

INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE No. 3: GRAPHICAL SYMBOLS

Unconfirmed Minutes of the meeting
held in Athens
on 8th November 1972

Present:

Chairman: Mr. E. GEORGII (Switzerland)
Secretary: Mr. E. RUOSCH (Switzerland)

<u>COUNTRY</u>	<u>DELEGATES</u>
FINLAND	Mr. J. Jauhiainen
FRANCE	Mr. P. Cornu Mr. J.J. Ludwig Mr. Ch.A. Pannier
GERMANY	Mr. R. Auerbach Mr. P. Funck Mr. E. Teller
GREECE	Mr. A.C. Gogos Mr. D. Panos
NETHERLANDS	Mr. L.R. Polis
NORWAY	Mr. J. Pettersen
SPAIN	Mr. A. Almoguera
SWEDEN	Mr. J. Nordelöf
SWITZERLAND	Mr. M. Ducommun
UNITED KINGDOM	Mr. S.J. Aries
U.S.A.	Mr. C.A. Fricke

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I. OPENING OF THE MEETING

Mr. Georgii, the Chairman of TC 3 opened the meeting and welcomed the delegates.

II. APPROVAL OF THE DRAFT AGENDA

The draft agenda, Document 3(Central Office)547, was approved without amendments.

III. CONFIRMATION OF THE MINUTES OF THE MEETING HELD IN HELSINKI ON 9TH SEPTEMBER 1971 - RM 1428/TC 3

With the amendments on page 2, third line of Item IV, Mr. Dubray (not Dubran) and page 4, last word of Item XIII b), connection (and not conventions), the above-mentioned Minutes were confirmed.

IV. REPORT FROM THE CHAIRMAN OF THE CCI/IEC JOINT WORKING GROUP: GRAPHICAL SYMBOLS FOR TELECOMMUNICATIONS EQUIPMENT (APPENDIX A)

The Chairman of the CCI/IEC/JWG, Mr. Aries, read out his report.

V. REPORTS OF SC 3A: GRAPHICAL SYMBOLS FOR DIAGRAMS AND ITS WORKING GROUPS

a) Report of SC 3A: Graphical symbols for diagrams
(Appendix B)

b) and d) Reports of WG 1 and WG 3

SC 3A Working Group 1

WG 1 had prepared Document 3A(Central Office)17: Draft - Symbols for aircraft electrical systems. This document had been circulated under the Six Months' Rule and had been approved for publication; consequently the Working Group's responsibility was completed and WG 1 was disbanded.

SC 3A Working Group 3

WG 3 had prepared Document 3A(Secretariat)24: Graphical symbols relevant to ionizing radiation detectors. Approval of this document for submission under the Six Months' Rule completed the Working Group's responsibility and WG 3 was disbanded.

The Chairman of SC 3A thanked once more Mr. Reading and Mr. Shapiro for their secretarial work.

New SC 3A Working Group 1

For the reorganization of Publication 117, a Working Group 1 was set up with the following members proposed:

Mr. Aries (Chairman)
Mr. Nordelöf
Mr. Fricke
France, and
Germany

c) Report of WG 2
(Appendix C)

VI. REPORT OF SC 3B: PREPARATION OF DIAGRAMS, CHARTS AND TABLES.

ITEM DESIGNATION

(Appendix D)

The Chairman of SC 3B, Mr. Fricke, read out his report.

VII. REPORT OF SC 3C: GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT

(APPENDIX E)

Mr. Polis, Secretary of SC 3C, read out his report. A difficulty had arisen during the discussion of Document 3C(Secretariat)23. Symbols No. 149 and 150 proposed by IMCO had been rejected by a vote of 6:2 by SC 3C in favour of new symbols with an input-designation. With regard to the co-operation between IMCO and IEC, the Chairman of TC 3 found the sense of this voting not clear and proposed, as a compromise, a new vote on three possibilities:

- A. Symbols as proposed and circulation of the whole document as a Central Office document under the Six Months' Rule.
- B. New symbols with input-designation and circulation of these two symbols in a Secretariat document.
- C. Deletion of symbols No. 149 and 150.

