carleton University
Mr. I. Pasini, Public Works Canada
Dr. M.S. Rea, National Research Council
Mr. J. Roberge, Infranor Canada Inc.
Dr. A.R. Robertson, National Research Council
Dr. B.W. Tansley, Carleton University

Mr. Haider Zaidi of the University of New Brunswick was also listed as an attendee but did not make contact with the delegation.

The technical work of the Commission is accomplished by seven Divisions, each covering one field of activity of the CIE. At least one member of the Canadian delegation attended each Division meeting. Reports of these meetings are available.

The Executive Committee, which consists of two representatives from each member country, met twice during the Session. Dr. A.R. Robertson and Dr. P.K. Kaiser represented Canada.

Three new countries (China (People's Republic), India and Thailand) were admitted to membership, while the membership of four other countries (Mexico, Pakistan, Peru and Portugal) was suspended for failure to pay dues.

The finances of the CIE are in good shape, largely due to the generosity of the National Research Council of Canada in accommodating and supporting the Central Bureau for the last four years. The delegates approved a larger budget for the next quadrennium (1988-1991) in order to support a permanent full-service Central Bureau in Vienna, Austria. The amount to be contributed by national dues will be US\$84 000 in 1988 and US\$97 000 in 1989 compared to US\$271 000 for the four years 1984-1987. Canada's contribution will be 20 parts in 597 compared to 23 parts in 574 for 1984-1987. Details are attached to this report.

A memorandum of understanding has been signed between the CIE, the International Electrotechnical Commission (IEC) and the International Organization for Standardization (ISO) to establish maximum cooperation and avoid duplication of work in the field of lighting, (ie. light sources, colour, photometry and colorimetry, illuminating engineering).

Canada will not be represented directly on the Board of Administration in the next quadrennium. However, Dr. A.R. Robertson will be Associate Director of Division 1 (Vision and Colour) and Dr. B.W. Tansley will be Editor for Division 4 (Lighting and Signalling for Transport). Dr. H.W. Bodmann of Germany, Federal Republic was elected as the new President of the CIE. He succeeds Mr. A.M. Marsden (Hong Kong) who filled the uncompleted term of the late Dr. G. Wyszecki (Canada).

The 22nd Session will be held in 1991 in Australia. The Executive Committee will hold a mid-term meeting in 1989, probably in Vienna, Austria.

INTERNATIONAL COMMISSION ON ILLUMINATION

OFFICE OF THE TREASURER

CIE UNITS

National Committee	Past C I E Units				UNO Units		CIE Units 88-91
	68	78-80	80-83	84-87	83-85	86-88	
Argentina	-	-	7	5	0.77	0.62	6
Australia	12	12	12	13	1.81	1.66	11
Austria	7	5	5	5	0.70	0.74	6
Belgium	8	8	8	8	1.21	1.18	8
Brazil	-	-	-	9	1.26	1.40	9
Bulgaria	5	5	5	5	0.16	0.16	6
Canada	22	23	26	23	3.24	3.06	20
China	-	-	-	-	-	0.79	6
Czechoslovakia	10	7	7	6	0.82	0.70	6
Denmark	6	5	5	5	0.73	0.72	6
Finland	5	5	5	5	0.47	0.50	6
France	43	44	45	43	6.19	6.37	41
German DR	-	-	10	9	1.37	1.33	9
German FR	42	58	60	57	8.22	8.26	53
Great Britain	40	34	35	31	4.41	4.86	31
Hong Kong	-	-	-	5			6
Hungary	6	5	5	5	0.33	0.22	6
Iceland	5	5	5	3	0.03	0.03	3
India	-	-	-	-	0.36	0.35	6
Israel	4	5	5	5	0.25	0.22	6
Italy	30	26	26	24	3.41	3.79	24
Japan	26	46	45	66	9.48	10.84	69
Mexico	-	-	-	5	0.75	0.89	6
Netherlands	11	11	11	11	1.61	1.74	11
New Zealand	-	-	-	-	0.27	0.24	6
Norway	5	5	5	5	0.49	0.54	6
Pakistan	-	-	-	5	0.07	0.06	6
Peru	-	-	-	5	0.06	0.07	6
Poland	12	11	11	9	1.23	0.64	6
Portugal	5	5	5	5	0.19	0.18	6
South Africa	7	5	5	5	0.40	0.44	6
Spain	19	12	12	12	1.68	2.03	13
Sweden	9	9	10	9	1.30	1.25	8
Switzerland	7	7	7	7	1.04	1.12	7
Thailand	-	-	-	-		0.09	6
USSR	80	80	80	77	10.98	10.20	65
USA	80	80	80	82	25.00	25.00	89
Yugoslavia	5	5	5	5	0.41	0.46	6
TOTAL				574		92.75	597

