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345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

IEEE COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY  
New York - January 8, 1973

MINUTES

1. Dr. Barrow, Vice-Chairman of TAB, and Chairman ex-officio of CSIT, called the meeting to order in the Engineers Club at 6:30 p.m.

Those present: Bruce Barrow, Vice-Chairman-TAB, Chairman ex-officio  
Anthony Robbi, ViceChairman  
Peter Edmonds, Staff Secretary

Walter Beam, representing EAB  
Malvern Benjamin, Chairman, Working Group on INTERCON  
Joseph Casey, EAB Staff (career guidance)  
Harold Chestnut, President, IEEE  
Richard Emberson, Staff Director, TAB  
Einar Ingebretsen, Director, IEEE Region 6,  
(representing Region 6 (West Coast)  
Jack Kinn, Staff Director, EAB  
Victor Klig, Chairman, Working Group on Procedures  
Frank Kotasek, Chairman, Working Group on Publicity  
& Participation  
Lester Nagel, representing IEEE Environmental Quality  
Committee  
Michael Pessah, Editor, CSIT Newsletter  
Bill Stillinger, representing Student Activities  
Committee  
Paul Stoller, Chairman, Working Group on IEEE Activists  
Stephen Unger, Chairman, Working Group on Publications  
Ted Werntz, Chairman Working Group on Bibliographies

Those absent: William Cory\*, Director, Region 5, representing  
Region 5 (South-West)  
Ralph Clark, Manager - IEEE Washington Office  
Curt Fey, representing Computer Society  
John Gaffney, Jr. past Vice-Chairman, Committee on  
Applications of Electrotechnology to Social Problems  
W. A. Higinbotham, Working Group on Subject Areas  
A. M. Killin, representing Division II  
John Lewis, Working Group on Curricula  
H. M. Sarasohn, Working Group on Current IEEE  
Activities

L. A. Tate, Working Group on Other Societies' Activities  
E. A. Wolff, past Chairmar, C-SIT

\*Mr. Cory participated in conversations before the meeting, but left to attend a concurrent meeting. The roster is shown as Attachment A,

2. Agenda

Dr. Barrow called for any comments on or additions to the proposed agenda. Mr. Werntz requested inclusion of discussions on the recent renewed bombing of North Viet Nam. The Chairman agreed to take this up in the context of the workshop proposed for inclusion in the INTERCON'73 activities, commenting that he found it appropriate to discuss the engineering content of warfare in general without limitation to the current hostilities in Viet Nam in particular.

3. INTERCON

The Secretary provided a status report:

At the last C-SIT meeting plans were formulated to organize and present three activities during INTERCON'73, i.e., a session "Conversion to a Peacetime Economy", a workshop on "The Engineer and Military Technology", and an "Open Forum" for presentation of unscreened opinions and maybe some facts. Following protracted and inconclusive telephone conversations among the many parties involved, the Secretary acted on an instruction by Dr. Wolff to formally request space for these activities at the staff level. (See Appendix 1 - Memo Edmonds to Schumacher 12/8/72). Mr. Larson, IEEE Convention Manager, replied negatively on all three activities. (See Appendix 1 - Memo Larson to Edmonds 12/11/72).

The above memos were read aloud. Mr. Robbi commented first on the lack of logic in Mr. Larson's memo, paragraph 3, which contains in effect, the non-sequiter: we are not authorized to permit . . . ., therefore, we forbid . . . . ("Es ist alles verboten, was nicht erlaubt ist.")

3.1. Confrontation

Dr. Chestnut commented that INTERCON program committees were reflectively negative in response to 'outside' proposals. He recognized a particularly defensive posture by Mr. Larson, which he attributed to sensitivity to declining attendance at and income from recent INTERCONs. Dr. Chestnut also remarked that 'Conversion' had been discussed in previous years and that a 'commitment' had been given to participants in other evening sessions at INTERCON'73 that only two such sessions would be on the program. He expressed satisfaction that the two scheduled evening sessions on the "Energy Crisis" and "Limits to Growth" were on topics having dominant social implications; all things considered, he recommended that C-SIT turn its attention to plans for INTERCON'74.

Each of these remarks drew a trenchant rebuttal: Mr. Klig called for review of the general practices and conduct of INTERCONs to allow for inclusion of unorthodox ideas, or at least consideration of their merits and decision on that basis. Mr. Robbi described as an 'intellectual cop-out' the views that solidarity with orthodox arrangements for INTERCON was desirable until the balance sheet once again showed the comfortable surplus characteristic of the previous era; a purpose of C-SIT was to induce people to think about other than technical matters now. Dr. Unger enquired "if the IEEE is an organization of hired hacks in bondage to exhibit at INTERCON for fear of incurring economic disadvantage." Dr. Benjamin appealed eloquently for a broad view of IEEE's affairs, including discussion of ethical aspects; if reasonable requests for facilities to conduct activities that were the *raison d'etre* of C-SIT were declined, then C-SIT should not be expected to remain polite and accommodating in the face of obstruction. However, the onus for any such deterioration in relationships would rest with the obstructing entity or individuals. Recognizing that the INTERCON officials perceived a threat to their set of objectives, Dr. Benjamin urged equal regard for the objectives of C-SIT and the opportunity to demonstrate that the perceived threat might have no substance. Mr. Klig pointed out that many other organizations have come to grips with controversial issues and have survived, i.e., ASME, American Physical Society, American Psychological Association, and even the American Medical Association to some extent. (See Exhibit I. for the Bylaws of the APS Forum on Physics and Society). Mr. Klig also challenged the implication that previous discussions of 'Conversion' had been sufficient. Repetition was the rule for other topics, thus providing for continuous reporting of developments. It was appropriate in his and Dr. Unger's view to report what had been learned in early attempts at conversion to a peacetime economy, for the benefit (as usual) of those who had now reached the stage of initiating or modifying conversion arrangements in their organizations. Dr. Kotasek noted that conversion is still a live issue on Long Island.

The question was raised of the nature of and the need for the 'commitment' to participants in evening sessions to be held on other days not in conflict with the proposed C-SIT session; no explanation was provided. C-SIT welcomed the presence of the socially-oriented evening sessions but found no reason to suppose that possibilities were thereby exhausted.

With regard to deferral until INTERCON'74, Dr. Benjamin and Mr. Klig were opposed on the grounds of presently inadequate justification, unnecessary delay, not establishing a precedent for C-SIT to allow itself to be manoeuvred into oblivion and no confidence in assurances that the 1974 committees would be any more receptive.

Mr. Stoller delivered psychological shock treatment, complaining bitterly that the reasons offered for delay and avoidance of discussion of ethical aspects of engineering with military applications had been the same for the last 15 years in his personal experience. He found no serious consideration of proposals or argument of the issues, reminding the Committee that his original proposal for sessions at INTERCON'73 had been submitted to C-SIT as far back as July 24, 1972. He considered that his attempts to work within 'the IEEE system' had produced only frustration and that by design, not by accident. He did not intend to be neutralized into inaction and would exert to efforts to influence IEEE from the outside, if this were his only remaining option. Mr. Werntz supported this view, particularly in reference to lack of serious intent to implement decisions taken by C-SIT and even to reach decisions. He objected inter alia, to the prostitution of wit in the service of avoidance of issues, the proportion of committee meeting time devoted to consuming food and liquor, and the casual attention that the Committee's business received from its members between meetings. He urged attention to the legitimate induction of change by influencing key people through dialogues, taped discussions, books and tracking them down wherever they were hiding.

Dr. Chestnut stated that IEEE was not designed for the purposes envisaged by Messrs. Werntz and Stoller. He believed in different (unspecified) ways of inducing change. He found 'solving the Viet Nam war' to be not in keeping with IEEE's scientific, educational and literary objectives.

Mr. Robbi and Dr. Unger rebutted the last statement. 'Solving the Viet Nam war' had not been proposed as an objective of C-SIT or IEEE, but open discussion of the role of electrical and electronics engineers in the feasibility and conduct of that and other possible 'electronic' wars had been proposed and was highly relevant to the scientific, educational and literary objectives of IEEE. Raising this controversial issue could help to avert other conflicts utilizing advanced electronic technology, since this technology is central to modern warfare and its prosecution. Moreover, the IEEE constitution has been changed to encourage belief in IEEE's alignment with actions in support of public welfare.

[Quotation from IEEE Constitution, Article I, Section 2:  
"The IEEE shall strive to enhance the quality of life for all people throughout the world through the constructive application of technology in its fields of competence. It shall endeavor to promote understanding of the influence of such technology on the public welfare].

[Question: Is this paragraph perhaps intended to be construed as limiting IEEE to addressing only the constructive applications of technology, while sanctioning silence on the destructive applications? - PDE.]

Mr. Stoller pointed out that IEEE is already functioning in the engineering aspects of topics in the political realm, though in an unbalanced manner, by honoring contributors to military technology and rationalizing its tolerance of classified sessions in proximity to IEEE conferences. Mr. Nagel detected ax-grinding. He favored activities by C-SIT related to economic and 'professional' aspects of engineering, but opposed political controversy and criticism of other engineers for what they do.

Dr. Barrow then read Dr. Wolf's 11/19/72 letter to Mr. Dillard, IEEE Vice-President for Technical Activities and Coordinator for both C-SIT and the Conference Board, and Mr. Dillard's discouraging reply (See Appendix 2). Mr. Klig commented caustically that C-SIT had been phase-shifted into a mode of oscillation, talking to itself.

### 3.2 Decision

#### 3.2.1 Conversion to Peacetime Economy

Mr. Klig reported a recommendation by Mr. Cory that no action be taken to present this session at INTERCON'73. Noting the lack of a moderator, Klig moved, with second by Nagel and restatement by Robbi/Benjamin:

THAT, the proposed session on Conversion to a Peacetime Economy be postponed from INTERCON'73 to a later IEEE conference where it can be arranged more practically. (Unanimously approved)

ACTION  
(Klig)

Mr. Klig will modify his draft letter to make it apply to other conferences.

ACTION  
(Agenda)

Mr. Beam urged that C-SIT not ignore the plans of conference program committees and that its members should attend and review sessions at INTERCON'73. Mr. Robbi offered to review the session on "Limits to Growth".

ACTION  
(Agenda)

Mr. Beam also proposed that C-SIT emulate the IEEE Solid State Circuits Council in inviting specialists from other disciplines to address the committee for educational purposes.