Results of the voting:

In favour of A:	7
" B:	2
" C:	0
Abstentions :	2

In view of this result of the voting the report of SC 3C was amended.

VIII. INFORMATION REGARDING COLLABORATION BETWEEN IEC/TC 3 AND ISO/TC 145: GRAPHIC SYMBOLS

TC 3 took note of Document 3(Secretariat)407 regarding the co-operation between IEC/TC 3 and ISO/TC 145. This co-operation was ensured through Mr. Polis to ISO/TC 10 and Mr. Funck to ISO/TC 145.

Report of Mr. Funck

"ISO/TC 145 'Graphic Symbols' had its second meeting in May 1972 in Vienna. I was elected as Chairman for this meeting. Though we had a pleasant and long evening at the "Heuriger", effective work was done during the meeting.

It was decided that the General Principles should be divided into two parts: The first part should consist of the more philosophical aspects of the problem of symbolisation. This part was postponed to the next meeting.

The second part should deal with the rules for the graphical design and the representation of the symbols on single sheets. This part is very similar to our Secretariat Document No. 4 and in its essentials identical with the IEC document. The delegates added to our draft the layout of the single sheets and its explanation."

The next meeting would be held in May 1973 at Stockholm.

Resolution 53, concerning the co-operation between TC 3 and ISO/TC 10 would be sent to Mr. Stanford for consideration in the Committee of Action.

IX. OTHER BUSINESS

Discussion of part B.2 of the Report of TC 41 to the Committee of Action:

"TC 41 regrets that publications dealing specifically with symbols for measuring relays were considered by TC 3: Graphical symbols, and have been prepared without prior consultation with the experts in the field of measuring relays."

gave the following result:

In Switzerland as in other countries there was little contact with TC 41 experts and personal contact would be preferred.

X. DATE OF NEXT MEETING

Following the kind invitation of the Turkish National Committee the next meeting of TC 3, SC 3A and SC 3B would be held in Istanbul, in September 1973.

XI. CLOSE OF MEETING

On behalf of all delegates, Mr. Georgii expressed his sincere appreciation to the Greek National Committee for the perfect organization of the meetings and especially for their kind hospitality. Furthermore, he thanked the Chairman and Secretaries of the Sub-Committees and Working Groups as well as all delegates for the excellent and considerable work that they had accomplished.

The Chairman then declared the meeting of TC 3 closed.

APPENDIX A

Report of the Chairman of the CCI/IEC
Joint Working Group

Last meeting

Thanks to the arrangements made by Mr. Schmitt, the Group was able to meet in April 1972 in Munich where the necessary facilities were kindly provided by Messrs. Siemens.

The principal business of the meeting was the discussion of items remitted to the Group by SC 3A at its meeting in Helsinki viz. the application of the aircraft industry's convention on contact symbols to the simple symbols shown in Document 3A(Secretariat)23 and reconsideration of symbols for complicated switches. As before, additional heavy current experts were invited to attend. Two documents were prepared and forwarded to the Secretariat of SC 3A. They have since been circulated as:

Document 3A(Secretariat)27: Symbols for contact units. Convention to indicate spring return and stay put contacts.

Document 3A(Secretariat)28: Symbols for complicated switches.

Next meeting

A number of proposals which were received after the dates of the Munich meeting had been fixed, have had to be held over for consideration at the next meeting. This will be held in Stockholm from 2nd to 5th April 1973. The duration of the meeting can be extended to include 6th April if additional work is remitted to the Group by its parent organisations.

Co-operation with SC 3B

It has been suggested by the Chairman of SGVII of the CCITT that both CCI's have an interest in the work of IEC/SC 3B and that the IEC/CCI JWG is the appropriate body through which this interest could be expressed and the necessary co-ordination achieved. M. Ducommun has therefore proposed that the JWG's scope should be enlarged accordingly and a draft recommendation to extend the Group's mandate will be considered at the Plenary Assembly of the CCITT in December. The matter should also be considered by TC 3 and, if agreed, the method of co-operation should be discussed.