INTERNATIONAL COMMISSION ON ILLUMINATION

OFFICE OF THE TREASURER

DRAFT BUDGET - 1988-1989

(Unit US \$1000)

	1984-87 Budget	1984-87 Projected	1988 Budget	1989 Budget
INCOME				
1. Dues	256	271	84	97
2. Publications	90	89	28	30
3. Interest	30	56	10	10
4. Transfer from Reserves	0	55	44	39
5. Rent Account Fund	0	15	15	15
6. Other	0	0	0	0
Total Income	376 (94)	486 (122)	181	191
EXPENSES				
<u>Central Bureau-Vienna</u>				
1. Payroll	160	87	73	80
2. Payroll Tax	0	12	21	23
3. Office Rent	0	15	15	15
4. Office Heat, Light	0	2	5	5
5. Travel	10	15	7	8
6. Paper, Post, Tel.	12	6	10	10
7. Admin. Printing	0	5	3	3
8. Insurance	0	13	7	7
9. Accounting/Tax	0	8	8	8
10. Office Maintenance	0	4	5	5
11. Equipment Maintenance	0	1	2	2
12. Miscellaneous	30	15	1	1
Sub-Total	212 (53)	183 (46)	157	167
<u>Publ. Bureau-Budapest</u>				
13. Staff	42	15	6	6
14. Printing	72	54	10	10
15. Journal/News	50	10	5	5
16. Paper, Post, Tel.	0	12	2	2
17. Miscellaneous	0	3	1	1
Sub-Total	164 (41)	94 (24)	24	24
Total Expense	376	277	181	191
Balance	0	189	0	0

JEJewell: cg
19 June, 1987

Canadian National Committee of the CIE

**32nd Annual meeting,
10:00 am - 4:00 pm
Building M-36
NRC, Ottawa,
December 1, 1987**

Secretary's Report, 1987

Secretary's Address:

Dr. Brian W. Tansley,
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1. We have received permission from CIE Central Bureau to hold 5 copies of each of the publications of the CIE for sale on consignment. These will be sold out of my office/lab at Carleton University. It was our intention to sell these at CIE cost but several people have suggested that we 'retail' these publications at a slight markup. The profits from this markup would then be used by CNC/CIE for its own purposes. While the cost is already rather high for some of this material, we might consider doing this in order to subsidize the production of promotional and educational materials for distribution within Canada or in order to cover the cost of mailing CIE materials within the CNC/CIE? Carleton University is currently covering the cost of postage for CNC/CIE mailings (one mailing costs approximately \$100). The USNC sells CIE publications and supports some of its activities in this way.

I would appreciate some guidance from the national committee regarding this.

2. After a couple of years of 'needling' at Division 4 meetings, I have finally managed to get Norb Johnson, of 3M in St.Paul, MN to send me a small inventory of retroreflective sheeting material for educational use. If you could use any of this material, please contact me and I'll be glad to send you some. There are both regular and engineering grade materials, in a variety of colours.

3. CNC/CIE Mailing List and CIE Roster:

I have the CNC/CIE mailing list on computer and am trying to keep it up to date. The last mailing of materials wasn't too bad for bad address returns from the post office, but the previous one *was*! Also, we have been asked to update the CNC/CIE roster for the Central Bureau. I have the present address lists here and would appreciate your looking through them to see if any errors can be found (especially Division Members and executive committee members).