3.2.2 The Engineer and Military Technology

ACTION  
(Secretary)

ACTION  
(Benjamin)

Dr. Benjamin proposed by analogy with the workshops held by Groups and Societies, e.g., G-PHP, at INTERCON, that a request for facilities at the Americana Hotel be made for a C-SIT-sponsored workshop. Arrangements described in the 12/8/72 memo, Edmonds to Schumacher (Appendix 1) were still valid. Invitations to attend would be sent to all members of the IEEE Board of Directors, the C-SIT mailing list, and all members of TAB. The product would be personal interactions, and a report for the C-SIT Newsletter and other IEEE publications. Prohibited actions: profane language and physical violence. Coordinator: Benjamin, reporting to Dr. Barrow, cc. Edmonds. Speakers: as listed in C-SIT minutes of 11/11/72, with inclusion, if possible, of a specialist in ethics or philosophy, conversant with the problems of engineers. The above proposal was approved by consensus. [Editorial note: As of 2/1/73, the following arrangements have been confirmed:

Date and Time: Thursday, March 29, 1973 - 8 p.m.

Location: Americana Hotel, Biarritz Room - 4th floor

Speakers: William E. Cory, Director, IEEE Region  
William Davidson, Haverford College  
Harry Davis, former Deputy Under Secretary  
of the Air Force (retired)  
Howard Levy, Health Policy Advisory Center,  
New York  
Edward Ramberg, former Fellow, Technical  
Staff - RCA (retired)

Moderator: Bruce B. Barrow, Vice-Chairman, TAB].

[Editorial Note: TAB/OpCom voted on 1/9/73 in favor of the following constraints on the workshop: no reporters present who are not IEEE members or staff; no TV cameras present; security personnel to be alert for maintenance of order].

3.2.3 Open Forum

ACTION  
(Secretary)

Dr. Benjamin proposed that a request for facilities at the Americana Hotel be made for a C-SIT-sponsored "Open Forum for Contributed Papers". Arrangements described in the 12/8/72 memo, Edmonds to Schumacher (Appendix 1) were still valid. Precedents were unannounced 'late-paper' sessions at many conferences. Publicity should be by placards in the registration and other areas, announcements in Spectrum, C-SIT Newsletter and other IEEE publications, insert sheets in INTERCON Digest, etc. [Editorial Note: As of 2/1/73, the following arrangements have been confirmed:



Date/Time and Location: Wednesday and Thursday, March 28-29 - 9 a.m. - 5 p.m.  
Americana Hotel Chelsea A Room, - 5th floor  
Friday, March 30 - 9 a.m. - 12 noon  
Americana Hotel, Monte Carlo Room, 4th floor

Signup: La Reserve Room, 4th floor and by advance request to Benjamin or Edmonds. Title required; abstracts requested.

Publicity: Up to five placards in public areas of Americana Hotel, by direction of General Manager Fink as special exception to the general INTERCON rule prohibiting signs. (See Attachment C, memo 1/22/73 D. Fink to C. Killen and B.B. Barrow).

Paper Presentation: 15 minutes time module. Each paper takes 2 modules: presentation and discussion. Variance at the discretion of the moderator.

Moderator: C-SIT member in charge

Literature: Moderate amounts may be displayed in the Chelsea and Monte Carlo Rooms during operation of the Forum. Storage available in La Reserve Room.

[Note: The IEEE Board of Directors was appraised of these plans on 1/10/73 and issued a vote of confidence in Dr. Barrow to continue his efforts to accommodate the C-SIT proposals for INTERCON'73. The Executive Director, Mr. Fink, was requested to work out arrangements satisfactory to Mr. C. Killen and Dr. Barrow. These arrangements are described in Attachment B. An announcement of both the Workshop and the Forum has been accepted for publication in the March issue of Spectrum].

#### 4. Newsletter

Mr. Pessah reported that the first issue of the C-SIT Newsletter had been distributed. (Appendix 5) The Secretary advised that distribution had been to the 650 names on the C-SIT interest list, derived mainly from signers of the petition. It was generally agreed that future issues, and perhaps a reprinted first issue, should be distributed to the 'EE' list, IEEE Committees, and the Technical Interest Profile respondents, (estimated print order: 6,000). A second class mailing permit should be obtained as soon as possible. Delays of 3-6 weeks occur in the Post Office with present third class mailing, which is necessary until a regular publishing schedule can be demonstrated to the Post Office officials who grant second class permits.

ACTION

(Sec'y)

ACTION

(Ms. Herrick)

The excessive number of typos and errors in the first issue was ACTION attributable to the use of an untried printer. The Editor should be sent (Ms. Herrick) camera-ready copy to review before printing.

Mr. Werntz objected to editing performed on his article. He also requested notice of editorial policy on publication of polemics, favoring simultaneous publication of the two or more sides of an issue. Responsibility for including material submitted for publication rests solely with the editor. (IEEE custom).

ACTION (Secretary) Items to be inserted in 'EE': C-SIT Purposes and Scope, Areas of Concern Questionnaire, Coupon requesting one's name be placed on the mailing list for C-SIT Newsletter.

5. Publicity

ACTION (All) Dr. Kotasek distributed a draft (Appendix 3). All members were requested to review it and send comments to Dr. Kotasek. [Editorial Note: In the absence of such comment by 1/20/73, this draft was submitted for publication in the March issue of Spectrum].

6. Publications

ACTION (Unger) Dr. Unger submitted a report (Appendix 4). Dr. Barrow requested documentation of the actions taken by other engineering societies for communication to the IEEE Board of Directors.

7. IEEE Activists

ACTION (Stoller) Mr. Stoller acknowledged the need to redesign the questionnaire he had drafted, to avoid ambiguities. Comments should have been sent to Mr. Stoller.

8. Adjournment

The meeting gradually disintegrated and terminated at about 12:30 a.m.

NOTICE Next Meeting

The next meeting has been called by Dr. Barrow on Saturday, February 17, 1973 at 9:30 a.m. in the St. James A Room, Fifth Floor, Americana Hotel New York. Anticipated adjournment: about 4 p.m. Lunch will be served.

P. D. Edmonds  
Staff Secretary

+ Appendix 1: 12/8/72 Memo (P.D. Edmonds to H. Schumacher)  
12/11/72 memo (D. Larson to P. D. Edmonds)

Appendix 2: 11/19/72 letter (E. A. Wolff to J.K. Dillard)  
1/2/73 letter (J.K. Dillard to E.A. Wolff)



Appendix 3: Draft publicity statement (Kotasek)  
Appendix 4: Report on publications (Unger)  
Appendix 5: Report on Newsletters (Pessah)

Attachment A: Current C-SIT Roster  
Attachment B: Memo(D. G. Fink to C. Killen and B.B. Barrow)

Exhibit I: Bylaws of APS Forum on Physics and Society  
Exhibit II: INTERCON'73 Session Titles  
Exhibit III: NSPE Legislative Bulletin, November '72  
Exhibit IV: Public Law 92-484, Technology Assessment Act, 1972

Distribution: C-SIT members  
: IEEE Executive Committee  
Staff Directors

PDE:gd

Issued: February 7, 1973

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Howard Schunacher

12/8/72

P. D. Edmonds

Subject: Request for Facilities at INTERCON '73

At the request of Dr. Wolff, TAB Vice-<sup>Chairman</sup>~~President~~ and Chairman, IEEE Ad Hoc Committee on Social Implications of Technology, I am transmitting the following request for facilities during INTERCON '73. It is our understanding that Dr. Chestnut and Mr. Raper have completed all necessary preliminary discussions:

- 1) Room at the Americana Hotel for a session entitled "Conversion to a Peacetime Economy: on Thursday evening, March 29, 1973. Estimated attendance: 100. Time (to be determined) approximately 7-10 p.m. Set up: Chairman and four speakers at table on platform, lectern and p.a. system. Organizer: Victor Klig, 212/450-2033, Albert Einstein College of Medicine, N.Y.; mail to: 497 Park Avenue, Leonia, NJ 07737.
- 2) Room at the Americana Hotel for a workshop entitled "The Engineer and Military Technology: on Monday evening, March 26, 1973. Time: late enough to avoid conflict with INTERCON reception or other general INTERCON event. Estimated attendance: 40. Set up: Head table for moderator and four panelists, table microphones, two room microphones, four additional round tables in room, scattered chairs, two chalkboards. Organizer: Malvern Benjamin, 215/239-3250, Bionic Instruments, Inc. 221 Rock Hill Road, Bala Cynwyd, PA 19004.
- 3) Space at Coliseum preferably adjacent to Film Theatre for "Hyde Park" discussion groups. Approximate area 200 sq. ft. Time: full day, all days. Set up: table for display of brochures, publications, announcements; wall board for display of notices, schedules; chalkboard; table and chair for attending moderator (full-time); chairs for audience; curtains; signs. (No p.a. system). Organizer: Malvern Benjamin.

In connection with the above, please advise me of:

- a) All deadlines and formats required for notices and announcements for inclusion in INTERCON programs, digest, flyers, etc. of all kinds;

2

12/8/72

- b) any further approvals, verifications or preliminary actions you feel to be required before confirming the availability of the above facilities;
- c) any disapprovals, delays or obstacles that you encounter in pursuing (1) above.
- d) your need for any additional information.

N.B. Dick and I have discussed this with Don Larson and Joe Doblmeier 12/6/72.

PDE:gd

cc: E. A. Wolff  
H. Chestnut  
H. Benjamin  
V. Klig  
R. M. Emberson  
J. Doblmeier  
D. Larsen

24.6



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MEMORANDUM

To P. D. Edmonds

Dec. 12, 1972

From Don Larson

Subject: Request for Facilities at INTERCON '73

Since I am responsible for the management of the 1973 INTERCON, I am taking the liberty of answering your letter of December 8, 1973, relative to a request for facilities to stage three separate activities. As mentioned in your letter, Dr. Chestnut and Mr. Raper, 1973 program chairman, discussed this matter following the conversation which we had on December 7 and referred to in the last paragraph of your letter. They confirm the following:

1. There is no interest on the part of the program committee in a session on Thursday evening, March 29, 1973, on the subject of "Conversion to a Peacetime Economy." The entire 1973 program has been firmed up and announcements have been released on its content. It is impossible to add this proposed session at this time.
2. The proposed session for Monday night, March 26, 1973, would be in conflict with a special evening session already planned, which will be conducted from 8 to 10 p.m. It would be too late to add a session beginning at 10 p.m., following the session already scheduled that evening.
3. There will be no sessions held at the Coliseum whatsoever. Furthermore, the Conference Board is not authorized to sponsor or even permit unscheduled and unsupervised sessions of the type proposed. Our charter is to plan the program in advance, thus providing an opportunity to control content in line with the theme and direction which is planned for the original concept.