Membership

Messrs. Dubray, Schmitt and Schneider have now all joined the Group as IEC members and efforts to fill the remaining vacancies are in hand.

APPENDIX B

Report on the meeting of Sub-Committee 3A
to Technical Committee No. 3

The following document is ready for publication:

3A(Central Office)17: Symbols for aircraft electrical systems,
as supplements to different Publications 117 -

The following documents are ready for circulation for approval under the Six Months' Rule:

3A(Secretariat)13: Miscellaneous generators of electrical power
3A(Secretariat)14: Counting devices
3A(Secretariat)15: Telecommunication cable-network
3A(Secretariat)16: Lamp
3A(Secretariat)17: Limit switches
3A(Secretariat)18: Temperature sensitive switches
3A(Secretariat)19: Ferrite beads
3A(Secretariat)20: Amplifiers for use in logic diagrams
3A(Secretariat)24: Symbols relevant for ionising radiation detectors.

The following document is ready for circulation as a Secretariat document:

3A(Secretariat)23: Symbols for contact units and for switches.

The following document is referred back to WG 2

3A(Secretariat)21: Analogue computation and process controls fields.

APPENDIX C

Report of SC 3A/WG 2 concerning the work on graphical symbols for information processing

During the last meeting of WG 2, in Scheveningen, from 19th to 23rd October 1971, much attention was given to the documents prepared during the Munich meeting as it was necessary to make these consistent with Document 3A(Central Office)3 that has to appear as IEC Publication 117-15.

Also much attention was paid to the concept of dependency notation and efforts were made to generalize this concept to include also the OR-relationship. This philosophy and also a number of symbols will be presented in a document to obtain comments from the National Committees.

In the field of Process Control some informal contacts were made with the ISO Meeting held at the same time in Scheveningen to bring the ideas of WG 2 into line with those of the ISO.

When WG 2 is ready with the work on logical symbols, and when it is more clear what the ideas of the different National Committees are, the Working Group wishes to present a document with all symbols and concepts in a more logical order.

The next meeting of the Working Group will be held in London from 7th to 13th February next year.

APPENDIX D

Report of the Chairman of SC 3B

Since the last meeting of TC 3, Sub-Committee 3B has held one meeting, in Paris from 11th to 15th September 1972.

The following principal questions were dealt with:

1. Rules for the preparation of diagrams

- a) The comments from National Committees on the following documents were studied in detail:
- 3B(Secretariat)4: Draft - Guiding principles for the preparation of circuit diagrams,
 - 3B(Secretariat)5: Draft - General recommendations for the preparation of diagrams.
 - 3B(Secretariat)6: Draft - General recommendations for the application of graphical symbols.

As a result of this study, amendments and some additions were agreed. It is proposed that the revised texts of Documents 3B(Secretariat)5 and 3B(Secretariat)6 should be edited in one chapter, and the revised text of Document 3B(Secretariat)4 in another chapter, and that the complete result should be circulated to the National Committees for voting according to the Six Months' Rule.

- b) The proposal from the German National Committee that rules should be prepared for certain kinds of functional diagrams (Funktions-pläne) was agreed. It was decided to ask the German National Committee to supply a text in English and French to serve as a basis for the discussions of this subject.

2. Document 3(Secretariat)408: Draft - Proposal for the reorganization of TC 3 Publications

No comments had been received from National Committees. The document was discussed in the meeting, and as a conclusion SC 3B felt that empty space for a third language in IEC Publications on graphical symbols could be useful. On the other hand, a corresponding solution for Publication 113 did not seem to be so useful.

3. Proposal on extending the scope of the CCI/IEC-JWG

The Sub-Committee was informed about the proposal, which has been put forward within the CCITT, to extend the scope of the JWG to include also rules for preparation of diagrams. SC 3B has no objection to this proposal.

APPENDIX E

Report from SC 3C to TC 3

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Reporting period: from 9th September 1971 to 7th November 1972.