Brian W. Tansley

CIE Division 2: Physical Measurement of Light
and Radiation

Report to CNC/CIE, December 1987

Canadian Member : Dr. A.R. Robertson
Division of Physics
National Research Council
Ottawa, Ontario
K1A 0R6

Division 2 had an active first quadrennium, culminating in 1½ days of meetings at the Venice Session of the CIE.

Dr. Klaus Mielenz (USA) will continue as Director with Dr. Jack Hsia (USA) as Secretary. Associate Directors will be Dr. Franz Hengstberger (South Africa), Mr. John Moore (UK) and Mr. Jean Bastie (France).

Seven new TC's were established, and three reporters were assigned as follows:

TC2-25 (Gundlach, Calibration Methods and Photoluminescent Standard for Total Radiance Factor Measurements)

Terms of Reference: To prepare a CIE report on Methods for measurements of the total radiance factors of photoluminescent materials. Recommendations for realizing and calibrating photoluminescent standards by the one- and two-monochromator methods will be included.

TC2-26 (Vacancy, Measurement of Color Self-Luminous Displays)

Terms of Reference: To formulate a CIE guide to the various methods of measurement of the radiometric, photometric and colorimetric parameters (properties) of color self-luminous displays.

TC2-27 (Vandermeersch, Interpretations of the Photometric Data of Lamps and Luminaries for Service Use)

Terms of Reference: To prepare a CIE guide for the correct application of photometric data in lighting design calculations.

TC2-28 (Verrill, Methods of Characterizing Spectrophotometers)

Terms of Reference: To write a CIE report on the characterization of spectrophotometers by means of reference materials and other methods with particular reference to linearity, wavelength error, stray light and integrating sphere errors.

TC2-29 (Kaase, Measurements of Detector Linearity)

Terms of Reference: To prepare a CIE guide on methods for the characterization of the linearity of detectors of optical radiation including different principles by which the linearity of detectors can be determined and causes of non-linearity behaviors to aid users of optical radiation detectors in the selection and use of suitable devices for specific applications.

TC2-30 (Wychorski, Diode Array Radiometry)

Terms of Reference: To prepare an annotated bibliography for the CIE Journal on the emerging field of diode array radiometry. To make appropriate recommendations on future work in diode array radiometry.

TC2-31 (Krochmann, Actinic Radiation)

Terms of Reference: To prepare a CIE guide for obtaining action spectra.

Reporters:

- F. Hengstberger (ZAF) "Fiber Optics"
- P. Wychorski (USA) "Xenon Flash Lamps"
- D. Sheffer (ISR) "IR Reflectance"

Full minutes of the meeting are available on request.

Progress Report for Division 3

Division 3 met on June 23 and the morning of June 24 1987 in Venice to discuss divisional issues and the progress of workload of its technical committees. The following is a summary of the salient points and highlights of this divisional meeting.

1. Co-ordinated efforts are underway to provide technical expertise and support to other organizations (CIB, UIA, ISO) when dealing in matters of technical competence CIE.
2. Technical Committees which have either fulfilled their mandate or proved unworkable are terminated (i.e. TC 3-02, TC 3-03)
3. New Technical Committees formed, after their title, terms of reference, objectives, list of members, chairman and justification were presented, discussed and approved. They are listed on the attached sheet.
4. It appears that several Technical Committees will in the position of presenting their final document for acceptance and publication to CIE before the next plenary session of 1991.
5. TC 3-07 proposed that an International Daylight Measurement Year be sanctioned in 1991 by the CIE. The purpose is to simultaneously collect global daylight data, for use in building sciences, thermal sciences, greenhouse operations and others. This proposal, submitted by Dr Kendrick, was approved and it will soon be submitted to the executive body of CIE for official approval and further action.