The above information was discussed with Mr. Jack Raper, 1973 INTERCON program chairman, and was transmitted verbally to Dr. Emberson on the date your letter was written. He is aware of the circumstances and understanding of the inability of the Conference Board to conform to your request.

DL:sl

cc: J. Raper; H. Chestnut  
E. Wolff; M. Benjamin  
V. Klig; R. Emberson  
H. Schumacher;  
J. Doblmeier



24.2  
PWL 5, PDE - file C-SIT  
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APPENDIX 2  
C-SIT Minutes 1/8/73

TECHNICAL ACTIVITIES BOARD



November 19, 1972

Mr. Joseph K. Dillard  
Westinghouse Electric Corp.  
700 Braddock Ave.  
East Pittsburgh, PA 15112

Dear Joe:

I hereby request that you endorse the enclosed proposal of your Committee on Social Implications of Technology (CSIT) for four activities at the next Intercon.

Several of us have tried, with no success, to interact with the Intercon people to obtain an agreement for such activities. I therefore request that you attempt to obtain approval from the Conference Board prior to the November Executive Committee (ExCom) meeting and that, failing to obtain such approval, you seek a directed verdict from ExCom this month. Since Intercon is imminent, a failure to act promptly is tantamount to disapproval.

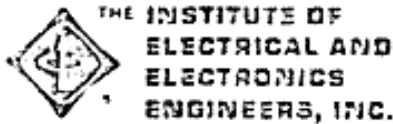
I personally believe the CSIT proposal offers the Institute an opportunity to experiment with some new ideas that should enhance Intercon and make it more attractive and beneficial to our members.

I hope you will agree.

Sincerely,

Edward A. Wolff  
TAB Vice Chairman  
1021 Cresthaven Drive  
Silver Spring, MD 20903

cc: H. Chestnut  
J. M. Benjamin  
R. Emberson  
H. Schumacher



## TECHNICAL ACTIVITIES BOARD

### COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY

#### Proposal For Intercon-73 Activities

November 11, 1972

1. A session on reconversion held as part of the technical program, possibly on Thursday night. A panel of four members would each talk five minutes and give their ideas and examples of reconversion. This would be followed by a short discussion among the panel followed by dialog with the audience. The panel would represent Government, Executive; Government, Legislative; Industry; and Education. Suggested invitees are:

<u>Executive</u>	<u>Legislative</u>	<u>Industry</u>	<u>Education</u>
E. David	E. Kennedy	D. Packard	J. Holloman
R. Foster	E. Daddario	P. Haggerty	S. Melman
T. Fletcher	A. Cranston	L. Branscomb	J. Ullman
	O. Pike	v Gross	H. York

Suggested panel Chairman: H. Chestnut

2. A workshop as a committee activity with four panel members and an invited audience consisting of BoD, TAB and CSIT members. Panel members of the caliber mentioned above. Subject: The Engineer and Military Technology  
Scope: 1. Present some examples of modern warfare technology  
2. In the light of these data, reexamine our attitudes toward the social impact of military technology  
This would be an experiment to see if the subject can be handled in a useful way similar to experimental Group workshops. Attendance would be limited to about forty.
3. A contribution to the Film Theater consisting of educational material on subjects of social importance in economics, sociology, philosophy, etc.
4. A "Hyde Park At The Coliseum" soapbox in a curtained-off area in the Coliseum near film theater or refreshment stand so as not to interfere with booth traffic. People wishing to talk would sign up a half day in advance. A disclaimer would be prominently posted. Area would be manned by CSIT member or other official to assure conformance to rules.





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OFFICE OF THE VICE PRESIDENT - TECHNICAL ACTIVITIES



Please reply to:

Joseph K. Dillard  
Westinghouse Electric Corp.  
700 Broddock Avenue  
East Pittsburgh, Pa. 15112  
January 2, 1973

Dr. Edward A. Wolff  
1021 Cresthaven Drive  
Silver Spring, Maryland 20903

Dear Ed:

Thanks for your letter of December 20 urging me to support the TAB Committee on Social Implications of Technology in its efforts to schedule sessions at INTERCON 73. I hope you will understand that I cannot support these efforts simply because this is a TAB Committee

The committee's approach to INTERCON was far too late to be considered by the INTERCON Program Committee. Evening sessions could not be expanded since commitments had already been made to other evening sessions speakers. Also, the decision to hold no sessions in the Coliseum had already been made and communicated to the exhibitors. Furthermore, I believe it would be unwise at any time to permit unscheduled, unsupervised sessions on subjects of social action in connection with INTERCON. I believe activities that might develop in such sessions could be offensive to the vast majority of IEEE members.

The action of Don Larson in turning down this request was considered twice by the IEEE Conference Board and has its unanimous backing. I think it would be unwise at this late date to reverse the Conference Board position in this matter.

Sincerely,

J. K. Dillard

cp

cc: H. Chestnut  
R. M. Emberson  
D. Larson  
W. E. Peterson  
B. Barrow

Frank Kotasek  
1/2/73

C-SIT Working Group on Publicity and Participation

Article for SPECTRUM

## Technology/Society Interaction

There is a need for engineers to become more concerned with the effects of technology on our society. The uses of technology, the priorities assigned in developing new technology, and the effects on our physical and social environment are of vital importance to our future. The present generation is the first in history to face the prospect of a planet limited in its ability to support an exponentially growing and polluting human race. The public has become increasingly intolerant of what it sees as the nuisances or hazards resulting from technology. Evidently things will change whether we like it or not. The only question is whether we engineers will help influence these changes in a constructive way, or will be swept along by forces beyond our control.

The IEEE has begun to respond to this concern. The Technical Activities Board has formed a Committee on Social Implications of Technology (C-SIT). Its areas of concern include: professionalism and social responsibility in engineering; understanding the interaction between technology and society; predicting and evaluating the impact of technology on society; and fostering study, discussion and appropriate action in these areas. C-SIT is committed to providing a forum in which all IEEE members, as well as other experts in non-technical fields such as law, economics and the social sciences, may express their

thoughts in this area. In the coming months such diverse issues as electronic warfare, environmental pollution, communication and transportation, electronic surveillance and data banks, and bioelectronics will all be discussed. The activities of C-SIT are described in its bi-monthly newsletter. The first issue was published in December. Future issues will include notices of meetings, lectures and discussion groups, publication of papers and articles, reviews of pertinent bibliographical data and finally, personal commentary.

Because of their advanced training, engineers should be in a unique position to see the broad consequences of their technology. However, the engineer's education and experience have been largely focused on solving "clean" technical problems. To solve the problems of the 70's engineers must expand their understanding of society's needs and of the interaction of technology and society. The engineer must communicate with the public to understand its needs and to explain the capabilities and limitations of technology. The needs, challenges, and opportunities for engineers are greater than ever. Will we be able to respond?

If our Committee is to effectively fulfill its purposes, we must hear from you, the concerned engineer. We invite you to join C-SIT. If you have any questions contact Frank Kotasek, 104-60 Queens Blvd. apt 17L, Forest Hills, NY 11375, (212)459-2679 (evenings). If you can't participate, keep in touch through our newsletter. For a free subscription:

CIRCLE READER SERVICE NO.

## IEEE- TAB Committee on Social Implications of Technology

## Working Group on Publications

APPENDIX 4

SIT Minutes 1/8/73

Progress Report- December 28, 1972

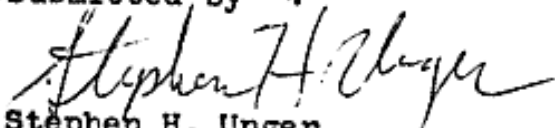
Norman Balabanian and Stephen Unger, representing the CSIT met with Donald Christiansen, IEEE Spectrum Editor, at the latter's office on December 18 to discuss means whereby our committee could gain access to the pages of Spectrum. The procedure agreed upon is as follows: Mr. Christiansen will, within the next month, nominate Dr. Balabanian for a seat on the Editorial Board of Spectrum, where he will have as his special interest the technology-society interface, as defined in the statement of scope of our committee. Thru our newsletter and other appropriate means, CSIT will then solicit papers in this area to be submitted to Spectrum thru Dr. Balabanian. It is understood that the final decisions concerning publication will reside with the Spectrum editor.

Dr. Balabanian and Dr. W. E. Cory have agreed to work together on a preliminary proposal for a special issue of the IEEE Proceedings dealing with the social implications of technology. This will be submitted to the Proceedings Editor. If he agrees that such an issue can and should be scheduled, then the matter will be developed further.

The proposal was made at an earlier meeting to consider the possibility of arranging for publication by IEEE of a reprint volume on the technology/society interface. An editor for such a volume is now being sought.

Action has been deferred on the suggestion that we compile an engineer's reading list of introductory sociology texts. It is felt that some further discussion of the value and feasibility of this idea is needed.

Submitted by


  
Stephen H. Unger


AGENDA Item b  
CSIT 1/8/73

Jan. 1, 1973

PROGRESS REPORT

C-SIT NEWSLETTER

FROM: M. Pessah, Editor

TO: All chairmen, Working Groups of C-SIT

Issue No. 1 of the C-SIT Newsletter has already been published and distributed as of this date. Any comments, corrections or suggestions on this first effort will be gratefully acknowledged.

Due, however, to the dearth of material submitted for Issue No. 2 of the Newsletter, the original date for final submission of articles and manuscripts has been necessarily pushed forward to January 15, 1973, when a piece specifically written for the Newsletter, and of some length, is scheduled for submission.

All Working Group members who have sent in both small pieces and suggestions for columns and articles for forthcoming issues are thanked for their efforts, and others are urged to do the same. Committee interest in the Newsletter now is of real importance, since we must generate the initial momentum in our goals before any larger group of members of the Society will begin to unify around us.

Let's get with it, fellows.