1. Secretariat drafts circulated since 9th September 1971

11 Secretariat drafts have been circulated to the National Committees for comment:

- 3C(Secretariat)14: Draft - Symbol for equipotential terminal.
- 3C(Secretariat)15: Draft - Symbol for dangerous voltage.
- 3C(Secretariat)16: Draft - Symbol for automatic frequency control.
- 3C(Secretariat)17: Draft - Symbol for transformer.
- 3C(Secretariat)18: Draft - Symbol for band-pass filter.
- 3C(Secretariat)19: Draft - Symbol for band-pass filter with variable centre frequency.
- 3C(Secretariat)20: Draft - Symbol for band-pass filter with variable band-pass; Selectivity control.
- 3C(Secretariat)21: Draft - Symbol for band-stop filter.
- 3C(Secretariat)22: Draft - Symbols for hydrophones.
- 3C(Secretariat)23: Draft - Symbols for radar equipment.
- 3C(Secretariat)25: Draft - Questionnaire regarding graphical symbols for use on household washing machines.

2. Documents circulated under the Six Months' Rule

Two documents have been circulated:

- 3C(Central Office)27: Draft - Symbol for "trimming to a minimum quantity".
- 3C(Central Office)28: Draft - Symbol for "trimming to a maximum quantity".

The results of the voting on these two documents justify the conclusion that both may be considered to be approved for publication.

3. Documents circulated under the Two Months' Procedure

One document, containing 20 symbols, has been circulated:

- 3C(Central Office)30: Draft - Amendments to Document 3C(Central Office)13: Symbols for recording and reproducing equipment.

The result of the voting (18 in favour, nil against) justifies the conclusion that this document may be published.

4. Preparation of Publication 416

The manuscripts of the French and English texts, and the drawings of the illustrations as well, have been approved by the Editing Committee, and were forwarded to the Central Office on 28th June 1972.

The marked-up proofs have been returned to the Central Office on 22nd August 1972.

5. Preparation of Publication 417

The manuscripts of the French and English texts of the Preface, Scope and Object, and the alpha-numeric indexes, have been forwarded to the Central Office.

The manuscripts of the French and English texts, and of the master of 30 symbols have been approved by the Editing Committee and forwarded to the Central Office for printing. Of 10 of these, the second proof has passed the Secretariat of SC 3C. Texts and masters of another 16 symbols have been approved by the Editing Committee, and will soon be forwarded to the Central Office for printing.

6. Results of the Athens meeting

6.1 Drafts, returned to CCI/IEC-JWG for further consideration

3C(Secretariat)14: Equipotential terminal.

To be dealt with in conjunction with related symbols. See Item 6.5.

6.2 Drafts to be (re)circulated as Secretariat documents

3C(Secretariat)22: Hydrophones.

6.3 Drafts accepted for circulation under the Six Months' Rule

3C(Secretariat)15

3C(Secretariat)16

3C(Secretariat)18

3C(Secretariat)19

3C(Secretariat)20

3C(Secretariat)21

3C(Secretariat)23

6.4 Drafts to be circulated under the Two Months' Procedure

None.

6.5 Drafts, being in print, to be withdrawn for the time being

Two symbols for clean earth and frame or chassis connection respectively.
See Item 6.1 above.

6.6 Drafts approved for publication

The drafts as mentioned under Items 2 and 3 are approved for publication after having been amended according to the Reports on the Voting soon to be issued by the Central Office.

7. Future work

7.1 Apart from the symbols mentioned under Item 6 above, the Secretariat still has 33 symbols in "stock" which are to be circulated as Secretariat drafts as yet, and 16 symbols which are yet to be circulated for approval under the Six Months' Rule. Moreover, two more questionnaires are in preparation for further symbol acquisition.

7.2 Setting up of a Working Group

The questionnaire regarding graphical symbols for use on household washing machines, led to the conclusion that a Working Group should be set up, dealing with symbols for use on equipment which is within the scope of SC 59A and SC 59D as also of ISO/TC 38/SC 11 and ISO/TC 145.

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