New Technical Committees of Division 3

- TC 3-12 "Optimization of daylight and solar data in respect to the lighting and in association with other aspects of building performance."
Chairperson: N. Ruck
- TC 3-13 "CIE discomfort glare evaluation system" Chairperson: to be selected
- TC 3-14 "Three dimensional forms of illuminance" Chairperson: Dr. Cuttle
- TC 3-15 "Standardization of intermediate sky luminance"
Chairperson: Dr. Matsuura
- TC 3-16 "Psychological aspects of lighting" Chairperson: Dr. Collins
- TC 3-17 "Establishing a quality value for Lighting Installations"
Chairperson: E. Krockmann (Pending approval by ballot)
- TC 3-18 "Standardization of photometric data for input use on microcomputers"
Chairperson: Mr. Van Ooyen
- TC 3-19 "Rational use of solar radiation in designing energy efficient systems of daylighting" Chairperson: Dr. Spiridonov
- TC 3-20 "Scale model photometry for interior lighting"
Chairperson: Professor N. Mojtaba

CIE Division 3: Interior Environment and Lighting Design
Report to CNC/ CIE, December 1987

Director: Mrs. P. Chauvel
Centre Scientifique & Technique
Du Bâtiment
Établissement de Nantes
11, rue Henri Picherit
F - 44300 Nantes (France)

Secretary: Mr. Hans. Allan Löfberg
Statens Inst. Byggnadsforskning
Box 785
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Canadian Member: 1. Pasini
Public Works Canada
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Tupper Building, D511
Riverside Dr.
Ottawa, Ontario, Canada
K1A 0M2

This is based on the minutes of Division 3 Meeting - Venice Italy,
June 23, 24 1987

TC 3-01: Discomfort Glare from small and large sources

Only small source are being studied at present and it appears that the luminance of the source is not the leading parameter for discomfort glare, but geometry might be.

TC 3-02: Deliberate variability in environmental conditions

Inactive for the past four years, it was disbanded.

TC 3-03: Selection of illuminance from specified ranges

A draft was produced but judged too complicated and unreliable to be published. Therefore this committee was also disbanded.

TC 3-04: Subjective response to lighting and shading control systems

Subjective response is not yet known and until it is little progress on promoting this type of controls can be expected. Effort are underway to collect data on subjective response.

TC 3-05: Industrial lighting and safety at work

A technical report will soon be published, followed by a guide to be prepared for the end of the quadrennium.

TC 3-06: Methods of evaluating the interior visual environment

Draft was presented and discussed but further input from national committee are still required to settle differences in prepared calculation procedures. Additional studies may be required before this draft can become final.

TC 3-07: International collaboration on daylighting availability measurements

A proposal for an international daylighting measurement year was approved to be presented to executives of CIE for sanctioning. If accepted probably 1991 would be such year and world-wide data collection will provide much needed information to designers.

TC 3-08: Collection of meteorological data for application to daylight design

Draft available but incomplete. This work was deferred to a new TC (TC 3-12).

TC 3-09: Average sky as a standard

Technical report almost ready for publication, but would require additional work to standardize one or more intermediate skies. This will be delegated to the new TC 3-15.

TC 3-10: Maintenance of Lighting Systems

Final draft will be ready by year-end.

TC 3-11: Daylighting Calculation Methods

This new TC is examining various alternatives and proposals on calculation methods, before a Technical Report can be drafted.

Eight new TC's were proposed and accepted as follows:

TC 3-12: Optimization on daylighting and solar radiation data in respect to the lighting in association with other aspects of building performance. Chairperson Dr. N. Ruck (Australia)

- . Terms of reference
- . Promote international enquiry on existing illuminance and irradiance data distributions in different climatic zones.
- . analyse these data as functions of meteorological quantities currently available at the main meteorological stations.
- . Development of an adequate methodology for predicting (or estimating) daylight illuminances and irradiances for regions or sites where such data are not available - In collaboration with TC 3-11.
- . Producing the necessary input data of the daylight environment to optimize its application to building interiors.

TC 3-13: "Cie discomfort glare evaluation system"
Chairman Mr. Kelvin Poulton (Australia)

- . Terms of reference.