Michael Pessah

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# MEMBERSHIP ROSTER

ATTACHMENT A  
C-SIT Minutes 1/8/73

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MEMORANDUM

To Messrs. Bruce Barrow and Carroll Killen

Date Jan. 22, 1973

From Donald G. Fink, Executive Director

Subject Arrangements for CSIT Program

Dear Bruce and Carroll:

This will summarize the arrangements we have mutually agreed upon to handle the meetings of the TAB Ad Hoc Committee on the Social Implications of Technology (CSIT) during the week of INTERCON:

1. The CSIT meetings will be held in the Americana Hotel. The CSIT meeting room will be on the fifth floor, unless accommodations cannot be arranged, and in that case on the fourth floor.
2. A sign-up desk for CSIT meeting registrants will be provided in the TAB staff office in the Americana. No sign-up desk will be set up in any corridor.
3. A standard public address system will be installed in the CSIT meeting room.
4. Notice of the CSIT meeting will be published in the March issue of SPECTRUM.
5. A limited number of signs announcing the CSIT program will be set up at appropriate places. This privilege will be reserved exclusively for the CSIT meeting and will not be extended to any other organization or IEEE unit.

The staff people concerned (Edmonds and Schumacher) are proceeding with arrangements in accordance with the above. I much appreciate the cooperation of you both in reaching this understanding.

DGF:pm

cc: J. K. Dillard, P. Edmonds (THIS COPY FOR)  
R. M. Emberson, D. Larson, H. Schumacher



The American Physical Society

**BYLAWS**  
of the  
**FORUM**  
on  
Physics  
and  
Society

JANUARY, 1972

EXHIBIT I  
C-SIT Minutes 1/8/73

**BYLAWS OF THE  
FORUM ON PHYSICS AND SOCIETY  
OF THE  
AMERICAN PHYSICAL SOCIETY\***

**ARTICLE I--NAME**

This organization within the American Physical Society shall be called the "Forum on Physics and Society."<sup>a</sup>

**ARTICLE II--OBJECTIVE**

The objective of the Forum shall be the advancement and diffusion of knowledge regarding the inter-relation of physics, physicists, and society. The Forum shall provide for all members of the Society an opportunity for discussion of and involvement with such matters.

**ARTICLE III--ENABLING PROVISIONS**

1. The Forum is established by the authority vested in the Council by Article V, Section 1 of the Constitution, a portion of which is hereby incorporated in these Bylaws by reference (Ref. 1).

2. The Council shall maintain surveillance over the activities of the Forum in a manner in conformance with, but not limited to, that pertaining to the surveillance of Divisions.

3. The Forum may be dissolved at the discretion of the Council.

**ARTICLE IV--MEMBERSHIP**

1. The members of the Forum shall consist of members of the Society who have made application to the Secretary-Treasurer of the Forum, or who have otherwise indicated in accordance with the procedures established by Council Regulation and the Bylaws of the Forum, their desire to join the Forum. The membership shall be maintained from year to year with the payment of the designated fees and dues, provided continuing membership in the Society is

<sup>a</sup>In the text of the Bylaws, "Society" signifies the American Physical Society, "Council" signifies Council of the Society, "Annual Meeting" signifies the Annual Meeting of the Society, and "Regular Meeting", the principal meeting held once a year by the Forum. "Executive Secretary" is that of the Society.

8. No later than one week before the Regular Meeting, the Chairman shall report to the Executive Secretary the results of the election. The Secretary-Treasurer shall publish the results of the election in the Bulletin of the American Physical Society.

9. The tenure of the members of the Executive Committee and of the elected Officers shall begin at the close of the Regular Meeting next following their election.

10. If a vacancy occurs in the Executive Committee, other than the Chairman, Vice-Chairman or Council appointees, the Committee shall appoint a member of the Forum to fill the vacancy for the remainder of the unexpired term. If the vacancy involves the office of Chairman, the Vice-Chairman shall become Chairman, and no Vice-Chairman shall be appointed.

11. The Forum Councillor shall be nominated in a manner analogous to the procedures set forth for the nomination of Divisional Councillors in Article VII, Section 6 of the Constitution which Section is hereby incorporated in these Bylaws by reference (Ref. 3).

12. The Nominating Committee shall make every reasonable effort to encourage nominations that are representative of the diversity of the membership of the Forum.

#### ARTICLE VIII—MEETINGS

1. The Meetings of the Forum, one of which is to be designated as the Regular Meeting and held yearly, shall be held at such times and places as shall be ordered by the Executive Committee after consultation with the Executive Secretary. If any meeting is to be held conjointly with a general meeting of the Society, or any other society, conference or group, Council approval shall be required.

2. The Forum shall hold each year an annual Business Session which shall be a session of the Regular Meeting. This Business Session shall be devoted exclusively to the reports of officers and committees, and the transaction of business affairs. All transactions at the Business Session are to be considered as advisory to the Executive Committee. No scientific program of the Forum shall be presented simultaneously with the Business Session.

3. Meetings of the Forum, other than the Regular Meeting, may be initiated by the Executive Committee or by petition of 20% of the members of the Forum. Special conferences or symposia, when designated as being wholly or jointly sponsored by the Forum, shall have the status of Meetings.

#### ARTICLE IX—APPOINTED COMMITTEES

1. The Chairman, with the advice of the Executive Committee, shall appoint members of the Nominating Committee, a Membership and Publicity Committee, and a Program Committee.

2. The Membership and Publicity Committee shall have the responsibility for promoting membership in the Forum. It shall devote its efforts to publicizing the activities of the Forum and encouraging participation from as many segments of the Society membership as possible.

3. The tenure of members of all appointed committees, unless otherwise terminated, shall terminate at the close of the Regular Meeting of the Forum next following the appointment.

#### ARTICLE X—PROGRAMS AND ACTIVITIES

1. The Program Committee shall have the responsibility of assisting the Executive Secretary, or his designee, in arranging the meetings of the Society. This activity shall include the scheduling of contributed papers within the areas of interest of the Forum, as well as arranging, in cooperation with the Executive Secretary, or his designee, of symposia and sessions of invited papers sponsored by the Forum.

2. Programs of meetings of the Forum may provide for, but are not restricted to, the inclusion of both invited and contributed papers. All papers relevant to the objective of the Forum, contributed by members of the Society to a program of the Forum held in conjunction with a meeting of the Society and conforming to the required form and deadline date, must be accepted. The Secretary-Treasurer shall fix the deadline date for receipt of titles and abstracts, and shall designate the individual to whom they should be sent.

3. The amount of time to be allowed for the presentation of a paper at a Forum meeting shall be determined by the Program Committee or as otherwise directed by the Executive Committee, provided that such allotments of time do not conflict with the Bylaws of the Society or Regulations of the Council.

4. The Forum may undertake the sponsorship of "Topical Conferences" as defined for the Divisions or the Society in Council Regulation 69-4-29 (Ref. 4).

5. The Chairman, with the advice and consent of the Executive Committee, may appoint committees or study groups to conduct studies of subjects of concern to the Forum. The results of such studies may be made available to members of the Society, and to the general public, in a manner compatible with such limitations as may be set by the Council.

#### ARTICLE XI—FEES AND DUES

Fees, if any, for enrollment, and dues for maintenance of membership in the Forum, shall be established from time to time by Regulation of the Council.

#### ARTICLE XII—PUBLICATIONS

1. Official announcements shall be made in the Bulletin of the American Physical Society and in such journals as the Executive Committee may direct.

2. The Forum shall publish a Newsletter and distribute it to all members of the Forum and the Council, and to other members of the Society who request to be included on the distribution list. The Newsletter shall be published at least twice per year. The Newsletter shall carry the Annual Report of the Chairman, and shall provide space for letters and comments from Members of the Forum on subjects relevant to the objective of the Forum. Distribution of the Newsletter may be through the Bulletin of the American Physical Society.

#### ARTICLE XIII—PROCEDURE FOR AMENDING THE BYLAWS

Proposal for amendment of these Bylaws may be made by the Council, by the Executive Committee, or by petition to the Chairman signed by not fewer than ten percent of the members of the Forum. The Secretary shall dis-

maintained. Any member of the Forum may resign upon notice to the Secretary-Treasurer.

2. The privilege of voting in elections of the Forum shall be limited to members of the Society whose application for membership in the Forum has been received at least thirty days prior to the time of voting.

#### ARTICLE V—OFFICERS

1. The Officers of the Forum shall be a Chairman, a Vice-Chairman, and a Secretary-Treasurer, all of whom must be members of the Forum.

2. The Chairman shall preside at all meetings of the Executive Committee at which his attendance is possible. After consultation with the Executive Committee he shall appoint all committees, other than the Executive Committee, necessary to conduct the affairs of the Forum and shall serve as a voting member of any committee, other than the Nominating Committee. The Chairman shall prepare a yearly report of the activities of the Forum, to be presented at the Regular Meeting, and to be made available to the Council and members of the Forum.

3. The Vice-Chairman shall act as Chairman when the latter is unable to perform his duties. The Vice-Chairman shall prepare and distribute the Newsletter.

4. The Secretary-Treasurer shall keep the Council and Executive Secretary informed of the current activities and needs of the Forum. He shall, throughout the year, if and when necessary, notify the Executive Committee of matters requiring its attention. He shall notify all members of the Forum of Forum meetings at least sixty days before the date of each meeting. He shall assist the Program Committee in arranging details of each meeting. He shall prepare minutes of each meeting of the Executive Committee and of each Business Session of the Forum, and submit these minutes to each member of the Executive Committee, and to the Executive Secretary within four weeks after each meeting.

5. The Secretary-Treasurer shall keep available a current and official list of the membership and applicants for membership of the Forum.

6. The Secretary-Treasurer shall have responsibility for all funds in the custody of, or placed at the disposal of, the Forum, and shall make disbursements from such funds in a manner established by the Council. He shall make an annual financial report to the Executive Committee which, after examination by auditors appointed by the Chairman, shall be submitted to the Council.

#### ARTICLE VI—EXECUTIVE COMMITTEE

1. There shall be an Executive Committee, consisting of eleven members with vote, which shall have general charge of the affairs of the Forum. The Executive Committee shall be comprised of the three officers of the Forum, two members appointed by the Council, a Forum Councillor, and five other members elected by the membership of the Forum.

2. The Executive Committee shall meet at least once each year. Any member of the Executive Committee, other than the Chairman, unable to attend a meeting shall have the privilege of naming an alternate to represent him at the meeting, without vote.

3. If at least four members of the Executive Committee submit a request in writing to the Chairman to convoke a meeting, the Chairman must do so within sixty days. At least seven of the Executive Committee membership shall constitute a quorum.

4. The Executive Committee, acting on behalf of the Forum membership, shall submit to the Council proposals for support of Forum activities through grants-in-aid or other funds in accordance with the Council Regulation 67-11-14, which is hereby incorporated in these Bylaws by reference (Ref. 2).

#### ARTICLE VII—ELECTION AND TENURE OF THE EXECUTIVE COMMITTEE AND OFFICERS

1. The Vice-Chairman shall be elected by the membership for a one year term, and shall become Chairman the following year for a one year term.

2. The members of the Executive Committee appointed by the Council shall be appointed in alternate years for a tenure of two years.

3. The Secretary-Treasurer, and five members of the Executive Committee shall be elected for a tenure of two years, two to be elected in one year along with the Secretary-Treasurer and three to be elected in the alternate year. The Forum Councillor shall be elected for a tenure of four years, or as otherwise specified for Councillors by subsequent revision of the Society Constitution.

4. No member of the Executive Committee shall be eligible for the same office in the year following his term of office with the exception of the Secretary-Treasurer. No member of the Executive Committee shall serve for more than four consecutive years.

5. Not later than twelve weeks before each Meeting, the Chairman of the Forum shall appoint members to a Nominating Committee, no more than one of whom shall be a member of the Executive Committee. The Nominating Committee shall also include one member appointed by the Council. Not later than twelve weeks before each Regular Meeting, the Secretary-Treasurer shall invite all Forum members to suggest to the Nominating Committee candidates for election.

6. Not later than nine weeks before each Regular Meeting of the Forum, the Nominating Committee shall submit to the Secretary-Treasurer nominations of at least two candidates for each post to be filled on the Executive Committee. Any member proposed as a candidate for a post on the Executive Committee by at least twenty five members of the Forum not later than nine weeks before the Regular Meeting shall be considered to be formally nominated to that post.

7. The Secretary-Treasurer shall distribute election ballots to all members not later than six weeks before the Regular Meeting. Each such member, except the Chairman, shall cast at most one vote for each post to be filled on the Executive Committee, and shall return the sealed ballots to the Secretary-Treasurer not later than four weeks before said Regular Meeting. The Secretary-Treasurer, or a deputy appointed by him for the purpose, shall immediately count the votes and submit the tally to the Chairman. Elections shall be by plurality of those voting, and the Chairman shall finally cast a ballot only if his vote is needed to break a tie.

tribute copies of the proposed amendment to all members of the Forum not less than three weeks before the Regular Meeting, and opportunity for discussion shall be given during the Business Session. Voting on a proposed amendment shall be carried out by mail in the manner required for amendment to the Constitution of the Society. The adoption of an amendment shall require the affirmative votes of not fewer than two-thirds of the members voting. An amendment shall not go into force until approved by the Council.

## REFERENCES

(1) Article V, Section 1, reads in pertinent part as follows: A Council composed as set forth immediately below shall be the legal authority of the Society, and, as such, shall have and hold all its property and funds, shall be responsible for its budget, shall administer its affairs . . .

(2) Council Regulation 67-11-14—"Grants-in-Aid Procedures" reads as follows: "Divisions and Sections of the Society seeking grants-in-aid or contracts for the support of specific proposals shall submit such proposals to the Council for approval before transmitting them to the prospective source of funds, whether governmental agency or other organization. Such approval may be granted by the unanimous agreement of the President, Executive Secretary, and Treasurer acting for the Council."

(3) Article VII, Section 6—"Nominations and Elections of Divisional Councillors" reads as follows: "The nomination and election of Divisional Councillors shall be made in the same manner as herein before prescribed for Councillors-at-Large, except that (a) the Executive Committee of the Division shall function as nominating committee; (b) the electorate shall consist of the members of the Division; (c) the Secretary-Treasurer of the Division shall send to the said electorate a request for nominations for the post of Divisional Councillor, and in due course the election ballots; (d) the Tellers shall be chosen by the Chairman of the Division. Not less than one week before the Annual Meeting the Secretary-Treasurer of the Division shall formally notify the Executive Secretary of the chosen Councillor."

(4) Council Regulation 69-4-29—"Topical Conferences" reads as follows:

1. A Division or the Society itself may undertake the sponsorship, in the restricted sense hereinafter specified, of a conference devoted to the advancement and diffusion of knowledge of a topic that is clearly in the field of physics. Conferences thus sponsored shall be known as "topical conferences" and shall be considered to be sharply distinct from meetings of the Society or its subdivisions.

2. Application for sponsorship shall be made to the Executive Secretary by a group or committee, the majority of which are members of the Society. Such application, or if time is limited, information on its essential contents shall be promptly transmitted by the Executive Secretary or the Business Manager, with recommendations on the feasibility of the proposed conference, to the Chairman or Secretary-Treasurer, or both, of the Division having cognizance of the topic of the conference. Subject to the response of the

Division and its expressed willingness to assume sponsorship, the Executive Secretary shall report to the Council. Approval by the Council, or a designated committee thereof, is required for the sponsorship of each individual conference by a Division.

3. In the event that the application for sponsorship concerns a proposed conference the topic of which does not fall within the cognizance of any Division of the Society, the Executive Secretary shall refer the application to a designated committee of the Council; and sponsorship, if approved, shall be by the Society.

4. Application for sponsorship shall be transmitted to the Executive Secretary in sufficient time that, after review by the cognizant Division, and approval by the Council, or a designated committee thereof, announcement of the conference can be published in at least two issues of the BULLETIN of the Society prior to the date of the conference.

5. All applications for sponsorship shall be accompanied by pertinent information regarding registration and other fees in connection with the conference. It shall be understood that the proposed conference is not a part or a session of a meeting of another association, society, or agency that regularly publishes the proceedings of its meetings.

6. Sponsorship shall consist of suitable announcement of the conference and publication of the technical minutes, consisting of abstracts, in the BULLETIN of the Society, at such costs to the authors or their supporting agencies, as the Council may from time to time determine. Such conferences are to be of no other expense to, nor the responsibility of, the Society.

Day	Time	Topic
Monday March 26	9:30 a.m. - 12 noon	Session 1 Progress in Solid State Imaging
Tuesday March 27	9:30 a.m. - 12 noon	Session 8 Computer Application in the Manufacturing Environment
Wednesday March 28	9:30 a.m. - 12 noon	Session 22 EEP as a Business Opportunity
Thursday March 29	9:30 a.m. - 12 noon	Session 38 Environmental Electroacoustics
Friday March 30	9:30 a.m. - 12 noon	Session 52 Advanced Micro-electronic Packaging for Cost, Reliability and Field Service
Monday March 26	2 p.m. - 4:30 p.m.	Session 2 Semiconductor Main Frame Memories
Tuesday March 27	2 p.m. - 4:30 p.m.	Session 45 Mini-computers: Boon or Blight - A Workshop Panel Session
Wednesday March 28	2 p.m. - 4:30 p.m.	Session 30 The Transistor - Yesterday, Today and Tomorrow
Thursday March 29	2 p.m. - 4:30 p.m.	Session 45 Numeric and Alpha-Numeric Displays for Instruments
Friday March 30	2 p.m. - 4:30 p.m.	Session 52 Advanced Micro-electronic Packaging for Cost, Reliability and Field Service
Monday March 26	4:30 p.m. - 8 p.m.	Session 3 Precision Marketing/Can Computers Help?
Tuesday March 27	4:30 p.m. - 8 p.m.	Session 16 Video Storage: Present and Future Impact on Communications, Information Retrieval, and Data Display
Wednesday March 28	4:30 p.m. - 8 p.m.	Session 31 High Packing Density Bipolar Technology for Large Scale Integration
Thursday March 29	4:30 p.m. - 8 p.m.	Session 46 Engineering and Purchasing: Allies or Adversaries
Friday March 30	4:30 p.m. - 8 p.m.	Session 52 Solid State for Consumer Electronics
Monday March 26	8 p.m. - 11 p.m.	Session 4 Computers in Public Systems
Tuesday March 27	8 p.m. - 11 p.m.	Session 17 Maintaining the Competitive Edge in International Markets
Wednesday March 28	8 p.m. - 11 p.m.	Session 32 Interactive City - The Home Owners Dream
Thursday March 29	8 p.m. - 11 p.m.	Session 47 Program Generation for Automatic Test Equipment
Friday March 30	8 p.m. - 11 p.m.	Session 54 Applying Computer Controlled Test Systems
Monday March 26	10:30 a.m. - 12 noon	Session 11 The Evolution of Large Government Computing Systems
Tuesday March 27	10:30 a.m. - 12 noon	Session 18 Hybrid Simulation: What is it--and How Viable?
Wednesday March 28	10:30 a.m. - 12 noon	Session 33 Control - Utilizing Light Sensitive Devices
Thursday March 29	10:30 a.m. - 12 noon	Session 48 New Systems in Mobile Communications
Friday March 30	10:30 a.m. - 12 noon	Session 55 Semiconductor Packaging Costs: Multinational
Monday March 26	1:30 p.m. - 4:30 p.m.	Session 5 Satellite Multiple Access - The Key to Effective Utilization
Tuesday March 27	1:30 p.m. - 4:30 p.m.	Session 19 Bus Organized Data Communications in the Next Decade
Wednesday March 28	1:30 p.m. - 4:30 p.m.	Session 34 Electro-Mechanical Versus Solid State
Thursday March 29	1:30 p.m. - 4:30 p.m.	Session 49 Role of Communications in Development of Nations
Friday March 30	1:30 p.m. - 4:30 p.m.	Session 56 Automated Pattern Control Technology
Monday March 26	4:30 p.m. - 8 p.m.	Session 6 Prospecting for Energy
Tuesday March 27	4:30 p.m. - 8 p.m.	Session 20 Power System Control
Wednesday March 28	4:30 p.m. - 8 p.m.	Session 35 Matrix Displays
Thursday March 29	4:30 p.m. - 8 p.m.	Session 50 Microcircuit State Amplifiers and Oscillators - The Old and the New
Friday March 30	4:30 p.m. - 8 p.m.	Session 57 MIC's in Instrumentation
Monday March 26	8 p.m. - 11 p.m.	Session 7 Optical Computing
Tuesday March 27	8 p.m. - 11 p.m.	Session 21 Implementing Random Logic with Microprocessors
Wednesday March 28	8 p.m. - 11 p.m.	Session 36 New Developments in Signal Generators
Thursday March 29	8 p.m. - 11 p.m.	Session 51 Advances in Transceiver Design
Friday March 30	8 p.m. - 11 p.m.	Session 58 Project of New Technologies on Silicon Devices and Circuits
Monday March 26	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears
Tuesday March 27	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears
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Monday March 26	10:30 a.m. - 12 noon	Session 10 Interior Information Transfer - An Application of Multiplexing
Tuesday March 27	10:30 a.m. - 12 noon	Session 24 Solid State Status in the Automotive Field
Wednesday March 28	10:30 a.m. - 12 noon	Session 25 State of Computing Outside the U.S.
Thursday March 29	10:30 a.m. - 12 noon	Session 41 Television
Friday March 30	10:30 a.m. - 12 noon	Session 48 New Systems in Mobile Communications
Monday March 26	1:30 p.m. - 4:30 p.m.	Session 12 Communication Satellite System Applications - Extending Our Horizons
Tuesday March 27	1:30 p.m. - 4:30 p.m.	Session 26 Data Communications in the Next Decade
Wednesday March 28	1:30 p.m. - 4:30 p.m.	Session 35 Matrix Displays
Thursday March 29	1:30 p.m. - 4:30 p.m.	Session 42 Optometrics and Man-Machine Systems
Friday March 30	1:30 p.m. - 4:30 p.m.	Session 49 Role of Communications in Development of Nations
Monday March 26	4:30 p.m. - 8 p.m.	Session 14 Information Theory After 25 Years Synopsis
Tuesday March 27	4:30 p.m. - 8 p.m.	Session 28 Can Direct Interaction With a Computer Serve You?
Wednesday March 28	4:30 p.m. - 8 p.m.	Session 36 New Developments in Signal Generators
Thursday March 29	4:30 p.m. - 8 p.m.	Session 54 Advances in Transceiver Design
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Monday March 26	1:30 p.m. - 4:30 p.m.	Session 15 Energy Storage
Tuesday March 27	1:30 p.m. - 4:30 p.m.	Session 29 The Philosophy and Methodology of Technological Forecasting
Wednesday March 28	1:30 p.m. - 4:30 p.m.	Session 34 Electro-Mechanical Versus Solid State
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Monday March 26	4:30 p.m. - 8 p.m.	Session 17 Maintaining the Competitive Edge in International Markets
Tuesday March 27	4:30 p.m. - 8 p.m.	Session 32 Interactive City - The Home Owners Dream
Wednesday March 28	4:30 p.m. - 8 p.m.	Session 37 Technology Assessment and Applications of Technological Forecasting
Thursday March 29	4:30 p.m. - 8 p.m.	Session 51 Advances in Transceiver Design
Friday March 30	4:30 p.m. - 8 p.m.	Session 58 Project of New Technologies on Silicon Devices and Circuits
Monday March 26	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears
Tuesday March 27	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears
Wednesday March 28	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears
Thursday March 29	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears
Friday March 30	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears
Monday March 26	10:30 a.m. - 12 noon	Session 16 Video Storage: Present and Future Impact on Communications, Information Retrieval, and Data Display
Tuesday March 27	10:30 a.m. - 12 noon	Session 31 High Packing Density Bipolar Technology for Large Scale Integration
Wednesday March 28	10:30 a.m. - 12 noon	Session 38 Environmental Electroacoustics
Thursday March 29	10:30 a.m. - 12 noon	Session 46 Engineering and Purchasing: Allies or Adversaries
Friday March 30	10:30 a.m. - 12 noon	Session 52 Solid State for Consumer Electronics
Monday March 26	1:30 p.m. - 4:30 p.m.	Session 19 Bus Organized Data Communications in the Next Decade
Tuesday March 27	1:30 p.m. - 4:30 p.m.	Session 26 Data Communications in the Next Decade
Wednesday March 28	1:30 p.m. - 4:30 p.m.	Session 34 Electro-Mechanical Versus Solid State
Thursday March 29	1:30 p.m. - 4:30 p.m.	Session 49 Role of Communications in Development of Nations
Friday March 30	1:30 p.m. - 4:30 p.m.	Session 56 Automated Pattern Control Technology
Monday March 26	4:30 p.m. - 8 p.m.	Session 20 Power System Control
Tuesday March 27	4:30 p.m. - 8 p.m.	Session 28 Can Direct Interaction With a Computer Serve You?
Wednesday March 28	4:30 p.m. - 8 p.m.	Session 36 New Developments in Signal Generators
Thursday March 29	4:30 p.m. - 8 p.m.	Session 51 Advances in Transceiver Design
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Friday March 30	8:30 a.m. - 9:15 a.m.	Play Barbara's Polar Bears