To propose a practical CEI glare evaluation system based on generally accepted parameters influencing discomfort glare.

- . Objectives
- . To propose a practical glare evaluation system for the intended revision of the Guide on Interior Lighting.
- . The glare evaluation system should take into account the parameters which are generally considered to have a substantial influence on discomfort glare.
- . the aim will be to present a draft Technical Report to the Division at the midterm meeting.

TC 3-14 "Three-dimensional forms of illuminance"
Chairman Mr. K. Cuttle (New Zealand)

- . Terms of reference

To review forms of illuminance specification which are defined other than for incidence upon a two dimensional plane and which may serve as useful indices for lighting.

. Objective

To prepare a report for future Technical Committee on Interior Lighting Guide.

TC 3-15 "Standardization of intermediate sky luminance"
Chairman Mr. Kunio Matsuura (Japan)

. Terms of reference

To standardize intermediate sky or skies between the two already standardized clear and overcast sky.

. Objectives

There are various experimental and theoretical studies on intermediate skies between the two extremed weather conditions, i.e. clear and overcast skies perfectly. These intermediate skies are very important to estimate luminous quantities on the instantaneous or average condition in interior. Since the CEI already recommend the clear and overcast sky, it is necessary to standardize intermediate sky or skies.

TC 3-16: "Psychological aspects of lighting review committee"
Chairman Mr. B. Collins (USA)

. Terms of reference

Review the international literature on the psychological aspects of lighting and report on the findings of researches from various nations

. Objectives

To produce a Technical Report which summarizes the published international literature on the psychological aspects of lighting. Preliminary report to be prepared by the third quarter of 1989, with the final report to be submitted to the 1991 quadrennial meeting.

TC 3-17: "Standardization of photometric data for input use in (micro-)computer"
Proposed Chairman Mr. Lewin (USA) or
Mr. W. Egger (Austria)

. Terms of Reference

To develop a standard format of presentation of photometric data for (micro-)computer files, containing all the necessary data on lamps and luminaires required for lighting design calculations.

. Objective

Technical Report

TC 3-18: "Rational use of solar radiation in designing energy-efficient systems of daylighting"
Chairman Mr. A.V. Spiridonov (USSR)

- . Terms of reference
- . Improvement of methods for taking into account clear sky radiation, direct and reflected radiation, in designing daylighting of buildings
- . Exploration of energy-efficient systems of daylighting of buildings of various functions using systems of collection and redistribution of solar radiation.
- . Objective

Technical Report

TC 3-19: "Scale model photometry for interior lighting"
Chairman Pr. Navrab (USA)

- . Terms of reference

An established technique which has been in practice for many years by lighting and daylighting designers, architects and engineers. It is important for daylight interiors of complex geometry because other calculation methods can not satisfy the today lighting designer's needs.

- . Objectives

To develop guidelines to the proper use of scale model photometry technique; selection of model size, surface materials, size of detectors, simulation technique of lighting conditions, and photometric measurement procedures.

A proposal for an advanced ninth TC "Establishing a quality value for lighting installations" from Eike Krochmann (DEU). Some changes have been asked for, and a postal vote will be necessary.

Taking in to account that four Committees are disbanded, Division 3 is now involved in the work of fifteen Committees.

THIRD EDITION OF THE GUIDE OF INTERIOR LIGHTING

Marks-Wood Robinson is unanimously appointed by the Division, as Report for the new edition of the "Guide of Interior Lighting."

- . To report on the edition of CIE Publication 29-2 and to collect criticisms from the national representatives.
- . All that informations will served for the future; work on a new draft to be prepared for the next CIE session.
- . The new editing group under the form of a new TC to be constituted at the midterm session.

OTHER NEWS

1. The Director Mr. E. Barthes steps down from the chair and passes the chairmanship to the new Director Mrs. Pierrette Chauvel.
2. Mrs. Chauvel proposes for the future full meeting of Division 3, Tuesday 5th and Wednesday 6th of April 1988, in Paris.

The vote is: 12 yes; 6 no.