- LEGISLATIVE HIGHLIGHTS**
- ▶ Ninety-Second Congress Concludes
  - ▶ A-E Services Procurement Bill on President's Desk
  - ▶ Technology Assessment Office Created and Board Members Appointed
  - ▶ Water and Noise Bills Pass
  - ▶ No Mass Transit Money from Highway Fund

**ADJOURNMENT SINE DIE**

After a hectic final month in which a number of far-reaching decisions were hammered out between the lawmakers themselves, and between them as a body on the one hand and the White House on the other, the Ninety-Second Congress came to an end during the evening of October 18, 1972. The entire House of Representatives will now face the nation in the November polls, as will a third of the Senate. A new Congress, the 93rd, will begin the first of its two-session life sometime in January of 1973.

**A-E SERVICES PROCUREMENT**

Just a couple of days before adjournment - on October 14 - the Senate passed HJR 12807 to establish as federal policy that the Government, in selecting engineers or architects to perform services, will do so on the basis of demonstrated competence to do the job rather than on price. Previously passed by the House, the Senate defeated two amendments proposed during debate which would have scrupulously and abstractly affected the goal for which NSPE and its members have worked so hard during the past several years - one to recommit and the other to limit the bill's life to two years. As of Legislative Bulletin press time, the bill was on the President's desk awaiting final action.

**TECHNOLOGY ASSESSMENT OFFICE**

On October 13, 1972, President Nixon signed the NSPE-supported measure to establish the Office of Technology Assessment, and it is now law - P.L. 92-484. Passed in February of this year by the House, it is September by the Senate and agreed upon in final form by House and Senate Committees on October 4, 1972; the new Office will assist the Congress to enter effectively into the country's engineering and technology work as a policy research tool in order that the most appropriate selection of available alternatives may be made during the course of legislative deliberations. Only the third such of its kind in the nation's history, the new assessment vehicle has been created, the first being the Congressional Library and the second the General Accounting Office. House appointees to the new Technology Assessment Board were unanimously made. They are: Representatives John Dorn (Ca.), Eddie Cabell (Tenn.), Mike McCormack (Wash.), Charles McMath (Ohio), Charles Linder (Calif.), James Harvey (Ill.), and Senators Edward M. Kennedy (Mass.), Ernest F. Hollings (S.C.), Robert H. Humphrey (Miss.), Gordon Allott (Colo.), Peter R. Dinkowitz (Conn.) and Richard S. Schweiker (Pa.).

NSPE has written to each recommending appointment of a qualified engineer to the post of Director.

matter, "Emergency Alert" permits the Society to provide the input from an acquaintance, a friend, or even a neighbor. It has been the experience of NSPE that this source is highly effective, inasmuch as it is the broadly-based Legislative Action program which stimulates participation from engineers all across the country and to the Congress as a whole.

**LIAISON COORDINATION**

The next meeting of the National Government Affairs Liaison Committee is scheduled for November 15, 1972 at NSPE Headquarters. Involved are a number of technical societies which have undertaken to cooperate with each other and with NSPE in making their voices heard at the federal level. On specific items, NSPE has presented testimony to both House and Senate during the past several months on behalf of engineering organizations with memberships totalling some 350,000 individual engineers.

**LEGISLATIVE COMMITTEE TO HEAR ENERGY EXPERTS**

The NSPE Legislative and Government Affairs Committee will meet on November 16, 1972 at NSPE Headquarters, with the principal subject being the energy crisis. Expertise in the energy field will confer with Committee members during the planned day-long session in order to aid in establishing a program of engineering action.

**POWER PLANT IMPACT HEARING**

The Atomic Energy Commission held a public hearing in a Washington suburb last month in order to give interested parties the opportunity to openly criticize suggested changes in the AEC's guide on proposed environmental impact reports for nuclear power plants. Environmentalists, power companies, and others had the previous month and a half to study the suggested changes and to submit commentary. AEC will now consider both written and oral responses in finalizing the kind of information it will require prior to the issuance of a nuclear power plant construction permit or operating license.

**PRESIDENT'S COMMISSION ON WHITE HOUSE FELLOWSHIPS**

A nationwide search is on for outstanding young men and women to serve as the 1973-74 White House Fellows. Intended to increase participation in national events by young leaders in business, the professions and government, and to provide firsthand experience in the workings of government, this program was established in 1964 and is open to persons between the ages of 23 and 36 from all fields excepting Civil Service. Applications for next year's program will be accepted until the middle of next month. Forms and additional information can be obtained from the President's Commission on White House Fellowships, the White House, Washington, D.C. 20500.

Second-class postage paid at Washington, D. C.

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS



1815 K STREET, N.W. WASHINGTON, D. C. 20006

**LEGISLATIVE Bulletin**

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EXHIBIT 117  
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#### WATER CLEANUP BILL SURVIVES VETO

The most ambitious undertaking in the nation's history at cleaning up our waters (S-2770) at a cost of \$24.6 billion was finally passed in early October, 1972 and sent to the President. While not disagreeing with the goal sought to be accomplished, Mr. Nixon did find the expense too burdensome and vetoed the measure on October 17. Within hours both the Senate and the House overrode the veto and the measure became law, the objections of the President to the contrary notwithstanding. The best practicable water pollution control technology will be required by 1977 and the best available by 1983. Waste treatment plant construction money is authorized; provision is made for water quality standards and effluent limitations, with federal guidelines controlling state permit programs; and miltis by those with an established interest in law solutions are allowed.

#### NOISE POLLUTION BILL CLEARS

Moments before final adjournment the Senate and House Conferees reached a compromise on HR 11021 - the Environmental Noise Control Act of 1972 - thus clearing the measure for the White House. When signed by the President, this bill will give the Environmental Protection Agency power to set standards of permissible noise for construction equipment, transportation machinery, motors, and electrical devices. EPA will also be authorized to make suggestions concerning jet aircraft noise, with the Federal Aviation Agency having final say in this area.

#### HIGHWAYS AND MASS TRANSIT

The bill authorizing funds for federal highway programs during fiscal years 1974 and 1975, however, didn't make it into law. The differences between the Senate version, which would have allowed states to divert up to \$500 million per year for two years from the Highway Trust Fund for mass transit facilities, and the House version, which would have preserved the Trust Fund from use for other than highway purposes, could not be resolved.

#### PRIVATE PENSION REFORM

Although no bill actually became law, more progress was made in legislating reforms in the private pension field during this Congress than ever before in history. The most comprehensive of the several dozen bills proposing one form of relief or another was the Williams-Javits measure sponsored by Senator Harrison Williams, Jr. of Delaware, Chairman of the Labor Committee, and Senator Jacob Javits of New York, the Committee's ranking Republican. Favorably reported out of the Labor Committee, and cosponsored by 15 of the Committee's 17 members, this measure would have required vesting of employee rights at 30% after 8 years of service with additional annual accumulations to a full 100% after 15 years of work, crediting of prior service for 45 year olds in plans at the bill's signing, funding of plan liabilities over a 30-year period, reinsurance against plan terminations, a system of credit portability, and greater plan protections and disclosures. Renewed effort to enact law along these lines will be vigorously pursued in the ensuing Congress. The Administration-sponsored plan to permit tax deductibility of individual contributions to personal retirement programs was the subject of House Ways and Means Committee hearings, but no further action. That approach to providing relief in the pension field may be resurrected next year.

#### MANPOWER AND INDUSTRIAL CONVERSION

The bill to assist those engineers and industrialists adversely affected by changing national priorities through adoption of programs intended to alleviate domestic problems very nearly made it into law during this past Congress. Originally conceived several years ago by Senator Edward M. Kennedy, Chairman of the National Science Foundation Special Subcommittee, Senate Committee on Labor and Public Welfare, this legislation would have created the Civil Service Systems Administration and authorized \$1.025 billion for three years of research, design, testing, evaluation, and demonstration of improved public service systems in areas of health care, public safety, sanitation, pollution control, housing, transportation, public utilities, communication, and education. And it would have authorized assistance to engineers in making the transition from reduced job fields to civilian-oriented engineering activities, plus on-the-job training projects, career training fellowships, and technical personnel placement assistance.

The bill was unanimously approved by the Senate Labor Committee, which added a provision to require federal procurement regulation revision in order to protect pension rights of government contracting employees. The measure was passed in the Senate on August 17, 1972 by an overwhelming vote of 70 to 8. The House Science and Astronautics Committee's Subcommittee on Science, Research, and Education, which held 1971 hearings on the bill, held another round of hearings following the Senate's action, but declined to move the legislation along.

#### CODES AND STANDARDS COMMITTEE PARTICIPATION

Engineers did succeed in preserving their seats on professional society codes and standards committees through a letter-writing campaign to their congressmen in response to NSPE's Legislative Action Request 72-6 of July, 1972. By a floor amendment to the Product Safety Act during the course of Senate debate, language was added which would have had the effect of preventing engineers employed by manufacturers from participating on committees preparing safety standards on their employers' products. As these engineers are the best source of expertise, and their service on society codes and standards committees imperative, effort was directed toward keeping the provision out of the House version of the bill, and subsequently also out of the conference version. This strategy accomplished the desired result and, as passed, the Product Safety Act was free of the restrictive language.

#### METRIC CONVERSION

Legislation to convert the U.S. to use of the metric system of weights and measures cleared the Senate Committee Committee in August of this year and passed in the Senate on the eighteenth of that same month. Similar legislation in the House, however, never got a serious hearing.

#### OCCUPATIONAL SAFETY AND HEALTH

As previously reported in the Legislative Bulletin, NSPE testified in September of this year at House Labor Committee oversight hearings on implementation of the Occupational Safety and Health Act of 1970. No substantive legislation has so far developed as a result of these hearings, but the information that was furnished will undoubtedly be used in the coming session of Congress for firm and effective measures. Congressman Stangel's (D-NY) HR 16598, to permit the Labor Department to provide onsite consultation with at employers' requests for purpose of identifying violations without imposing penalties was expected to come up for vote during the final weeks of the 92nd Congress, but no final action was taken on it. And it will undoubtedly be brought up again early in the 93rd Congress. The second HEW Appropriation bill that was sent to the President, however, did contain an exemption from the effects of the Occupational Safety and Health Act for businesses with three or fewer employees.

#### HOUSING

By an almost evenly split vote, the House Rules Committee deferred action on the \$100 billion housing bill and thus killed the measure for this year. The main reason for deferral was the belief that the huge omnibus measure would have made a multitude of changes in various programs and was simply too complex and controversial for adequate consideration to near the end of this Congress. The National Institute of Building Sciences proposal for creation of a single, national, nonpartisan, non-governmental agency to develop, building standards, which was included in the housing measure, also died.

#### NSPE TO UPDATE "ENGINEER ALERT"

Every seat in the House of Representatives is up for reelection this month. And so are a third of the Senate seats. As soon as the final tallies are in and the congressional (functionaries) publish the roster of the 93rd Congress, NSPE will canvas its membership for identification of engineers who are acquainted with the individual lawmakers. This information, which also includes the nature of the acquaintanceship and commentary on the willingness of engineers to capitalize on it, is then catalogued in the "Engineer Alert" file at NSPE Headquarters. During the progression of bills through the legislative process, when it becomes evident that one particular lawmaker or another needs education, help, or just a plain push on an engineer-related



Public Law 92-484  
92nd Congress, H. R. 10243  
October 13, 1972

## An Act

86 STAT. 797

To establish an Office of Technology Assessment for the Congress as an aid in the identification and consideration of existing and probable impacts of technological application; to amend the National Science Foundation Act of 1950; and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Technology Assessment Act of 1972".

Technology  
Assessment Act  
of 1972.

### FINDINGS AND DECLARATION OF PURPOSE

SEC. 2. The Congress hereby finds and declares that:

(a) As technology continues to change and expand rapidly, its applications are—

- (1) large and growing in scale; and
- (2) increasingly extensive, pervasive, and critical in their impact, beneficial and adverse, on the natural and social environment.

(b) Therefore, it is essential that, to the fullest extent possible, the consequences of technological applications be anticipated, understood, and considered in determination of public policy on existing and emerging national problems.

(c) The Congress further finds that:

(1) the Federal agencies presently responsible directly to the Congress are not designed to provide the legislative branch with adequate and timely information, independently developed, relating to the potential impact of technological applications, and

(2) the present mechanisms of the Congress do not and are not designed to provide the legislative branch with such information.

(d) Accordingly, it is necessary for the Congress to—

(1) equip itself with new and effective means for securing competent, unbiased information concerning the physical, biological, economic, social, and political effects of such applications; and

(2) utilize this information, whenever appropriate, as one factor in the legislative assessment of matters pending before the Congress, particularly in those instances where the Federal Government may be called upon to consider support for, or management or regulation of, technological applications.

### ESTABLISHMENT OF THE OFFICE OF TECHNOLOGY ASSESSMENT

SEC. 3. (a) In accordance with the findings and declaration of purpose in section 2, there is hereby created the Office of Technology Assessment (hereinafter referred to as the "Office") which shall be within and responsible to the legislative branch of the Government.

(b) The Office shall consist of a Technology Assessment Board (hereinafter referred to as the "Board") which shall formulate and promulgate the policies of the Office, and a Director who shall carry out such policies and administer the operations of the Office.

(c) The basic function of the Office shall be to provide early indications of the probable beneficial and adverse impacts of the applications of technology and to develop other coordinate information which may assist the Congress. In carrying out such function, the Office shall:

- (1) identify existing or probable impacts of technology or technological programs;

Technology  
Assessment  
Board.

Duties.

- (2) where possible, ascertain cause-and-effect relationships;
- (3) identify alternative technological methods of implementing specific programs;
- (4) identify alternative programs for achieving requisite goals;
- (5) make estimates and comparisons of the impacts of alternative methods and programs;
- (6) present findings of completed analyses to the appropriate legislative authorities;
- (7) identify areas where additional research or data collection is required to provide adequate support for the assessments and estimates described in paragraph (1) through (5) of this subsection; and
- (8) undertake such additional associated activities as the appropriate authorities specified under subsection (d) may direct.

(d) Assessment activities undertaken by the Office may be initiated upon the request of:

- (1) the chairman of any standing, special, or select committee of either House of the Congress, or of any joint committee of the Congress, acting for himself or at the request of the ranking minority member or a majority of the committee members;
- (2) the Board; or
- (3) the Director, in consultation with the Board.

(e) Assessments made by the Office, including information, surveys, studies, reports, and findings related thereto, shall be made available to the initiating committee or other appropriate committees of the Congress. In addition, any such information, surveys, studies, reports, and findings produced by the Office may be made available to the public except where—

- (1) to do so would violate security statutes; or
- (2) the Board considers it necessary or advisable to withhold such information in accordance with one or more of the numbered paragraphs in section 552(b) of title 5, United States Code.

Information,  
availability.

81 Stat. 54.

#### TECHNOLOGY ASSESSMENT BOARD

Membership.

Sec. 4. (a) The Board shall consist of thirteen members as follows:

- (1) six Members of the Senate, appointed by the President pro tempore of the Senate, three from the majority party and three from the minority party;
- (2) six Members of the House of Representatives appointed by the Speaker of the House of Representatives, three from the majority party and three from the minority party; and
- (3) the Director, who shall not be a voting member.

Vacancies.

(b) Vacancies in the membership of the Board shall not affect the power of the remaining members to execute the functions of the Board and shall be filled in the same manner as in the case of the original appointment.

Chairman and  
vice chairman.

(c) The Board shall select a chairman and a vice chairman from among its members at the beginning of each Congress. The vice chairman shall act in the place and stead of the chairman in the absence of the chairman. The chairmanship and the vice chairmanship shall alternate between the Senate and the House of Representatives with each Congress. The chairman during each even-numbered Congress shall be selected by the Members of the House of Representatives on the Board from among their number. The vice chairman during each

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Congress shall be chosen in the same manner from that House of Congress other than the House of Congress of which the chairman is a Member.

(d) The Board is authorized to sit and act at such places and times during the sessions, recesses, and adjourned periods of Congress, and upon a vote of a majority of its members, to require by subpoena or otherwise the attendance of such witnesses and the production of such books, papers, and documents, to administer such oaths and affirmations, to take such testimony, to procure such printing and binding, and to make such expenditures, as it deems advisable. The Board may make such rules respecting its organization and procedures as it deems necessary, except that no recommendation shall be reported from the Board unless a majority of the Board assent. Subpenas may be issued over the signature of the chairman of the Board or of any voting member designated by him or by the Board, and may be served by such person or persons as may be designated by such chairman or member. The chairman of the Board or any voting member thereof may administer oaths or affirmations to witnesses.