So the next meeting will be held in Paris, at a venue to be precised as soon as possible.

3. William Fisher, on behalf of the whole division members, thanks the past Director Emile Barthès for his leadership since the creation of Division 3. Mr. Barthès is asked to become Honorary Division Director.
3. The associated Director J.D. Kendrick is ready to prepare twice a year an activity report. For this reason each TC chairman is asked to send, with the same periodicity an activity report to his TC.

Canadian National Committee of the CIE

**32nd Annual meeting,
10:00 am - 4:00 pm
Building M-36
NRC, Ottawa,
December 1, 1987**

Division 4 Member's Report

Division 4 Member:

Dr. Brian W. Tansley,
Departments of Psychology and
Systems & Computer Engineering
Carleton University,
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The following summarizes the activities of Division 4 during the past year. The annual meeting was held on June 22 and 23, 1987, in conjunction with the Quadrennial Session of the CIE in Venice, Italy. Minutes of the Division 4 meeting are briefly summarized as follows:

1. TC Chairmen's Reports:

4-01 Light Signals for Traffic Control

-a Technical Report was produced this past quadrennium, entitled "A guide for the design of road traffic lights". This guide will be a technical report/guide under the new grouping of CIE documents and is an amended supplement to Publications CIE No. 48. This guide has been drafted in collaboration with PIARC.

4-02 Road Lighting and Accidents. This report has taken almost 10 years but is now in position to be voted upon at the next draft.

4-03 Urban Lighting. The sixth draft of this report has successfully been voted on and is now in the hands of the Division Editor.

4-04. Road Markings Draft No. 7 is being circulated for voting.

4-05 Signs. The 8th draft of the report on Signs has been approved

by the Board at the Venice meeting.

4-06 Vision through a perturbed atmosphere. Little progress has been made in this report due to the resignation of the chairman. The committee is currently reorganizing itself.

4-07 Design methods for road lighting (computerless design methods) This report will be ready about six months from the Venice meeting (January, 1988).

4-08 Tunnel Lighting. The revised draft of the old tunnel lighting report, publication No. 26 is nearly complete and will be submitted to the Division for approval soon.

4-09 Fundamentals of the Visual Task of Night Driving This report has undergone several drafts to date and is nearing completion with the work on the final chapter still in progress. The projected publication date is 1989.

4-10 A verbal report was presented without a written presentation. Some criticisms were made during the meeting of the way in which this TC was managed--especially with regard to the liason between CTB and CIE.

4-12 Solid State Signalling. The first meeting of this committee was held in Venice and a working outline was presented and agreed upon to the Division.

4-13 Daytime running lights. This committee has been newly struck and will include a Canadian input as we have DRL legislation due to come into effect by 1989.

2. Reporters: (Details available on request)

Flashing lights for transport

Glare Measurements for Road Lighting

Special Applications for Traffic Signals

Road Surfaces

Complex Backgrounds

Interference from Light with Astronomical Observations

Microcomputers in Lighting Design

Lighting Guidance for Waterways

3. Proposals for next Quadrennium (1987-1991)

New technical committees were formed:

4-15 lighting of roads for motorized traffic

4-16 the transfer of photometric data for road lighting

- 4-17 Visual Aspects of Variable Message Signs
- 4-18 Conspicuity of objects in complex backgrounds
- 4-14 Colours of Light signals

New Reporters:

Retroreflective sign maintenance

Road Markings

4. Editor's Report:

Five technical reports were edited in the past quadrennium.

Road surfaces and lighting

Guide to the uses and properties of retroreflectors at night

Visual aspects of road markings

Guide for the design of road traffic signals

Road Signs

5. Liason

The following liaisons were discussed: International Civil Aviation Organization (I.C.A.O.) Dr. Tansley was appointed CIE/ICAO Liason; new arrangements with the Permanent International Association of Roadway Congresses (PIARC) were discussed.