Meetings.

Subpena.

DIRECTOR AND DEPUTY DIRECTOR

Sec. 5. (a) The Director of the Office of Technology Assessment shall be appointed by the Board and shall serve for a term of six years unless sooner removed by the Board. He shall receive basic pay at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

Appointment.

Compensation.

83 Stat. 863.

(b) In addition to the powers and duties vested in him by this Act, the Director shall exercise such powers and duties as may be delegated to him by the Board.

(c) The Director may appoint with the approval of the Board, a Deputy Director who shall perform such functions as the Director may prescribe and who shall be Acting Director during the absence or incapacity of the Director or in the event of a vacancy in the office of Director. The Deputy Director shall receive basic pay at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.

(d) Neither the Director nor the Deputy Director shall engage in any other business, vocation, or employment than that of serving as such Director or Deputy Director, as the case may be; nor shall the Director or Deputy Director, except with the approval of the Board, hold any office in, or act in any capacity for, any organization, agency, or institution with which the Office makes any contract or other arrangement under this Act.

Employment restriction.

AUTHORITY OF THE OFFICE

Sec. 6. (a) The Office shall have the authority, within the limits of available appropriations, to do all things necessary to carry out the provisions of this Act, including, but without being limited to, the authority to—

(1) make full use of competent personnel and organizations outside the Office, public or private, and form special ad hoc task forces or make other arrangements when appropriate;

(2) enter into contracts or other arrangements as may be necessary for the conduct of the work of the Office with any agency or instrumentality of the United States, with any State, territory,

Contracts.

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86 STAT. 800

of possession or any political subdivision thereof, or with any person, firm, association, corporation, or educational institution, with or without reimbursement, without performance or other bonds, and without regard to section 3709 of the Revised Statutes (41 U.S.C. 5):

(3) make advance, progress, and other payments which relate to technology assessment without regard to the provisions of section 3648 of the Revised Statutes (31 U.S.C. 529):

80 Stat. 499;  
83 Stat. 190.

(4) accept and utilize the services of voluntary and uncompensated personnel necessary for the conduct of the work of the Office and provide transportation and subsistence as authorized by section 5703 of title 5, United States Code, for persons serving without compensation;

(5) acquire by purchase, lease, loan, or gift, and hold and dispose of by sale, lease, or loan, real and personal property of all kinds necessary for or resulting from the exercise of authority granted by this Act; and

(6) prescribe such rules and regulations as it deems necessary governing the operation and organization of the Office.

Recordkeeping.

(b) Contractors and other parties entering into contracts and other arrangements under this section which involve costs to the Government shall maintain such books and related records as will facilitate an effective audit in such detail and in such manner as shall be prescribed by the Office, and such books and records (and related documents and papers) shall be available to the Office and the Comptroller General of the United States, or any of their duly authorized representatives, for the purpose of audit and examination.

(c) The Office, in carrying out the provisions of this Act, shall not, itself, operate any laboratories, pilot plants, or test facilities.

Agency cooperation.

(d) The Office is authorized to secure directly from any executive department or agency information, suggestions, estimates, statistics, and technical assistance for the purpose of carrying out its functions under this Act. Each such executive department or agency shall furnish the information, suggestions, estimates, statistics, and technical assistance directly to the Office upon its request.

Personnel detail.

(e) On request of the Office, the head of any executive department or agency may detail, with or without reimbursement, any of its personnel to assist the Office in carrying out its functions under this Act.

(f) The Director shall, in accordance with such policies as the Board shall prescribe, appoint and fix the compensation of such personnel as may be necessary to carry out the provisions of this Act.

**ESTABLISHMENT OF THE TECHNOLOGY ASSESSMENT ADVISORY COUNCIL**

Membership.

SEC. 7. (a) The Office shall establish a Technology Assessment Advisory Council (hereinafter referred to as the "Council"). The Council shall be composed of the following twelve members:

(1) ten members from the public, to be appointed by the Board, who shall be persons eminent in one or more fields of the physical, biological, or social sciences or engineering or experienced in the administration of technological activities, or who may be judged qualified on the basis of contributions made to educational or public activities;

(2) the Comptroller General; and

(3) the Director of the Congressional Research Service of the Library of Congress.

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(b) The Council, upon request by the Board, shall—

(1) review and make recommendations to the Board on activities undertaken by the Office or on the initiation thereof in accordance with section 3(d);

(2) review and make recommendations to the Board on the findings of any assessment made by or for the Office; and

(3) undertake such additional related tasks as the Board may direct.

Duties.

(c) The Council, by majority vote, shall elect from its members appointed under subsection (a)(1) of this section a Chairman and a Vice Chairman, who shall serve for such time and under such conditions as the Council may prescribe. In the absence of the Chairman, or in the event of his incapacity, the Vice Chairman shall act as Chairman.

Chairman and Vice Chairman.

(d) The term of office of each member of the Council appointed under subsection (a)(1) shall be four years except that any such member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term. No person shall be appointed a member of the Council under subsection (a)(1) more than twice. Terms of the members appointed under subsection (a)(1) shall be staggered so as to establish a rotating membership according to such method as the Board may devise.

Term of office.

(e)(1) The members of the Council other than those appointed under subsection (a)(1) shall receive no pay for their services as members of the Council, but shall be allowed necessary travel expenses (or, in the alternative, mileage for use of privately owned vehicles and a per diem in lieu of subsistence at not to exceed the rate prescribed in sections 5702 and 5704 of title 5, United States Code), and other necessary expenses incurred by them in the performance of duties vested in the Council, without regard to the provisions of subchapter 1 of chapter 57 and section 5731 of title 5, United States Code, and regulations promulgated thereunder.

Travel expenses.

80 Stat. 498;  
83 Stat. 190.  
5 USC 5701.

(2) The members of the Council appointed under subsection (a)(1) shall receive compensation for each day engaged in the actual performance of duties vested in the Council at rates of pay not in excess of the daily equivalent of the highest rate of basic pay set forth in the General Schedule of section 5332(a) of title 5, United States Code, and in addition shall be reimbursed for travel, subsistence, and other necessary expenses in the manner provided for other members of the Council under paragraph (1) of this subsection.

Compensation.

UTILIZATION OF THE LIBRARY OF CONGRESS

SEC. 8. (a) To carry out the objectives of this Act, the Librarian of Congress is authorized to make available to the Office such services and assistance of the Congressional Research Service as may be appropriate and feasible.

(b) Such services and assistance made available to the Office shall include, but not be limited to, all of the services and assistance which the Congressional Research Service is otherwise authorized to provide to the Congress.

(c) Nothing in this section shall alter or modify any services or responsibilities, other than those performed for the Office, which the Congressional Research Service under law performs for or on behalf

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of the Congress. The Librarian is, however, authorized to establish within the Congressional Research Service such additional divisions, groups, or other organizational entities as may be necessary to carry out the purpose of this Act.

(d) Services and assistance made available to the Office by the Congressional Research Service in accordance with this section may be provided with or without reimbursement from funds of the Office, as agreed upon by the Board and the Librarian of Congress.

#### UTILIZATION OF THE GENERAL ACCOUNTING OFFICE

SEC. 9. (a) Financial and administrative services (including those related to budgeting, accounting, financial reporting, personnel, and procurement) and such other services as may be appropriate shall be provided the Office by the General Accounting Office.

(b) Such services and assistance to the Office shall include, but not be limited to, all of the services and assistance which the General Accounting Office is otherwise authorized to provide to the Congress.

(c) Nothing in this section shall alter or modify any services or responsibilities, other than those performed for the Office, which the General Accounting Office under law performs for or on behalf of the Congress.

(d) Services and assistance made available to the Office by the General Accounting Office in accordance with this section may be provided with or without reimbursement from funds of the Office, as agreed upon by the Board and the Comptroller General.

#### COORDINATION WITH THE NATIONAL SCIENCE FOUNDATION

SEC. 10. (a) The Office shall maintain a continuing liaison with the National Science Foundation with respect to—

(1) grants and contracts formulated or activated by the Foundation which are for purposes of technology assessment; and

(2) the promotion of coordination in areas of technology assessment, and the avoidance of unnecessary duplication or overlapping of research activities in the development of technology assessment techniques and programs.

(b) Section 3(b) of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1862(b)), is amended to read as follows:

"(b) The Foundation is authorized to initiate and support specific scientific activities in connection with matters relating to international cooperation, national security, and the effects of scientific applications upon society by making contracts or other arrangements (including grants, loans, and other forms of assistance) for the conduct of such activities. When initiated or supported pursuant to requests made by any other Federal department or agency, including the Office of Technology Assessment, such activities shall be financed whenever feasible from funds transferred to the Foundation by the requesting official as provided in section 14(g), and any such activities shall be unclassified and shall be identified by the Foundation as being undertaken at the request of the appropriate official."

#### ANNUAL REPORT

SEC. 11. The Office shall submit to the Congress an annual report which shall include, but not be limited to, an evaluation of technology assessment techniques and identification, insofar as may be feasible, of technological areas and programs requiring future analysis. Such report shall be submitted not later than March 15 of each year.

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Scientific  
programs,  
financing.  
92 Stat. 360.

Hamt

64 Stat. 156;  
82 Stat. 365.  
42 USC 1873.

34

October 13, 1972

- 7 -

Pub. Law 92-484

86 STAT. 803

APPROPRIATIONS

Sec. 12. (a) To enable the Office to carry out its powers and duties, there is hereby authorized to be appropriated to the Office, out of any money in the Treasury not otherwise appropriated, not to exceed \$5,000,000 in the aggregate for the two fiscal years ending June 30, 1973, and June 30, 1974, and thereafter such sums as may be necessary.

(b) Appropriations made pursuant to the authority provided in subsection (a) shall remain available for obligation, for expenditure, or for obligation and expenditure for such period or periods as may be specified in the Act making such appropriations.

Approved October 13, 1972.

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 92-469 (Comm. on Science and Astronautics) and  
No. 92-1436 (Comm. of Conference).  
SENATE REPORT No. 92-1123 (Comm. on Rules and Administration).  
CONGRESSIONAL RECORD, Vol. 118 (1972):  
Feb. 8, considered and passed House.  
Sept. 14, considered and passed Senate, amended.  
Sept. 22, Senate agreed to conference report.  
Oct. 4, House agreed to conference report.