6. Since the Venice meeting, the following events have transpired in Division 4:

1. Dr. Elisabeth DeVries-DeMol has been appointed Secretary of the Division.
2. Dr. Brian Tansley has been appointed Editor of the Division.
3. The 1988 annual meeting of the Division has yet to be decided, but will either be in Norway in April or Karlsruhe in September to coincide with the 75th anniversary meeting.

Report of the Annual Meeting of the CIE
(Division 4--Lighting and Signalling for Transportation)

Brian Tansley - Division 4 Member for Canada

The meeting was held on the Island of San Giorgio Maggiore, Venice, Italy, as a portion of the 1987 Quadrennial Session of the CIE. At this meeting three new members were welcomed: Zhang Hai Cong, from China, T. Y. Cheung, from Hong Kong and A. Augdal from Norway. The Division Director's Annual report included a summary of the work done by the division over the past four years. Four technical reports were finalized during this quadrennium and published by the CIE. These are: Signs, Tunnel entrance lighting (Publication No. 61), Road Surfaces and Lighting (jointly published with PIARC) and The use of retroreflective materials at night. Division members have also reviewed 13 of the existing CIE publications relevant to Division 4 activity and submitted their recommendations regarding their disposition. Several of these are intended to be updated during the next four years by division technical committees. Each of the Technical Committee chairmen submitted his/her report for the activities of the TC during the past year. These include the following: 4-01 Light signals for traffic control; 4-02 Road lighting as an accident countermeasure; 4-03 Urban lighting; 4-04 Road lighting; 4-05 Signs; 4-06 Vision through a perturbed atmosphere; 4-07 Design methods for road lighting; 4-08 Tunnel Lighting; 4-09 Fundamentals of the Visual Task of Night Driving; 4-10 Automobile Headlighting; 4-12 Solid state signalling and 4-13 Daytime running lights. In addition there were reporters on the following topics: Flashing lights in transport, Glare measurements for road lighting, Special application of traffic signals, Road surfaces, Complex backgrounds, Interference from light with astronomical observations, Microcomputers for lighting design, Lighting guidance for waterways, Retroreflective sign maintenance and Road markings. Of the existing TCs, the following will continue with further work: 4-6, 4-9, 4-10, 4-12 and 4-13. Mr. Ron Holmes of the U.K. has been appointed as the new Division 4 Director; Dr. Elizabeth DeVries-Demol has been appointed as the new Secretary and Dr. Brian W. Tansley, of Canada, has been appointed Division 4 Editor. In addition, Dr. Brian Tansley has been appointed as the liason between CIE and the International Civil Aviation Organization, Visual Aids Panel. The next division meeting will be held in Norway, 1988.

Report of the Annual Meeting of the CIE
(Division 6--Photobiology)
Brian Tansley - Division 4 Member for Canada

The meeting was held on the Island of San Giorgio Maggiore, Venice, Italy, as a portion of the 1987 Quadrennial Session of the CIE. Because Canada has no active member of this division, I attended portions of this meeting, when my schedule permitted, and the following summarizes the highlights of the activities of those meetings.

A significant portion of this meeting involved discussion of research relating to the actinic effects of radiation. Actinic effects include all of the the non-visual effects upon the biomass, especially humans, of visible and paravisible radiation. The most common of these is sunburn, although actinic effects include all manner of chemical changes produced by exposure to light. In particular, there was much discussion regarding the controversy of the past several years about the potentially harmful actinic effects of fluorescent lighting indoors. It has been reported in some epidemiological studies that there was found an increased correlation between exposure to fluorescent lighting and the incidence of certain types of skin cancers. Several of the division members summarized research reports regarding this issue--some pro and some con. Their conclusions were that the evidence, to date, for any positive relationship between fluorescent light and carcinogenicity is rather meagre. However, given the wide use of fluorescent light, this problem will continue to be studied by the Division. Further reports and discussion included the relationship between increased ultraviolet radiation in incident sunlight, due to a decrease in atmospheric ozone and work on the effect of such changes upon commercial crop yields.

(Alan: I think the Canadian National Committee of the CIE should attempt to find a member to this Division. Perhaps someone from Agriculture Canada would be interested...)

